ICE BENCHMARK ADMINISTRATION
ICE LIBOR – IOSCO ASSESSMENT REPORT

Introduction

ICE Benchmark Administration ("IBA"), an independent subsidiary of Intercontinental Exchange ("ICE") group, is responsible for the end-to-end administration of the following three systemically important benchmarks:

- ICE LIBOR — the world's most widely used benchmark for short term bank borrowing rates
- ICE Swap Rate (formerly known as ISDAFIX) — the global interest rate swap benchmark for swap rates and spreads, and
- LBMA Gold Price — a benchmark price for gold that is widely used across the globe by participants such as producers, consumers, investors and central banks.

In July 2017, IBA was appointed to become the new administrator of the LBMA Silver Price.

IBA is the world's most experienced administrator for regulated benchmarks.

Background to the IOSCO Principles

In July 2013, the Board of the International Organization of Securities Commissions ("IOSCO") issued Principles for Financial Benchmarks[1] with the aim of promoting the reliability of Benchmark determinations and to address Benchmark governance, quality and accountability mechanisms.

As such, they are a set of recommended practices that IOSCO consider should be implemented by Benchmark Administrators and Submitters with a proportionate approach taking into account the size and risks posed by the relevant benchmark and/or benchmark administrator and the benchmark-setting process.

IBA is one of only four benchmark administrators to have been formally assessed by an IOSCO review team for compliance with the Principles. The first review was in 2014 and two further reviews have occurred since.

About ICE LIBOR

LIBOR is referenced by an estimated US $350 trillion of outstanding contracts in maturities ranging from overnight to more than 30 years. It provides the average rate at which a LIBOR panel bank could obtain unsecured funding for a given period in a given currency.

IBA became the administrator of LIBOR in early 2014 after structural failings had led to significant and highly publicised fines levied globally on a number of panel banks for inappropriate conduct with regard to the benchmark.

[1] Available at https://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf

Since then, significant regulatory and governance measures have been put in place to restore the integrity of the benchmark. LIBOR is produced by IBA on London business days for 5 currencies with 7 maturities, producing 35 rates each business day.

In line with the strategic direction set by the Financial Stability Board ("FSB") and other official sector bodies, IBA has focused on evolving LIBOR to meet the following objectives, to:

- Base LIBOR in transactions to the greatest extent possible – as described in the following sections
- Publish a single, clear, comprehensive and robust LIBOR definition – the ICE LIBOR Output Statement has been published
- Implement a construct for ensuring the rate can adapt to changing market conditions with appropriate consideration for the interests of all stakeholders – as described in the following sections, and
- Evolve LIBOR through a seamless transition – phasing the implementation of the standardised methodology.

Further information about the evolution of LIBOR is available at https://www.theice.com/iba/libor.

About IBA

IBA is a UK company based in London. It was established for the purpose of administering benchmarks and is a wholly-owned subsidiary of ICE, a leading network of global futures, equity and equity options exchanges, as well as global clearing and data services across financial and commodity markets. In July 2013, IBA was selected[2] as the new administrator of LIBOR. IBA became authorised and regulated by the FCA and began administering LIBOR from 3 February 2014.

IBA then became the Administrator of ISDAFIX, now called ICE Swap Rate, in August 2014 and of the LBMA Gold Price in March 2015.

In October 2015, following a public tender, ISDA selected IBA to build and operate a crowd-sourcing facility for the industry-developed Standard Initial Margin Model ("SIMM") for managing the exchange of collateral for uncleared swaps transactions. The facility developed by IBA is now in production.

In December 2016, ISDA announced that IBA will assume the secretarial role on the credit derivatives Determinations Committees ("DCs") in 2017.

The essential elements of IBA's approach to the administration of benchmarks and other market consensus rates can be summarised as follows, that IBA is:

- An independent and neutral benchmark administrator
- Resourced solely for the purpose of administering important benchmarks
- A separately capitalised, self-sustaining business within the ICE group
- Committed to long-term administration of benchmarks to the highest practice standards;
- Governed by its own Board with a majority of Independent Non- Executive Directors ("INEDs")

[2] Under IBA's former name - NYSE Euronext Rate Administration Limited

- Advised by Oversight Committees with wide representation to encompass a broad range of perspectives and with relevant knowledge to oversee our codes of conduct and other measures of good practice;

- Experienced in monitoring benchmarks using a range of statistical analysis utilising bespoke surveillance tools to identify anomalies in submissions, and

- Experienced in evolving benchmarks to more robust methodologies.

IBA has contractual arrangements with the ICE group for the provision of certain central services such as IT, premises, legal and HR.

Our systems infrastructure is purpose-built for benchmarks, and is highly automated, highly resilient and highly secure. It was designed to have zero barriers to entry for submitters, users and redistributors and also to scale to fully automated STP (Straight-Through-Processing) for more sophisticated firms.

Our systems are fully auditable and we have extensive back-up arrangements that allow us to continue to operate as normal through disruptive events with minimal or no external impact.

The purpose-built infrastructure covers the full benchmark lifecycle: collection of benchmark data; validation checks; calculation; benchmark dissemination; and surveillance software that performs over 4 million calculations each day to monitor for anomalies in benchmark submissions.

FCA requirements

As the Administrator of three benchmarks regulated by the FCA, IBA is required to fulfil requirements in the FCA's Handbook, and in particular the benchmark-specific rules in section 8.3 of the chapter on Market Conduct ("MAR").

The MAR 8.3 requirements are , in summary, that Benchmark Administrators must:

- Implement credible governance and oversight measures

- Appoint an Oversight Committee which includes representatives of benchmark submitters or providers of data, market infrastructure providers, users of the Specified Benchmark and at least two independent non-executive directors of the benchmark administrator

- Establish practice standards

- Identify and manage conflicts of interest that may arise

- Monitor and survey benchmark submissions to identify breaches of practice standards and/or potentially manipulative behaviour

- Report any suspicious behaviour to the FCA

- Have Whistle-blowing procedures to enable third parties to notify any suspicions to the benchmark administrator

- Maintain sufficient financial resources to cover operating costs of administering the specified benchmark(s) for nine months. The assets must be segregated from those of any other group entity and must be capable of being liquidated if necessary with minimal adverse price effect

- Have regard to maintaining the integrity of the market and the continuity of the benchmark

- Ensure confidentiality of sensitive information, and

- Ensure FRAND (fair, reasonable and non-discriminatory) access to the benchmark for relevant users and charge a fee (if any) for access to the benchmark at a reasonable commercial price.

Further information

IBA's contact details are:

- by email to IBA@theice.com
- by post at: ICE Benchmark Administration Limited, Milton Gate, 60 Chiswell Street, London, EC1Y 4SA.

Further details about IBA and ICE LIBOR can be found at https://www.theice.com/iba/libor.

PRINCIPLES AND RESPONSES

The table below sets out the response of ICE Benchmark Administration Limited ("IBA") in terms of how it meets the objectives of the IOSCO Principles.

Principle 1 – Overall Responsibility of the Administrator

IOSCO Principle 1	IBA's Response
The Administrator should retain primary responsibility for all aspects of the Benchmark determination process. For example, this includes: Development: The definition of the Benchmark and Benchmark Methodology; Determination and Dissemination: Accurate and timely compilation and publication and distribution of the Benchmark; 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 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.	ICE LIBOR is one of three systemically important benchmarks administered by ICE Benchmark Administration Limited ("IBA"). The benchmark is recognised as the world's most widely used benchmark for short term bank borrowing rates. ICE LIBOR was the first of the eight Specified Benchmarks regulated by the Financial Conduct Authority ("FCA"). IBA is required to comply with the regulator's requirements for benchmark administrators as set out in MAR 8.3 in Chapter 8 (Benchmarks) of the FCA's Market Conduct Sourcebook. These requirements govern the benchmark determination, including its development, design, calculation, maintenance, dissemination, operation and governance. IBA retains sole responsibility for all aspects of the determination of ICE LIBOR. Through the LIBOR Oversight Committee and its calendar of agenda items, all aspects of the determination of the benchmark are reviewed and approved, including: the methodology; the definition of the benchmark; the suitability of inputs; the scope of the benchmark; and the setting of the benchmark.

Principle 2 – Oversight of Third Parties

IOSCO Principle 2	IBA's Response
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: 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; b) Monitor third parties' compliance with the standards set out by the Administrator; 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 d) Take reasonable steps, including contingency plans, to avoid undue operational risk related to the participation of third parties in the Benchmark determination process. 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.	IBA handles all aspects of the Benchmark determination process for ICE LIBOR and uses no Calculation Agent or Publication Agent. IBA outsources some activities to other areas within the ICE Group such as technology and HR under formal contractual arrangements. These activities, and IBA's governance of them, are reviewed by IBA's Audit and Risk Committee. None of the benchmark determination processes are outsourced by IBA.

Principle 3 – Conflicts of Interest

<table>
<tr><th>IOSCO Principle 3</th><th>IBA's Response</th></tr>
<tr><td>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.

Administrators should disclose any material conflicts of interest to their users and any relevant Regulatory Authority, if any.

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:

a) Existing or potential conflicts of interest do not inappropriately influence Benchmark determinations;

Personal interests and connections or business connections do not compromise the Administrator's performance of its functions;

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;

Adequate supervision and sign-off by authorised or qualified employees prior to releasing Benchmark determinations;

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;

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</td><td>IBA is a distinct entity within the Intercontinental Exchange ("ICE") group and has its own independent board comprised of Executive Directors and Independent Non-Executive Directors.

The following are cornerstones of IBA's arrangements to ensure neutrality and the absence of conflicts of interest:

• A strong regulatory culture and philosophy, as established by the IBA Board and senior management

• Management of conflicts of interest and confidentiality through physical, logical and contractual controls

• Internal governance structures and management arrangements designed to ensure that regulatory management and staff can take appropriate action without influence from those responsible for business development

• The Group's Code of Business Conduct and Ethics which includes policies and procedures for the identification, reporting, disclosure, management, mitigation and avoidance of conflicts of interest

• IBA's own Conflicts of Interest Policy which describes the arrangements for the identification, management, disclosure and mitigation of conflicts of interests. The Policy is published on IBA's website. This Conflicts of Interest Policy is owned by Compliance at IBA and is subject to annual review and sign off by the Board of Directors of IBA;

• IBA's staff are not involved in any activities related to the ICE Group more general, and

• To ensure that a range of stakeholder views are represented, the LIBOR Oversight Committee is comprised of: market representatives; industry bodies; Observers from the Bank of England, the Federal Reserve Board in Washington</td></tr>
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IOSCO Principle 3	IBA's Response
affect any Benchmark determinations; and 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. 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: 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 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.	DC, and the Swiss National Bank; Independent Non-Executive Directors of IBA, and IBA representatives. The Oversight Committee is responsible for monitoring the administration of the benchmark. IBA's procedures for handling conflicts of interest are based on structure, disclosure and contractual provisions. IBA's offices are segregated from other areas, with key card access so that other ICE staff cannot access the offices. Confidentiality of data within IBA is protected through user access restrictions. IBA staff's remuneration is not linked to the level of ICE LIBOR. Regarding the second set of recommendations (a) and (b) of the Principle, any members of the ICE group who access the benchmark rates do so on same terms as other users, including both technical access arrangements and licence fees. IBA is part of the wider ICE group and conflicts, or perceived conflicts, may therefore arise through this ownership. These are acknowledged and managed via IBA's Conflicts of Interest Register and published within the Conflicts of Interest Policy.

Principle 4 – Control Framework for Administrators

IOSCO Principle 4	IBA's Response
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. This control framework should be reviewed periodically and updated as appropriate. The framework should address the following areas: a) Conflicts of interest in line with Principle 3 on conflicts of interests; b) Integrity and quality of Benchmark determination: 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; ii. Arrangements to promote the integrity of Benchmark inputs, including adequate due diligence on input sources; iii. Arrangements to ensure accountability and complaints mechanisms are effective, in line with principles 16 to 19; and iv. Providing robust infrastructure, policies and procedures for the management of risk, including operational risk. c) Whistleblowing mechanism:	IBA has a governance structure and a number of controls in place to manage conflicts of interest and the robustness and integrity of the design and development of the benchmark methodology and operations. IBA's governance structure includes a control framework for the design, calculation, maintenance and distribution of benchmarks. It is formally documented and the IBA Board is responsible for regularly reviewing the control framework and its effectiveness. The control framework is an overarching document that (along with methodologies, policies and procedures, oversight and accountability mechanisms, and business processes) covers the requirements of the IOSCO Principles. A summary of the main features is published at https://www.theice.com/iba/governance IBA also performs surveillance activities to help monitor and scrutinise inputs. Panel banks provide prescribed information on how each submission was constructed via a Daily Template and this information is added to the Surveillance Database. IBA's LIBOR Oversight Committee reviews trends and outliers through a dashboard summary. LIBOR panel banks are regulated by the FCA and thus must comply with the MAR 8.2 Requirements for benchmark submitters. Consequently, external audits of adherence to the FCA's requirements are required.

IOSCO Principle 4	IBA's Response
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. d) Expertise: 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 ii. Staff training, including ethics and conflicts of interest training, and continuity and succession planning for personnel. **Where a Benchmark is based on Submissions:** Administrators should promote the integrity of inputs by: 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; 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; c) Specifying how frequently Submissions should be made and specifying that inputs or Submissions should be made for every Benchmark determination; and 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	

IOSCO Principle 4	IBA's Response
in inputs or Submissions, as well as ex-post analysis of trends and outliers.	

Principle 5 – Internal Oversight

IOSCO Principle 5	IBA's Response
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. 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. 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: a) The terms of reference of the oversight function; b) Criteria to select members of the oversight function; 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 responsibilities of the oversight function include:** a) Oversight of the Benchmark design: i. Periodic review of the definition of the Benchmark and its	The LIBOR Oversight Committee provides oversight and governance for ICE LIBOR. The Committee is responsible under its Terms of Reference for monitoring the administration of the benchmark, including: • Regularly reviewing the methodology, definition and suitability of inputs for the benchmark • Assessing the underlying market and usage of the benchmark • Overseeing adherence to the calculation methodology and IBA policies, and • Approving procedures for the addition or withdrawal of currencies and tenors for the benchmark. The Committee is comprised of market representatives and industry bodies, Observers from central banks, Independent Non-Executive Directors of IBA, and IBA representatives. The composition of the LIBOR Oversight Committee is designed to ensure that a balance of interests is represented; that Committee members collectively exhibit an appropriate breadth of knowledge, experience and expertise; and that the Committee is able to represent a suitable diversity of views. Redacted minutes of the Oversight Committee's meetings are published on IBA's website. The Terms of Reference of the LIBOR Oversight Committee confirm that they are responsible for: • Approving results of the annual review of the benchmark definition and methodology

IOSCO Principle 5	IBA's Response
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. Oversight of the integrity of Benchmark determination and control framework: i. Overseeing the management and operation of the Benchmark, including activities related to Benchmark determination undertaken by a third party; 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 iii. Overseeing any exercise of Expert Judgment by the Administrator and ensuring Published Methodologies have been followed. **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**	• Considering reviews of the Administrator's performance in respect of ICE LIBOR, including compliance with published methodologies, applicable laws and regulations, and any recommendations made by these reviews insofar as they affect the integrity of the benchmark. IBA ensures that the Committee is kept appraised of risks and issues relating to the benchmark • Approving proposed changes to the benchmark methodology as well as involvement in the conduct of public consultations, and • Approving proposed cessation or termination of the benchmark should such an occasion arise and outlining the guidelines for such an eventuality. The Oversight Committee provides oversight and challenge through the following: • Scrutinising a Dashboard at each meeting showing the surveillance alerts relating to LIBOR; this includes the number of alerts by currency, bank and alert category together with the differences from the average number of alerts • Reviewing the LIBOR Code of Conduct at least annually, and • Assessing Dashboard data on submitters' errors in submissions.

IOSCO Principle 5	IBA's Response
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. Where a Benchmark is based on Submissions: the oversight function should provide suitable oversight and challenge of the Submissions by: 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 challenging or sampling unusual inputs or Submissions; b) Overseeing the Code of Conduct for Submitters; c) Establishing effective arrangements to address breaches of the Code of Conduct for Submitters; and 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.	

Principle 6 – Benchmark Design

IOSCO Principle 6	IBA's Response
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. Benchmark design should take into account the following generic non-exclusive features, and other factors should be considered, as appropriate to the particular Interest: a) a) Adequacy of the sample used to represent the Interest; b) Size and liquidity of the relevant market (for example whether there is sufficient trading to provide observable, transparent pricing); c) Relative size of the underlying market in relation to the volume of trading in the market that references the Benchmark; d) The distribution of trading among Market Participants (market concentration); and e) Market dynamics (e.g., to ensure that the Benchmark reflects changes to the assets underpinning a Benchmark).	LIBOR is a trimmed mean of polled rates. Every UK business day, Benchmark Submitters send IBA the rate at which they believe they could borrow funds in a currency for each of the seven tenors. There is a panel of Benchmark Submitters for each of the five LIBOR currencies: US Dollars; Pounds Sterling; Euros; Japanese Yen; and Swiss Francs. Each panel bank is authorised by the FCA as a Benchmark Submitter. The policy on the criteria for the composition of the LIBOR currency panels is published at https://www.theice.com/publicdocs/Policy_Composition_ICE_LIBOR_Panels.pdf The current design of the methodology that LIBOR panel banks follow is a close reflection of the findings of the Wheatley Review in September 2012. Box 4.B of the Wheatley Review sets out the hierarchy of transactions types that LIBOR panel banks use. Regarding features of the underlying market, trading amongst participants is highly disaggregated and following the financial crisis, activity in the interbank market has decreased markedly. Now, wholesale deposits negotiated with non-bank counterparties play an increasingly important role in bank funding. The evolution of LIBOR aims to address this and base LIBOR to the greatest extent possible on transactions; for example unsecured loans by corporates will be eligible transactions for informing LIBOR submissions. To understand further how IBA will enhance the robustness of the methodology, please see the ICE LIBOR Roadmap published at:

IOSCO Principle 6	IBA's Response
	https://www.theice.com/publicdocs/ICE_LIBOR_Roadmap0316.pdf With reference to each of the points in Principle 6: a) For the sample used to represent the Interest, panel sizes vary for the five LIBOR currencies; panel sizes range from 17 in USD to 11 in CHF. Per the LIBOR Code of Conduct, contributing banks should submit rates every UK business day, even during periods of market turmoil and inactivity b) In accordance with the LIBOR Code of Conduct LIBOR submissions should be based on the funding transactions of the banks, related market data and expert judgement. The level of transactions is reviewed periodically by the LIBOR Oversight Committee through the Dashboard of key metrics c) A range of transaction types is acceptable for determining submissions but the greatest emphasis should be on transactions undertaken by the submitter. This includes transactions that are in other unsecured deposit markets and related markets d) For all tenors and currencies, LIBOR determinations are based on submissions from a number of contributors; panel sizes range from 17 in USD to 11 in CHF. To reduce the effect of any outliers, ICE LIBOR is a trimmed mean e) IBA has published a Roadmap which details how submission methodology will change. The objectives of IBA's Roadmap include implementing a construct to ensure that the rate can continue to adapt to changing market conditions with appropriate consideration for the interests of all stakeholders. The Roadmap is published at https://www.theice.com/publicdocs/ICE_LIBOR_Roadmap0316.pdf.

Principle 7 – Data Sufficiency

IOSCO Principle 7	IBA's Response
The data used to construct a Benchmark determination should be sufficient to accurately and reliably represent the Interest measured by the Benchmark and should: 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., 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.	LIBOR is calculated using submissions from LIBOR panel banks, currently using the hierarchy of transaction types set out in the Wheatley Review[3]. Transaction data is used where possible as stipulated in the LIBOR Code of Conduct. Banks also use expert judgement to a greater or lesser extent in their submissions, depending on the availability of reference transactions. In response to requirements a) and b) of the Principle, the Submission Methodology within the Annex to the LIBOR Code of Conduct requires that a contributing bank place greatest emphasis on transactions undertaken by themselves in relevant markets when determining submissions. However a range of transaction types are eligible which include observations of third party transactions in the relevant markets, indicative quotes by third parties or, in the absence of any transaction data, expert judgement alone.

3 See https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/191762/wheatley_review_libor_finalreport_280912.pdf

IOSCO Principle 7	IBA's Response
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. 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 "anchored" in an actual functioning securities or options market.	

Principle 8 – Hierarchy of Data Inputs

IOSCO Principle 8	IBA's Response
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: a) Where a Benchmark is dependent upon Submissions, the Submitters' own concluded arms-length transactions in the underlying interest or related markets; b) Reported or observed concluded Arm's-length Transactions in the underlying interest; c) Reported or observed concluded Arm's-length Transactions in related markets; d) Firm (executable) bids and offers; and e) Other market information or Expert Judgments. 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	The submission methodology to be followed by panel banks is included in the Annex to the LIBOR Code of Conduct which is available on IBA's website at https://www.theice.com/publicdocs/LIBOR_Code_of_Conduct_1_March_2016_Issue_2.pdf. In accordance with the submission methodology, LIBOR banks determine their submissions based on a range of relevant transaction types, anchoring their submissions to the extent possible in transactions. Where there is no such data or there is insufficient data to represent the submitters' views of their funding costs, submitters use a mix of unsecured interbank deposits and other unsecured transactions to determine their submissions. If appropriate, consideration is also given to other unsecured transactions (including ones in respect of Asset Managers, CDs, Central Banks, Corporates, CP, Fiduciary Trusts, Government Agencies, Local Authorities, Money Market Funds, Multi-Lateral Development Banks, Non-Bank Financial Institutions, Sovereign Wealth Funds but excluding Government Guarantee Schemes, Internal Transactions or Repos/Reverses). Panel banks may also use expert judgement, either on its own or to some extent in conjunction with other reference points such as brokers' quotes. In line with the strategic direction set by the Financial Stability Board ("FSB") and other official sector bodies, IBA has focused on evolving LIBOR to meet the following objectives, to: • Base LIBOR in transactions to the greatest extent possible – as described in

IOSCO Principle 8	IBA's Response
and extrapolations from prior transactions might predominate in a given Benchmark determination.	the following sections • Publish a single, clear, comprehensive and robust LIBOR definition – the ICE LIBOR Output Statement has been published by IBA • Implement a construct for ensuring the rate can adapt to changing market conditions with appropriate consideration for the interests of all stakeholders, and • Evolve LIBOR through a seamless transition – phasing the implementation of the standardised methodology. IBA's Roadmap is designed to base LIBOR in transactions to the greatest extent possible. To achieve this, IBA has designed a waterfall with three levels of submission methodologies to ensure that LIBOR panel banks use funding transactions where available: Level 1: Transactions (using the time-weighted VWAP of the submitting bank's eligible transactions) Level 2: Transaction-derived data (where submissions are based on the VWAP of adjusted historical transactions and interpolation), and Level 3: Market-data based (Expert Judgment using a documented methodology for basing submissions on transactions in related markets, committed quotes, indicative quotes and other market observations).

Principle 9 – Transparency of Benchmark Determinations

IOSCO Principle 9	**IBA's Response**
The Administrator should describe and publish with each Benchmark determination, to the extent reasonable without delaying an Administrator publication deadline: 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); 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.	The methodology for ICE LIBOR is available on IBA's website at https://www.theice.com/iba/libor. IBA publishes weekly and quarterly statistics on the liquidity of the underlying market with indicative percentages of each type of submissions: based on transactions; transaction-derived; or expert judgement. The statistics are published at: https://www.theice.com/iba/historical-data. After 3 months of embargo (as recommended in the Wheatley Review), IBA publishes individual banks' submissions on a non-attributed basis.

Principle 10 – Periodic Review

IOSCO Principle 10	IBA's Response
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. 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.	The underlying market and the evolution of LIBOR are kept under review by IBA in conjunction with the LIBOR Oversight Committee. At each meeting the Committee reviews the underlying interest of the benchmark via a Dashboard of metrics and considers if there are any structural changes in the market. The Oversight Committee reviews all aspects of the determination of the benchmark: the methodology; the definition of the benchmark; the suitability of inputs; the scope of the benchmark; and the setting of the benchmark. IBA's published Consultation Policy, approved by the IBA Board, defines the process by which changes are made to the benchmark. In accordance with the Consultation Policy, any material revisions are subject to consultation and include a summary of the review and the rationale for the changes.

Principle 11 – Content of the Methodology

IOSCO Principle 11	IBA's Response
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. **At a minimum, the Methodology should contain:** a) Definitions of key terms; 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; b) Procedures and practices designed to promote consistency in the exercise of Expert Judgment between Benchmark determinations; c) 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); d) The procedures for dealing with error reports, including when a revision of a Benchmark would be applicable; e) Information regarding the frequency for internal reviews and approvals of the Methodology. Where applicable, the Published	LIBOR is a polled rate. Every UK business day, LIBOR panel banks send IBA the rates at which they believe they could borrow funds, using the submission methodology set out in the LIBOR Code of Conduct. There is a currency panel for each of the five LIBOR currencies, as published by IBA at https://www.theice.com/iba/libor . Every ICE LIBOR rate is calculated using a trimmed arithmetic mean. Once each panel bank's submission is received, they are ranked in descending order and then the highest and lowest 25% of submissions are excluded. This trimming of the top and bottom quartiles allows for the exclusion of outliers from the final calculation The remaining contributions are then arithmetically averaged and the result is rounded to five decimal places to create an ICE LIBOR rate. This is repeated for every currency and maturity, producing 35 rates every London business day. With reference to the Principle's specific recommendations on the content of the Methodology: a) The published methodology for LIBOR defines what LIBOR submissions are and what rate is used. "Reasonable market size" is intentionally unquantified and the reasons for this are listed: it would require frequent change; vary between currencies and maturities; and would lead to a considerable amount of confusion b) All criteria and procedures used to develop ICE LIBOR are included within the published Methodology and in the LIBOR Code of Conduct which is publicly available on IBA's website c) IBA does not exercise expert judgment in collecting submissions and calculating

IOSCO Principle 11	IBA's Response
Methodologies should also include information regarding the procedures and frequency for external review of the Methodology; f) The circumstances and procedures under which the Administrator will consult with Stakeholders, as appropriate; and g) The identification of potential limitations of a Benchmark, including its operation in illiquid or fragmented markets and the possible concentration of inputs. **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.	ICE LIBOR benchmarks d) As referenced in Principle 7, LIBOR is based on submissions, which are in turn based on the LIBOR submission guidelines as set out in the LIBOR Code of Conduct. These guidelines frame the use of expert judgement by submitters. The LIBOR Code of Conduct asks contributing banks to provide submissions every UK business day including during periods where transaction data may be absent. IBA's Reduced Submissions Policy is published at https://www.theice.com/publicdocs/ICE_LIBOR_Reduced_Submissions_Policy.pdf Under the policy, the minimum number of submissions required to perform the LIBOR calculation is five. In the event that a currency has fewer than 5 submissions, which might occur in a period of market stress or disruption, IBA would be likely to re-publish the previous day's published rate for all tenors in that particular currency. e) The ICE LIBOR Error Policy is published at https://www.theice.com/publicdocs/ICE_LIBOR_Error_Policy.pdf This states that if an error with a potential impact of 3 bps or more of the published LIBOR rate is reported to IBA by 15.00 London time, IBA will consider an intraday re-fix. f) The Methodology is reviewed by the LIBOR Oversight Committee as documented in its Terms of Reference and in accordance with its Calendar of Agenda Items. The circumstances and procedures under which IBA will consult with Stakeholders are set out in the Consultation Policy which is available at https://www.theice.com/publicdocs/IBA_consultation_process.pdf IBA has defined what constitutes a material change as one which would require a

IOSCO Principle 11	IBA's Response
	change to IBA's published methodology, other than small cosmetic changes. Material changes are subject to approval by the LIBOR Oversight Committee through the consultation process. Changes to the methodology which do not require consultation are signed off by IBA's President. g) Due to the global financial infrastructure's heavy reliance on LIBOR publications, the LIBOR Code of Conduct asks contributing banks to submit daily rates even during periods of market turmoil and inactivity. This includes any situation in which there could be little or no trade data for an extended period and therefore little or no opportunity for submitters to undertake price discovery in some market segments. In this scenario, a higher degree of expert judgement may be required by contributing banks. With reference to the additional Principle for a benchmark based on submissions, IBA has published criteria for being a LIBOR panel bank at https://www.theice.com/publicdocs/futures/Policy_Composition_ICE_LIBOR_Panels.pdf .

Principle 12 – Changes to the Methodology

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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.
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 Administrator should specify how changes to the Methodology will be scrutinised, by the oversight function.
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:
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
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,
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IBA engages in wide consultation with stakeholders, not only on proposed changes itself but also on the timing of any change and whether any transitional arrangements would be appropriate.
Factors to be taken into account include:

Feedback from the LIBOR Oversight Committee;
Feedback from any consultation;
The impact for existing and potential users of ICE LIBOR;
Any regulatory implications;
Any delivery or other risks which may arise as a consequence of the change;
The implementation timing of the change and its proximity to expected happenings (such as the introduction of new regulatory initiatives affecting the market); and
Any other factors of relevance to the particular change or desired outcome.

Changes to the methodology are reviewed by the LIBOR Oversight Committee in accordance with its Terms of Reference and IBA's published Consultation Policy (which explains how materiality is defined) when reviewing the materiality of any changes.
A material change is defined as any change that would require an update to the published Methodology for ICE LIBOR, Changes to the methodology which do not require consultation are signed off by IBA's President.
IBA’s published Consultation Policy is available at https://www.theice.com/publicdocs/IBA_consultation_process.pdf.
IBA publishes consultation papers on its website and invites interested parties to comment on the proposals by a specified date.
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IOSCO Principle 12	IBA's Response
except where the commenter has requested confidentiality.	When a consultation period closes, IBA publishes a feedback statement summarising responses (excluding points made by a commenter who has requested confidentiality).

Principle 13 – Transition

IOSCO Principle 13	IBA's Response
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. These written policies and procedures should be Published or Made Available to all Stakeholders. Administrators should encourage Subscribers and other Stakeholders who have financial instruments that reference a Benchmark to take steps to make sure that: 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 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. 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: 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	IBA's Benchmark Cessation Procedure is published at: https://www.theice.com/publicdocs/IBA_Cessation_Procedure.pdf The Benchmark Cessation Procedure lists possible triggers that might lead to a cessation, including external factors out of IBA's control. To enable stakeholders to put in place robust fall-back provisions, IBA's Benchmark Cessation Procedure states that stakeholders would be engaged with actively. IBA also has a Transition Policy that sets out a number of factors related to IBA benchmarks that users may wish to consider when seeking to identify alternative benchmarks. The Transition Policy is published at: https://www.theice.com/publicdocs/IBA_Transition_Policy.pdf

IOSCO Principle 13	IBA’s Response
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; 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; 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 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.	

Principle 14 – Submitter Code of Conduct

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Where a Benchmark is based on Submissions, the following additional Principle also applies:
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.
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.
The Administrator's oversight function should be responsible for the continuing review and oversight of the Submitter Code of Conduct.
The Submitter Code of Conduct should address:
a) The selection of inputs;
b) Who may submit data and information to the Administrator;
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;
Criteria applied to employees of a Submitter who are permitted to submit data or information to an Administrator on behalf of a Submitter;
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The LIBOR Code of Conduct is published by IBA at:
https://www.theice.com/publicdocs/LIBOR_Code_of_Conduct_1_March_2016_Issue 2.pdf.
The Code is FCA-confirmed industry guidance, which means that the FCA will regard firms following such confirmed guidance as complying with the relevant Handbook. However the FCA will not treat failure to comply with such guidance as indicating that the firm has breached that rule, as in many cases there will be more than one way to comply.
The Submission Methodology within the LIBOR Code of Conduct recommends that a range of transaction types should be used for basing submissions on and that greatest emphasis should be placed on transactions undertaken by the contributing bank. The suggested range of transactions are:

The contributing bank's transactions in:

The unsecured inter-bank deposit market
Other unsecured deposit markets, such as certificates of deposit and commercial paper, and
Other related markets, such as overnight index swaps, repurchase agreements, foreign exchange forwards, interest rate futures and options and central bank operations.

The contributing bank's observations of third party transactions in the same markets and using the same range of transactions.
Indicative quotes by third parties offered to contributing banks in the same markets.

The Code details the expectations around submitters' internal systems and controls.
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IOSCO Principle 14	IBA's Response
Policies to discourage the interim withdrawal of Submitters from surveys or Panels; Policies to encourage Submitters to submit all relevant data; and The Submitters' internal systems and controls, which should include: 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 inter-group transactions, and to ensure the Bona Fide 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	

IOSCO Principle 14	IBA's Response
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.	

Principle 15 – Internal Controls over Data Collection

IOSCO Principle 15	IBA's Response
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.	The calculation of ICE LIBOR is based solely on submissions made by LIBOR panel banks that are authorised and regulated by the FCA. Data integrity is maintained through validation checks performed on the input data before being accepted into the benchmark calculation; where the validation checks identify an anomaly, the bank is sent an automatic electronic alert and must confirm all of its submissions for that LIBOR currency. Data security is managed through SSH keys for evidentiary files submitted through MFT, whitelisted IP addresses and user login credentials issued to each data provider individually.

Principle 16 – Complaints Procedures

IOSCO Principle 16	IBA's Response
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. The complaints procedures policy should: a) Permit complaints to be submitted through a user-friendly complaints process such as an electronic Submission process; 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; c) Contain a process for escalating complaints, as appropriate, to the Administrator's governance body; and 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	IBA has a written Complaints Policy that sets out the procedure according to which a complaint will be dealt with by senior staff not involved in the matter. The Policy explicitly covers complaints regarding the underlying interest, methodology and IBA decisions. The Policy is available on IBA's website at https://www.theice.com/publicdocs/IBA_Complaints_Policy.pdf. With reference to each point of Principle 16: a) Complaints may be made in writing (including e-mail) or orally to IBA b) IBA's Complaints Policy sets out the procedure for review of any compliant by senior staff not involved in the matter. The Policy states that IBA will acknowledge a complaint within 2 business days of receipt and, if a final response cannot be sent within 8 weeks of receiving the complaint, IBA will write to the complainant to explain why and to state when completion of the review is expected c) IBA's Complaints procedure explicitly allows complainants to address the IBA Board of Directors, and d) Information related to complaints is stored in a restricted access folder and kept for five years.

IOSCO Principle 16	IBA’s Response
requirements. 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.	

Principle 17 – Audits

IOSCO Principle 17	IBA's Response
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. 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.	IBA has a schedule of internal and external audits which is agreed by IBA's Audit and Risk Committee. The ICE Group's Internal Audit function and an independent external auditor have conducted reviews in 2016/17 of IBA's compliance in respect of ICE LIBOR with the IOSCO Principles for Financial Benchmarks.

Principle 18 – Audit Trail

IOSCO Principle 18	IBA's Response
Written records should be retained by the Administrator for five years, subject to applicable national legal or regulatory requirements on: a) All market data, Submissions and any other data and information sources relied upon for Benchmark determination; b) The exercise of Expert Judgment made by the Administrator in reaching a Benchmark determination; c) Other changes in or deviations from standard procedures and Methodologies, including those made during periods of market stress or disruption; d) The identity of each person involved in producing a Benchmark determination; and e) Any queries and responses relating to data inputs. 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. **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: a) The procedures and Methodologies governing the Submission of inputs; b) The identity of any other person who submitted or otherwise	IBA keeps records for at least five years of: • All benchmark submissions used to determine the specified benchmark it administers • The person and, where possible, the individual who made the relevant benchmark submission, and • the LIBOR Code of Conduct, whistle-blowing policies and other written records. With reference to the individual points of Principle 18: a) All LIBOR submissions are retained by IBA for at least five years b) ICE LIBOR is based solely on submissions made by the LIBOR panel banks, with no adjustment or Expert Judgement applied by IBA c) Any changes in or deviations from standard procedures and Methodologies would be retained by IBA for at least five years (for example, if the published Reduced Submissions Policy is invoked by IBA) d) IBA maintains a record of the IBA operators involved in producing LIBOR Benchmark determinations if there was manual intervention. This information is retained for at least 5 years, and e) IBA retains all queries and responses relating to data inputs for at least 5 years. An example of this is where IBA queries, before the benchmark publication, whether an anomalous submission is correct. ICE LIBOR is a benchmark based on submissions and the LIBOR Code of Conduct notes that: a) A contributing bank should maintain records relating to the process surrounding

IOSCO Principle 18	IBA's Response
generated any of the data or information provided to the Administrator; c) Names and roles of individuals responsible for Submission and Submission oversight; d) Relevant communications between submitting parties; e) Any interaction with the Administrator; f) Any queries received regarding data or information provided to the Administrator; g) Declaration of any conflicts of interests and aggregate exposures to Benchmark related instruments; h) Exposures of individual traders/desks to Benchmark related 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.	rate determination (section 6.3). Each LIBOR Benchmark Submitter is regulated by the FCA and is required under the regulator's rules to keep for at least five years all records of its Benchmark Submissions and all information used to enable it to make a Benchmark Submission. A Benchmark Submitter must establish and maintain adequate and effective organisational and governance arrangements for the process of making Benchmark Submissions, including appropriate oversight of the submission process by the Benchmark Submitter's senior personnel. b) and c) Each person directly involved in the submission process should be recorded. (section 1.9) d) All relevant communications between those responsible for submission which is not face to face should be conducted on the contributing bank's recorded telephone and electronic communication systems and not on personal telephones or other personal electronic devices. Communication relating to submissions should not be conducted in a manner that prevents the contributing bank from recording such communications. (Section 4.9) Also, paragraph 6.3 states that a contributing bank should maintain records relating to, inter alia, communications between the submitters and others in determining submissions, such as internal and external traders and brokers. e) and f) The LIBOR Code of Conduct provides at paragraph 6.3 that a contributing bank should maintain records relating to, inter alia, interaction with the LIBOR Administrator. g) Contributing banks should have in place effective organisational and administrative arrangements to manage conflicts of interests. (Section 4.1) h) A contributing bank is required to keep, for five years, reports on the key sensitivities the contributing bank may have regarding the specified benchmark it is submitting to, including the submitter's exposure to instruments which may be affected by changes in the specified benchmark (section 6.1); i) A contributing bank should maintain records relating to the findings of compliance

IOSCO Principle 18	IBA’s Response
	reviews and internal and external audits (section 6.3). Additionally the Code states the summary of findings and actions should be available to IBA and the FCA on request.

Principle 19 – Cooperation with Regulatory Authorities

IOSCO Principle 19	**IBA's Response**
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 ret.	ICE LIBOR is a regulated benchmark and therefore IBA cooperates closely with the FCA. The FCA's MAR 8.3.11 rule states that, "The benchmark administrator must be able to provide to the FCA, on a daily basis, all benchmark submissions it used to determine the specified /benchmark it administers." IBA responds promptly to queries from the regulator. IBA has also already cooperated with IOSCO itself: providing information; responding to enquiries and surveys; and meeting to discuss matters relating to the IOSCO Principles for Financial Benchmarks. IBA liaises with the FCA regularly, with at least monthly supervisory meetings/conference calls and frequent ad hoc telephone conversations.