

# S&P Dow Jones Indices

A Division of **S&P Global**

## S&P Dow Jones Indices

### Management Statement of Adherence with the IOSCO Principles for Financial Benchmarks

For the period June 1, 2018 through May 31, 2019

**Contents**

Section 1: Management’s Statement of Adherence ..... 3  
Section 2: Report of Independent Accountants ..... 4  
Section 3: Principles and Statements ..... 6  
Important Disclaimer Information.....39

## Section 1: Management's Statement of Adherence

In June 2012, S&P Dow Jones Indices LLC ("S&P DJI") was formed as a joint venture between S&P Indices and Dow Jones Indexes. S&P DJI is home to iconic brands, such as the S&P 500® and the Dow Jones Industrial Average®. With more than 115 years of experience and over 1 million proprietary and third party indices published daily, S&P DJI's mission is to bring independent, transparent and cost effective solutions to the global investment community. Headquartered in New York, S&P DJI employs over 500 professionals operating out of 25 offices worldwide. For more information, please visit [www.spdji.com](http://www.spdji.com).

S&P DJI is proud of its adherence with the Principles for Financial Benchmarks published by the Board of the International Organization of Securities Commissions dated as of July 2013 and available online at URL <http://www.fsa.go.jp/inter/ios/20130718-1/03.pdf> (the "IOSCO Principles"). We have had practices, policies and procedures that address many of the standards set forth in the IOSCO Principles, including by way of example, the separation of our commercial and governance functions as well as methodology transparency long before the IOSCO Principles were published. S&P DJI believes our brand conveys trust, integrity and quality and we seek to ensure that confidence in our benchmarks is maintained through the establishment of a robust control framework described below.

In our continued support of and adherence with the IOSCO Principles, S&P DJI has engaged Ernst & Young LLP ("EY") in 2019 to perform a reasonable assurance examination of S&P DJI's assertion of their adherence with the IOSCO Principles.

S&P DJI's overall governance and control framework is comprised of a variety of components that, together, protect the integrity and quality of Benchmarks administered by S&P DJI. These components include:

- a) A corporate structure that isolates the S&P DJI Benchmark business into a single corporate entity
- b) An organizational/operating structure that separates commercial functions from operational and analytical functions into distinct reporting lines
- c) An independent Benchmark governance body (including Index Committees) with documented policies and procedures
- d) A control framework to ensure a sound process for developing, calculating and distributing Benchmarks
- e) An oversight function that monitors and enforces, among other things, S&P DJI's compliance with its various conflicts of interest policies
- f) Processes with designated roles and teams to work with and oversee the various third parties involved in the Benchmark determination process

Despite our long established business in the financial benchmark industry, we continuously seek improvement and innovation as the markets evolve. We appreciate your consideration and trust you have placed in us and will always endeavor to deliver high quality indices in conformity with our core values.

S&P DJI's management team is responsible for the identification of the governance and control framework for our business including the design and operation of policies and procedures that it believes effectively address the IOSCO Principles. We have prepared the accompanying description in Section 3 to describe the details of the IOSCO Principles together with the relevant controls which operated during the period June 1, 2018 to May 31, 2019.

We assert that S&P DJI's governance and control framework for benchmarks administered by S&P DJI, as designed and implemented, adhere with the IOSCO Principles and the accompanying description in Section 3, including the suitability of the design and operating effectiveness of the controls described therein, is fairly stated, in that it presents the activities undertaken by S&P DJI to achieve adherence with the IOSCO Principles.

For more information on this governance and control framework and S&P DJI's adherence with the IOSCO Principles, the following includes an Independent Accountant's Report from EY as well as a Principle by Principle statement from S&P DJI's Management team alongside EY's assessment.



## Section 2: Report of Independent Accountants

Management of S&P Dow Jones Indices LLC

### *Scope*

We have examined S&P Dow Jones Indices LLC's ("S&P DJI") assertion, included in the accompanying report by Management titled "Management's Statement of Adherence", that the controls described within "S&P Dow Jones Indices' Description" ("Description") and the suitability of the design and operating effectiveness of those controls throughout the period June 1, 2018 to May 31, 2019 are in accordance with the IOSCO Principles for Financial Benchmarks ("criteria of the IOSCO Principles") (together, "Assertion").

### *S&P DJI's Responsibilities*

S&P DJI is responsible for (1) preparing the Description and Assertion; (2) the completeness, accuracy, and method of presentation of the Description and Assertion; (3) providing the services covered by the Description; (4) specifying the controls in the Description that meet the criteria of the IOSCO Principles; and (5) designing, implementing, monitoring and documenting the controls to be in accordance with the criteria of the IOSCO Principles.

### *Accountants' Responsibilities*

Our responsibility is to express an opinion on the fairness of the presentation of management's accompanying Description and on the suitability of the design and operating effectiveness of the controls described therein to be in accordance with the criteria of the IOSCO Principles, based on our examination.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants ("AICPA"). Our examination was also performed in accordance with International Standard on Assurance Engagements 3000 *Assurance Engagements Other than Audits or Reviews of Historical Financial Information*, issued by the International Auditing and Assurance Standards Board. Those standards require that we plan and perform our examination to obtain reasonable assurance about whether, in all material respects, the Description is fairly presented, and the controls described therein are suitably designed and operate effectively in accordance with the criteria of the IOSCO Principles throughout the period June 1, 2018 to May 31, 2019. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risk of material misstatement, whether due to fraud or error. We believe that the evidence we have obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

An examination of an administrator's assessment and the suitability of the design and operating effectiveness of the administrator's controls involves:

- Performing procedures to obtain evidence about the fairness of the presentation of the Description and the suitability of the design and operating effectiveness of those controls to be in accordance with the criteria of the IOSCO Principles
- Assessing the risks that the Description is not fairly presented and that the controls were not suitably designed or operating effectively
- Testing the operating effectiveness of those controls necessary to provide reasonable assurance that management's assertion of its adherence with the criteria of the IOSCO Principles was met
- Evaluating the overall presentation of the Description.



### *Description of Tests of Controls*

The specific controls tested and the nature, timing, and results of those tests are listed in the accompanying Section 3, "Principles and Statements."

### *Accountant's independence and quality control*

We have complied with the independence and other ethical requirements set forth in the *Preface: Applicable to All Members* and *Part 1 – Members in Public Practice* of the *Code of Professional Conduct* established by the AICPA and applied the AICPA's *Statements on Quality Control Standards*.

### *Inherent Limitations*

Because of their nature and inherent limitations, controls at an administrator may not always operate effectively to be in accordance with the criteria of the IOSCO Principles. Also, the projection to the future of any evaluation of the fairness of the presentation of the Description, or conclusions about the suitability of the design or operating effectiveness of the controls described therein to be in accordance with the criteria of the IOSCO Principles are subject to the risk that controls at an administrator may become ineffective or fail.

### *Opinion*

In our opinion, in all material respects:

- a. The Description fairly presents the Company's controls that were designed and implemented throughout the period June 1, 2018 to May 31, 2019 to adhere to the criteria of the IOSCO Principles.
- b. The controls stated in the Description were suitably designed to provide reasonable assurance that management's assertion of its adherence with the criteria of the IOSCO principles would be met if the controls operated effectively throughout the period June 1, 2018 to May 31, 2019.
- c. The controls operated effectively to provide reasonable assurance that management's assertion of its adherence with the criteria of the IOSCO Principles was met, and that the controls tested operated effectively, throughout the period June 1, 2018 to May 31, 2019.

### *Restricted Use*

This report is intended solely for the information and use of S&P DJI, user entities and prospective user entities of S&P DJI's benchmarks, entities providing services to such user entities, regulators, and others who have sufficient knowledge and understanding of the following:

- The nature of the service provided by the administrator
- Internal control and its limitations
- The criteria of the IOSCO Principles
- The risks that may threaten the achievement of the criteria of the IOSCO Principles and how controls address those risks

This report is not intended to be and should not be used by anyone other than these specified parties.

*Ernst & Young LLP*

July 26, 2019

## Section 3: Principles and Statements

IOSCO Principle	S&P Dow Jones Indices' Description	EY Procedures
<p><b>INTRO:</b> A Benchmark should have appropriate governance arrangements in place to protect the integrity of the Benchmark and to address conflicts of interests.</p>	<p>To protect the integrity of its Benchmarks, S&amp;P DJI maintains a sound and efficient governance and control framework to manage quality of the Benchmark and address potential conflicts of interests.</p>	<p>Please see Principles 1 through 5 below for further details.</p>
<p><b>1. Overall Responsibility of the Administrator</b></p> <p>The Administrator should retain primary responsibility for all aspects of the Benchmark determination process. For example, this includes:</p> <ol style="list-style-type: none"> <li>1. Development: The definition of the Benchmark and Benchmark Methodology;</li> <li>2. Determination and Dissemination: Accurate and timely compilation and publication and distribution of the Benchmark;</li> <li>3. Operation: Ensuring appropriate transparency over significant decisions affecting the compilation of the Benchmark and any related determination process, including contingency measures in the event of absence of or insufficient inputs, market stress or disruption, failure of critical infrastructure, or other relevant factors; and</li> <li>4. Governance: Establishing credible and transparent governance, oversight and accountability procedures for the Benchmark determination process, including an identifiable oversight function accountable for the development, issuance and operation of the Benchmark.</li> </ol>	<p>S&amp;P DJI maintains responsibility over all aspects of the Benchmark determination process.</p> <ol style="list-style-type: none"> <li>a. S&amp;P DJI's index governance program manages the development of Benchmarks from inception, and includes various committee reviews to ensure the Methodology and design are in accordance with the internal policy and procedures prior to a Benchmark launch. The applicable development committees include: <ul style="list-style-type: none"> <li>• New Index Review Committee</li> <li>• New Methodology Committee</li> <li>• Index Committees</li> </ul> </li> <li>b. As a part of the overall governance structure, S&amp;P DJI's Index Committees, aligned with each group of Benchmarks, are responsible for ensuring that existing Benchmarks continue to achieve their stated objectives. The committees, along with the S&amp;P DJI Index Governance Group, facilitate the accurate and timely calculation, publication and distribution of Benchmarks. Refer to S&amp;P DJI's statement regarding Principle 5 for more information on these committees. Refer to S&amp;P DJI's statement regarding Principle 4 for more information on the control framework for the Benchmark determination and dissemination process.</li> <li>c. S&amp;P DJI publishes Methodology documents for each group of Benchmarks and maintains internal policies and procedures that govern announcements and press releases related to significant decisions affecting a Benchmark. Methodology documents include a</li> </ol>	<p><u>Development:</u></p> <p>For a sample of new index methodologies, we obtained the methodology document and inspected for evidence that, in line with the internal policy and procedures:</p> <ol style="list-style-type: none"> <li>1. The index is defined and, at a minimum, the following key information is included: <ol style="list-style-type: none"> <li>a. Objective</li> <li>b. Calculation</li> <li>c. Data sources used</li> <li>d. Governing body</li> <li>e. Dissemination instructions</li> </ol> </li> <li>2. The methodology is approved by the new methodology committee and relevant index committee.</li> <li>3. The index related to a new methodology is approved by the new index review committee.</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of changes to existing index methodologies, we obtained the methodology document and inspected for evidence that, in line with the internal policy and procedures:</p> <ol style="list-style-type: none"> <li>1. The benchmark is defined and, at a minimum, the following key information is included: <ol style="list-style-type: none"> <li>a. Objective</li> <li>b. Calculation</li> <li>c. Data sources used</li> <li>d. Governing body</li> <li>e. Dissemination instructions</li> </ol> </li> </ol>

	<p>description of how S&amp;P DJI handles its Benchmark determination process during periods of market stress or disruption. S&amp;P DJI maintains a business continuity program, overseen by the Chief Operating Officer, which includes contingency measures in the event of disruptions and is tested annually.</p> <p>d. S&amp;P DJI's governance program includes the development of policies and procedures and relevant training for employees involved in the Benchmark determination process. S&amp;P DJI's Internal Oversight Committee supervises S&amp;P DJI's adherence to the IOSCO Principles and other industry practices applicable the Benchmark determination process and compliance with applicable regulatory principles or guidelines. . Refer to S&amp;P DJI's statement regarding Principle 4 for more information on the governance and oversight program.</p>	<ol style="list-style-type: none"> <li>2. Reason for change is consistent with underlying interest of the benchmark</li> <li>3. The methodology is approved by the relevant Index Committee</li> </ol> <p>No exceptions were noted.</p> <p>The review of existing index methodologies is performed by the Index Committees as part of S&amp;P DJI's annual periodic review; refer to Principle 10.</p> <p><u>Determination, Dissemination, and Operation:</u> For a sample of new indices, we obtained the New Index Review Committee (NIRC) approval and inspected for evidence that the proposed index was evaluated for feasibility, and that approval was given to proceed with development. No exceptions were noted.</p> <p>For a sample of new indices, we obtained the approved methodology and inspected for evidence that:</p> <ol style="list-style-type: none"> <li>1. Implementation of indices in the calculation systems is consistent with the approved methodology</li> <li>2. Review was performed by the New Index Review Committee, and Index Committee.</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of indices, we inspected for evidence that:</p> <ol style="list-style-type: none"> <li>1. System calculated indices were calculated in line with the approved methodology, and reviewed by Index Management</li> <li>2. Third party calculations were calculated in line with the approved methodology, and reviewed by Index Management</li> <li>3. Spreadsheet calculated indices were calculated in line with the approved methodology and reviewed by Index Management.</li> </ol> <p>No exceptions were noted.</p>
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		<p>On a sample basis, across regions and across asset classes, we inspected evidence that data inputs in the calculation of indices were:</p> <ol style="list-style-type: none"> <li>1. Reviewed by Market Management for equity indices,</li> <li>2. Reviewed by Index Management for fixed income and commodity indices.</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of vendors, we inspected that the upload of data input feeds to the calculation system were complete. No exceptions were noted.</p> <p>We inspected the controls over the dissemination of index files. We inspected the population of users with access to the dissemination system. No exceptions were noted.</p> <p>We obtained the business continuity program, and inspected for evidence of approval by the Chief Operating Officer. No exceptions were noted.</p> <p>Internal Control Framework: refer to Principle 4.</p> <p><u>Governance</u> Refer to Principle 5.</p>
<p><b>2. Overall Responsibility of Third Parties</b></p> <p>Where activities relating to the Benchmark determination process are undertaken by third parties - for example collection of inputs, publication or where a third party acts as Calculation Agent -the Administrator should maintain appropriate oversight of such third parties. The Administrator (and its oversight function) should consider adopting policies and procedures that:</p>	<p>S&amp;P DJI oversees third parties (including Data Submitters and calculation agents) through its internal control framework including documented policies and procedures governing quality assurance (“QA,”), due diligence and/or monitoring procedures. S&amp;P DJI also maintains relationships with various benchmark partners (including Exchanges), governed by contractual arrangements and Index Committee charters (where applicable). S&amp;P DJI’s statement regarding Principle 14 describes its Submitter Code of Conduct and its related processes.</p>	<p>For a sample of new data vendors/3<sup>rd</sup> parties used by the Index Management Production Group (IMPG), we obtained the executed contract and inspected for evidence that:</p> <ol style="list-style-type: none"> <li>1. The executed contract includes defined roles and obligations</li> <li>2. The executed contract was approved by the Chief Legal Officer, or an appropriate member of the S&amp;P DJI Global Legal &amp; Regulatory Affairs</li> </ol>

<p>a) Clearly define and substantiate through appropriate written arrangements the roles and obligations of third parties who participate in the Benchmark determination process, as well as the standards the Administrator expects these third parties to comply with;</p> <p>b) Monitor third parties' compliance with the standards set out by the Administrator;</p> <p>c) Make Available to Stakeholders and any relevant Regulatory Authority the identity and roles of third parties who participate in the Benchmark determination process; and</p> <p>d) Take reasonable steps, including contingency plans, to avoid undue operational risk related to the participation of third parties in the Benchmark determination process.</p> <p>This Principle does not apply in relation to a third party from whom an Administrator sources data if that third party is a Regulated Market or Exchange.</p>	<p>a) The S&amp;P DJI Global Legal &amp; Regulatory Affairs Department oversees and reviews written arrangements with third parties involved in the Benchmark determination process to ensure the roles and obligations of such parties are clearly defined.</p> <p>b) S&amp;P DJI employs QA procedures designed to monitor 3<sup>rd</sup> party adherence with service agreements, including routinely checking calculated values to mitigate the risks associated with any errors in the sourced data. Incidents are reviewed by S&amp;P DJI's Internal Risk and Control team.</p> <p>c) S&amp;P DJI maintains a listing of all 3<sup>rd</sup> parties who participate in the Benchmark determination process and the function of such third parties, and discloses to stakeholders on an as needed basis.</p> <p>d) S&amp;P DJI takes reasonable steps to avoid undue operational risks, including the maintenance of a Business Continuity program that is reviewed and tested by the S&amp;P Global and S&amp;P DJI Business Continuity teams on annual basis.</p>	<p>department, prior to execution of contract and use of the vendor. No exceptions were noted.</p> <p>For EY procedures in relation to S&amp;P DJI's Submitter Code of Conduct, refer to Principle 14.</p> <p>For a sample of new third party calculators, if applicable, we inspected for evidence of:</p> <ol style="list-style-type: none"> <li>1. There having been a background check, prior to index launch</li> <li>2. Third party certification of calculation and data collection practices.</li> </ol> <p>No instances of new third party calculators were noted.</p> <p>For a sample of indices calculated by existing third parties, we inspected for evidence that third party calculations were reviewed by Index Management. No exceptions were noted.</p> <p>On a sample basis, across regions and across asset classes, we inspected evidence that data inputs in the calculation of indices were:</p> <ol style="list-style-type: none"> <li>1. Reviewed by Market Management for equity indices,</li> <li>2. Reviewed by Index Management for fixed income and commodity indices.</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of vendors, we inspected that the upload of data input feeds to the calculation system were complete. No exceptions were noted.</p> <p>We obtained the business continuity program, and inspected for evidence of approval by the Chief Operating Officer. No exceptions were noted.</p>
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<p><b>3. Conflicts of Interest for Administrators</b></p> <p>To protect the integrity and independence of Benchmark determinations, Administrators should document, implement and enforce policies and procedures for the identification, disclosure, management, mitigation or avoidance of conflicts of interest. Administrators should review and update their policies and procedures as appropriate.</p> <p>Administrators should disclose any material conflicts of interest to their users and any relevant Regulatory Authority, if any.</p> <p>The framework should be appropriately tailored to the level of existing or potential conflicts of interest identified and the risks that the Benchmark poses and should seek to ensure:</p> <ol style="list-style-type: none"> <li>a) Existing or potential conflicts of interest do not inappropriately influence Benchmark determinations;</li> <li>b) Personal interests and connections or business connections do not compromise the Administrator's performance of its functions;</li> <li>c) Segregation of reporting lines within the Administrator, where appropriate, to clearly define responsibilities and prevent unnecessary or undisclosed conflicts of interest or the perception of such conflicts;</li> <li>d) Adequate supervision and sign-off by authorized or qualified employees prior to releasing Benchmark determinations;</li> <li>e) The confidentiality of data, information and other inputs submitted to, received by or produced by the Administrator, subject to the disclosure obligations of the Administrator;</li> <li>f) Effective procedures to control the exchange of information between staff engaged in activities involving a risk of conflicts of interest or between staff and third parties, where that information may</li> </ol>	<p>S&amp;P DJI has adopted and implemented the following policies and procedures that seek to protect the integrity and independence of S&amp;P DJI's Benchmark determination process: the S&amp;P Global Securities Disclosure and Trading Policy (the "Securities Policy"); the S&amp;P Global Code of Business Ethics ("COBE"); and, the Index Committee and Membership Policy and Procedures. These policies and procedures are designed and implemented - in consideration of existing or potential conflicts of interest identified by S&amp;P DJI and the risks posed by the Benchmarks we administer and require the disclosure, management, mitigation and avoidance of actual or potential conflicts of interest (if any).</p> <p>Adherence with these policies and procedures is an ongoing condition of employment for all employees, and employees are subject to disciplinary actions if a violation occurs.</p> <p>S&amp;P DJI updates such policies as necessary upon triggering events including, without limitation, any regulatory changes identified by the Global Legal &amp; Regulatory Affairs Department and the Public Affairs team, or any changes to the business or organization, to protect against conflicts of interest that could impact the Benchmark determination process.</p> <ol style="list-style-type: none"> <li>a) All employees are required to disclose potential conflicts of interest upon hire as well as on a semiannual basis. All S&amp;P DJI employees are required to obtain preapproval from management and the Compliance Department when trading certain security types. S&amp;P DJI employees involved in the Benchmark determination process are restricted from trading individual stocks.</li> <li>b) All employees are restricted from outside business activities or professional relationships which would pose a conflict of interest with their current job, and are required to disclose and obtain management and</li> </ol>	<p>For a sample of new and existing index committees, we obtained the committee charter and inspected evidence that, in line with the internal policy and procedures:</p> <ol style="list-style-type: none"> <li>1. The following key information is included: <ol style="list-style-type: none"> <li>a. Governance</li> <li>b. Responsibilities</li> <li>c. Conflicts of interest</li> <li>d. Data confidentiality</li> <li>e. Membership requirements</li> </ol> </li> <li>2. The charter was approved by Committee Members. No exceptions were noted.</li> </ol> <p>We obtained and reviewed the organizational chart and inspected any changes were approved by the executive management. No instances of any organizational changes were noted that impacted the benchmark determination process.</p> <p>For a sample of employees, we obtained and reviewed the semi-annual securities disclosure report and outside business activities report and inspected for evidence that:</p> <ol style="list-style-type: none"> <li>1. Employees self-certified their understanding and compliance with the Securities Disclosure &amp; Trading Policy and any outside business activities were disclosed</li> <li>2. Potential conflicts of interest were resolved timely and appropriately by the Director of Global Employee Compliance (if applicable)</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of trades executed by S&amp;P DJI employees involved in the Benchmark determination process, we inspected for evidence that:</p> <ol style="list-style-type: none"> <li>1. The trade had appropriate pre-approval</li> </ol>
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<p>reasonably affect any Benchmark determinations; and</p> <p>g) Adequate remuneration policies that ensure all staff who participate in the Benchmark determination are not directly or indirectly rewarded or incentivized by the levels of the Benchmark.</p> <p>An Administrator’s conflict of interest framework should seek to mitigate existing or potential conflicts created by its ownership structure or control, or due to other interests the Administrator’s staff or wider group may have in relation to Benchmark determinations. To this end, the framework should:</p> <p>a) Include measures to avoid, mitigate or disclose conflicts of interest that may exist between its Benchmark determination business (including all staff who perform or otherwise participate in Benchmark production responsibilities), and any other business of the Administrator or any of its affiliates; and</p> <p>b) Provide that an Administrator discloses conflicts of interest arising from the ownership structure or the control of the Administrator to its Stakeholders and any relevant Regulatory Authority in a timely manner.</p>	<p>Compliance Department approval to engage in outside business activities or certain types of professional relationships that could be perceived as in conflict with their role at S&amp;P DJI. In addition, S&amp;P DJI employees are subject to certain restrictions on the giving and receiving of gifts and entertainment and are required to comply with applicable anti-bribery and corruption laws.</p> <p>c) S&amp;P DJI mitigates potential internal conflicts of interest by segregating those functions that participate in the Benchmark determination process (i.e. Index Production and Management Group or Index Governance Group) from commercial functions by maintaining separate reporting lines to S&amp;P DJI executive management and through physical and technological segregation of roles.</p> <p>d) S&amp;P DJI maintains a robust control framework designed to ensure that appropriate Benchmark determinations are made and disseminated in a timely fashion. Due to the breadth of the Benchmarks S&amp;P DJI publishes on a daily and, in some instances, a real-time basis, S&amp;P DJI relies on a control framework, described in S&amp;P DJI’s statement regarding Principle 4, that includes quality assurance procedures and distribution oversight, with specific S&amp;P DJI teams responsible for each component.</p> <p>e) To protect confidential and material non-public information received in or produced by the Benchmark determination process, S&amp;P DJI personnel are required, as outlined in the Code of Business Ethics (COBE), to maintain the confidentiality of information they receive in the normal course of their duties and to disclose such information to others only when permissible. All employees are trained on and required to attest annually to the COBE.</p>	<p>2. The trade adhered to all requirements and restrictions per the Securities Disclosure &amp; Trading Policy. No exceptions were noted.</p> <p>For a sample of employees involved in the Benchmark administration and determination process, we obtained their annual performance review and inspected for evidence that:</p> <ol style="list-style-type: none"> <li>1. Employee goals are not linked, or dependent upon, the performance of indices</li> <li>2. Employee performance is measured against these pre-set goals</li> <li>3. Performance issues (if applicable) are reflected in reviews and investigated.</li> </ol> <p>No exceptions were noted.</p> <p>On a sample basis, across regions and across asset classes, we inspected evidence that data inputs in the calculation of indices were:</p> <ol style="list-style-type: none"> <li>1. Reviewed by Market Management for equity indices,</li> <li>2. Reviewed by Index Management for fixed income and commodity indices.</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of vendors, we inspected that the upload of data input feeds to the calculation system were complete. No exceptions were noted.</p> <p>We inspected the controls over the dissemination of index files. We inspected the population of users with access to the dissemination system. No exceptions were noted.</p>
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	<p>f) Employees in the Index Production and Management Group or the Index Governance Group are restricted from exchanging material, non-public information with individuals and groups not directly involved in the benchmark determination process. Personnel not in the Index Production and Management Group or Index Governance Group are not permitted beyond the physical or technological firewalls (with limited exceptions for the physical firewall and, in which case, must then be escorted). Access to S&amp;P DJI systems used in the Benchmark administration and determination process is restricted and is governed by procedures subject to at least annual quality checks.</p> <p>g) With respect to remuneration policies, S&amp;P DJI's revenue is derived from, among other sources, fees based on assets under management and the notional value of financial products; however, personnel within the Index Production and Management Group or Index Governance do not have performance goals or bonus arrangements that are incented by the levels of Benchmarks. S&amp;P DJI's Human Resources Department works with the managers of all such employees involved in the Benchmark determination process to establish competencies and goals to determine the remuneration for such employees.</p> <p>S&amp;P DJI manages any existing or potential conflicts created by its ownership structure or control:</p> <p>a) S&amp;P Global, Inc., the majority shareholder, and CME Group ("CME") as the minority shareholder, are the parent companies of S&amp;P DJI and established the joint venture to independently operate their combined benchmark businesses. S&amp;P DJI has a board of directors comprised of management from both firms and is responsible for overseeing the Benchmark business.</p>	<p>For all policies that govern the integrity of indices, we inspected the following:</p> <ol style="list-style-type: none"> <li>1. The latest version of the policy in place,</li> <li>2. Evidence of the policy having been reviewed</li> <li>3. Where applicable, evidence of updated training having been provided which reflects changes made to the policy.</li> </ol> <p>No exceptions were noted.</p> <p>We inspected materials used to provide training on the Code of Business Ethics ("COBE"). For a sample of employees, we inspected evidence of employee certification of adherence with the COBE. No exceptions were noted.</p> <p>We obtained and reviewed evidence of employee attendance at index governance training and performed the following:</p> <ol style="list-style-type: none"> <li>1. Inspected the training materials to ensure the necessary topics were covered</li> <li>2. For a sample of employees, we inspected for evidence of attendance</li> <li>3. If employee training was not completed in a timely manner, obtained an understanding of the delay and inspected evidence of the resolution / follow up (if applicable).</li> </ol> <p>No exceptions were noted.</p> <p>We inspected logical access over key applications in the Benchmark administration and determination process. No exceptions were noted.</p>
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	<p>b) S&amp;P DJI discloses on both its website and in various notices and disclaimers the CME ownership interest and its status as a licensee of S&amp;P DJI Benchmarks. For example, refer to the following link: <a href="https://us.spindices.com/our-company/our-history/">https://us.spindices.com/our-company/our-history/</a></p>	<p>We obtained the organizational chart and inspected the ownership structure between S&amp;P Global Inc. and CME Group to evaluate any potential conflicts of interests relating to ownership. No exceptions were noted.</p>
<p><b>4. Control Framework for Administrators</b></p> <p>An Administrator should implement an appropriate control framework for the process of determining and distributing the Benchmark. The control framework should be appropriately tailored to the materiality of the potential or existing conflicts of interest identified, the extent of the use of discretion in the Benchmark setting process and to the nature of Benchmark inputs and outputs. The control framework should be documented and available to relevant Regulatory Authorities, if any. A summary of its main features should be Published or Made Available to Stakeholders.</p> <p>This control framework should be reviewed periodically and updated as appropriate. The framework should address the following areas:</p> <ul style="list-style-type: none"> <li>a) Conflicts of interest in line with Principle 3 on conflicts of interests;</li> <li>b) Integrity and quality of Benchmark determination: <ul style="list-style-type: none"> <li>i. Arrangements to ensure that the quality and integrity of Benchmarks is maintained, in line with principles 6 to 15 on the quality of the Benchmark and Methodology;</li> <li>ii. Arrangements to promote the integrity of Benchmark inputs, including adequate due diligence on input sources;</li> <li>iii. Arrangements to ensure accountability and complaints</li> </ul> </li> </ul>	<p>S&amp;P DJI has a control framework comprised of several functions responsible for the overall operational management, governance and oversight of the Benchmark determination process. The S&amp;P DJI Governance overview is published on the S&amp;P DJI website and is available to the public. The framework includes the following:</p> <ul style="list-style-type: none"> <li>a) Conflicts of Interest: S&amp;P DJI's control framework to adhere to Principle 3 is described in S&amp;P DJI's statement thereto.</li> <li>b) Integrity &amp; Quality of Benchmark Determination: The S&amp;P DJI control framework includes: <ul style="list-style-type: none"> <li>i. As set forth in S&amp;P DJI's statement regarding Principle 5, the Index Committees oversee the design and methodological rigor of the various Benchmarks, and are responsible for Benchmark review, approval and governance to ensure S&amp;P DJI's Benchmarks are maintained in accordance with Principles 6 through 8, 10, and 12.</li> <li>ii. The Quality Assurance team, working with the Index Data Acquisition and Content Subscription team, performs due diligence on input sources and ensures S&amp;P DJI adheres to Principles 14 and 15.</li> <li>iii. The Internal Oversight Committee independently oversees S&amp;P DJI's compliance with its benchmark/index</li> </ul> </li> </ul>	<p>Refer to principle 3 for item a), principles 6 through 8, 10 and 12 for item b) i, and principles 16 to 19 for item b) iii.</p> <p>For a sample of indices, we inspected for evidence that:</p> <ol style="list-style-type: none"> <li>1. System calculated indices were calculated in line with the approved methodology and reviewed by Index Management</li> <li>2. Third party calculations were calculated in line with the approved methodology, and reviewed by Index Management</li> <li>3. Spreadsheet calculations were calculated in line with the approved methodology, and reviewed by Index Management.</li> </ol> <p>No exceptions were noted.</p> <p>On a sample basis, across regions and across asset classes, we inspected evidence that data inputs in the calculation of indices were:</p> <ol style="list-style-type: none"> <li>1. Reviewed by Market Management for equity indices,</li> <li>2. Reviewed by Index Management for fixed income and commodity indices.</li> </ol> <p>No exceptions were noted.</p>

<p>mechanisms are effective, in line with principles 16 to 19; and</p> <p>iv. Providing robust infrastructure, policies and procedures for the management of risk, including operational risk.</p> <p>c) Whistleblowing mechanism</p> <p>d) Administrators should establish an effective whistleblowing mechanism to facilitate early awareness of any potential misconduct or irregularities that may arise. This mechanism should allow for external reporting of such cases where appropriate.</p> <p>e) Expertise:</p> <p>i. Ensuring Benchmark determinations are made by personnel who possess the relevant levels of expertise, with a process for periodic review of their competence; and</p> <p>ii. Staff training, including ethics and conflicts of interest training, and continuity and succession planning for personnel.</p> <p>Where a Benchmark is based on Submissions: Administrators should promote the integrity of inputs by:</p> <p>a) Ensuring as far as possible that the Submitters comprise an appropriately representative group of participants taking into consideration the underlying Interest measured by the Benchmark;</p> <p>b) Employing a system of appropriate measures so that, to the extent possible, Submitters comply with the Submission guidelines, as defined in the Submitter Code of Conduct and the Administrators' applicable quality and integrity standards for Submission;</p> <p>c) Specifying how frequently Submissions should be made and specifying that inputs or</p>	<p>governance, quality and operational standards as well as S&amp;P DJI's compliance with or adherence to applicable regulatory requirements or adopted industry guidelines and principles. This Committee also oversees the management of complaints, in line with principles 16 to 19.</p> <p>iv. The Index Production &amp; Management Group ("IMPG") is responsible for the calculation and dissemination of S&amp;P DJI's Benchmarks and is supported by the Information Technology ("IT") group. The following processes are used:</p> <ul style="list-style-type: none"> <li>▪ Benchmark calculation: Automated Benchmark calculations are performed on technology platforms owned and operated by S&amp;P DJI with limited exceptions. Procedural documentation govern each of these processes.</li> <li>▪ Benchmark calculation QA: Utilizing a risk-based approach and sampling methodology, the S&amp;P DJI Quality &amp; Internal Risk and Controls teams lead various functions to execute S&amp;P DJI's Benchmark calculation QA. S&amp;P DJI maintains an incident tracking program, managed by the Deputy Chief Operating Officer and supported by IT and IMPG. Collectively these groups review incidents in the Benchmark determination process and the status of any such incidents.</li> <li>▪ Data QA: Validation checks are performed over the data inputs used in the Benchmark calculations.</li> <li>▪ Dissemination QA: files distributed through the dissemination system</li> </ul>	<p>For a sample of vendors, we inspected that the upload of data input feeds to the calculation system were complete. No exceptions were noted.</p> <p>We tested user access to the index calculation systems. Further, we tested changes made to the systems were appropriate. No exceptions were noted.</p> <p>For a sample of indices, we inspected evidence of Index compositions having been updated in line with their respective methodology, and that changes impacting index composition were announced in line with the Index Public Announcement Policy and Procedure. No exceptions were noted.</p> <p>We inspected the controls over the dissemination of index files. We inspected the population of users with access to the dissemination system. No exceptions were noted.</p> <p>We inspected the file delivery platform validation Quality Assurance ("QA") review process, which validates changes made to the file delivery platform. No exceptions were noted.</p> <p>For all policies that govern the integrity of indices, we inspected the following:</p> <ol style="list-style-type: none"> <li>1. The latest version of the policy in place,</li> <li>2. Evidence of the policy having been reviewed</li> <li>3. Where applicable, evidence of updated training having been provided which reflects changes made to the policy.</li> </ol> <p>No exceptions were noted.</p>
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<p>Submissions should be made for every Benchmark determination; and</p> <p>d) Establishing and employing measures to effectively monitor and scrutinize inputs or Submissions. This should include pre-compilation or pre-publication monitoring to identify and avoid errors in inputs or Submissions, as well as ex-post analysis of trends and outliers.</p>	<p>are reviewed to validate consistency with the underlying files retained in the system’s platform — through this validation process, the QA team will identify any reconfiguration changes impacting the integrity of the files disseminated to customers and will investigate any such changes, should they occur.</p> <p>c) S&amp;P Global employs a whistleblowing mechanism described below and both S&amp;P Global and S&amp;P DJI encourage internal and external escalation of concerns through available mediums including S&amp;P Global’s Ethics Helpline.</p> <p>d) S&amp;P Global employs a whistleblowing mechanism that includes a web-based and telephone based hotline for anonymous reporting, managed by a 3<sup>rd</sup> party. All concerns are reviewed and investigated by Human Resources, Compliance and Internal Audit, as applicable. In addition, S&amp;P DJI employs a complaints process that provides a mechanism for external reporting of potential concerns (refer to S&amp;P DJI’s statement regarding Principle 16).</p> <p>e) Expertise:</p> <p>i. S&amp;P DJI promotes a performance-based culture and all employees, including those responsible for the Benchmark determination process, are reviewed on an annual basis by their respective managers and measured against a set of competencies and goals. S&amp;P DJI internal Index Committee Members’ core competencies are evaluated to ensure continued achievement of their goals.</p> <p>ii. S&amp;P Global and S&amp;P DJI’s Training Department administers business and</p>	<p>We obtained and reviewed evidence of employee attendance at index governance training and performed the following:</p> <ol style="list-style-type: none"> <li>1. Inspected the training materials to ensure the necessary topics were covered</li> <li>2. For a sample of employees, we inspected for evidence of attendance</li> <li>3. If employee training was not completed in a timely fashion, obtained an understanding of the delay and inspected evidence of the resolution / follow up.( if applicable)</li> </ol> <p>No exceptions were noted.</p> <p>We inspected materials used to provide training on the Code of Business Ethics (“COBE”). For a sample of employees, we inspected evidence of employee certification of adherence with the COBE.</p> <p>No exceptions were noted.</p> <p>For a sample of employees involved in the Benchmark administration and determination process, we obtained their annual performance review and inspected for evidence that:</p> <ol style="list-style-type: none"> <li>1. Employee goals are not linked, or, dependent upon the performance of indices</li> <li>2. Employee performance is measured against pre-set goals</li> <li>3. Performance issues (if applicable) are reflected in review and investigated</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of external correspondence, we inspected evidence that Client Services classified and escalated the correspondence in line with policy.</p> <p>No exceptions were noted.</p>
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	<p>compliance trainings focused on ensuring employees understand the policies and procedures that apply to the Benchmark determination process, including conflicts of interest, protection of confidential information and professional conduct. Succession and continuity planning is annually assessed and addressed, if necessary.</p> <p>The S&amp;P DJI control framework for the Benchmark development process also includes a review process for all new indices by the following additional Committees:</p> <ul style="list-style-type: none"> <li>• New index review committees: new Benchmark concepts are approved by this committee before being developed. This committee is comprised of representatives of key business and functional areas and is chaired by the S&amp;P DJI Deputy Chief Operating Officer.</li> <li>• New methodology review committees (or the appropriate Index Committee): new Methodology documents are reviewed for completeness, accuracy and consistency. The committees are comprised of senior members from IMPG and chaired by the Index Governance Group.</li> </ul> <p>With respect to Benchmarks based on Submissions, S&amp;P DJI's statement regarding Principle 14 describes S&amp;P DJI's policies and procedures related to Data Submitters and Submissions. S&amp;P DJI maintains quality assurance processes and procedures for the collection of its data/ inputs. The quality assurance processes and procedures include (1) the monitoring of data/inputs, (2) the comparison of inputs from different data sources (when available), (3) the analysis of detected incidents/errors, (if any) and the monitoring and review of output data provided by Benchmark calculation agents (e.g., Benchmark level</p>	<p>We obtained and reviewed the succession plan that indicates the Company's plan for transitioning key employees and inspected for evidence of the following:</p> <ol style="list-style-type: none"> <li>1. Approval, if significant changes made, by members of the Operating Committee. No instances noted.</li> <li>2. Inclusion of considerations of competencies and experiences required for each successor.</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of Data Submitters, we inspected for evidence that:</p> <ol style="list-style-type: none"> <li>1. Submitter Code of Conduct was sent via a negative assurance confirmation</li> <li>2. Responses were reviewed and any issues were investigated and resolved timely</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of Internal Risk and Control team incident review meetings, we obtained evidence that:</p> <ol style="list-style-type: none"> <li>1. The status of each incident was reviewed</li> <li>2. The incident was investigated, resolved and communicated to relevant stakeholders</li> <li>3. The classification of each incident was reviewed to verify no further escalation was necessary.</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of new index methodologies, we obtained the methodology document and inspected for evidence that, in line with the internal policy and procedures:</p> <ol style="list-style-type: none"> <li>1. The index is defined and, at a minimum, the following key information is included: <ol style="list-style-type: none"> <li>a. Objective</li> <li>b. Calculation</li> <li>c. Data sources used</li> </ol> </li> </ol>
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	<p>data and percentage change in Benchmark value day over day to check for anomalies).</p>	<ul style="list-style-type: none"> <li>d. Governing body</li> <li>e. Dissemination instructions</li> </ul> <ol style="list-style-type: none"> <li>2. The methodology is approved by the New Methodology Review Committee and relevant index committee.</li> <li>3. The index related to a new methodology is approved by the New Index Review Committee.</li> </ol> <p>No exceptions were noted.</p>
<p><b>5. Internal Oversight</b></p> <p>Administrators should establish an oversight function to review and provide challenge on all aspects of the Benchmark determination process. This should include consideration of the features and intended, expected or known usage of the Benchmark and the materiality of existing or potential conflicts of interest identified.</p> <p>The oversight function should be carried out either by a separate committee, or other appropriate governance arrangements. The oversight function and its composition should be appropriate to provide effective scrutiny of the Administrator. Such oversight function could consider groups of Benchmarks by type or asset class, provided that it otherwise complies with this Principle.</p> <p>An Administrator should develop and maintain robust procedures regarding its oversight function, which should be documented and available to relevant Regulatory Authorities, if any. The main features of the procedures should be Made Available to Stakeholders. These procedures should include:</p> <ol style="list-style-type: none"> <li>a) The terms of reference of the oversight function;</li> <li>b) Criteria to select members of the oversight function;</li> <li>c) The summary details of membership of any committee or arrangement charged with the oversight function, along with any declarations of conflicts of interest and processes for</li> </ol>	<p>From a conflicts of interest perspective, S&amp;P DJI's oversight function is captured in S&amp;P DJI's statement regarding Principle 3.</p> <p>From a Benchmark determination process perspective, S&amp;P DJI's Index Committees are established to serve as the Benchmark governance body and oversee the Benchmark design. Index Committees are comprised of member from the Index Management &amp; Production Group and the Index Governance Group. In addition to serving as chairs of Index Committees, members of the Index Governance Group provide oversight support to the Index Committees to ensure adherence to key policies and procedures and standards that pertain to the Benchmark governance function.</p> <p>Index Committees for groups of Benchmarks are responsible for ensuring that such Benchmarks are calculated in accordance with their respective methodologies. Each Index Committee is assigned a group of S&amp;P DJI Benchmarks and is responsible for the maintenance and implementation of their respective Methodologies including overseeing and implementing any changes to the Methodology, assessing whether the Methodology continues to achieve its stated objective and appropriately measures the underlying Interest, and ensuring any changes made to the methodologies are made in accordance with our applicable internal policies and procedures.</p> <p>In addition to its governance of Benchmarks and maintenance of Benchmark Methodologies, the Index</p>	<p>For a sample of new index committees, we obtained the committee charter and inspected for evidence that, in line with the internal policy and procedures:</p> <ol style="list-style-type: none"> <li>1. 1. The following key information is included: <ul style="list-style-type: none"> <li>a. Governance</li> <li>b. Responsibilities</li> <li>c. Conflicts of interest</li> <li>d. Data confidentiality</li> <li>e. Membership requirements</li> </ul> </li> <li>2. Charter was approved by Committee Members</li> </ol> <p>No exceptions were noted.</p> <p>The review of existing index methodologies is performed by the Index Committees as part of S&amp;P DJI's annual periodic review; refer to Principle 10.</p> <p>For a sample of changes to existing index methodologies, we obtained the methodology document and inspected for evidence that, in line with the internal policy and procedures:</p> <ol style="list-style-type: none"> <li>1. The benchmark is defined and, at a minimum, the following key information is included: <ul style="list-style-type: none"> <li>a. Objective</li> <li>b. Calculation</li> <li>c. Data sources used</li> <li>d. Governing body</li> <li>e. Dissemination instructions</li> </ul> </li> <li>2. Reason for change is consistent with underlying interest of the benchmark</li> <li>3. The methodology is approved by the relevant Index Committee</li> </ol>

<p>election, nomination or removal and replacement of committee members.</p> <p>The responsibilities of the oversight function include:</p> <p>a) Oversight of the Benchmark design:</p> <ul style="list-style-type: none"> <li>i. Periodic review of the definition of the Benchmark and its Methodology;</li> <li>ii. Taking measures to remain informed about issues and risks to the Benchmark, as well as commissioning external reviews of the Benchmark (as appropriate);</li> <li>iii. Overseeing any changes to the Benchmark Methodology, including assessing whether the Methodology continues to appropriately measure the underlying Interest, reviewing proposed and implemented changes to the Methodology, and authorizing or requesting the Administrator to undertake a consultation with Stakeholders where known or its Subscribers on such changes as per Principle 12; and</li> <li>iv. Reviewing and approving procedures for termination of the Benchmark, including guidelines that set out how the Administrator should consult with Stakeholders about such cessation.</li> </ul> <p>b) Oversight of the integrity of Benchmark determination and control framework:</p> <ul style="list-style-type: none"> <li>i. Overseeing the management and operation of the Benchmark, including activities related to Benchmark determination undertaken by a third party;</li> <li>ii. Considering the results of internal and external audits, and following up on the implementation of remedial</li> </ul>	<p>Committees reviews each Benchmark Methodology at least annually, or more often if necessary, in order to evaluate issues and risks to the Benchmark and to ensure the Benchmarks continue to achieve their stated objectives, analyzing whether the data and Methodology are still appropriate. At the Index Committee’s discretion, a review of a Benchmark Methodology may be taken on an ad hoc basis. Provided that such review of the Benchmark Methodology is sufficiently comprehensive and all necessary aspects of a Methodology were reviewed, the Index Committee may determine that such ad hoc review will serve as the annual Methodology review and there is no need for another assessment during the annual period. S&amp;P DJI’s Internal Oversight Committee is available to review any issues that arise during the annual Methodology review process.</p> <p>S&amp;P DJI’s statement regarding Principle 13 addresses procedures and policies regarding the termination of a Benchmark.</p> <p>With respect to oversight of the integrity of the Benchmark determination process and control framework, refer to S&amp;P DJI’s statement regarding Principle 4.</p> <p>Expert Judgment: both Index Management &amp; Production Group and the Index Committees exercise Expert Judgment. S&amp;P DJI has a process to track the exercise of Expert Judgment by Index Management &amp; Production Group to calculate the Benchmark in accordance with the Methodology. In addition, S&amp;P DJI maintains records of Index Committee decisions which reflect the exercise of Expert Judgment by the Index Committee. The Index Managers and the appropriate Index Committee are responsible for overseeing the use of Expert Judgment by IMPG in the Benchmark determination process. As set forth in S&amp;P DJI’s statement regarding Principle 11(c), a description of the use of Expert Judgment in each group of Benchmarks covered by a single Methodology shall be disclosed in the Methodology document and/or White</p>	<p>No exceptions were noted.</p> <p>Refer to principle 13 for item a, iv.</p> <p>For a sample of indices, we inspected for evidence that:</p> <ul style="list-style-type: none"> <li>1. System calculated indices were calculated in line with the approved methodology, and reviewed by Index Management</li> <li>2. Third party calculations were calculated in line with the approved methodology, and reviewed by Index Management</li> <li>3. Spreadsheet calculated indices were calculated in line with the approved methodology and reviewed by Index Management.</li> </ul> <p>No exceptions were noted.</p> <p>On a sample basis, across regions and across asset classes, we inspected evidence that data inputs in the calculation of indices were:</p> <ul style="list-style-type: none"> <li>1. Reviewed by Market Management for equity indices,</li> <li>2. Reviewed by Index Management for fixed income and commodity indices.</li> </ul> <p>No exceptions were noted.</p> <p>For a sample of vendors, we inspected that the upload of data input feeds to the calculation system were complete. No exceptions were noted.</p> <p>We tested user access to the index calculation systems. Further, we tested changes made to the systems were appropriate. No exceptions were noted.</p>
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<p>actions highlighted in the results of these audits; and</p> <p>iii. Overseeing any exercise of Expert Judgment by the Administrator and ensuring Published Methodologies have been followed.</p> <p>Where conflicts of interests may arise in the Administrator due to its ownership structures or controlling interests, or due to other activities conducted by any entity owning or controlling the Administrator or by the Administrator or any of its affiliates: the Administrator should establish an independent oversight function which includes a balanced representation of a range of Stakeholders where known, Subscribers and Submitters, which is chosen to counterbalance the relevant conflict of interest.</p> <p>Where a Benchmark is based on Submissions: the oversight function should provide suitable oversight and challenge of the Submissions by:</p> <ul style="list-style-type: none"> <li>a) Overseeing and challenging the scrutiny and monitoring of inputs or Submissions by the Administrator. This could include regular discussions of inputs or Submission patterns, defining parameters against which inputs or Submissions can be analyzed, or querying the role of the Administrator in challenging or sampling unusual inputs or Submissions;</li> <li>b) Overseeing the Code of Conduct for Submitters;</li> <li>c) Establishing effective arrangements to address breaches of the Code of Conduct for Submitters; and</li> <li>d) Establishing measures to detect potential anomalous or suspicious Submissions and in case of suspicious activities, to report them, as well as any misconduct by Submitters of which it becomes aware to the relevant Regulatory Authorities, if any.</li> </ul>	<p>Paper for each such group of Benchmarks. S&amp;P DJI documents the rules and processes pertaining to the use of Expert Judgment in its internal Index Committee and Membership Policy.</p> <p>Note on ownership structure: refer to S&amp;P DJI's statement regarding Principle 3.</p> <p>Note on Benchmark Submissions: S&amp;P DJI maintains QA procedures to oversee and monitor data and inputs used for S&amp;P DJI Benchmarks. S&amp;P DJI's QA procedures are documented and can be provided upon request. S&amp;P DJI's statement regarding Principle 14 described its Submitter Code of Conduct and its related processes.</p>	<p>For a sample of indices, we inspected index compositions were updated in line with their respective methodology, and changes impacting index composition were announced in line with the Index Public Announcement Policy and Procedure. No exceptions were noted.</p> <p>We inspected the controls over the dissemination of the index files. We inspected the population of users with access to the dissemination system. No exceptions were noted.</p> <p>We inspected the file delivery platform validation QA review process, which validates changes made to the file delivery platform. No exceptions were noted.</p> <p>With respect to EY procedures on the oversight of the integrity of the Benchmark determination process and control framework, refer to Principle 4.</p> <p>Refer to Principle 17 for item b, ii.</p> <p>For a sample of instances in which Expert Judgment for constituent treatment was exercised, we obtained and inspected the index committee minutes to verify that the Expert Judgment was documented and approved. No exceptions were noted.</p> <p>For all policies that govern the integrity of indices, we inspected the following:</p> <ol style="list-style-type: none"> <li>1. The latest version of the policy in place,</li> <li>2. Evidence of the policy having been reviewed</li> <li>3. Where applicable, evidence of updated training having been provided which reflects changes made to the policy.</li> </ol> <p>No exceptions were noted.</p>
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		<p>We obtained the S&amp;P DJI’s Submitter Code of Conduct and inspected for evidence of approval by the Index Data Acquisition and Content Subscription (“IDACS”) group if updates were required. No exceptions were noted.</p> <p>For a sample of Data Submitters, we inspected for evidence that:</p> <ol style="list-style-type: none"> <li>1. Submitter Code of Conduct was sent via a negative assurance confirmation</li> <li>2. Responses were reviewed and any issues were investigated and resolved timely</li> </ol> <p>No exceptions were noted.</p>
<p><b>6. Benchmark Design</b></p> <p>The design of the Benchmark should seek to achieve, and result in an accurate and reliable representation of the economic realities of the Interest it seeks to measure, and eliminate factors that might result in a distortion of the price, rate, index or value of the Benchmark.</p> <p>Benchmark design should take into account the following generic non-exclusive features, and other factors should be considered, as appropriate to the particular Interest:</p> <ol style="list-style-type: none"> <li>a) Adequacy of the sample used to represent the Interest;</li> <li>b) Size and liquidity of the relevant market (for example whether there is sufficient trading to provide observable, transparent pricing);</li> <li>c) Relative size of the underlying market in relation to the volume of trading in the market that references the Benchmark;</li> <li>d) The distribution of trading among Market Participants (market concentration);</li> <li>e) Market dynamics (e.g., to ensure that the Benchmark reflects changes to the assets underpinning a Benchmark).</li> </ol>	<p>Each S&amp;P DJI Benchmark is designed to achieve its objective. The Methodology governing each group of Benchmarks defines the criteria to select the constituents used to achieve such objective. In developing a Benchmark intended to measure, benchmark or otherwise track an underlying Interest, S&amp;P DJI chooses the universe of constituents/“sample” that it deems appropriate to do so.</p> <p>Prior to the launch of a Benchmark, the appropriate Index Committee approves the Methodology and confirms that the universe of constituents for the applicable Benchmarks is sufficient to represent the Interest. The new methodology review committees and the Index Committees review and confirm that the Benchmark is operationally viable prior to launch. In addition, the annual Methodology review as well as the ad hoc Methodology reviews, both performed by the applicable Index Committees, involves a reassessment as to whether the universe of constituents/“sample” for the applicable Benchmarks continues to appropriately represent the Interest. Note that the universe of constituents vary with some Benchmarks broadly diversified, representing a large asset class – e.g. US Mid Cap – while other Benchmarks designed to be more narrow and precise as they are meant to achieve a different objective – e.g. a single commodity Benchmark representing that single commodity. The Index</p>	<p>For a sample of new index methodologies, we obtained the methodology document and inspected for evidence that, in line with the internal policy and procedures:</p> <ol style="list-style-type: none"> <li>1. The index is defined and, at a minimum, the following key information is included: <ol style="list-style-type: none"> <li>a. Objective</li> <li>b. Calculation</li> <li>c. Data sources used</li> <li>d. Governing body</li> <li>e. Dissemination instructions</li> </ol> </li> <li>2. The methodology is approved by the new methodology committee and relevant index committee.</li> <li>3. The index related to a new methodology is approved by the new index review committee.</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of changes to existing index methodologies, we obtained the methodology document and inspected for evidence that, in line with the internal policy and procedures:</p> <ol style="list-style-type: none"> <li>1. The benchmark is defined and, at a minimum, the following key information is included:</li> </ol>

	<p>Management &amp; Production Group also monitors the behavior of the securities/constituents in its Benchmarks for anomalous behavior and periodically reviews for structural fit and monitors the Methodology governing the Benchmarks to ensure the Benchmark continues to achieve its objective, any changes made to the methodologies are made in accordance with our applicable internal policies and procedures.</p> <p>S&amp;P DJI considers the size and liquidity of the markets its Benchmarks intend to measure but the screens used to assess both size and liquidity are used differently depending on the objective of the applicable Benchmark. For example, in the case of the Dow Jones Total Stock Market Index, the objective is to measure the entire investment universe of the US equities, so the size and liquidity screens are relaxed to capture the broad, inclusive benchmarking objective. On the other hand, the S&amp;P 500 serves as a bellwether Benchmark but also serves as a basis for liquid, investible vehicles/products, and therefore, the liquidity and size are assessed more stringently in the selection of constituents for this Benchmark. Note that S&amp;P DJI may decide not to proceed with launching certain Benchmarks if it feels that there is insufficient market size or insufficient activity to be priced properly at a given calculation frequency. S&amp;P DJI does take the relative size in relation to volume of trading in the underlying market into account for the applicable Benchmarks. S&amp;P DJI considers and assesses liquidity and price behavior; however, S&amp;P DJI does not monitor or consider the source of the distribution of secondary trading among market participants as it does not believe it is necessary, does not have the capability and does not believe it is responsible to do so.</p>	<ol style="list-style-type: none"> <li>a. Objective</li> <li>b. Calculation</li> <li>c. Data sources used</li> <li>d. Governing body</li> <li>e. Dissemination instructions</li> </ol> <ol style="list-style-type: none"> <li>2. The reason for change is consistent with underlying interest of the benchmark</li> <li>3. The methodology is approved by the relevant Index Committee</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of indices, we inspected Index compositions were updated in line with their respective methodology, and changes impacting index composition were announced in line with the Index Public Announcement Policy and Procedure. No exceptions were noted.</p>
<p><b>7. Data Sufficiency</b></p> <p>The data used to construct a Benchmark determination should be sufficient to accurately and reliably represent the Interest measured by the Benchmark and should: Be based on prices, rates, indices or values that have been formed by the competitive forces of supply and</p>	<p>S&amp;P DJI utilizes the most relevant data to represent the Interest. The sufficiency of data (e.g., coverage, formats, quality, price, delivery time, price challenge and process with vendor) is assessed and evaluated by Index Managers, who manage the calculations, and Market Managers, who assess the inputs to the index, within the Index Management and Production Group. For each group</p>	<p>For a sample of indices, we inspected for evidence that:</p> <ol style="list-style-type: none"> <li>1. System calculated indices were calculated in line with the approved methodology, and reviewed by Index Management</li> </ol>

<p>demand in order to provide confidence that the price discovery system is reliable; and Be anchored by observable transactions entered into at arm's length between buyers and sellers in the market for the Interest the Benchmark measures in order for it to function as a credible indicator of prices, rates, indices or values.</p> <p>This Principle requires that a Benchmark be based upon (i.e., anchored in) an active market having observable Bona Fide, Arms-Length Transactions. This does not mean that every individual Benchmark determination must be constructed solely of transaction data. Provided that an active market exists, conditions in the market on any given day might require the Administrator to rely on different forms of data tied to observable market data as an adjunct or supplement to transactions. Depending upon the Administrator's Methodology, this could result in an individual Benchmark determination being based predominantly, or exclusively, on bids and offers or extrapolations from prior transactions. This is further clarified in Principle 8.</p> <p>Provided that subparagraphs (a) and (b) above are met, Principle 7 does not preclude Benchmark Administrators from using executable bids or offers as a means to construct Benchmarks where anchored in an observable market consisting of Bona Fide, Arms-Length transactions.</p> <p>This Principle also recognizes that various indices may be designed to measure or reflect the performance of a rule-based investment strategy, the volatility or behavior of an index or market or other aspects of an active market. Principle 7 does not preclude the use of non-transactional data for such indices that are not designed to represent transactions and where the nature of the index is such that non-transactional data is used to reflect what the index is designed to measure. For example, certain volatility indices, which are designed to</p>	<p>of Benchmarks covered by a single Methodology (categorized by governing Methodology), these concepts are described in each applicable Methodology document.</p>	<ol style="list-style-type: none"> <li>2. Third party calculations were calculated in line with the approved methodology, and reviewed by Index Management</li> <li>3. Spreadsheet calculated indices were calculated in line with the approved methodology and reviewed by Index Management.</li> </ol> <p>No exceptions were noted.</p> <p>On a sample basis, across regions and across asset classes, we inspected evidence that data inputs in the calculation of indices were:</p> <ol style="list-style-type: none"> <li>1. Reviewed by Market Management for equity indices,</li> <li>2. Reviewed by Index Management for fixed income and commodity indices.</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of vendors, we inspected that the upload of data input feeds to the calculation system were complete. No exceptions were noted.</p>
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<p>measure the expected volatility of an index of securities transactions, rely on non-transactional data, but the data is derived from and thus “anchored” in an actual functioning securities or options market.</p>		
<p><b>8. Hierarchy of Data Inputs</b></p> <p>An Administrator should establish and Publish or Make Available clear guidelines regarding the hierarchy of data inputs and exercise of Expert Judgment used for the determination of Benchmarks. In general, the hierarchy of data inputs should include:</p> <ol style="list-style-type: none"> <li>a) Where a Benchmark is dependent upon Submissions, the Submitters’ own concluded arms-length transactions in the underlying interest or related markets;</li> <li>b) Reported or observed concluded Arm’s-length Transactions in the underlying interest;</li> <li>c) Reported or observed concluded Arm’s-length Transactions in related markets;</li> <li>d) Firm (executable) bids and offers; and</li> <li>e) Other market information or Expert Judgments.</li> </ol> <p>Provided that the Data Sufficiency Principle is met (i.e., an active market exists), this Principle is not intended to restrict an Administrator’s flexibility to use inputs consistent with the Administrator’s approach to ensuring the quality, integrity, continuity and reliability of its Benchmark determinations, as set out in the Administrator’s Methodology. The Administrator should retain flexibility to use the inputs it believes are appropriate under its Methodology to ensure the quality and integrity of its Benchmark. For example, certain Administrators may decide to rely upon Expert Judgment in an active albeit low liquidity market, when transactions may not be consistently available each day. IOSCO also recognizes that there might be circumstances (e.g., a low liquidity market) when a confirmed bid or offer might carry more meaning than an outlier transaction. Under these circumstances, non-transactional data such as bids and offers and</p>	<p>The Data Hierarchies vary by Benchmark and are described in the applicable Methodology documents. All data are anchored in actual market activity or transactions.</p> <ul style="list-style-type: none"> <li>• In general, equity Benchmarks use transaction prices. Additional detail is available in S&amp;P DJI’s Equity Policies and Practices Document, available on the S&amp;P DJI website.</li> <li>• For fixed income Benchmarks, the majority use evaluated prices, which are prices created by third parties using a variety of sources, depending on the particular asset class. Refer to S&amp;P DJI’s Fixed Income Policies and Practices Document for more details. This technique is used widely in the marketplace because few fixed income instruments trade frequently enough to use arm’s length transactions only.</li> <li>• For commodity Benchmarks, transaction prices are used. Refer to S&amp;P DJI’s Commodity Policies and Practices Document for more details.</li> <li>• For economic Benchmarks, arm’s length transactions are most often used (although not necessarily securities prices as they are generally not applicable).</li> </ul> <p>Where a market price or data derived from market price behavior can be used, S&amp;P DJI will seek to use such data to calculate the Benchmark. In other cases, where other sorts of derived or judgment-created data are employed, they are derived from sources believed to be objective and consistent with the Benchmark’s objective.</p>	<p>For a sample of new index methodologies, we obtained the methodology document and inspected for evidence that, in line with the internal policy and procedures:</p> <ol style="list-style-type: none"> <li>1. The index is defined and, at a minimum, the following key information is included: <ol style="list-style-type: none"> <li>a. Objective</li> <li>b. Calculation</li> <li>c. Data sources used</li> <li>d. Governing body</li> <li>e. Dissemination instructions</li> </ol> </li> <li>2. The methodology is approved by the new methodology committee and relevant index committee.</li> <li>3. The index related to a new methodology is approved by the new index review committee.</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of changes to existing index methodologies, we obtained the methodology document and inspected for evidence that, in line with the internal policy and procedures:</p> <ol style="list-style-type: none"> <li>1. The benchmark is defined and, at a minimum, the following key information is included: <ol style="list-style-type: none"> <li>a. Objective</li> <li>b. Calculation</li> <li>c. Data sources used</li> <li>d. Governing body</li> <li>e. Dissemination instructions</li> </ol> </li> <li>2. The reason for change is consistent with underlying interest of the benchmark</li> <li>3. The methodology is approved by the relevant Index Committee</li> </ol> <p>No exceptions were noted.</p>

<p>extrapolations from prior transactions might predominate in a given Benchmark determination.</p>		
<p><b>9. Transparency of Benchmark Determinations</b></p> <p>The Administrator should describe and publish with each Benchmark determination, to the extent reasonable without delaying an Administrator publication deadline:</p> <p>a) A concise explanation, sufficient to facilitate a Stakeholder's or Market Authority's ability to understand how the determination was developed, including, at a minimum, the size and liquidity of the market being assessed (meaning the number and volume of transactions submitted), the range and average volume and range and average of price, and indicative percentages of each type of market data that have been considered in a Benchmark determination; terms referring to the pricing Methodology should be included (i.e., transaction-based, spread-based or interpolated/extrapolated);</p> <p>b) A concise explanation of the extent to which and the basis upon which Expert Judgment if any, was used in establishing a Benchmark determination.</p>	<p>a) S&amp;P DJI publishes a Methodology document for each group of Benchmarks covered by such Methodology that includes a Policy and Practices document for each asset class which collectively provides information sufficient for a Stakeholder to understand the objective of a Benchmark, the calculation process for a Benchmark and various other aspects necessary for Stakeholders to understand the Benchmark determination process. The Index Governance Group along with IMPG and support functions are responsible for ensuring Methodology documents are published. In S&amp;P DJI's view, the most important criterion for consideration of a Benchmark by Stakeholders is the Methodology. S&amp;P DJI maintains a policy and procedure that governs the development of the Methodology and the launch of the applicable Benchmarks but such policy and procedure is not in the Methodology document.</p> <p>b) The Methodology document includes a concise explanation of the extent to which and the basis upon which Expert Judgment, if any, is used to establish and maintain the Benchmark determination as well as the guidelines, procedures and practices that control the use of and promote consistency in the exercise of Expert Judgment. Refer to Principle 11 for a description of the contents of the Methodology document. It is infeasible to give an explanation on a determination-by-determination basis given the frequency with which index values are published and the volume of indices produced each day.</p>	<p>For a sample of new index methodologies, we obtained the methodology document and inspected for evidence that, in line with the internal policy and procedures:</p> <ol style="list-style-type: none"> <li>1. The index is defined and, at a minimum, the following key information is included: <ol style="list-style-type: none"> <li>a. Objective</li> <li>b. Calculation</li> <li>c. Data sources used</li> <li>d. Governing body</li> <li>e. Dissemination instructions</li> </ol> </li> <li>2. The methodology is approved by the new methodology committee and relevant index committee.</li> <li>3. The index related to a new methodology is approved by the new index review committee.</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of changes to existing index methodologies, we obtained the methodology document and inspected for evidence that, in line with the internal policy and procedures:</p> <ol style="list-style-type: none"> <li>1. The benchmark is defined and, at a minimum, the following key information is included: <ol style="list-style-type: none"> <li>a. Objective</li> <li>b. Calculation</li> <li>c. Data sources used</li> <li>d. Governing body</li> <li>e. Dissemination instructions</li> </ol> </li> <li>2. The reason for change is consistent with underlying interest of the benchmark</li> <li>3. The methodology is approved by the relevant Index Committee</li> </ol> <p>No exceptions were noted.</p>

		<p>For a sample of new and changed methodologies, we inspected that the related documents were publicly available on the S&amp;P DJI website. No exceptions were noted.</p> <p>For a sample of instances in which Expert Judgment for constituent treatment was exercised, we obtained and inspected the index committee minutes to verify that the Expert Judgment was documented and approved. No exceptions were noted.</p>
<p><b>10. Periodic Review</b></p> <p>The Administrator should periodically review the conditions in the underlying Interest that the Benchmark measures to determine whether the Interest has undergone structural changes that might require changes to the design of the Methodology. The Administrator also should periodically review whether the Interest has diminished or is non-functioning such that it can no longer function as the basis for a credible Benchmark.</p> <p>The Administrator should Publish or Make Available a summary of such reviews where material revisions have been made to a Benchmark, including the rationale for the revisions.</p>	<p>Index Committees are responsible for Methodologies that govern the relevant groups of S&amp;P DJI Benchmarks for which they oversee. Such responsibility involves meeting as often as appropriate at the Index Committee’s discretion but at least annually, in order to evaluate issues and risks to the Benchmark, assess whether the Methodology continues to appropriately measure the underlying Interest and achieve its stated objective and analyze a variety of criteria about whether the data and Methodology are still effective. The Index Governance Group is responsible for ensuring all Methodology documents are reviewed on at least an annual basis.</p> <p>S&amp;P DJI’s Index Governance Group works with IMPG and support functions to ensure all material revisions, to a Benchmark Methodology are published; however, such publication does not include the rationale for the revisions to such Methodology as the rationale is always to achieve the objective of the Benchmark it governs which is documented in the published Methodology.</p>	<p>For a sample of existing methodologies, we obtained the methodology document and inspected for evidence that it was reviewed and approved by the Index Committee on an annual basis. No exceptions were noted.</p> <p>For a sample of new index methodologies, we obtained the methodology document and inspected for evidence that, in line with the internal policy and procedures:</p> <ol style="list-style-type: none"> <li>1. The index is defined and, at a minimum, the following key information is included: <ol style="list-style-type: none"> <li>a. Objective</li> <li>b. Calculation</li> <li>c. Data sources used</li> <li>d. Governing body</li> <li>e. Dissemination instructions</li> </ol> </li> <li>2. The methodology is approved by the new methodology committee and relevant index committee.</li> <li>3. The index related to a new methodology is approved by the new index review committee.</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of changes to existing index methodologies, we obtained the methodology document and inspected for evidence that, in line with the internal policy and procedures:</p>

		<ol style="list-style-type: none"> <li>1. The benchmark is defined and, at a minimum, the following key information is included: <ol style="list-style-type: none"> <li>a. Objective</li> <li>b. Calculation</li> <li>c. Data sources used</li> <li>d. Governing body</li> <li>e. Dissemination instructions</li> </ol> </li> <li>2. The reason for change is consistent with underlying interest of the benchmark</li> <li>3. The methodology is approved by the relevant Index Committee</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of new and changed methodologies, we inspected that the related documents were publicly available on the S&amp;P DJI website. No exceptions were noted.</p>
<p><b>11. Content of Methodology</b></p> <p>The Administrator should document and Publish or Make Available the Methodology used to make Benchmark determinations. The Administrator should provide the rationale for adopting a particular Methodology. The Published Methodology should provide sufficient detail to allow Stakeholders to understand how the Benchmark is derived and to assess its representativeness, its relevance to particular Stakeholders, and its appropriateness as a reference for financial instruments.</p> <p>At a minimum, the Methodology should contain:</p> <ol style="list-style-type: none"> <li>a) Definitions of key terms;</li> <li>b) All criteria and procedures used to develop the Benchmark, including input selection, the mix of inputs used to derive the Benchmark, the guidelines that control the exercise of Expert Judgment by the Administrator, priority given to certain data types, minimum data needed to</li> </ol>	<p>S&amp;P DJI makes its Methodology documents publicly available. S&amp;P DJI endeavors to provide sufficient information for Stakeholders and/or Market Participants to understand the applicable Benchmarks' Methodologies, the objective of the group of Benchmarks covered by each such Methodology and the determination process for such group of Benchmarks, all so that a Stakeholder or Market Participant can determine for themselves whether the applicable Benchmark is appropriate and meets their needs. S&amp;P DJI believes its Methodology documents provide a clear explanation of the Methodology governing its Benchmarks and the objective of those Benchmarks and address those items set forth in this Principle 11 that S&amp;P DJI deems to be appropriate. There are some items set forth in this Principle 11 not addressed in S&amp;P DJI's Methodology documents; each such item is further explained below. S&amp;P DJI believes that by providing the information it outlines in the Methodology documents, Stakeholders and Market Participants, particularly those bearing the risk associated with the use of a particular</p>	<p>For a sample of new index methodologies, we obtained the methodology document and inspected for evidence that, in line with the internal policy and procedures:</p> <ol style="list-style-type: none"> <li>1. The index is defined and, at a minimum, the following key information is included: <ol style="list-style-type: none"> <li>a. Objective</li> <li>b. Calculation</li> <li>c. Data sources used</li> <li>d. Governing body</li> <li>e. Dissemination instructions</li> </ol> </li> <li>2. The methodology is approved by the new methodology committee and relevant index committee.</li> <li>3. The index related to a new methodology is approved by the new index review committee.</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of changes to existing index methodologies, we obtained the methodology</p>

<p>determine a Benchmark, and any models or extrapolation methods;</p> <p>c) Procedures and practices designed to promote consistency in the exercise of Expert Judgment between Benchmark determinations;</p> <p>d) The procedures which govern Benchmark determination in periods of market stress or disruption, or periods where data sources may be absent (e.g., theoretical estimation models);</p> <p>e) The procedures for dealing with error reports, including when a revision of a Benchmark would be applicable;</p> <p>f) Information regarding the frequency for internal reviews and approvals of the Methodology. Where applicable, the Published Methodologies should also include information regarding the procedures and frequency for external review of the Methodology;</p> <p>g) The circumstances and procedures under which the Administrator will consult with Stakeholders, as appropriate; and</p> <p>h) The identification of potential limitations of a Benchmark, including its operation in illiquid or fragmented markets and the possible concentration of inputs.</p> <p>Where a Benchmark is based on Submissions, the additional Principle also applies: The Administrator should clearly establish criteria for including and excluding Submitters. The criteria should consider any issues arising from the location of the Submitter, if in a different jurisdiction to the Administrator. These criteria should be available to any relevant Regulatory Authorities, if any, and Published or Made Available to Stakeholders. Any provisions related to changes in composition, including notice periods should be made clear.</p>	<p>Benchmark in a particular market, are well positioned to decide which Benchmark best suits their needs.</p> <p>With respect to providing “the rationale for adopting a particular Methodology,” S&amp;P DJI believes that the rationale for each Benchmark Methodology design is to attain the Benchmark objective and effectively measure the underlying Interest of the Benchmark. By describing the Benchmark and the objective of the Benchmarks governed by an applicable Methodology, S&amp;P DJI feels the rationale for S&amp;P DJI’s adoption of the Methodology is provided.</p> <p>With respect to item (b), while S&amp;P DJI does not explain how a particular Benchmark is developed, it does explain the calculation formula, the objective, and other various factors. For example, S&amp;P DJI describes the overall characteristics of the constituents, but not their individual attributes (nor constituent level data) in its methodologies because such extraneous information is likely to detract from the overall intent of the Methodology document, which is to provide sufficient detail to assess the Benchmark’s representativeness and appropriateness. Also, although S&amp;P DJI maintains a policy and procedure to develop a new Methodology, such policy and procedure is not disclosed in Methodology document as S&amp;P DJI does not deem this to be relevant information for a Market Participant or Stakeholder. The process for arriving at a particular Benchmark is quite varied as Benchmarks are developed from a variety of internal and external sources with differing modes of inquiry. The ultimate result of the Benchmark development process is captured in the resulting publicly available Methodology which S&amp;P DJI believes should be evaluated on its own merit.</p> <p>Limitations of Benchmark - S&amp;P DJI endeavors to provide information sufficient for market participants to understand the Benchmark, its Methodology, its objective and the determination process for each of its Benchmarks. Market Participants who bear the risk associated with the use of a</p>	<p>document and inspected for evidence, that in line with the internal policy and procedures:</p> <ol style="list-style-type: none"> <li>1. The benchmark is defined, and at a minimum, the following key information was included: <ol style="list-style-type: none"> <li>a. Objective</li> <li>b. Calculation</li> <li>c. Data sources used</li> <li>d. Governing body</li> <li>e. Dissemination instructions</li> </ol> </li> <li>2. Reason for change was consistent with underlying interest of the benchmark</li> <li>3. Methodology was approved by the relevant Index Committee</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of new and changed methodologies, we inspected that the related documents were publicly available on the S&amp;P DJI website. No exceptions noted.</p> <p>Refer to Principle 2 for procedures in place for due diligence and/or monitoring of vendors, including Data Submitters.</p>
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	<p>particular Benchmark can and should determine the limitations and suitability of Benchmarks for themselves with this information and decide which Benchmarks best suit their needs. It is the responsibility of the Stakeholders and Market Participants to evaluate the potential limitations of a Benchmark vis-à-vis their needs and desired outcome for their particular application. S&amp;P DJI does not determine whether a particular Benchmark is suitable for a particular investor. S&amp;P DJI is not an investment advisor, and does not receive compensation for advising Market Participants or Stakeholders on what Benchmarks best suit their respective needs.</p> <p>S&amp;P DJI's Index Governance Group is responsible for creating and, working with the appropriate functional teams, to Publish or Make Available the Methodology documents.</p> <p>Refer to S&amp;P DJI's statement regarding Principle 2 for further information regarding due diligence and/or monitoring procedures for its vendors, including Data Submitters.</p>	
<p><b>12. Changes to Methodology</b></p> <p>An Administrator should Publish or Make Available the rationale of any proposed material change in its Methodology, and procedures for making such changes. These procedures should clearly define what constitutes a material change, and the method and timing for consulting or notifying Subscribers (and other Stakeholders where appropriate, taking into account the breadth and depth of the Benchmark's use) of changes.</p> <p>Those procedures should be consistent with the overriding objective that an Administrator must ensure the continued integrity of its Benchmark determinations. When changes are proposed, the Administrator should specify exactly what these changes entail and when they are intended to apply.</p>	<p>S&amp;P DJI publishes all material changes to its Methodologies in accordance with its Index Methodology Policy and Procedure and its Index Announcement Policy and Procedure. Any publication of a material change includes an effective date of such change. S&amp;P DJI seeks Stakeholder input as described below. Changes to Benchmark Methodologies are implemented pursuant to S&amp;P DJI's Index Methodology Policy and Procedures and all such changes are reviewed and approved by the appropriate Index Committee.</p> <p>When assessing the time-sensitivity and materiality of any potential change to a Benchmark or Methodology, the Index Committee seeks input from Stakeholders by working with appropriate internal teams through a consultation process. Potential changes to a Benchmark or Methodology considered to be non-time sensitive and material by the Index Committee will be posted on S&amp;P</p>	<p>For a sample of changes to existing index methodologies, we obtained the methodology document and inspected for evidence that, in line with the internal policy and procedures:</p> <ol style="list-style-type: none"> <li>1. The benchmark is defined and, at a minimum, the following key information is included: <ol style="list-style-type: none"> <li>a. Objective</li> <li>b. Calculation</li> <li>c. Data sources used</li> <li>d. Governing body</li> <li>e. Dissemination instructions</li> </ol> </li> <li>2. The reason for change is consistent with underlying interest of the benchmark</li> <li>3. The methodology is approved by the relevant Index Committee</li> </ol> <p>No exceptions were noted.</p>

<p>The Administrator should specify how changes to the Methodology will be scrutinized by the oversight function.</p> <p>The Administrator should develop Stakeholder consultation procedures in relation to changes to the Methodology that are deemed material by the oversight function, and that are appropriate and proportionate to the breadth and depth of the Benchmark's use and the nature of the Stakeholders. Procedures should:</p> <ul style="list-style-type: none"> <li>a) Provide advance notice and a clear timeframe that gives Stakeholders sufficient opportunity to analyze and comment on the impact of such proposed material changes, having regard to the Administrator's assessment of the overall circumstances; and</li> <li>b) Provide for Stakeholders' summary comments and the Administrator's summary response to those comments, to be made accessible to all Stakeholders after any given consultation period, except where the commenter has requested confidentiality.</li> </ul>	<p>DJI's website, providing Stakeholders the ability to comment and S&amp;P DJI, and at its own discretion, will have focused discussions with Stakeholders. Notice of resulting changes is made via public posting on the S&amp;P DJI website.</p> <p>S&amp;P DJI believes the important aspect of this Principle is to obtain feedback from Stakeholders rather than publicize comments provided during the consultation process. Therefore, S&amp;P DJI may, at its discretion, provide a summary of Stakeholder comments received during a consultation. S&amp;P DJI believes this approach encourages more participation in the consultation process and focuses the ultimate announcement on the change made to any applicable Methodology.</p>	<p>For a sample of consultations, new methodologies and changed methodologies, we inspected that the related documents were publicly available on the S&amp;P DJI website. No exceptions were noted.</p> <p>We inspected user access to the index governance and announcement system. Further, we inspected that changes made to the system were appropriate. No exceptions were noted.</p> <p>For all policies that govern the integrity of indices, we inspected the following:</p> <ol style="list-style-type: none"> <li>1. The latest version of the policy in place,</li> <li>2. Evidence of the policy having been reviewed</li> <li>3. Where applicable, evidence of updated training having been provided which reflects changes made to the policy.</li> </ol> <p>No exceptions were noted.</p>
<p><b>13. Transition</b></p> <p>Administrators should have clear written policies and procedures, to address the need for possible cessation of a Benchmark, due to market structure change, product definition change, or any other condition which makes the Benchmark no longer representative of its intended Interest. These policies and procedures should be proportionate to the estimated breadth and depth of contracts and financial instruments that reference a Benchmark and the economic and financial stability impact that might result from the cessation of the Benchmark. The Administrator should take into account the views of Stakeholders and any relevant Regulatory and National Authorities in determining what policies</p>	<p>S&amp;P DJI maintains an internal Benchmark cessation checklist that is used in connection with the termination of a Benchmark. Benchmark cessation is coordinated through the S&amp;P DJI Global Index Launch team and reviewed by the applicable Index Committee who works with various groups throughout S&amp;P DJI as necessary. By providing the information S&amp;P DJI provides in its Methodology documents, Stakeholders and Market Participants, particularly those bearing the risk associated with the use of a particular Benchmark in a particular market, are typically well positioned to decide which Benchmark best suits their needs and what fall-back provisions are necessary in the event a Benchmark has a material change or is terminated.</p>	<p>For a sample of decommissioned indices, we inspected for evidence that:</p> <ol style="list-style-type: none"> <li>1. The decommission checklist was completed, which includes communication to stakeholders and notification to relevant Index Management personnel</li> <li>2. The decommission checklist was approved by Index Management</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of new customer contracts, we inspected for evidence that:</p> <ol style="list-style-type: none"> <li>1. Appropriate fall-back provisions are included</li> </ol>

<p>and procedures are appropriate for a particular Benchmark.</p> <p>These written policies and procedures should be Published or Made Available to all Stakeholders.</p> <p>Administrators should encourage Subscribers and other Stakeholders who have financial instruments that reference a Benchmark to take steps to make sure that:</p> <ul style="list-style-type: none"> <li>a) Contracts or other financial instruments that reference a Benchmark, have robust fall-back provisions in the event of material changes to, or cessation of, the referenced Benchmark; and</li> <li>b) Stakeholders are aware of the possibility that various factors, including external factors beyond the control of the Administrator, might necessitate material changes to a Benchmark.</li> </ul> <p>Administrators' written policies and procedures to address the possibility of Benchmark cessation could include the following factors, if determined to be reasonable and appropriate by the Administrator:</p> <ul style="list-style-type: none"> <li>a) Criteria to guide the selection of a credible, alternative Benchmark such as, but not limited to, criteria that seek to match to the extent practicable the existing Benchmark's characteristics (e.g., credit quality, maturities and liquidity of the alternative market), differentials between Benchmarks, the extent to which an alternative Benchmark meets the asset/liability needs of Stakeholders, whether the revised Benchmark is investable, the availability of transparent transaction data, the impact on Stakeholders and impact of existing legislation;</li> <li>b) The practicality of maintaining parallel Benchmarks (e.g., where feasible, maintain the existing Benchmark for a defined period of time to permit existing contracts and financial instruments to mature and publish a new</li> </ul>	<p>The responsibility to ensure contracts or other financial instruments have robust fall-back provisions rests with the issuers of the contracts or financial instruments leveraging the Benchmarks. However, S&amp;P DJI does include termination provisions in its license agreements that put SPDJI's proprietary Benchmark users on notice that S&amp;P DJI may cease publishing a Benchmark during the term of the agreement and if such event does occur, S&amp;P DJI would provide affected clients with notice to prepare for a switch in Benchmarks, but is not contractually obligated to provide an alternative. In certain instances when a Benchmark user believes a more detailed wind-down clause is needed, S&amp;P DJI does consider requested modifications to such termination provisions.</p> <p>There is no public disclosure of transition assessment as this is highly sensitive. As the Benchmark industry is highly competitive, S&amp;P DJI Benchmark users frequently have various choices to replace existing Benchmarks. While S&amp;P DJI endeavors to make clear what a Benchmark is intended to reflect through its published Methodologies and open processes and procedures, S&amp;P DJI does not endeavor to suggest how a Benchmark should be used or how various Benchmarks are developed and used for different objectives and purposes. Market Participants, particularly those bearing the risk associated with the use of a particular Benchmark in a particular market, are typically well positioned to decide which Benchmark best suits their needs and what Benchmark could be a suitable substitute in the event the initial Benchmark is no longer published.</p> <p>Also, S&amp;P DJI is not in a position to perform due diligence on Benchmark substitutes at competitive firms.</p> <p>S&amp;P DJI does not take the suitability of any particular Stakeholders into account when maintaining our Benchmarks. S&amp;P DJI is not an investment advisor, and does not receive compensation from Stakeholders for</p>	<p>2. Contracts were approved by Global Legal &amp; Regulatory Affairs Department</p> <p>No exceptions were noted.</p>
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<p>Benchmark) in order to accommodate an orderly transition to a new Benchmark;</p> <p>c) The procedures that the Administrator would follow in the event that a suitable alternative cannot be identified;</p> <p>d) In the case of a Benchmark or a tenor of a Benchmark that will be discontinued completely, the policy defining the period of time in which the Benchmark will continue to be produced in order to permit existing contracts to migrate to an alternative Benchmark if necessary; and</p> <p>e) The process by which the Administrator will engage Stakeholders and relevant Market and National Authorities, as appropriate, in the process for selecting and moving towards an alternative Benchmark, including the timeframe for any such action commensurate with the tenors of the financial instruments referencing the Benchmarks and the adequacy of notice that will be provided to Stakeholders.</p>	<p>advising them on what Benchmarks best suit their respective needs.</p>	
<p><b>14. Submitter Code of Conduct</b></p> <p>Where a Benchmark is based on Submissions, the following additional Principle also applies:</p> <p>The Administrator should develop guidelines for Submitters (“Submitter Code of Conduct”), which should be available to any relevant Regulatory Authorities, if any and Published or Made Available to Stakeholders.</p> <p>The Administrator should only use inputs or Submissions from entities which adhere to the Submitter Code of Conduct and the Administrator should appropriately monitor and record adherence from Submitters. The Administrator should require Submitters to confirm adherence to the Submitter Code of Conduct annually and whenever a change to the Submitter Code of Conduct has occurred.</p>	<p>S&amp;P DJI’s implementation of its Submitter Code of Conduct is proportional as discussed in the IOSCO Principles for Financial Benchmarks. S&amp;P DJI has implemented a process to deliver its Submitter Code of Conduct, on an annual basis, to all vendors other than a regulated exchange (stock exchange or otherwise) providing the price or value of the constituents of its Benchmarks and reserves the right not to use any data from vendors who do not meet the standards set forth in its Submitter Code of Conduct.</p> <p>S&amp;P DJI does not seek to obtain an affirmative adherence confirmation as it does not believe it is feasible but does confirm receipt of the Submitter Code of Conduct and requests the recipients to contact S&amp;P DJI if there are any issues with the concepts set forth in the Submitter Code of Conduct. When S&amp;P DJI becomes aware of problems with a particular vendor, either through its QA or incident tracking process, it will work with the vendor to resolve</p>	<p>We obtained S&amp;P DJI’s Submitter Code of Conduct and inspected for evidence of the review and approval of the Submitter Code of Conduct by the Global Legal &amp; Regulatory Affairs Department and the Index Data Acquisition and Content Subscription (IDACS) group. No exceptions were noted.</p> <p>For a sample of Data Submitters, we inspected for evidence that:</p> <ol style="list-style-type: none"> <li>1. Submitter Code of Conduct was sent via a negative assurance confirmation</li> <li>2. Responses were reviewed and any issues were investigated and resolved timely</li> </ol> <p>No exceptions were noted.</p>

<p>The Administrator’s oversight function should be responsible for the continuing review and oversight of the Submitter Code of Conduct.</p> <p>The Submitter Code of Conduct should address:</p> <ol style="list-style-type: none"> <li>a) The selection of inputs;</li> <li>b) Who may submit data and information to the Administrator;</li> <li>c) Quality control procedures to verify the identity of a Submitter and any employee(s) of a Submitter who report(s) data or information and the authorization of such person(s) to report market data on behalf of a Submitter;</li> <li>d) Criteria applied to employees of a Submitter who are permitted to submit data or information to an Administrator on behalf of a Submitter;</li> <li>e) Policies to discourage the interim withdrawal of Submitters from surveys or Panels;</li> <li>f) Policies to encourage Submitters to submit all relevant data; and</li> <li>g) The Submitters’ internal systems and controls, which should include: <ol style="list-style-type: none"> <li>i. Procedures for submitting inputs, including Methodologies to determine the type of eligible inputs, in line with the Administrator’s Methodologies;</li> <li>ii. Procedures to detect and evaluate suspicious inputs or transactions, including inter-group transactions, and to ensure the Bona Fide nature of such inputs, where appropriate;</li> <li>iii. Policies guiding and detailing the use of Expert Judgment, including documentation requirements;</li> <li>iv. Record keeping policies;</li> <li>v. Pre-Submission validation of inputs, and procedures for multiple reviews by senior staff to check inputs;</li> <li>vi. Training, including training with respect to any relevant regulation</li> </ol> </li> </ol>	<p>them directly, as necessary. Some examples of topics addressed in S&amp;P DJI’s Submitter Code of Conduct include:</p> <ul style="list-style-type: none"> <li>• Conformity of input data to agreed-upon Methodology and validation before dissemination</li> <li>• Appropriate staff delivering the data, with proper training</li> <li>• Whistleblowing</li> <li>• Conflicts of interest</li> <li>• Record keeping</li> <li>• Expert Judgment policies</li> </ul> <p>General Policy of inclusion for S&amp;P DJI’s Submitter Code of Conduct:</p> <ul style="list-style-type: none"> <li>• Included Data Submitters (non-regulated data Benchmarks only): Value or quantity of a Benchmark constituent (security price suppliers, other Benchmark level input suppliers – such as default rates)</li> <li>• Excluded: <ol style="list-style-type: none"> <li>1) Data for reporting purposes which don’t directly or indirectly value the Benchmark</li> <li>2) Data from regulated entities such as exchanges, government entities and corporate reporting through filings</li> <li>3) Third party calculators (who are covered by a separate set of guidelines)</li> <li>4) Data used to support non-financial indices.</li> </ol> </li> </ul> <p>The Index Data Acquisition and Content Subscription (IDACS) group and the Internal Risk and Control team collaborate to collect all responses and review any reports provided or obtained from Data Submitters to confirm that such third parties adhere to the Submitter Code of Conduct. In addition,- the Internal Risk and Control team, IDACS, along with the Global Legal &amp; Regulatory Affairs Department reviews the Submitter Code of Conduct to ensure its adherence with this Principle 14.</p>	
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<p>(covering Benchmark regulation or any market abuse regime);</p> <ul style="list-style-type: none"> <li>vii. Suspicious Submission reporting;</li> <li>viii. Roles and responsibilities of key personnel and accountability lines;</li> <li>ix. Internal sign off procedures by management for submitting inputs;</li> <li>x. Whistle blowing policies (in line with Principle 4); and</li> <li>xi. Conflicts of interest procedures and policies, including prohibitions on the Submission of data from Front Office Functions unless the Administrator is satisfied that there are adequate internal oversight and verification procedures for Front Office Function Submissions of data to an Administrator (including safeguards and supervision to address possible conflicts of interests as per paragraphs (v) and (ix) above), the physical separation of employees and reporting lines where appropriate, the consideration of how to identify, disclose, manage, mitigate and avoid existing or potential incentives to manipulate or otherwise influence data inputs (whether or not in order to influence the Benchmark levels), including, without limitation, through appropriate remuneration policies and by effectively addressing conflicts of interest which may exist between the Submitter's Submission activities (including all staff who perform or otherwise participate in Benchmark Submission responsibilities), and any other business of the Submitter or of any of its affiliates or any of their respective clients or customers.</li> </ul>		
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<p><b>15. Internal Controls over Data Collection</b></p> <p>When an Administrator collects data from any external source the Administrator should ensure that there are appropriate internal controls over its data collection and transmission processes. These controls should address the process for selecting the source, collecting the data and protecting the integrity and confidentiality of the data. Where Administrators receive data from employees of the Front Office Function, the Administrator should seek corroborating data from other sources.</p>	<p>As addressed in S&amp;P DJI's statement regarding Principle 4, S&amp;P DJI maintains an operational infrastructure that manages the risks associated with the maintenance, production and operation of over five-hundred thousand Benchmarks a day.</p> <p>S&amp;P DJI maintains quality assurance processes and procedures for the collection of its data/ inputs to maintain integrity and confidentiality. The quality assurance processes and procedures include; (1) the selection and monitoring of data/inputs, (2) the comparison of inputs from different data sources (when available), (3) the analysis of detected incidents/errors, (if any) and (4) the monitoring and review of output data provided by Benchmark calculation agents (e.g., Benchmark level data and percentage change in Benchmark value day over day to check for anomalies).</p> <p>Oversight of these activities, including any related to Benchmark determination undertaken by third parties, is handled by S&amp;P DJI's Internal Risk and Control team, IDACS team, Index Management &amp; Production Group, and the Index Committees.</p>	<p>For a sample of indices, we inspected for evidence that:</p> <ol style="list-style-type: none"> <li>1. System calculated indices were calculated in line with the approved methodology, and reviewed by Index Management</li> <li>2. Third party calculations were calculated in line with the approved methodology, and reviewed by Index Management</li> <li>3. Spreadsheet calculated indices were calculated in line with the approved methodology and reviewed by Index Management.</li> </ol> <p>No exceptions were noted.</p> <p>On a sample basis, across regions and across asset classes, we inspected evidence that data inputs in the calculation of indices were:</p> <ol style="list-style-type: none"> <li>1. Reviewed by Market Management for equity indices,</li> <li>2. Reviewed by Index Management for fixed income and commodity indices,</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of vendors, we inspected that the upload of data input feeds to the calculation system were complete. No exceptions were noted.</p>
<p><b>16. Complaints Process</b></p> <p>The Administrator should establish and Publish or Make Available a written complaints procedures policy, by which Stakeholders may submit complaints including concerning whether a specific Benchmark determination is representative of the underlying Interest it seeks to measure, applications of the Methodology in relation to a specific Benchmark determination(s) and other Administrator decisions in relation to a Benchmark determination.</p>	<p>S&amp;P DJI's Complaint Handling Policy, which is publicly available on S&amp;P DJI's website, details how complaints may be submitted. The Complaint Handling Policy summarizes how complaints will be investigated, and requires the review and approval by the Chief Compliance Officer of all proposed final responses to complaining parties.</p> <p>To address the Principle, S&amp;P DJI has established a user friendly mechanism allowing external parties to raise any inquiries or complaints directly to S&amp;P DJI via a Client</p>	<p>We obtained the S&amp;P DJI Complaint Handling Policy and inspected for evidence that:</p> <ol style="list-style-type: none"> <li>1. The policy detailed the procedures for submitting complaints, independently investigating and escalating complaints on a timely basis, and retaining the relevant documentation related to the complaints.</li> <li>2. The policy was approved by the Chief Compliance Officer.</li> </ol> <p>No exceptions were noted.</p>

<p>The complaints procedures policy should:</p> <ol style="list-style-type: none"> <li>a) Permit complaints to be submitted through a user-friendly complaints process such as an electronic Submission process;</li> <li>b) Contain procedures for receiving and investigating a complaint made about the Administrator’s Benchmark determination process on a timely and fair basis by personnel who are independent of any personnel who may be or may have been involved in the subject of the complaint, advising the complainant and other relevant parties of the outcome of its investigation within a reasonable period and retaining all records concerning complaints;</li> <li>c) Contain a process for escalating complaints, as appropriate, to the Administrator’s governance body; and</li> <li>d) Require all documents relating to a complaint, including those submitted by the complainant as well as the Administrator’s own record, to be retained for a minimum of five years, subject to applicable national legal or regulatory requirements.</li> </ol> <p>Disputes about a Benchmarking determination, which are not formal complaints, should be resolved by the Administrator by reference to its standard appropriate procedures. If a complaint results in a change in a Benchmark determination, that should be Published or Made Available to Subscribers and Published or Made Available to Stakeholders as soon as possible as set out in the Methodology.</p>	<p>Services Request Form (“Form”) which is located on the “Contact Us” section of S&amp;P DJI’s website under “Submit an Inquiry”, at <a href="http://us.spindices.com/contact-us/">http://us.spindices.com/contact-us/</a>. This Form may be completed by any person or entity that has a question, comment or complaint regarding S&amp;P DJI or any of its products or services. Once the Form is electronically submitted the matter is escalated accordingly when the submission falls within the definition of a Complaint, as defined in the Complaints Policy, to Compliance or Global Legal &amp; Regulatory Affairs Department as detailed in the S&amp;P DJI Complaints Policy and Procedures. Additionally, when an S&amp;P DJI employee learns, through any medium, of any matter that may be a complaint, he/she must notify his/her manager, and the correspondence received from the client, or a summary of any verbal communication with the client, must be sent to the S&amp;P DJI Client Services, Legal or Compliance department.</p> <p>The Complaint Handling Policy requires S&amp;P DJI to retain all information pertaining to each complaint for a minimum period of five (5) years. The Complaint Policy and Procedures requires the Complaint tracking log to be retained in accordance with S&amp;P Global’s Information Governance standards.</p> <p>Any changes to a Benchmark, regardless of the source, follows the Methodology update process as outlined in response to Principle 12.</p>	<p>For a sample of external correspondence, we inspected evidence that Client Services classified and escalated the correspondence in line with policy. No exceptions were noted.</p> <p>For a sample of filed complaints, we obtained and inspected evidence that S&amp;P DJI Compliance retained all relevant information pertaining to each complaint for a minimum of five (5) years. We obtained both details of initial complaint and S&amp;P DJI documented resolution. No exceptions were noted.</p> <p>For a sample of Internal Risk and Control team incident review meetings, we obtained evidence that:</p> <ol style="list-style-type: none"> <li>1. The status of each incident was reviewed</li> <li>2. The incident was investigated, resolved and communicated to relevant stakeholders</li> <li>3. The classification of each incident was reviewed to verify no further escalation was necessary.</li> </ol> <p>No exceptions were noted.</p> <p>We obtained and reviewed evidence of employee attendance at Index Governance training and performed the following:</p> <ol style="list-style-type: none"> <li>1. Inspected the training materials to ensure the necessary topics were covered</li> <li>2. For a sample of employees, we inspected for evidence of attendance</li> <li>3. If employee training was not completed in a timely manner, obtained an understanding of the delay and inspected evidence of the resolution / follow up (if applicable).</li> </ol> <p>No exceptions were noted.</p> <p>For all policies that govern the integrity of indices, we inspected the following:</p>
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		<ol style="list-style-type: none"> <li>1. The latest version of the policy in place,</li> <li>2. Evidence of the policy having been reviewed</li> <li>3. Where applicable, evidence of updated training having been provided which reflects changes made to the policy.</li> </ol> <p>No exceptions were noted.</p> <p>Refer to Principle 12 for procedures in place for changes to methodologies.</p>
<p><b>17. Audits</b></p> <p>The Administrator should appoint an independent internal or external auditor with appropriate experience and capability to periodically review and report on the Administrator's adherence to its stated criteria and with the Principles. The frequency of audits should be proportionate to the size and complexity of the Administrator's operations.</p> <p>Where appropriate to the level of existing or potential conflicts of interest identified by the Administrator (except for Benchmarks that are otherwise regulated or supervised by a National Authority other than a relevant Regulatory Authority), an Administrator should appoint an independent external auditor with appropriate experience and capability to periodically review and report on the Administrator's adherence to its stated Methodology. The frequency of audits should be proportionate to the size and complexity of the Administrator's Benchmark operations and the breadth and depth of Benchmark use by Stakeholders.</p>	<p>S&amp;P DJI engaged EY in 2019 to perform a reasonable assurance examination of S&amp;P DJI's assertion of their adherence with the Principles throughout the period June 1, 2018 through May 31, 2019. S&amp;P DJI will continue to engage an internationally recognized, independent external audit firm to conduct annual examinations of its adherence with the IOSCO Principles.</p> <p>Any audit report, whether provided by an internal S&amp;P Global function or an external audit firm, is reviewed by the Chief Executive Officer, Chief Operating Officer, S&amp;P DJI Deputy Chief Operating Office, Chief Legal Officer, Compliance Officer and various other individuals deemed necessary. The S&amp;P DJI Deputy Chief Operating Officer works with all necessary parties in an effort to seek to ensure any audit findings are remediated. In addition, the Internal Oversight Committee will consider the detailed findings of any review and, when remedial measures are necessary or appropriate, will oversee the implementation of those measures to address the findings. All remedial measures are reported to and discussed with certain members of S&amp;P DJI's management team.</p>	<p>The requirements of this Principle are addressed by this report.</p> <p>We obtained and inspected the Internal Oversight Committee meeting minutes and attachments for the topics discussed, including any audit report(s) or findings, as well as related next steps of action.</p> <p>We observed an Internal Oversight Committee meeting that occurred during the audit period to ensure audit report(s) or findings, as well as related next steps of action were discussed.</p>
<p><b>18. Audit Trails</b></p> <p>Written records should be retained by the Administrator for five years, subject to applicable national legal or regulatory requirements on:</p> <p>All market data, Submissions and any other data and information sources relied upon for Benchmark determination;</p>	<p>S&amp;P DJI maintains records on each of the items listed in this Principle 18 with the exception of all data queries and responses to data inputs as S&amp;P DJI is in frequent contact with its data vendors and retaining records on all queries and responses would be too voluminous and not critical to maintain; S&amp;P DJI considers its practice to be proportionate given that its Benchmarks use data anchored in market transactions. Any material issues are</p>	<p>We obtained and inspected the Record Management Policy and inspected evidence of the policy having been reviewed. We obtained and inspected evidence to determine that records are retained within the required time period.</p> <p>For a sample of indices, we inspected for evidence that:</p>

<p>a) The exercise of Expert Judgment made by the Administrator in reaching a Benchmark determination;</p> <p>b) Other changes in or deviations from standard procedures and Methodologies, including those made during periods of market stress or disruption;</p> <p>c) The identity of each person involved in producing a Benchmark determination; and</p> <p>d) Any queries and responses relating to data inputs.</p> <p>If these records are held by a Regulated Market or Exchange the Administrator may rely on these records for compliance with this Principle, subject to appropriate written record sharing agreements.</p> <p>When a Benchmark is based on Submissions, the following additional Principle also applies:</p> <p>Submitters should retain records for five years subject to applicable national legal or regulatory requirements on:</p> <p>a) The procedures and Methodologies governing the Submission of inputs;</p> <p>b) The identity of any other person who submitted or otherwise generated any of the data or information provided to the Administrator;</p> <p>c) Names and roles of individuals responsible for Submission and Submission oversight;</p> <p>d) Relevant communications between submitting parties;</p> <p>e) Any interaction with the Administrator;</p> <p>f) Any queries received regarding data or information provided to the Administrator;</p> <p>g) Declaration of any conflicts of interests and aggregate exposures to Benchmark related instruments;</p> <p>h) Exposures of individual traders/desks to Benchmark related instruments in order to facilitate audits and investigations; and</p>	<p>reported to the appropriate channels including Index Committees, Risk, etc.</p> <p>Working with the S&amp;P DJI's Chief Operating Officer Deputy Chief Operating, Compliance Officer, and Chief Legal Officer, each of the applicable functional leads seeks to ensure that the respective information or data is retained and stored pursuant to the S&amp;P Global Record Management Policy.</p> <p>With respect to the Submissions, the head of IDACS and the S&amp;P DJI Internal Controls and Risk team collects, reviews, retains and stores any report or correspondence provided by each Data Submitter to confirm compliance with S&amp;P DJI's Submitter Code of Conduct required under Principle 14.</p>	<ol style="list-style-type: none"> <li>1. System calculated indices were calculated in line with the approved methodology, and reviewed by Index Management</li> <li>2. Third party calculations were calculated in line with the approved methodology, and reviewed by Index Management</li> <li>3. Spreadsheet calculated indices were calculated in line with the approved methodology and reviewed by Index Management.</li> </ol> <p>No exceptions were noted.</p> <p>On a sample basis, across regions and across asset classes, we inspected evidence that data inputs in the calculation of indices were:</p> <ol style="list-style-type: none"> <li>1. Reviewed by Market Management for equity indices,</li> <li>2. Reviewed by Index Management for fixed income and commodity indices.</li> </ol> <p>No exceptions were noted.</p> <p>For a sample of vendors, we inspected that the upload of data input feeds to the calculation system were complete. No exceptions were noted.</p> <p>We tested user access to the index calculation systems. Further, we tested changes made to the systems were appropriate. No exceptions were noted.</p> <p>For a sample of indices, we inspected index compositions were updated in line with their respective methodology, and changes impacting index composition were announced in line with the Index Announcement Policy and Procedures. No exceptions were noted.</p>
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<p>i) Findings of external/internal audits, when available, related to Benchmark Submission remedial actions and progress in implementing them.</p>		<p>We obtained S&amp;P DJI's Submitter Code of Conduct and inspected for evidence of approval by the Index Data Acquisition and Content Subscription ("IDACS") group if updates were required. No exceptions were noted.</p> <p>For a sample of Data Submitters, we inspected for evidence that:</p> <ol style="list-style-type: none"> <li>1. Submitter Code of Conduct was sent via a negative assurance confirmation</li> <li>2. Responses were reviewed and any issues were investigated and resolved timely</li> </ol> <p>No exceptions were noted.</p>
<p><b>19. Co-operation with Regulatory Authorities</b></p> <p>Relevant documents, Audit Trails and other documents subject to these Principles shall be made readily available by the relevant parties to the relevant Regulatory Authorities in carrying out their regulatory or supervisory duties and handed over promptly upon request.</p>	<p>Subject to any applicable legal or regulatory restrictions, rights or obligations, including relating to S&amp;P DJI's receipt, use, or disclosure of proprietary, confidential or otherwise highly sensitive information which would not normally be disclosed without being compelled to do so, S&amp;P DJI does and will continue to cooperate with regulators in carrying out their duties, including with regard to appropriate enquiries or investigations.</p>	<p>Refer to Principle 4 for procedures in place for employee trainings on relevant compliance and regulatory matters.</p> <p>We obtained and inspected the Internal Oversight Committee meeting minutes and inspected for evidence of the following:</p> <ol style="list-style-type: none"> <li>1. Relevant regulatory and compliance topics were included</li> <li>2. Attendance of Chief Legal Officer, S&amp;P DJI Deputy Chief Operating Officer and Compliance.</li> </ol> <p>No exceptions were noted.</p>

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