S&P Dow Jones Indices

A Division of S&P Global

S&P Kensho New Economy Indices
Methodology

November 2020

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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." 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 Sharpe ratio 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 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.

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.[1] On December 10, 2018, S&P Dow Jones Indices ("S&P DJI") became the benchmark administrator for the indices.

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 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.

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[1] For more information on Kensho, please refer to *www.kenshoindices.com*.

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

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

S&P Kensho Cleantech Index. The index measures the performance of companies focused on building technologies or products that enable the generation of energy in a clean manner.

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, underwater, and surface-level drones market.

S&P Kensho Clean Energy Index. The index measures the performance of companies focused on the generation and transmission of energy derived from clean sources.

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.

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.

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.

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	Equity Indices Policies & Practices
S&P Dow Jones Indices' Index Mathematics Methodology	Index Mathematics Methodology
S&P Dow Jones Indices' Float Adjustment Methodology	Float Adjustment Methodology

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.

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[2]	$300 Million	$2 Million
S&P Kensho Cyber Security Mid-Large Cap Index[2]	$2 Billion	$10 Million
S&P Kensho 3D Printing Index	$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[2]	$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

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[2] 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

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; 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, 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. 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.

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-advisers.
- 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 vehicles and associated subsystems, including:

- Electric road vehicles or significant subsystems.
- Powertrain systems, motors, or energy storage systems for electric vehicles.
- 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 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.
- Vehicle sharing services for passenger cars.
- Sensors that feed into the above-mentioned systems.
- Micro mobility sharing platforms, including platforms for electric scooters and bicycles.
- Next generation transportation systems, such as Hyperloop.
- Platforms providing intelligent and predictive capabilities to optimize fleet operations.

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, fabrics with embedded sensors, etc.
- Medical systems 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 connectivity and wearable technology that is integrated with the IoT.
- 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.
- Surveillance and security robots.

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.
- 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 energy in a clean manner, including:
- Technologies (hardware, software or materials) used for clean energy capture, such as solar, wind, geothermal, hydro, etc.
- Installation of these technologies for use in residential or commercial applications.
- Advanced energy storage devices.

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.
- 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:[1]

- 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,[2] 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, underwater, and surface-level 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 energy derived from clean sources, including:

- The construction and operation of clean power plants.
- The generation of power derived from clean sources, including solar, wind, geothermal, and hydro.

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[1] 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.

[2] Includes products in or after "Phase 1" clinical trials.

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.
- Space mission assurance, operation, or support.
- Space imaging, earth observation, and derived analytics.
- Space communication, excluding satellite-to-satellite communication.
- Space or ground based support infrastructure.
- Space-related military armaments and capabilities.
- Small satellite hardware and software manufacturers including those involved with IoT satellites.
- Space tourism.
- 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 direct (physical) or indirect (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.).
- Software built for industry-specific use cases (e.g. fitness, healthcare, social media, etc.).
- Hardware 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.

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 - KDDDPP).

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 - KHOMEP).
- 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 - KENERGYP).

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).

- o 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).

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	2/6/2017
S&P Kensho Wearables Index	KBORGP	2/6/2017
S&P Kensho Robotics Index	KBOTSP	2/6/2017
S&P Kensho Autonomous Vehicles Index	KCARSP	2/6/2017
S&P Kensho 3D Printing Index	KDDDPP	2/6/2017
S&P Kensho Drones Index	KDRONEP	2/6/2017
S&P Kensho Space Index	KMARSP	2/6/2017
S&P Kensho Smart Buildings Index	KHOMEP	2/6/2017
S&P Kensho Nanotechnology Index	KNANOP	2/6/2017
S&P Kensho Virtual Reality Index	KVRP	2/6/2017
S&P Kensho Cleantech Index	KCLEANP	2/6/2017
S&P Kensho Clean Energy Index	KENERGYP	2/6/2017
S&P Kensho Genetic Engineering Index	KDNAP	2/6/2017
S&P Kensho Smart Grids Index	KGRIDSP	2/6/2017
S&P Kensho Advanced Transport Systems Index	KATSP	2/6/2017
S&P Kensho Smart Borders Index	KDMZP	2/6/2017
S&P Kensho Electric Vehicles Index	KEVP	9/17/2018
S&P Kensho Future Payments Index	KPAYP	9/24/2018
S&P Kensho Alternative Finance Index	KALTFINP	9/24/2018
S&P Kensho Distributed Ledger Index	KLEDGERP	9/24/2018
S&P Kensho Digital Communities Index	KSOCIALP	10/1/2018
S&P Kensho Enterprise Collaboration Index	KTEAMP	10/29/2018

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 Sharpe Ratios 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 Sharpe Ratio for each Calculation Day.

2. Calculating the Final Index Sharpe Ratio for each Component Index by taking the mean of the Sharpe Ratios calculated above.

3. Multiplying the Final Index Sharpe Ratio by the Turnover Adjustment Factor to calculate the Adjusted Index Sharpe Ratio for each Component Index. For each component index, the Turnover Adjustment Factor is four (4) if its Sharpe Ratio is positive or zero, and the Turnover

Adjustment Factor is half (.5) if its Sharpe Ratio 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 Sharpe Ratio (each a "Select Component Index", collectively "Select Component Indices").

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 *Index Eligibility* 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 if 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, and 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. For the Sector indices, a diversification approach is used, 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, and S&P Kensho Clean Energy Index, as these indices only include "Core" constituents, and the S&P Kensho Distributed Ledger Index, as that index doesn't overweight "core" constituents. Constituent weightings are adjusted to ensure that each constituent is able to meet a target notional trade size without exceeding 25% of its 3M ADVT. The target notional trade size for each index is as follows:[5]

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
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	--[6]
S&P Kensho 3D Printing Index	$10 Million
S&P Kensho Smart Borders Index	$25 Million

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[5] 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.
[6] Not applicable, the index is equal weighted.

Index	Target Notional Trade Size
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 Human Evolution 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 Liquid Future Communication Index	$200 Million
S&P Kensho New Economies Select Index	$100 Million
S&P Kensho New Economies Composite Index	$100 Million

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:

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

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

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

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:

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

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

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

where:

$W_{i, \; Initial}$ = *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 ADVT$_{\%, max}$*. 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:

$$Max_{\$i} = 3M\ ADVT_{\%,max} \times 3M\ ADVT_i$$

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

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

4. Reallocating weight as necessary, for each Index Component in the following manner in order to satisfy the constraint set forth in Step 3 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:

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

    b. For each category, the excess weight from Step 5(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:

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

    c. Step 5 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 5, 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 3 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*
R_c	=	*number of remaining Index Components in the applicable category that have not yet reached their maximum allowable notional trade amount*

Diversification

For the Sector indices, 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 Sharpe Ratio 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 a the 126 trading days lookback period, in order to calculate a Sharpe Ratio for each Calculation Day d:

$$Sharpe_{i,d} = \frac{r_{i-R_f}}{\sigma_i}$$

2. Calculating the Final Index Sharpe Ratio $Sharpe_i$ for each Constituent Index by taking the mean of the Sharpe Ratios calculated above:

$$Sharpe_i = \frac{1}{D} \sum_d^D Sharpe_{i,d}$$

where:

r_i	= average daily return of the index i over the lookback period
σ_i	= standard deviation of daily return of index i
R_f	= risk-free rate
$Sharpe_{i,d}$	= Sharpe Ratio of the index i on a Given Calculation Day
$Sharpe_i$	= Final Index Sharpe Ratio of the index i (mean of Sharpe Ratios for each Calculation Day

Once the Final Index Sharpe Ratio 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 *Sharpe Baseline* equal to 0 if all the Final Sharpe Ratios calculated above are positive, or equal to the most negative Sharpe Ratio otherwise:

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

2. Calculating the *SharpeSpread$_i$* for each Constituent Index as:

$$SharpeSpread_i = Sharpe_i - SharpeBaseline$$

3. Calculating the *TotalSharpeSpread* as the sum of all Constituent Index Sharpe Spreads:

$$TotalSharpeSpread = \sum SharpeSpread_i$$

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

$$w_i = \frac{SharpeSpread_i}{TotalSharpeSpread}$$

Each Initial Constituent Index Weight w_i is then adjusted to ensure it meets established Minimum and Maximum Weight thresholds:

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

$$w_e = \sum min_{\%,1} - w_1$$

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

During the annual reconstitution the universe is reviewed for eligibility, and constituents are selected and weighted. In addition the indices are also rebalanced six months after the annual reconstitution. For the rebalancing process the eligibility of stocks for each index based on their Business Activity Focus described above is inherited from the prior annual reconstitution whereas the remaining eligibility criteria are reassessed and stocks are then selected and weighted based on the rules above.

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

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 14th and rebalanced after the close on the last trading day in November with a reference date of the first trading day following November 14th:

- 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
- S&P Kensho Genetic Engineering Index
- S&P Kensho Nanotechnology Index
- S&P Kensho Virtual Reality Index
- S&P Kensho Drones 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

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

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/Reuters foreign exchange rates are taken daily at 4:00 PM London Time and used in the end-of-day calculation of the index. 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: currency, currency hedged, decrement, fair value, inverse, leveraged, and risk control versions. For a list of available indices, please refer to *S&P DJI's All Indices by Methodology Report*.

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.spdji.com.

Corporate Actions

The table below lists the most common corporate events affecting the index on a daily basis, as well the treatment and divisor impact.

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 company was a constituent of, the acquirer's index shares are determined using closing prices on the announcement date.	
Rights Offering	The price is adjusted to the Price of the Parent Company minus (the Price of the Rights Offering/Rights Ratio). Index shares change so that the company's weight remains the same as its weight before the rights offering.	No
Stock dividend, stock split, reverse stock split	Index shares are multiplied by and price is divided by the split factor.	No
Share Issuance, Share Repurchase, Equity Offering or Warrant Conversion	None.	No
Special Dividends	Price of the stock making the special dividend payment is reduced by the per share special dividend amount after the close of trading on the day before the dividend ex-date.	Yes
Constituent Change	There are no intra-rebalancing additions.	-
	Deletions due to delistings, acquisition or any other corporate event resulting in the deletion of the stock from the index will cause the weights of the rest of the stocks in the index to change. Relative weights will stay the same.	Yes

For more information, please refer to 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

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

S&P Dow Jones Indices' Global Strategy 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. Any unusual treatment of a corporate action or short notice of an event may be communicated via email to 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 and their corresponding weights and index shares effective for the upcoming rebalancing. Since index shares are assigned based on prices seven business days prior to the rebalancing, the actual weight of each stock at the rebalancing will differ from these weights due to market movements.[7]

Please visit www.spdji.com for a complete schedule of rebalancing timelines and pro-forma delivery times.

Holiday Schedule

The index is calculated daily throughout the calendar year. The only days the index is not calculated are on days when all exchanges where the index's constituents are listed are officially closed.

A complete holiday schedule for the year is available at www.spdji.com.

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.

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[7] Prior to December 10, 2018, index shares were based on prices as of the Rebalancing Reference Date.

Contact Information

For questions regarding an index, please contact: index_services@spglobal.com.

Index Dissemination

Index levels are available through S&P Dow Jones Indices' Web site at *www.spdji.com,* 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 *S&P DJI's All Indices by Methodology Report* 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
S&P Kensho Liquid Future Communication Index PR	KCNLQP
S&P Kensho Liquid Future Communication Index NTR	KCNLQN

Index	Bloomberg
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

Index Data

Daily constituent and index level data are available via subscription.

For product information, please contact S&P Dow Jones Indices, www.spdji.com/contact-us.

Web site

For further information, please refer to S&P Dow Jones Indices' Web site at www.spdji.com.

Appendix I

Methodology Changes

Methodology changes since December 7, 2018 are as follows:

Change	Effective Date (After Close)	Methodology Previous	Methodology 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 14th with a reference date of the last trading day in April and rebalanced after the close on the first trading day following November 14th 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 II

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 15, 2020, as well as the business activity focuses previously in effect.

Business Activity Focus		
Index	**Previous**	**Updated**
S&P Kensho Distributed Ledger Index	Companies focused on developing distributed ledger technology, including: • Developing distributed ledger technology and new consensus mechanisms. • Providing distributed ledger technology as a service. • Completed a product of prototype applying distributed technology. • Companies enabling distributed ledgers, such as miners.	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, and microfinance institutions that use a peer-to-peer business model. • Automated wealth management services, such as robo-advisers. • 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.	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-advisers. • 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. • Transaction security (i.e. tokenization, point-to-point encryption, end-to-end encryption. • Product or service related to biometrically-enabled payments.	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.

Business Activity Focus		
Index	**Previous**	**Updated**
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 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. • Vehicle sharing services for passenger cars. • Sensors that feed into the above-mentioned systems. • Micro mobility sharing platforms, including platforms for electric scooters and bicycles. • Next generation transportation systems, such as Hyperloop.	Companies focused on optimizing the efficiency of managing large fleets of vehicles, cargo transportation, and mass transit, including: • 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. • Vehicle sharing services for passenger cars. • Sensors that feed into the above-mentioned systems. • Micro mobility sharing platforms, including platforms for electric scooters and bicycles. • Next generation transportation systems, such as Hyperloop. • Platforms providing intelligent and predictive capabilities to optimize fleet operations.
S&P Kensho 3D Printing Index	Companies focused on 3D printing:[8] • Manufacturers of 3D printers, additive manufacturing systems, bio-printing systems, etc, including 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.	Companies focused on 3D printing:[9] • 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. • 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 Space Index	Companies focused on space travel and exploration, including: • Spacecraft, space launch vehicles, space flight, or space stations and related components and services. • Space mission assurance, operation, or support. • Space imaging. • Space communication, excluding satellite-to-satellite communication. • Space or ground based support infrastructure. • Space-related military armaments and capabilities. • Small satellite hardware and software manufacturers including those involved with IoT satellites. • Space tourism. • Asteroid mining and resource extraction. • Space debris tracking and removal.	Companies focused on space travel and exploration, including: • Spacecraft, space launch vehicles, space flight, or space stations and related components and services. • Space mission assurance, operation, or support. • Space imaging, earth observation, and derived analytics. • Space communication, excluding satellite-to-satellite communication. • Space or ground based support infrastructure. • Space-related military armaments and capabilities. • Small satellite hardware and software manufacturers including those involved with IoT satellites. • Space tourism. • Asteroid mining and resource extraction. • Space debris tracking and removal.

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[8] 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.

[9] 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.

| | Business Activity Focus | |
Index	Previous	Updated
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. • Direct lending platforms, such as peer-to-peer lending platforms and microfinance institutions that use a peer-to-peer business model. • Automated wealth management services, such as robo-advisers. • 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.	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 and microfinance institutions that use a peer-to-peer business model. • Automated wealth management services, such as robo-advisers. • 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 Robotics Index	Companies focused on the robotics industry and significant subsystems, including: • Commercial applications (e.g. food processing, manufacturing, etc.). • Medical robots (e.g. surgical, automated prescription dispensers, etc.). • Military robots. • Consumer robots.	Companies focused on the robotics industry and significant subsystems, including: • Commercial applications (e.g. food processing, manufacturing, etc.). • Medical robots (e.g. surgical, automated prescription dispensers, etc.). • Military robots. • Consumer robots. • Surveillance and security robots.
S&P Kensho 3D Printing Index	Companies focused on 3D printing: • Manufacturers of 3D printers, additive manufacturing systems, bio-printing systems, etc., including 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.	Companies focused on 3D printing:[10] • Manufacturers of 3D printers, additive manufacturing systems, bio-printing systems, etc., including 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 Drones Index	Companies focused on the remotely operated or unmanned aerial, underwater, and surface-level drones market, including: • Producers of drones to be used in a civilian, commercial, and/or military capacity. • Sensors for control or measurement, such as cameras, gyroscopic chips, pressure gauges, etc. • Communication hardware and software to allow a drone to connect to a central control hub or to other vehicles.	Companies focused on the remotely operated or unmanned aerial, underwater, and surface-level 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 to connect to a central control hub or to other vehicles.

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[10] 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.

Business Activity Focus		
Index	Previous	Updated
S&P Kensho Electric Vehicles Index	Companies focused on producing electric vehicles and associated subsystems, including: • Electric road vehicles or significant subsystems. • Powertrain systems, motors, or energy storage systems for electric vehicles. • Zero-emission clean fuel technology, such as hydrogen fuel cells, and charging infrastructure.	Companies focused on producing electric vehicles and associated subsystems, including: • Electric road vehicles or significant subsystems. • Powertrain systems, motors, or energy storage systems for electric vehicles. • 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 Advanced Transport Systems Index	Companies focused on optimizing the efficiency of managing large fleets of vehicles, cargo transportation, and mass transit, including: • 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. • Vehicle sharing services for passenger cars. • Sensors that feed into the above-mentioned systems. • Micro mobility sharing platforms, including platforms for electric scooters and bicycles.	Companies focused on optimizing the efficiency of managing large fleets of vehicles, cargo transportation, and mass transit, including: • 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. • Vehicle sharing services for passenger cars. • Sensors that feed into the above-mentioned systems. • Micro mobility sharing platforms, including platforms for electric scooters and bicycles. • Next generation transportation systems, such as Hyperloop.
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, fabrics with embedded sensors, etc. • Medical systems for drug delivery, bio-sensing, etc. • Military devices. • Exoskeletons. • Haptic or force feedback devices. • Wearable or implantable mind-machine devices or sensors, such as EEG headwear, microchips, deep brain stimulation, etc.	Companies focused on wearable and implantable technologies for consumer, military, and medical uses, including: • Wearable computing devices, such as smart watches, smart glasses, fabrics with embedded sensors, etc. • Medical systems 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 connectivity and wearable technology that is integrated with the IoT. • Wearable energy/power generation and harvesting technologies.

Business Activity Focus		
Index	**Previous**	**Updated**
S&P Kensho Autonomous Vehicles Index	Companies focused on autonomous and connected vehicles, including: • The manufacture of autonomous and connected vehicles. • Software and components that facilitate full or partial autonomy, including interfacing with other autonomous vehicles or infrastructure. • 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 infotainment systems that enhance a vehicle's autonomy.	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. • 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 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. • 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. • Application security, data security, encryption and protection.	Companies focused on protecting enterprises and devices from unauthorized access via electronic means, including: • Cyber-attack threat detection, response or prevention systems. • 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 for cyber security purposes. • Application security, data security, encryption and protection for cyber security purposes.
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.	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.

Business Activity Focus		
Index	**Previous**	**Updated**
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. • Space mission assurance, operation, or support. • Space imaging. • Space communication, excluding satellite-to-satellite communication. • Space or ground based support infrastructure. • Space-related military armaments and capabilities. • Small satellite hardware and software manufacturers.	Companies focused on space travel and exploration, including: • Spacecraft, space launch vehicles, space flight, or space stations and related components and services. • Space mission assurance, operation, or support. • Space imaging. • Space communication, excluding satellite-to-satellite communication. • Space or ground based support infrastructure. • Space-related military armaments and capabilities. • Small satellite hardware and software manufacturers including those involved with IoT satellites. • Space tourism. • Asteroid mining and resource extraction. • Space debris tracking and removal.
S&P Kensho Enterprise Collaboration Index	Companies focused on enterprise collaboration frameworks, including: • 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. • 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. • Significant infrastructure or subsystems that allow end users to run their own enterprise collaboration tools	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.

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