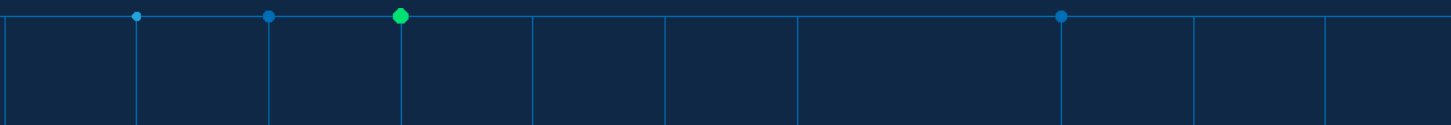


CME Group Volatility Index (CVOL) IOSCO Compliance Statement

CME Group Benchmark Administration Limited

Version 1.2

Publication Date: November 13th, 2025



Version Control

| VERSION | KEY CHANGES | APPROVAL DATE |
|---------|--|----------------------------------|
| 1.0 | <ul style="list-style-type: none"> Initial version | August 1 st , 2022 |
| 1.1 | <ul style="list-style-type: none"> Change of Calculation Service Provider Changes to the Restatement Policy, Use of Expert Judgement, Cessation Notice Period and Complaints Procedure | August 23 rd , 2025 |
| 1.2 | <ul style="list-style-type: none"> Changes to the Oversight Function | November 13 th , 2025 |

Introduction

CME Group Volatility Index (CVOL™) is a family of indices and includes their related derivative indicators. CVOL is designed to provide a view of implied volatility based on the market's expectation of forward risk.

The basic underlying methodology can be used to create single product indices, and those single product indices can be combined to create broad-based indices, which are described herein. In addition to the single product indices, there are five additional derivative indicators that can be calculated for each index: 1) Up Var, 2) Down Var, 3) Skew, 4) At the money vol and 5) Convexity which are described herein.

There are variants of the basic calculation methodology which are adapted to calculating a CVOL in interest rate yield numeraire when the underlying options are struck against the price of debt instruments, such as US Treasury Futures.

CVOL is available in two versions.

1. The End of Day CVOL Indices - calculated once a day, based on end of day settlement prices and published by 9pm ET.
2. The Live Streaming CVOL Indices - calculated every 15 seconds throughout the day, based on live trading data.

CME Group Benchmark Administration Limited (CBA) is the benchmark administrator with Chicago Mercantile Exchange Inc. (CME Inc.) providing Calculation Agent services.

IOSCO Compliance

The CVOL family of benchmarks is designed on the basis of industry best practices and the IOSCO Principles for Financial Benchmarks.

Capitalised terms not otherwise defined in this document have the meaning given to them in the [IOSCO Principles for Financial Benchmarks Final Report of July 2013](#).

| IOSCO Principle | IOSCO Principles - Detailed Guidance | CME Group Benchmark Administration Limited (CBA) Comment |
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| 1. Overall Responsibility of the Administrator | The Administrator should retain primary responsibility for all aspects of the Benchmark determination process. For example, this includes: | CBA is the Administrator of CVOL with primary responsibility for all aspects of the Benchmark determination process. |
| | a) Development: The definition of the Benchmark and Benchmark Methodology; | The CVOL Benchmark Methodology is used to determine the End of Day CVOL Indices. The Live Streaming CVOL Indices are determined on the basis of the approach set out in the Live Streaming CVOL Calculation Guide. Details of the Methodology and Calculation Guide are available on the CBA CVOL website . |
| | b) Determination and Dissemination: Accurate and timely compilation and publication and distribution of the Benchmark; | The CVOL indices are calculated each business day and published on the CME Group website and distributed through CME Group data services. Benchmark stakeholders will be informed of any delays via the CME Globex system utilising the GCC System Alerts . |
| | c) 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 | The End of Day CVOL is calculated in accordance with the published Methodology (see 1(a) above), which includes applicable contingency measures. The Live Streaming CVOL is calculated in accordance with the Calculation Guide (see 1(a) above), which includes applicable contingency measures. |
| | d) 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. | The Administrator has implemented a tiered oversight committee structure, which in combination, performs the overall duties of the Oversight Function, as defined under the IOSCO Principles for Financial Benchmarks. The purpose of the Oversight Function is to review the accuracy, reliability, representativeness and integrity of benchmarks provided by CBA by providing independent oversight and challenge to the Administrator. The Oversight Function consists of two Oversight Committees, namely the BMR Joint Oversight Committee (JOC) and the CME Group Benchmark Administration (CBA) Product Advisory Committee (PAC). The respective Terms of Reference of these Oversight Committees are available on the CBA Benchmark Governance website . |

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| 2. Oversight of Third Parties | 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: | CBA has in place a service level agreement with CME Inc. for the provision of Calculation Agent and Benchmark dissemination services relating to CVOL. Those agreements include details of required standards and obligations to maintain minimum service levels. |
| | 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; | CBA monitors third parties through key performance indicators and regular stakeholder meetings. |
| | b) Monitor third parties' compliance with the standards set out by the Administrator; | CME Inc. is the calculation agent and distribution agent of CVOL. |
| | 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 | CME Inc. is the calculation agent of CVOL. CME Inc. is a distribution agent of the Benchmark. |
| | d) Take reasonable steps, including contingency plans, to avoid undue operational risk related to the participation of third parties in the Benchmark determination process. | CBA has business continuity plans in place for all aspects of CVOL, including contingency measures for IT system failures and issues associated with dissemination of the Benchmark. The service level agreements with CME Inc. contain provisions designed to mitigate operational risk. |
| | 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. | The CVOL calculations use data sourced from CME Group's Designated Contract Markets (DCMs) regulated by the Commodity Futures Trading Commission (CFTC). CME Inc. is registered as a Recognised Overseas Investment Exchange (ROIE), recognised by the FCA (UK) under Part XVIII of the Financial Services and Markets Act 2000 (FSMA). |

| IOSCO Principle | IOSCO Principles - Detailed Guidance | CME Group Benchmark Administration Limited (CBA) Comment |
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| 3. Conflicts of Interest for Administrators | <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> | <p>CBA has policies and procedures for the avoidance of conflicts of interest in the determination of benchmarks. These policies are approved by the board and periodically reviewed.</p> <p>All entities within CME Group are required to maintain and operate effective organisational and administrative arrangements with a view to taking all reasonable steps to identify, monitor and manage all conflicts of interest including conflicts between itself and its customers. CBA maintains a stand-alone conflicts of interest register, identifying the inherent conflicts of interest within the firm, while setting out appropriate measures to manage and mitigate those conflicts.</p> <p>CBA's board members must abide by the CME Group Conflicts of Interest Policy, which sets out requirements governing, among other things, the disclosure of conflicts by board members and the situations in which board members are prohibited from participating in decisions of the board.</p> <p>CME Group employees are also subject to the CME Conflicts of Interest Policy and Personal Trading Policy, Confidentiality and Data Protection Policy and Gifts and Entertainment Policy. CME Group's employment contracts require that employees comply with all relevant policies and procedures of CBA.</p> <p>Any violation of the Conflicts of Interest Policy may result in disciplinary action against the board member or employee.</p> <p>The Administrator's Compliance Monitoring team is responsible for ensuring that the Conflicts of Interest Management Policy is adhered to. This is conducted via periodic reviews of business areas/units.</p> |
| | <p>a) Existing or potential conflicts of interest do not inappropriately influence Benchmark determinations;</p> | <p>CME Group staff involved in the production of benchmarks are prohibited from having direct investment exposure to those benchmarks. Members of the Oversight Committees are required to disclose any conflicts of interest.</p> |

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| | b) Personal interests and connections or business connections do not compromise the Administrator's performance of its functions; | CBA has policies and procedures in place to avoid conflicts of interest. This includes obligations on CME Group staff to avoid and declare conflicts of interest. |
| | 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; | <p>CBA has clear segregation of reporting lines to prevent unnecessary or the perception of such conflicts.</p> <p>As further described below, access to data within CME Group is strictly controlled by the "Data Access Request" process, and data will not be released or shared with a member of staff unless it is required for their role.</p> <p>In combination with the differentiated reporting lines, this provides a strong control framework that prevents conflicts of interest, or the perception of such conflicts.</p> |
| | d) Adequate supervision and sign-off by authorised or qualified employees prior to releasing Benchmark determinations; | Authorised and qualified staff supervise the process of the release of the Benchmark determinations. Any issues involved in the calculation or dissemination of the Benchmark by CME Inc. are escalated to the CBA Benchmark Team. |
| | 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; | CME Group implements group-wide policies and procedures to ensure the confidentiality of data and information. |
| | 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 reasonably affect any Benchmark determinations; and | CME Group staff are subject to mandatory annual compliance training and certification, which includes procedures on control of exchange of information. |
| | g) Adequate remuneration policies that ensure all staff who participate in the Benchmark determination are not directly or indirectly rewarded or incentivised by the levels of the Benchmark. | CME Group compensation and remuneration ensures salaries and benefits are not linked to the value of the calculated Benchmarks. |
| | 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>CME Group has in place multiple controls that seek to mitigate or control potential conflicts created by its ownership structure. These include the development of a conflicts register identifying potential conflicts and seeking to remove or control those.</p> <p>Above this, CME Group maintains confidentiality and access control policies</p> |

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| | | <p>and controls which are established to permit persons who need to know information to use and have access to it.</p> <p>CBA operational staff have separate reporting lines to those working within the exchanges/trading venues that supply the input data for the benchmark calculation.</p> <p>In addition, access and use of CME Group Confidential or Highly Sensitive data is strictly limited to employees that have a business reason to access and/or use the information.</p> <p>If a department, team or employee requires access to CME Group Confidential or CME Group Highly Sensitive data for a new business purpose, requests are submitted through the Data Access Request ("DAR") process for review and consideration.</p> <p>More details and examples of data requests that fall into this process can be found in the CME Group Confidentiality and Data Protection Policy which can be found on the CME Group website.</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 | As set out above, CME Group maintains firm wide policies and procedures to mitigate and avoid a conflict of interest. |
| | 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. | CBA is supervised by the FCA (UK) and will make available details of its conflict of interest register to its regulatory authority upon request. |
| 4. Control Framework for Administrators | 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 | CBA has implemented an Enterprise Risk Management (ERM) Framework consistent with CME Group policies and procedures, with certain details outlined below. The ERM Framework is reviewed annually. |

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| | <p>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> | |
| | <p>a) Conflicts of interest in line with Principle 3 on conflicts of interests;</p> | <p>CBA has implemented a conflicts of interest policy in line with IOSCO Principle 3. See detail above.</p> |
| | <p>b) Integrity and quality of Benchmark determination:</p> <p>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;</p> <p>ii. Arrangements to promote the integrity of Benchmark inputs, including adequate due diligence on input sources;</p> <p>iii. Arrangements to ensure accountability and complaints 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>i. The End of Day CVOL is calculated in accordance with the published Methodology. Any material deviation from the approved Methodology requires additional review by the Oversight Committees. The Live Steaming CVOL Indices are determined on the basis of the approach set out in the Live Streaming CVOL Calculation Guide. Any material deviation from the published Calculation Guide requires additional review by the Oversight Committees.</p> <p>ii. The Live Streaming CVOL is calculated in accordance with the Calculation Guide which contains a defined calculation waterfall.</p> <p>iii. The End of Day CVOL calculation is based on futures and options settlement prices on CME Group DCMs. The Live Streaming CVOL is based on futures and options bids and offers on CME Group DCMs. CME Inc. is the calculation agent for CVOL. CBA has performed due diligence on the depth and liquidity of the market and is satisfied as to the adequacy of its controls, and that the publicly available futures and option settlement prices are a sufficient input for CVOL.</p> <p>iv. CBA has in place a complaints procedure (CBA Complaints Procedures) which is published on the CBA website. The procedures take account of the requirements for a Benchmark Administrator to receive and deal appropriately with complaints that relate to the calculation of the benchmark. CBA is subject to audit reviews and has</p> |

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| | | <p>regulatory obligations, aligned with Principles 16 to 19.</p> <p>v. CBA has implemented an Enterprise Risk Management Framework for the management of its benchmarks, which lists categories of risk and measures to mitigate against them. This is part of the CME Group Enterprise Risk framework.</p> |
| | <p>c) Whistleblowing mechanism: 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>CME Group maintains internal policies and procedures for the reporting of actual or perceived misconduct.</p> <p>In addition, CBA allows for external whistleblowing through internationalcompliance@cmegroup.com.</p> <p>All complaints related to CBA are reviewed by Compliance and reported to the relevant Oversight Committee.</p> |
| | <p>d) 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>i. Calculation of the Benchmarks are performed by personnel who possess the relevant levels of experience and expertise, including by performing similar functions in relation to other Benchmarks and operating CME's market data business. CME Group employs an annual performance review policy.</p> <p>ii. CME Group requires staff to undergo mandatory annual compliance training, including conflicts of interest and ethics.</p> |
| | <p>Where a Benchmark is based on Submissions: Administrators should promote the integrity of inputs by:</p> | <p>N/A – CVOL is not based on Submissions.</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>N/A – CVOL is not based on Submissions.</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>N/A – CVOL is not based on Submissions.</p> |
| | <p>c) Specifying how frequently Submissions should be made and specifying that inputs or Submissions</p> | <p>N/A – CVOL is not based on Submissions.</p> |

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| | <p>should be made for every Benchmark determination; and</p> <p>d) Establishing and employing measures to effectively monitor and scrutinise inputs or Submissions. This should include pre-compilation or pre-publication monitoring to identify and avoid errors in inputs or Submissions, as well as <i>ex-post</i> analysis of trends and outliers.</p> | <p>N/A – CVOL is not based on Submissions.</p> |
| 5. Internal Oversight | <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 Administrator has implemented a tiered oversight committee structure, which in combination, performs the overall duties of the Oversight Function, as defined under the IOSCO Principles for Financial Benchmarks.</p> <p>The Oversight Function consists of two Oversight Committees, namely the BMR Joint Oversight Committee (JOC) and the CME Group Benchmark Administration (CBA) Product Advisory Committee (PAC).</p> <p>Terms of Reference for these Oversight Committees are in place defining committee membership and responsibilities and are available on the CBA Benchmark Governance website.</p> <p>Oversight Committee members are required to provide conflicts of interest disclosures.</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>The Oversight Committees comprise CME Group industry experts with the appropriate expertise to provide challenge and effective scrutiny of the Administrator. The Oversight Committees include independent CME Group members who are not involved in the administration or operation of the Benchmark.</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> | <p>CBA has established independent Oversight Committees for CVOL with clearly defined Terms of Reference.</p> |

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| | a) The terms of reference of the oversight function; | The Oversight Committees Terms of Reference are available on the CBA Benchmark Governance website . |
| | b) Criteria to select members of the oversight function; | The Oversight Committees membership selection is outlined in the Oversight Committees' Terms of Reference. |
| | 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 election, nomination or removal and replacement of committee members. | The process for the nomination, removal and replacement of committee members is outlined in the Terms of Reference. A conflicts of interest register is maintained for members of the Oversight Committees. |
| | The responsibilities of the oversight function include: | |
| | a) Oversight of the Benchmark design: i. Periodic review of the definition of the Benchmark and its Methodology; ii. Taking measures to remain informed about issues and risks to the Benchmark, as well as commissioning external reviews of the Benchmark (as appropriate); 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 authorising or requesting the Administrator to undertake a consultation with Stakeholders where known or its Subscribers on such changes as per Principle 12; and 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. | i. The Oversight Committees will review the Methodology and Calculation Guide on an annual basis. ii. General issues and risks to the Benchmark will be escalated, as appropriate, to the relevant Oversight Committee(s) and CBA board for discussion and review. Meetings of the Oversight Committee and the CBA board involve presentations on the performance of the Benchmark. In exercising its duties, CBA will provide all necessary documents and information to those governance bodies. The CBA board can request external review as appropriate and will be subject to audit reviews on a regular basis. iii. The Oversight Committees will review any material changes to the Benchmark Methodology and Calculation Guide. In addition, the annual review ensures the continued integrity of the Benchmark determinations. Where appropriate, the Oversight Committees may request the Administrator to consult with the market on material changes to the Benchmark Methodology and Calculation Guide. iv. CBA has in place, in the published Methodology and the Calculation Guide procedures (including consultation with Stakeholders), procedures that address the possible cessation of the Benchmark due to conditions resulting in the Benchmark no longer representing its intended interest. |
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| | | Details of any cessation process will be published to the CBA Notice Page . |
| | <p>b) Oversight of the integrity of Benchmark determination and control framework:</p> <p>i. Overseeing the management and operation of the Benchmark, including activities related to Benchmark determination undertaken by a third party;</p> <p>ii. Considering the results of internal and external audits, and following up on the implementation of remedial 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>CBA's control framework encompasses:</p> <p>i. Service level agreements to maintain appropriate oversight of CME Inc. input data collection, Calculation Agent, publication and distribution services.</p> <p>ii. The review of audit findings and status of any required remedial actions.</p> <p>iii. The review and approval of non-standard procedures used in the Benchmark determination process. Expert Judgement is not used in the ordinary day to day calculation of CVOL.</p> <p>The exercise of Expert Judgement by the Administrator is governed by the applicable contingency measures set out in the published Methodology, which include the overseeing of any exercise of Expert Judgement by the Oversight Committee.</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>The structure and composition of the oversight function (comprising both the BMR Joint Oversight Committee and CBA Product Advisory Committee) is proportional to the ownership and control structure of CBA. The Oversight Committees are composed of members, who together, have the appropriate skills and expertise to oversee the provision of the benchmarks and perform the oversight function. For more information on the composition of each committee please refer to the relevant Terms of Reference of the committees.</p> |
| | <p>Where a Benchmark is based on Submissions: the oversight function should provide suitable oversight and challenge of the Submissions by:</p> | <p>N/A – CVOL is not based on Submissions.</p> |
| | <p>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 analysed, or querying the role of the Administrator in</p> | <p>N/A – CVOL is not based on Submissions.</p> |

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| | challenging or sampling unusual inputs or Submissions; | |
| | b) Overseeing the Code of Conduct for Submitters; | N/A – CVOL is not based on Submissions. |
| | c) Establishing effective arrangements to address breaches of the Code of Conduct for Submitters; and | N/A – CVOL is not based on Submissions. |
| | 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. | N/A – CVOL is not based on Submissions. |
| 6. Benchmark Design | 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>CVOL is designed to measure the implied volatility of selected instruments, traded on CME Group DCMs.</p> <p>The basic underlying methodology can be used to create single product indices, that can also be combined to create broad-based indices.</p> <p>In addition to the single product indices, related derivative indicators are calculated and published as part of the index family:</p> <ul style="list-style-type: none"> • Up Var • Down Var • Skew • At the money vol • Convexity |
| | Benchmark design should take into account the following generic non-exclusive features, and other factors should be considered, as appropriate to the particular Interest: | CVOL has been designed to ensure the Benchmark is representative of its underlying interest and remains robust. |
| | a) Adequacy of the sample used to represent the Interest; | <p>The aim of the Benchmarks is to measure the implied volatility of selected instruments, traded on CME Group DCMs, and their derivative indicators. Details of the most traded options contracts are available on the CME page: CME Group Options. The entirety of options contracts traded on CME Group DCMs are available on: CME Group All Products – Codes and Slate.</p> |
| | b) Size and liquidity of the relevant market (for example whether there is sufficient trading to provide observable, transparent pricing); | CVOL is based on options traded on CME Group DCMs; a complete list of traded contracts and their Open Interest is available on CME Group All Products – Codes and Slate . |

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| | c) Relative size of the underlying market in relation to the volume of trading in the market that references the Benchmark; | Currently there are no financial instruments that reference this family of benchmarks. |
| | d) The distribution of trading among Market Participants (market concentration); | CME Group DCMs are open to a large number of market participants, ensuring a significant level of liquidity and market depth. All customer segments are represented including proprietary trading groups, banks, hedge funds and asset managers. |
| | e) Market dynamics (e.g., to ensure that the Benchmark reflects changes to the assets underpinning a Benchmark). | CME Group Options contracts closely reflect the implied volatility of the underlying asset, providing dynamic risk management. |
| 7. Data Sufficiency | The data used to construct a Benchmark determination should be sufficient to accurately and reliably represent the Interest measured by the Benchmark and should: | The End of Day CVOL is based on publicly available settlement data in the contracts of selected futures and options traded on CME Group DCMs. The Live Streaming CVOL is based on executable bids and offers on CME Group DCMs. These data sources are used to measure the implied volatility of selected instruments. The input data used in the calculation of CVOL is from CME Group's DCMs. Details of the options contracts and their volumes and open interest is available at CME Group Options page. |
| | a) Be based on prices, rates, indices or values that have been formed by the competitive forces of supply and demand in order to provide confidence that the price discovery system is reliable; and b) 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. | |
| | This Principle requires that a Benchmark be based upon (i.e., <i>anchored in</i>) 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. Provided that subparagraphs (a) and (b) above are met, Principle 7 does not | The input data used in the calculation of CVOL is based on a waterfall methodology including publicly available settlement data, consistent with Principle 8. This is explained in the published Methodology and Calculation Guide. |

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| | <p>preclude Benchmark Administrators from using executable bids or offers as a means to construct Benchmarks where anchored in an observable market consisting of <i>Bona Fide</i>, 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 behaviour 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 measure the expected volatility of an index of securities transactions, rely on non-transactional data, but the data is derived from and thus “<i>anchored</i>” in an actual functioning securities or options market.</p> | |
| 8. Hierarchy of Data Inputs | <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> | <p>The published Methodology and Calculation Guide provide details of the hierarchy of data inputs used in the determination of the CVOL Indices.</p> |
| | <p>a) Where a Benchmark is dependent upon Submissions, the Submitters’ own concluded arms-length transactions in the underlying interest or related markets;</p> | <p>N/A – CVOL is not based on Submissions.</p> |
| | <p>b) Reported or observed concluded Arm’s-length Transactions in the underlying interest;</p> | <p>Data inputs used in the calculation of the End of Day CVOL include publicly available option settlement prices. Data inputs used in the calculation of the Live Streaming CVOL include executable bids and offers. The published Methodology and Calculation Guide provide details of the hierarchy of data inputs used in the determination of CVOL.</p> |
| | <p>c) Reported or observed concluded Arm’s-length Transactions in related markets;</p> | <p>N/A – The data inputs used in the calculation of the End of Day CVOL are based on publicly available option settlement prices. Data inputs used in the calculation of the</p> |

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| | | Live Streaming CVOL are executable bids and offers. |
| | d) Firm (executable) bids and offers; and | The Live Streaming CVOL Indices are calculated based on executable bids and offers, taken from CME Group DCMs. |
| | e) Other market information or Expert Judgments. | <p>Expert Judgement and other market information is not used in the ordinary day to day calculation of the CME Group Volatility Index and the Live Streaming CVOL.</p> <p>The CME Group Volatility Index and the Live Streaming CVOL are calculated in accordance with the published Methodology and the Live Streaming CVOL Calculation Guide respectively, which include applicable contingency measures governing the exercise of Expert Judgement.</p> |
| | <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 extrapolations from prior transactions might predominate in a given Benchmark determination.</p> | <p>The CVOL Methodology and Live Streaming CVOL Calculation Guide detail the Administrator's approach, including the use of Expert Judgement, to ensure the quality, integrity, continuity and reliability of the Benchmark.</p> |

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| 9. Transparency of Benchmark Determinations | The Administrator should describe and publish with each Benchmark determination, to the extent reasonable without delaying an Administrator publication deadline: | The publication of the End of Day CVOL occurs by 09:00pm ET each business day to CME Group DataMine and CME Group website and MDP. The Live Streaming CVOL Indices are calculated and published every 15 seconds throughout the day. CVOL measures the implied volatility of selected instruments, traded on CME Group DCMs. Data inputs used in the calculation of the End of Day CVOL include publicly available option settlement prices. Data inputs used in the calculation of the Live Streaming CVOL include executable bids and offers. The Published Methodology and Calculation Guide provide details of the hierarchy of data inputs used in the determination of CVOL. |
| | 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., <i>transaction-based</i> , <i>spread-based</i> or <i>interpolated/extrapolated</i>); | |
| | 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. | Expert Judgment is not used in the ordinary day to day calculation of the CME Group Volatility Index and the Live Streaming CVOL. The CME Group Volatility Index and the Live Streaming CVOL are calculated in accordance with the published Methodology and the Live Streaming CVOL Calculation Guide respectively, which include applicable contingency measures governing the exercise of Expert Judgment. |
| 10. Periodic Review | 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. | CBA monitors the underlying (options) market to ensure the integrity of CVOL. The Oversight Committees will review the performance of the Benchmark in accordance with their terms of reference, to ensure its credibility. |
| | 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. | Material changes to the CVOL Methodology and Calculation Guide will be reviewed by the Oversight Committees who, as appropriate, may request the Administrator |

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| | | to consult with relevant Stakeholders and the wider market on any material changes. |
| 11.Content of the Methodology | 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. | CBA will Publish and Make Available the Methodology and Calculation Guide. |
| | At a minimum, the Methodology should contain: | |
| | a) Definitions of key terms; | Key terms are defined in the published Methodology and Calculation Guide. |
| | 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 determine a Benchmark, and any models or extrapolation methods; | The criteria and hierarchy of inputs, as well as the use of Expert Judgement, are described in the published Methodology and Calculation Guide documents. |
| | c) Procedures and practices designed to promote consistency in the exercise of Expert Judgment between Benchmark determinations; | The CME Group Volatility Index and the Live Streaming CVOL are calculated in accordance with the published Methodology and the Live Streaming CVOL Calculation Guide respectively, which include applicable contingency measures governing the exercise of Expert Judgement. |
| | 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); | The procedures governing the Benchmark determination in times of stress and market disruption are included in the published Methodology and Calculation Guide. |
| | e) The procedures for dealing with error reports, including when a revision of a Benchmark would be applicable; | Restatement procedures are included in the published Methodology and Calculation Guide documents. The Administrator will notify clients of instances where a re-publication is required, including via the publication of a notice to the CBA Notice Page . |

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| | 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; | The frequency of review and approval is included in the Published Methodology and the Calculation Guide Any required changes to the Methodology will be in accordance with Principle 12. |
| | g) The circumstances and procedures under which the Administrator will consult with Stakeholders, as appropriate; and | The Published Methodology and Calculation Guide documents detail the circumstances under which CBA will consult with Stakeholders and the market. |
| | h) The identification of potential limitations of a Benchmark, including its operation in illiquid or fragmented markets and the possible concentration of inputs. | The published Methodology and Calculation Guide detail how CVOL shall be determined in illiquid markets. |
| | Where a Benchmark is based on Submissions , the additional Principle also applies: | N/A – CVOL is not based on Submissions. |
| | 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. | N/A – CVOL is not based on Submissions. |
| 12.Changes to the Methodology | 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. | CBA will consult with Stakeholders and the market with regards to material changes to the CVOL Methodology and Calculation Guide. |
| | 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. | The Oversight Committees periodically review the Methodology and Calculation Guide to ensure the benchmark continues to represent its underlying interest. Any material changes will be specified, and their implementation timeline explained. |

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| | The Administrator should specify how changes to the Methodology will be scrutinised, by the oversight function. | CBA may seek to revise the CVOL Methodology and Calculation Guide; material changes to these documents are presented to the Oversight Committees for review. |
| | 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: | The Benchmark Methodology and Calculation Guide provides that CBA will consult with Stakeholders on material changes to the Methodology and Calculation Guide. Consultation will ordinarily consist of publishing of proposals, providing Stakeholders with a reasonable time to respond and publishing actions as a result of the consultation. In addition, the Oversight Committees can request the Administrator to consult on any change as appropriate. |
| | a) Provide advance notice and a clear timeframe that gives Stakeholders sufficient opportunity to analyse and comment on the impact of such proposed material changes, having regard to the Administrator's assessment of the overall circumstances; and | Material changes to the Benchmark Methodology and the Calculation Guide will involve Stakeholder consultation that provides an opportunity to analyse and comment on the impact of those changes. |
| | 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. | CBA will make available Stakeholders' summary comments and responses on consultations regarding a material change to the CVOL Methodology and Calculation Guide as appropriate. |
| 13. Transition | 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 and procedures are appropriate for a particular Benchmark. | <p>The Administrator constantly monitors the representativeness of the Benchmark. If the Benchmark is deemed to be unrepresentative of the underlying economic reality due to paucity of input data or systemic changes in the related markets, the Administrator will engage the Oversight Committees, at the earliest opportunity. The Benchmark Methodology and Calculation Guide contains details of the steps that the Administrator needs to take in order to inform the relevant Stakeholders.</p> <p>The Oversight Committees may request the Administrator to consult with Stakeholders and end-users on material changes to the Benchmark.</p> <p>The Administrator will publish notice of the consultation on its website, inviting feedback from Stakeholders and the wider market. Where practicable, notice of a consultation will be posted at least one month prior to the</p> |

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| | | <p>deadline for responses. The notice will include the details of the proposed material change, the timeline and the rationale for the change.</p> <p>Findings of the consultation process and proposed changes to the Benchmark Methodology and/or Calculation Guide recommended as a result of the consultation, will be presented by the Administrator to the Oversight Committees for their consideration.</p> <p>Feedback to a consultation is considered confidential. The Administrator will publish an anonymized summary with its conclusions, as soon as it is practical, and before implementation of any changes.</p> |
| | These written policies and procedures should be Published or Made Available to all Stakeholders. | The Benchmark Methodology and Calculation Guide describe the procedures required for the cessation of the benchmark. |
| | <p>Administrators should encourage Subscribers and other Stakeholders who have financial instruments that reference a Benchmark to take steps to make sure that:</p> <p>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</p> <p>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.</p> | The published Benchmark Methodology recommends users of the Benchmark to ensure they have adequate fallback policies and procedures in the event of the Benchmark losing its representativeness, due to changes in the Regulatory Framework and/or market conditions. |
| | <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> <p>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</p> | <p>The Benchmark Methodology and Calculation Guide require the Administrator to provide reasonable notice in the occurrence of cessation of the benchmark. Such a transition period is designed to ensure that the benchmark continues to operate in parallel to any substitute.</p> <p>During such transition, the Administrator is required, by the Benchmark Methodology, to explore alternative arrangements and advise Stakeholders, including Regulators and end-users, about their findings. The Administrator will endeavour to identify alternative benchmarks; however, this might</p> |

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| | 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; | not always be possible due to regulations or market conditions. |
| | 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 Benchmark) in order to accommodate an orderly transition to a new Benchmark; | |
| | c) The procedures that the Administrator would follow in the event that a suitable alternative cannot be identified; | |
| | 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 | |
| | 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. | |
| 14.Submitter Code of Conduct | 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. | N/A – CVOL is not based on Submissions. |
| | 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. | N/A – CVOL is not based on Submissions. |
| | The Administrator's oversight function should be responsible for the continuing | N/A – CVOL is not based on Submissions. |

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| | review and oversight of the Submitter Code of Conduct. | |
| | The Submitter Code of Conduct should address: | N/A – CVOL is not based on Submissions. |
| | a) The selection of inputs; | N/A – CVOL is not based on Submissions. |
| | b) Who may submit data and information to the Administrator; | N/A – CVOL is not based on Submissions. |
| | 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; | N/A – CVOL is not based on Submissions. |
| | d) Criteria applied to employees of a Submitter who are permitted to submit data or information to an Administrator on behalf of a Submitter; | N/A – CVOL is not based on Submissions. |
| | e) Policies to discourage the interim withdrawal of Submitters from surveys or Panels; | N/A – CVOL is not based on Submissions. |
| | f) Policies to encourage Submitters to submit all relevant data; and | N/A – CVOL is not based on Submissions. |

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| | <p>g) The Submitters' internal systems and controls, which should include:</p> <ul style="list-style-type: none"> i. Procedures for submitting inputs, including Methodologies to determine the type of eligible inputs, in line with the Administrator's Methodologies; ii. Procedures to detect and evaluate suspicious inputs or transactions, including intergroup transactions, and to ensure the <i>Bona Fide</i> nature of such inputs, where appropriate; iii. Policies guiding and detailing the use of Expert Judgment, including documentation requirements; iv. Record keeping policies; v. Pre-Submission validation of inputs, and procedures for multiple reviews by senior staff to check inputs; vi. Training, including training with respect to any relevant regulation (covering Benchmark regulation or any market abuse regime); vii. Suspicious Submission reporting; viii. Roles and responsibilities of key personnel and accountability lines; ix. Internal sign off procedures by management for submitting inputs; x. Whistle blowing policies (in line with Principle 4); and 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 | <p>N/A – CVOL is not based on Submissions.</p> |

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| | 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. | |
| 15. Internal Controls over Data Collection | 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. | CBA has in place an agreement with CME Inc. regarding the collection of input data from the regulated market on which the futures and options contracts are traded, and transmission of input data to CBA, and contains an obligation to comply with protocols in relation to the same that protect the integrity and confidentiality of the input data. |
| 16.Complaints Procedures | 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. | CBA has in place policies and procedures for Stakeholders to submit complaints on all aspects of the Benchmark determination process. These procedures (CBA Complaints Procedures) are available on the CBA website . |
| | The complaints procedures policy should: | |
| | a) Permit complaints to be submitted through a user-friendly complaints process such as an electronic Submission process; | CBA has created an email address (internationalcompliance@cmegroup.com) to receive and respond to any complaints. |
| | 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 | All complaints received will be investigated by personnel who are independent of any personnel who may be, or may have been involved in the subject of the complaint. Any outcomes are reported back to the complainant Stakeholder within a reasonable timeframe (proportionate to the nature of the complaint). All records concerning complaints are kept for a period of 5 years. |

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| | <p>reasonable period and retaining all records concerning complaints;</p> <p>c) Contain a process for escalating complaints, as appropriate, to the Administrator's governance body; and</p> <p>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.</p> <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></p> <p>Complaints will also be reported to the relevant Oversight Committee and CBA board.</p> <p>CME Group maintains a record of all complaints for 5 years in accordance with its regulatory obligations.</p> <p>Changes to the CVOL Methodology and Calculation Guide will be made in accordance with Principle 12.</p> |
| 17.Audits | <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>CBA is authorised and supervised by the FCA (UK) and undergoes a regular internal audit in accordance with its regulatory requirements. Internal or external audits can be requested at any time by the CBA Board, the JOC or the internal audit function.</p> |
| 18.Audit Trail | <p>Written records should be retained by the Administrator for five years, subject to</p> | <p>CME Group retains all records below for a minimum of 5 years.</p> |

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| | applicable national legal or regulatory requirements on: | |
| | a) All market data, Submissions and any other data and information sources relied upon for Benchmark determination; | CME Group retains all records below for a minimum of 5 years. All input data used in the calculation of CVOL is included in the record retention policy. |
| | b) The exercise of Expert Judgment made by the Administrator in reaching a Benchmark determination; | Internal records detailing the use of Expert Judgement and the rationale for its use are included in the record retention policy. |
| | c) Other changes in or deviations from standard procedures and Methodologies, including those made during periods of market stress or disruption; | Any deviations from standard procedures due to market stress or disruption will be logged and included in the retention policy. |
| | d) The identity of each person involved in producing a Benchmark determination; and | The identity of individuals responsible for the calculation of CVOL are logged and included in the record retention policy. |
| | e) Any queries and responses relating to data inputs. | All queries and responses will be logged and included in the record retention policy. |
| | 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. | CBA, through its agreement with the calculation agent, has access to all records used in the calculation and determination of CVOL for a minimum of 5 years. |
| | When a Benchmark is based on Submissions , the following additional Principle also applies: | |
| | Submitters should retain records for five years subject to applicable national legal or regulatory requirements on: | N/A - CVOL is not based on Submissions. |
| | a) The procedures and Methodologies governing the Submission of inputs; | N/A - CVOL is not based on Submissions. |
| | b) The identity of any other person who submitted or otherwise generated any of the data or information provided to the Administrator; | N/A - CVOL is not based on Submissions. |
| | c) Names and roles of individuals responsible for Submission and Submission oversight; | N/A - CVOL is not based on Submissions. |
| | d) Relevant communications between submitting parties; | N/A - CVOL is not based on Submissions. |
| | e) Any interaction with the Administrator; | N/A - CVOL is not based on Submissions. |
| | f) Any queries received regarding data or information provided to the Administrator; | N/A - CVOL is not based on Submissions. |
| | g) Declaration of any conflicts of interests and aggregate exposures to Benchmark related instruments; | N/A - CVOL is not based on Submissions. |
| | h) Exposures of individual traders/desks to Benchmark related | N/A - CVOL is not based on Submissions. |

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| | instruments in order to facilitate audits and investigations; and | |
| | i) Findings of external/internal audits, when available, related to Benchmark Submission remedial actions and progress in implementing them. | N/A - CVOL is not based on Submissions. |
| 19. Cooperation with Regulatory Authorities | 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. | CBA is an authorised Benchmark Administrator, authorised and supervised by the FCA (UK) and will cooperate with appropriate requests from regulatory authorities having competent jurisdiction over CBA as requested. |

