

Assessment Methodology
IOSCO Principles for Financial Benchmarks



OICV-IOSCO

International Organization of Securities Commissions

January 2014

Instructions

This assessment methodology supports the review by International Organisation of Securities Commissions' (**IOSCO**) of the implementation of the IOSCO Principles for Financial Benchmarks (**Principles**) by the administrators of LIBOR, EURIBOR and TIBOR.

This review will cover all the fixings published by the administrators of LIBOR, EURIBOR and TIBOR

As one of these administrators, we ask you to read this methodology and respond to the questionnaire in section III in accordance with the instructions by **7 February 2014**.

Your response should be sent to [email address] in MSWord format. You should also send any documentation and data which supports your response to this email address. Data should be submitted in either MSWord or MExcel format.

INTRODUCTION

A. Background

At its 24 June 2013 meeting, the Financial Stability Board (**FSB**) Plenary established an Official Sector Steering Group (**OSSG**) of regulators and central banks on interest rate Benchmark reform.¹ As part of this work, the OSSG is to recommend global standards for reference rate Benchmarks and reviewing them against these standards. It is to also oversee work on exploring additional reference rates and transition strategies to these rates.

At its August 2013 meeting, the FSB Plenary endorsed the following OSSG proposals:

- That the Principles form the most appropriate set of regulatory standards on which to base a review of individual Benchmarks;²
- To focus initial work on the London Inter-Bank Offer Rate (**LIBOR**), the Euro Inter-Bank Offer Rate (**EURIBOR**) and the Tokyo Inter-Bank Offer Rate (**TIBOR**); and
- To commission IOSCO to conduct a review of these three Benchmarks against the Principles (**Review**) and report its findings to the OSSG.³

On 3 September 2013, the chairs of the OSSG formally requested the IOSCO Board ‘...that IOSCO conducts a review of the most widely used interest rate Benchmarks (LIBOR, EURIBOR and TIBOR), based on the developed Principles, to ensure timely delivery of the final recommendations and analysis by the OSSG to the FSB in June 2014.’ This work was requested to be completed by 15 May 2014.

At its meeting in September 2013 in Luxembourg, the IOSCO Board agreed to this request. It approved terms of reference for the Review to be conducted by a Review Team comprised of members from the IOSCO Task Force on Financial Benchmarks and the IOSCO Assessment Committee.

This Review Team was constituted in early October 2013 with the purpose of completing the Review.⁴

B. Objectives of the Review

Consistent with the OSSG's request, the objective of this Review is to identify the degree of implementation of the Principles by the respective Administrators of LIBOR, EURIBOR and TIBOR.

¹ See Financial Stability Board, *Progress report on the oversight and governance framework for financial benchmark reform: Report to G20 Finance Ministers and Central Bank Governors* (29 August 2013) for more detail on the OSSG and its work program. Available at: http://www.financialstabilityboard.org/publications/r_130829f.pdf.

² IOSCO, *Principles for Financial Benchmarks, Final Report* (July 2013). Available at: <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf>.

³ Ibid, 2.

⁴ The Review Team is constituted by staff from the Financial Conduct Authority (United Kingdom) (**FCA**) (Co-Chair), the Australian Securities and Investments Commission (Co-Chair), the Commodity Futures Trading Commission (United States), the European Securities and Markets Authority (**ESMA**), the Federal Financial Supervisory Authority (Germany), the Financial Services Agency of Japan (**JFSA**), the Financial Services and Markets Authority (**FSMA**) (Belgium) and the Monetary Authority of Singapore (MAS). Members of the IOSCO Secretariat are providing administrative support to the Review Team.

C. Deliverable of the Review

The Review will deliver a report to be approved by the IOSCO Board and submitted to OSSG (**Review Report**) setting out:

- This assessment methodology (**Assessment Methodology**);
- The degree of implementation of the Principles by the Administrators for LIBOR, EURIBOR and TIBOR taking into account their policies and practices as implemented up to early April 2014; and
- Where a Principle is yet to be implemented in full:
 - The key reasons why this is the case; and
 - A description of the relevant Administrator's plans (if any) to fully implement the Principle (including the time table for those plans).

I. THE ASSESSMENT METHODOLOGY

A. Introduction

This Assessment Methodology has been developed to facilitate the assessment of the degree of implementation by the Administrators of LIBOR, EURIBOR and TIBOR of the Principles.

The Methodology also has been designed as a means for identifying any potential gaps, inconsistencies, weaknesses and areas where further policy development may be necessary.

The Assessment Methodology sets out the instructions for responding to the questionnaire and assessment grades that the Review Team will use to indicate the degree of implementation by the Administrators of each Principle. It also includes a detailed questionnaire in section III. This questionnaire sets out:

- The text of each Principle, which set out the obligations of the Administrator;
- Key Indicia of implementation of each Principle; and
- Key Questions to elicit evidence to assess the existence of the Key Indicia.

B. Key Indicia

The Key Indicia for each Principle are the minimum policies, procedures and practices that the Review Team would expect to see if an Administrator had implemented that Principle.

They express discrete, identifiable elements of a Principle that can be used to assess the degree of implementation of a Principle by an Administrator. In this sense, they form an integral part in the rating mechanic of this assessment methodology.

For clarity, they do not add to, or alter, the Principles: They are effectively segmented summaries of the Principles.

C. Key Questions – How to Respond

The Key Questions have been developed to elicit responses from the Administrators that will allow the Review Team to assess the extent of implementation of each Principle.

Rates and fixings covered by the review

Administrators should provide responses and information on all the rates and fixings in different tenors and currencies (where applicable) they provide.

Policy and practice

This Assessment Methodology envisions that assessors will evaluate whether the objectives of a Principle are implemented from two perspectives:

- From a policy or design perspective (i.e., by identifying the Administrator's relevant policies and any laws, rules and regulations that form the overall framework applicable to benchmark activities in the jurisdiction.⁵); and
- From an operational perspective (i.e., are the policies implemented in practice and do the policies operate as designed).

It is important that the Administrator's responses to the Key Questions cover both their formal policies and procedures as well as how those policies and procedures are implemented in practice. Where full implementation in practice has not been accomplished, the reasons for this should be given.

Failure to address the issue of implementation in practice will impair the ability of the Review Team to assess whether a particular Principle is being followed by an Administrator.

Evidence

In addition to their narrative responses, the Administrators should provide sufficient evidence to allow the Review Team to verify those responses. Accordingly:

- With respect to policies and procedures, supporting documentation, as well as internet linkages to such documents, should be provided wherever possible.
 - Where documentation is provided, the Administrators are requested to indicate in their response the relevant part of the documentation that they are relying on to evidence implementation of the Principle.
- The Administrators should provide data, examples or other evidence to substantiate the implementation practice that they follow.

The Review Team notes that it will seek access to other relevant information and stakeholders when conducting an assessment.

- Relevant information may include public information (such as relevant laws, regulations and policies) and non-public information (such as internal self-assessments, policies, procedures, data, metrics and supervisory reports).
- Relevant stakeholders may include individuals (such as management and auditors), organizations (such as market participants and industry associations) and authorities (i.e., relevant regulators and central banks). Interviews with the Administrators and other relevant stakeholders may also be conducted to confirm whether procedures are, in fact, followed.

⁵ The focus of the assessment and rating is solely on the Administrator's policies and practices, not the relevant jurisdiction's laws that may be in effect. Where such laws and regulations exist, they might be referenced as a means to show implementation and to inform the assessors' understanding of the regulatory environment.

Administrators are requested to be prepared to facilitate access to this relevant information and these relevant stakeholders where that access is within their control.

Further, any official reviews of a Benchmark or reports developed by relevant authorities, central banks or OSSG work groups may be referred to by the Review Team in order to provide context to the response and to identify matters that might require follow-up questions to an Administrator.

Alignment of responses to Principles

In order to assist the Review Team, responses to the Key Questions should explicitly highlight how the relevant policies and practices align with the specific requirements of each Principle.

A simple mapping of policy and practices to Principle, however, should not be the only response provided to the question. Responses should explain as robustly and succinctly as possible how the Administrator's written policies conform to a Principle and how its activities implement those policies.

D. Approach to Assessing Implemented Policies and Practices

Overview

The Review assessment will be based on an Administrator's implemented policies and practices up until **11 April 2014**.

The Review Team will assign assessment ratings for each individual Principle using the rating scale set out below and will substantiate all assigned ratings with reasoning in the Review Report.

The Review Report will not assign a single, overall assessment rating for the Administrator's implemented policies and procedures as an integrated whole. The Review Team will, however, form a qualitative assessment of an Administrator's overall compliance with the Principles on the basis of the ratings. This qualitative assessment will be the Review Report's key message, as the purpose of the Review is to encourage and assist compliance.

Instructions to assessors

Conclusions about which rating are assigned to each Principle should be reached using the following method:

1. Summarise the Administrator's implemented policies and practices;
2. Identify whether any Key Indicia have not been implemented by the Administrator through those summarised policies and practices (planned policies and practices should not be taken into account at this stage);
3. Assess whether the failure by the Administrator to implement any Key Indicia in the summarised policies and practices affects the Administrator achieving the intended outcome of the Principle.

The intended outcome of the Principle is to be ascertained by considering both the specific Key Indicia and the text of the Principle as extracted in this Assessment Methodology; and

4. Based on this identification and assessment, assign one of the following ratings to the Principle.

Rating Scale

Fully Implemented

A Principle will be considered to be Fully Implemented when all Key Indicia have been

implemented without any significant deficiencies.

Broadly Implemented

A Principle will be considered to be Broadly Implemented when the assessment demonstrates shortcomings in implementation of the Key Indicia by the Administrator and those shortcomings do not, in the judgment of the assessor, substantially affect the Administrator achieving the intended outcome of the Principle.

Partly Implemented

A Principle will be considered to be Partly Implemented when the assessment demonstrates shortcomings in implementation of the Key Indicia by the Administrator and those shortcomings, in the judgment of the assessor, substantially affect the Administrator achieving the intended outcome of the Principle.

Not Implemented

A Principle will be considered to be Not Implemented when the assessment demonstrates no implementation of any of the Key Indicia by the Administrator or where there is some implementation, the implementation is manifestly ineffective in achieving the intended outcome of the Principle.

The assessment should note instances where implementation of a particular Principle could not be adequately assessed and explain why. For example, certain information may not have been provided or the data that is used to assess the degree of implementation may be inconclusive. Unsatisfied requests for information should be documented in writing.

E. Approach to Planned Policies and Practices

The Review Team is conscious that the Principles were only released in July 2013. At the time of responding to the Key Questions, therefore, Administrators of LIBOR, EURIBOR and TIBOR will have had approximately seven months to align their policies and practices with the Principles.

Accordingly, a key part of the Review Report will include describing the status of any plans for Administrators to fully implement (or to ensure a greater degree of implementation of) the Principles. The Review Report will not formally assess these plans; it will simply describe them.

To assist the Review Team to describe reform plans, there is a Key Question associated with each Principle that asks whether an Administrator anticipates the arrangements that they have described in their responses connected to that Principle changing in the future.

In responding to these questions, the Administrators should ensure that they:

- 1. Describe in detail the nature of any anticipated changes, including the extent to which they have engaged in planning or designing new policies or practices and providing any available drafts or outlines of these new policies;*
- 2. Provide a timeline over which the arrangements will change;*
- 3. Identify whether regulatory or legislative change is driving the anticipated changes; and*
- 4. Explain how they believe the new arrangements will help the Administrator implement the relevant Principle. To the extent concrete proposals have been published, responses should*

explicitly highlight how the relevant policies and practices would align with the specific requirements of each Principle.

The Review Team will contact each Administrator prior to **11 April 2014** to follow up on the adoption and/or implementation of any anticipated changes. We would also encourage each Administrator to keep the Review Team updated on the progress of the implementation of their reforms through to this date. This will allow the Review Team to take into account all relevant information when performing their assessments.

F. Confidentiality

The Review Team appreciates that responses to the Key Questions may elicit market or commercially sensitive information.

To address this issue:

- Each Administrator is requested to indicate what information is market or commercially sensitive in its response.
- Each Administrator will send their response to their relevant Regulatory Authority⁶, where relevant, for vetting and scrubbing before the response is shared with the broader Review Team.
 - That relevant Regulatory Authority will be responsible for ensuring the response does not contain any market or commercially sensitive information that should not be shared with the broader Review Team.
- Each Administrator will be afforded the opportunity to review the Review Report prior to its submission to the OSSG by the Review Team.
- The Review Team will not share any non-public information concerning one Administrator with any other Administrator.

G. Key Dates

The key dates for this Review are:

- **13 January 2014** – Assessment Methodology sent to Administrators for completion
- **7 February 2014** – **Responses from Administrators due back to Review Team**
- **Mid-February – Mid-March 2014** – Review Team analyses responses, assigns preliminary assessments grades and drafts Review Report
- **Through to early April 2014** – Review Team to conduct any follow-up with Administrators on planned changes or on further information requests
- **By 11 April 2014** – Review Team to share relevant parts of draft of Review Report with individual Administrator for their comment
- **May 2014** – Review Report submitted to IOSCO Board for approval
- **15 May 2014** – Review Report submitted to OSSG

⁶ This will be the FCA for LIBOR and the JFSA for TIBOR.

H. Definitions

Capitalised terms that are used but not defined in the text of this Assessment Methodology are defined in Annex I (or take a cognate meaning to those definitions e.g. past tense or plural versions).

QUESTIONNAIRE

A. Governance

A Benchmark should have appropriate governance arrangements in place to protect the integrity of the Benchmark and to address conflicts of interests.

1. Overall Responsibility of the Administrator

The Administrator should retain primary responsibility for all aspects of the Benchmark determination process. For example, this includes:

- a) Development: The definition of the Benchmark and Benchmark Methodology;
- b) Determination and Dissemination: Accurate and timely compilation and publication and distribution of the Benchmark;
- 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
- 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.

Key Indicia of implementation of Principle

1.1 Administrator has primary responsibility for all aspects of Benchmark determination process include (at a minimum):

- a) Development: definition of Benchmark and methodology;
- b) Determination and dissemination: accurate and timely compilation, publication and distribution;
- c) Operation: appropriate transparency over significant decisions affecting the compilation and determination; and
- d) Governance: credible and transparent governance, oversight and accountability for the Benchmark determination process, including an identifiable oversight function accountable for the development and issuance and operation of the Benchmark.

Key Questions

1. Please explain if you have primary responsibility for the Benchmark determination process. In responding to this request, please consider that the Benchmark determination process covers at least:
 - a) The development of the Benchmark;
 - b) The determination and dissemination of the Benchmark;
 - c) The operation of the Benchmark process (including contingency measures for breakdowns in the process); and
 - d) The governance surrounding the Benchmark determination process.

2. If you do not have primary responsibility for the Benchmark determination process, please explain why this is the case.
 - a) As part of your response, please identify all other parties who have responsibility for some element of the Benchmark determination process and explain what that responsibility is.
3. Are the responsibilities for the Benchmark determination process documented? If so, please supply a copy of the documentation.
4. Do you anticipate the existing arrangements to change in the future? If so, please describe how and when. If applicable, please also describe how the changes will assist in your implementation of the Key Indicia of the Principle.

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:

- 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.

Key Indicia of implementation of Principle

- 2.1 Where activities relating to the Benchmark determination process are undertaken by third parties, the Administrator maintains appropriate oversight of such third parties.
- 2.2 The Administrator's policies:
 - a) Clearly define and substantiate through appropriate written arrangements the roles and obligations of third parties and the standards the Administrator expects them to meet;
 - b) Monitor third parties' compliance with the standards;
 - c) Make Available to Stakeholders and any relevant Regulatory Authority the identity and roles of such third parties; and
 - d) Take reasonable steps, including contingency plans, to avoid undue operation risk related to the participation of such third parties in the Benchmark determination process.
- 2.3 This Principle is not applicable if the third party is a Regulated Market or Exchange.

Key Questions

1. Please describe any aspect of the Benchmark determination process that is outsourced to a third party.
2. Are these outsourcing arrangements documented? Please describe the provisions in the documentation which respond to (a)-(d) of the Principle above.
3. Please describe any policies, procedures and practices that you have which govern or otherwise provide oversight over these arrangements. If these policies, procedures and practices are documented, please provide a copy of the documentation.
4. If you lack any applicable policies, procedures and practices for oversight, or if these policies, procedures and practices do not cover all topics listed in the Key Indicia, please explain why.
5. Do you anticipate the existing arrangements to change in the future? If so, please describe how and when. If applicable, please also describe how the changes will assist in your implementation of the Key Indicia of the Principle.

3. Conflicts of interest for Administrators

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;
- b) Personal interests and connections or business connections do not compromise the Administrator's performance of its functions;
- 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;
- d) Adequate supervision and sign-off by authorised or qualified employees prior to releasing Benchmark determinations;
- 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;
- 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
- 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.

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.

Key Indicia of implementation of Principle

3.1 Administrators:

- a) Document, implement and enforce policies and procedures for the identification, disclosure, management, mitigation or avoidance of conflicts of interest.
- b) Review and update their policies and procedures as appropriate.
- c) Disclose any material conflicts of interest to their users and any relevant Regulatory Authority.

3.2 The framework is tailored to the level of existing or potential conflicts of interest and risks posed by the Benchmark and seeks to

- a) Ensure that:
 - i. Existing or potential conflicts of interest do not inappropriately influence Benchmark determinations;
 - ii. Personal interests and connections or business connections do not compromise the Administrator's performance of its functions;
 - iii. 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;
 - iv. Adequate supervision and sign-off by authorised or qualified employees prior to releasing Benchmark determinations;
 - v. 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;
 - vi. 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
 - vii. 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.
- b) Mitigate existing or potential conflicts created by the Administrator's ownership structure or control, or due to other interests of its staff or wider group and to this end:
 - i. Includes measures to avoid, mitigate or disclose conflicts of interest that may exist between its Benchmark determination business, including staff who perform or otherwise participate in Benchmark production responsibilities, and other business of the Administrator or an affiliate;
 - ii. Provides 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.

Key Questions

1. Please describe all identified existing and potential conflicts of interest within the Administrator's business, including all affiliates.
2. Have any of these conflicts been disclosed to your users or regulatory authority?
3. Please describe in detail any framework you have for the identification, disclosure, management, mitigation or avoidance of conflicts of interest and how that framework is tailored to relevant conflicts and has been implemented. Please include in your description detail of the identification and mitigation processes you use, giving an example if possible of actual employment of the processes.
4. If this framework is documented, please provide a copy of the documentation.
5. Please describe any process you have for the review and updating of these policies and procedures.
6. If you lack any such framework, or your framework does not cover one of the topics identified in the Key Indicia, please explain why.
7. Do you anticipate the existing arrangements to change in the future? If so, please describe how and when. If applicable, please also describe how the changes will assist in your implementation of the Key Indicia of the Principle.

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 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:

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
- 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 ex-post analysis of trends and outliers.

Key Indicia of implementation of Principle

- 4.1 Administrators have an appropriate control framework in place for the process of determining and distributing the Benchmark. At a minimum it is:
 - a) Appropriately tailored to the materiality of the identified conflicts of interest, the extent of the use of discretion in the Benchmark setting process and to the nature of Benchmark inputs and outputs.
 - b) Documented and available to relevant Regulatory Authorities. A summary of its main features should be Published or Made Available to Stakeholders.
 - c) Reviewed periodically and updated as appropriate and address the following areas:
 - i. Conflicts of interest in line with Principle 3
 - ii. Arrangements to ensure that the quality and integrity of Benchmarks is maintained, in line with principles 6 to 15
 - iii. Arrangements to promote the integrity of Benchmark inputs, including adequate due diligence on input sources
 - iv. Arrangements to ensure accountability and complaints mechanisms are effective, in line with principles 16 to 19
 - v. Provides robust infrastructure, policies and procedures for the management of risk, including operational risk
 - vi. Establishes an effective whistle blowing mechanism, to facilitate early awareness of any potential misconduct or irregularities, which should allow for external reporting where appropriate
 - vii. Ensures Benchmark determinations are made by personnel who possess the relevant levels of expertise, with a process for periodic review of their competence
 - viii. Staff training, including ethics and conflicts of interest training, and continuity and succession planning for personnel

Benchmarks based on Submissions:

4.2 Administrators:

- a) Have measures in place to ensure as far as possible whereby Submitters comprise an appropriately representative group of participants taking into consideration the underlying Interest measured by the Benchmark;
- b) Employ 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; and
- c) Specify the frequency of Submissions and specifying that inputs or Submissions should be made for every Benchmark determination.

Key Questions

1. Please describe in detail any control framework that you have implemented that concerns the process of determining and distributing the Benchmark.
2. Please provide copies of all documentation detailing such control framework (or frameworks).
3. Please explain how this control framework (or frameworks) is 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.
4. Please describe any process you have for the review and updating of these policies and procedures.
5. If you lack any control framework, or if the control framework does not address the areas identified in the Key Indicia, please explain why.
6. Please indicate whether and how a summary of this control framework (or frameworks) is Published or Made Available to Stakeholders. If it has, please provide evidence (e.g. a hyperlink). If it not Published or Made Available, please explain why.
7. If not already covered in your response to question 1, please describe in detail the composition of, selection criteria for and all arrangements with submitters to the Benchmark. Please include in this any submitter code of conduct that you employ.
8. Please supply a copy of all documentation setting your arrangements with submitters.
9. Please describe the processes in place for monitoring submitters' compliance with the arrangements.
10. Please describe any ex-ante and ex-post monitoring of submissions conducted, including any procedures covering such monitoring.
11. Please explain how, if applicable, your submitters comprise an appropriately representative group of participants taking into consideration the underlying interest measured by the Benchmark.
12. Do you anticipate the existing arrangements to change in the future? If so, please describe how and when. If applicable, please also describe how the changes will assist in your implementation of the Key Indicia of the Principle.

5. *Internal Oversight*

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 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.
- b) 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 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.

Key Indicia of implementation of Principle

- 5.1 Administrators have an oversight function to review and provide challenge on all aspects of the Benchmark determination process, which should:
- a) 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.
 - b) 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.
- 5.2 An Administrator develops and maintains robust procedures regarding its oversight function, which should be documented and available to relevant Regulatory Authorities and its main features Made Available to Stakeholders.
- 5.3 These procedures include terms of reference for the oversight function, selection criteria for membership and summary details of membership of any committee or arrangement of the oversight function (together with declarations of conflicts of interest and processes for election, nomination or removal and replacement of members).
- 5.4 Responsibilities of the oversight function include:
- a) Oversight of the Benchmark design, including:
 - 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 setting out how the Administrator should consult with Stakeholders about such cessation.
 - b) Oversight of the integrity of Benchmark determination and control framework, including:
 - 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 interest may arise due to Administrator’s ownership structures or controlling interests:

5.5 Administrator has 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 Benchmark is based on Submissions

5.6 The oversight function provides suitable oversight and challenge of the Submissions by:

- a) Overseeing and challenging the scrutiny and monitoring of inputs or Submissions by the Administrator, including 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 any relevant Regulatory Authorities.

Key Questions

- 1. Please describe in detail the form, arrangements, responsibilities, operation and other details of any oversight function that you have in place to review and provide challenge to the Benchmark determination process and, if relevant, submissions.
- 2. Please explain how this oversight function is appropriate to provide effective scrutiny of your activities.
- 3. Please detail how this oversight function has operated in practice since its establishment, giving examples of its activities.
- 4. Please describe any procedures that relate to your oversight function.
- 5. If you lack any such oversight function, or it does not cover the areas listed in the Key Indicia please explain why.
- 6. Are these procedures documented and are they made available to regulators? If so, please supply a copy of the documentation.
- 7. Please indicate whether and how details of this oversight function are Made Available to Stakeholders. If they have, please provide evidence (e.g. a hyperlink).
- 8. Do you anticipate the existing arrangements to change in the future? If so, please describe how and when. If applicable, please also describe how the changes will assist in your implementation of the Key Indicia of the Principle.

B. Quality of the Benchmark

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.

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) 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);
- e) Market dynamics (e.g., to ensure that the Benchmark reflects changes to the assets underpinning a Benchmark).

Key Indicia of implementation of Principle

6.1 The design of the Benchmark:

- a) Seeks 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
- b) Takes into account the following generic non-exclusive features, and other factors should be considered, as appropriate to the particular Interest:
 - i. Adequacy of the sample used to represent the Interest;
 - ii. Size and liquidity of the relevant market (for example whether there is sufficient trading to provide observable, transparent pricing);
 - iii. Relative size of the underlying market in relation to the volume of trading in the market that references the Benchmark;
 - iv. The distribution of trading among Market Participants (market concentration);
 - v. Market dynamics (e.g., to ensure that the Benchmark reflects changes to the assets underpinning a Benchmark).

Key Questions

1. Please describe the details of the Interest that the Benchmark seeks to represent. Please include all related sources which inform the state of the Interest that the Benchmark seeks to represent.
2. Please include all market metrics that you have available concerning the features listed in the Key Indicia.

3. Please describe in detail the design of the Benchmark including a detailed description of the factors taken into account in designing the Benchmark. In particular, please cover if and how the design of the Benchmark takes into the details of the Interest it seeks represent and explain how it results in an accurate and reliance representation of the economic realities of the Interest it represents. If it does not, please explain why.
4. Are the details of the Benchmark’s design documented? If so, please provide a copy of the documentation.
5. Do you anticipate the existing arrangements to change in the future? If so, please describe how and when. If applicable, please also describe how the changes will assist in your implementation of the Key Indicia of the Principle.

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:

- 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.

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. [fn. 23 For example this approach might be appropriate in a market where overall transaction volume is high over sustained periods, though on any given day there might be more firm bids and offers than posted transactions taking place.”]

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. **[LIBOR, EURIBOR and TIBOR are intended to represent unsecured, inter-bank funding operations as described by the Benchmark’s terms. Accordingly, this paragraph does not apply to these three benchmarks].**

Key Indicia of implementation of Principle

7.1 Data used to construct a Benchmark determination is sufficient to accurately and reliably represent the Interest measured by the Benchmark and is:

- a) Based on prices, rates, indices or values that have been formed by the competitive forces of supply and demand;

- b) Anchored by observable arm's length transactions entered into between buyers and sellers in the market for the Interest the Benchmark measures.

7.2 Benchmark should be based upon (i.e. anchored in) an active market with observable, *Bona Fide*, Arms-Length Transactions in the market for the Interest the benchmark measures. *Notes: The term "active market" was deliberately left undefined in the Principle as this is a determination that is made by the Administrator during the design of the Benchmark and in its periodic review of the selected reference market. The consultation report published in January 2013 sets out a number of factors such as market size, liquidity, market concentration and dynamics that will be relevant to the determination of an active market. The relevant pages from the consultation report are set out in full in Annex II and should be considered part of this Key Indicum. An Administrator's belief or assertion that an active market exists will not be conclusive in assessing whether Principle 7 has been implemented.*

7.3 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. (See Principle 8).

7.4 Further, provided paragraph 7.1 is met, Administrators may use executable bids or offers as a means to construct Benchmarks where anchored in an observable market consisting of *Bona Fide*, Arms-Length transactions.

Key Questions

1. Please provide data and other information used to construct Benchmark determinations under the technical terms of the Benchmark (e.g., relevant tenors and currencies, specific times for fixing, minimum quantities) that is available to you over as long a period as possible.

For any data and information that underlie submissions or data and information received by you, if available and where applicable, please clearly indicate:

1. *The specific type of transaction data:*

- a) *Submitter's own or observed concluded unsecured interbank transactions that are described by the technical terms of the relevant Benchmark (i.e., LIBOR, EURIBOR, LIBOR or TIBOR)*
- b) *Unsecured interbank deposits and any other unsecured transactions*
- c) *FX swaps and FX forwards undertaken in combination with (a) or (b) for funding purposes.*

2. *Committed and indicative prices or quotes in the types of transactions in 1 (a)-(c)*

3. *Transaction:*

- a) *Maturity;*
- b) *Currency;*
- c) *Time and date;*

d) *Counterparty type; and*

e) *Size and volume.*

2. Please explain how this data is generated, and your data sources. Please include an evaluation of the quality and robustness of this data.
3. Are the details of the data and information that needs to be used to construct the Benchmark documented? If so, please provide a copy of the documentation.
4. Please demonstrate and support with any available evidence, whether observable transactions entered into at arm's length between buyers and sellers in the market for the Interest specified by the Benchmark's terms exist, and that the market is active such that it serves as an accurate and reliable indicator of the Interest measured by the Benchmark.

You may reference any relevant data and other information be provided in your response to Key Question 1 – any additional data and information provided should be labeled consistently with the labeling convention used in the response to Key Question 1.

- In your response, please include a description of how you have defined an 'active' market for your Benchmark's purposes;
 - Your response should take into account the considerations set out in Annex II.
5. To the extent that individual Benchmark determinations are not constructed solely of transaction data in the Interest specified by the Benchmark, please explain what conditions require you to rely on these different forms of data. Please explain how this data is tied to observable market transactions in the Interest specified by the benchmark.
 - If other forms of data are used, does the market for the Interest described by the Benchmark continue to reflect prices or rates that have been formed by the competitive forces of supply and demand?
 6. Please describe all of your actions that seek to ensure that:
 - Any data and information relied upon in determining the Benchmark accurately and reliably represents the Interest measured by the Benchmark;
 - Submissions that communicate a submitting bank's beliefs or perceptions of rates or values are in fact anchored by observable, Bona-Fide, Arms-Length transactions in the market for the Interest specified by the Benchmark's terms; and
 - Any other forms of data used as an adjunct or supplement to transactions in the Interest described by the Benchmark's terms are themselves tied to observable market data.
 7. Please describe which data would be needed to comply with this principle. Are the details of the data and information that needs to be used to construct the Benchmark documented? If so, please provide a copy of the documentation.
 8. Do you anticipate the existing approach for composing the benchmark will change in the future? If so, please describe how and when. If applicable, please also describe how the changes will assist in your implementation of the Key Indicia of the Principle.

8 Hierarchy of data inputs

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 and extrapolations from prior transactions might predominate in a given Benchmark determination.

Key Indicia of implementation of Principle

8.1 Administrators Publish or Make Available clear guidelines regarding the hierarchy of data inputs and exercise of Expert Judgment used for the determination of Benchmarks.

8.2 Generally, hierarchy of data inputs includes:

- a) For Submission-based Benchmarks, 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 and in related markets;
- c) Firm (executable) bids and offers; and
- d) Other market information or Expert Judgments.

8.3 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.

Key Questions

1. Please describe any guidelines that establish hierarchy of data inputs and exercise of expert judgment used for determination of the Benchmark and explain how that hierarchy operates.
2. If you lack any such guidelines, or the guidelines do not cover the points listed in the Key Indicia, please explain why.

3. Are the guidelines documented? If so, please provide a copy.
4. Do you anticipate the existing arrangements to change in the future? If so, please describe how and when. If applicable, please also describe how the changes will assist in your implementation of the Key Indicia of the Principle.

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:

- 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.

Key Indicia of implementation of Principle

- 9.1 Administrators describe and publish with each Benchmark determination, to the extent reasonable without delaying the publication deadline, concise explanations:
 - a) 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 (e.g., transaction-based, spread-based or interpolated/extrapolated).
 - b) Of the extent to which and the basis upon which Expert Judgment if any, was used in establishing a Benchmark determination.

Key Questions

1. Please describe in detail all the information described and published with each Benchmark determination that you believe meets the criteria in principle 9(a) and (b) above.
2. Are requirements for information to be included with each Benchmark determination documented? If so, please provide a copy of this documentation.
3. Do you anticipate the existing arrangements to change in the future? If so, please describe how and when. If applicable, please also describe how the changes will assist in your implementation of the Key Indicia of the Principle.

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.

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.

Key Indicia of implementation of Principle

- 10.1 Administrators periodically review conditions in the underlying Interest that the Benchmark measures to determine whether the Interest has:
- a) Undergone structural changes that might require changes to the design of the Methodology.
 - b) Diminished or is non-functioning such that it can no longer function as the basis for a credible Benchmark.
- 10.2 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.

Key Questions

1. Please describe in detail any policies, procedures and practices in place to periodically review the conditions in the underlying Interest that the Benchmark measures.
2. If you do not have any such policies, procedures and practices, or they do not cover the points listed in the Key Indicia, please explain why.
3. Please describe the focus (e.g., structural changes, diminished or nonfunctioning market) and outcomes sought from any such reviews that have been held.
4. Please describe any change in methodology or benchmark tenors or currencies resulting from such reviews.
5. If the process or detail of the reviews is documented, please provide a copy of the documentation.
6. Have or will the reviews or their outcomes be Published or Made Available to anyone under any circumstances? If they have, please provide evidence (e.g. a hyperlink).
7. Do you anticipate the existing arrangements to change in the future? If so, please describe how and when. If applicable, please also describe how the changes will assist in your implementation of the Key Indicia of the Principle.

C. Quality of the Methodology

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.

At a minimum, the Methodology should contain:

- a) Definitions of key terms;
- 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;
- c) Procedures and practices designed to promote consistency in the exercise of Expert Judgment between Benchmark determinations;
- 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);
- e) The procedures for dealing with error reports, including when a revision of a Benchmark would be applicable;
- 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;
- g) The circumstances and procedures under which the Administrator will consult with Stakeholders, as appropriate; and
- h) 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.

Key Indicia of implementation of Principle

11.1 Administrators have:

- a) Documented and Published or Made Available the Methodology.
- b) Provided the rationale for adopting a particular Methodology.

11.2 The Published Methodology provides 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. The Methodology contains – as a minimum:

- a) Definitions of key terms;

- 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;
- c) Procedures and practices designed to promote consistency in the exercise of Expert Judgment between Benchmark determinations;
- d) 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);
- e) Procedures for dealing with error reports, including when a revision of a Benchmark would be applicable;
- f) Information regarding the frequency of 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;
- g) The circumstances and procedures under which the Administrator will consult with Stakeholders, as appropriate; and
- h) The identification of potential limitations of a Benchmark, including its operation in illiquid or fragmented markets and the possible concentration of inputs.

Where Benchmark is based on Submissions

11.3 The Administrator should clearly establish criteria for including and excluding Submitters, which:

- a) Considers any issues arising from the location of the Submitter, if in a different jurisdiction to the Administrator
- b) Is available to any relevant Regulatory Authorities, and Published or Made Available to Stakeholders. Any provisions related to changes in composition, including notice periods should be made clear.

Key Questions

1. Please describe in detail the methodology used to determine the Benchmark, including all the information contained in the Methodology.
2. Please identify where the methodology addresses each of the required items in the principle. If the Methodology fails to cover all the items listed in the Key Indicia, please explain why.
3. Please provide a copy of the Methodology.
4. Has the documented methodology, together with a rationale for its adoption, been Published or Made Available? If so, please provide evidence (e.g. a hyperlink).
5. Where a Benchmark is based on submissions: does the Methodology establish criteria for including and excluding submitters?
6. Do you anticipate the existing arrangements to change in the future? If so, please describe how and when. If applicable, please also describe how the changes will assist in your implementation of the Key Indicia of the Principle.

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.

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
- 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.

Key Indicia of implementation of Principle

12.1 Administrators Publish or Make Available the rationale of any proposed material change in its Methodology, and procedures for making such changes.

12.2 The [documented] procedures:

- a) 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
- b) Are consistent with the overriding objective that an Administrator must ensure the continued integrity of its Benchmark determinations.

12.3 The Administrator:

- a) Specifies how changes to the Methodology will be scrutinised, by the oversight function.
- b) Develops 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.

12.4 Stakeholder consultation procedures involve:

- a) Providing advance notice and a clear timeframe that would give 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
- b) Providing 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.

Key Questions

1. Are the procedures and the rationale for any proposed material change to the Methodology Published or Made Available? Do those procedures define what constitutes a material change? If not, why not?

2. Please describe in detail the procedures followed to make changes to the methodology, including all the factors taken into account in making any changes to the methodology and the definition of what constitutes a material change (if any). Are there different processes depending on the materiality of the change?
3. If the procedures fail to cover all the topics listed in the Key Indicia, please explain why.
4. Are the procedures documented? If so, please provide a copy.
5. Please describe in detail the processes in place to scrutinize proposed changes to the methodology. Please describe the parties responsible for carrying out this scrutiny. If these processes are documented, please provide a copy.
6. Please describe any procedures in place to consult with stakeholders in relation to any changes to the methodology. If these are documented, please provide a copy. If there are no such procedures, please explain why.
7. Do you anticipate the existing arrangements to change in the future? If so, please describe how and when. If applicable, please also describe how the changes will assist in your implementation of the Key Indicia of the Principle.

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.

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 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;
- 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.

Key Indicia of implementation of Principle

- 13.1 Administrators have clear documented 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.
- 13.2 Policies and procedures are 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.
- 13.3 Administrators are required to take into account the views of Stakeholders and any relevant Regulatory and National Authorities in determining appropriate policies and procedures for a particular Benchmark and there is evidence they have done so. These procedures are Published or Made Available to all Stakeholders.
- 13.4 Administrators 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.
- 13.5 If determined reasonable and appropriate by the Administrator, its written policies and procedures to address the cessation of a Benchmark include the following factors:
 - 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, 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 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
- 13.6 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.

Key Questions

1. Please describe in detail the policies and procedures in place to address the possible cessation of the Benchmark and indicate where these policies and procedures specifically address the criteria in principle (a) –e) above.
2. If there are no such policies or procedures, please explain why.
3. Please describe in detail all the factors taken into account in determining the policies and procedures.
4. Are the policies and procedures documented? If so, please provide a copy.

5. Have the policies and procedures been Published or Made Available to Stakeholders? If so, please provide evidence (e.g. a hyperlink).
6. Have you encouraged users of the Benchmark to have fall-back provisions in contracts or financial instruments that reference the Benchmark? If so, please the details of this encouragement.
7. Do you anticipate the existing arrangements to change in the future? If so, please describe how and when. If applicable, please also describe how the changes will assist in your implementation of the Key Indicia of the Principle.

14 Submitter Code of Conduct

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;
- d) Criteria applied to employees of a Submitter who are permitted to submit data or information to an Administrator on behalf of a Submitter;
- e) Policies to discourage the interim withdrawal of Submitters from surveys or Panels;
- f) Policies to encourage Submitters to submit all relevant data; and
- g) 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 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

Key Indicia of implementation of Principle

- 14.1 Administrators have a Submitter Code of conduct in place which is available to any relevant Regulatory Authorities, and Published or Made Available to Stakeholders.
- 14.2 Administrators:
- a) Only use inputs or Submissions from entities which adhere to the Submitter Code of Conduct
 - b) Appropriately monitor and record adherence from Submitters
 - c) Require Submitters to confirm adherence to the Submitter Code of Conduct annually and whenever a change to the Submitter Code of Conduct has occurred.
- 14.3 Administrator's oversight function is responsible for the continuing review and oversight of the Submitter Code of Conduct.
- 14.4 The Submitter Code of Conduct covers the following:
- a) 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;
 - d) Criteria applied to employees of a Submitter who are permitted to submit data or information to an Administrator on behalf of a Submitter;
 - e) Policies to discourage the interim withdrawal of Submitters from surveys or Panels;
 - f) Policies to encourage Submitters to submit all relevant data; and
 - g) The Submitters' internal systems and controls, which includes:
 - 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 (as defined in Principle 14 g xi).

Key Questions

1. Please describe in detail any guidelines in place addressing submitters and indicate where those policies address the criteria set out in principle 14 (a) –(g) above.
2. Do these guidelines cover all points in the Key Indicia? If not,, please explain why. We are particularly interested in reasons why, if applicable, you may not have a prohibition on receiving data from a Front Office Function(e.g. because you are satisfied that there adequate internal and verification procedures).
3. Does the Administrator require Submitters to confirm adherence to the Submitter Code of Conduct annually and whenever a change to the Submitter Code of Conduct has occurred?
4. Are these guidelines documented? If so, please provide a copy. If not, why not?
5. Have these guidelines been Published or Made Available to Stakeholders? If so, please provide evidence (e.g. a hyperlink). If not, why not?
6. Please describe in detail processes in place and the parties responsible for the review, update and oversight of the guidelines and Submitters' adherence to the guidelines.
7. Please describe in detail the consequences of non-compliance with the guidelines by Submitters.
8. Do you anticipate the existing arrangements to change in the future? If so, please describe how and when. If applicable, please also describe how the changes will assist in your implementation of the Key Indicia of the Principle.

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.

Key Indicia of implementation of Principle

- 15.1 When an Administrator collects data from any external source the Administrator ensures there are appropriate internal controls over its data collection and transmission processes, which address processes for :
 - a) Selecting the source
 - b) Collecting the data
 - c) Protecting the integrity and confidentiality of the data.
- 15.2 If data is received from the Front Office Function, the Administrator seeks corroborating data from other sources

Key Questions

1. Please describe in detail the circumstances where data is sought from external sources, including a detailed description of the sources and the data sought.

2. Please describe in detail any internal controls in place over the data collection and transmission processes, including how sources are selected, data is collected and integrity and confidentiality of the data is maintained.
3. If there are no such internal controls, or the internal controls do not cover the topics in the Key Indicia, please explain why.
4. In what circumstances are data collected from a Front Office Function and how is such data treated? Please explain whether and if so, how, the Administrator seeks corroborating data from other sources.
5. Are these internal controls documented? If so, please provide a copy.
6. Do you anticipate existing arrangements to change in the future? If so, please describe how and when. If applicable, please also describe how the changes will assist in your implementation of the Key Indicia of the Principle.

D. Accountability

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.

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 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.

Key Indicia of implementation of Principle

16.1 Administrators 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's decisions in relation to a benchmark determination.

16.2 The complaints procedures policy:

- a) Permits complaints to be submitted through a user-friendly complaints process such as an electronic Submission process;
- b) Contains 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) Contains a process for escalating complaints, as appropriate, to the Administrator's governance body; and
- d) Requires 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.

- 16.3 Disputes that are not formal complaints are resolved by the Administrator by reference to its standard appropriate procedures. If a complaint results in a change in a Benchmark determination, that change is published or made available to Subscribers and published or made available to Stakeholders as soon as possible as set out in the Methodology.

Key Questions

1. Please describe in detail your complaints procedures policy for Stakeholders seeking to make a complaint in relation to a Benchmark determination.
2. Is this policy documented? If so, please provide a copy.
3. If there is no such policy, or it does not cover all of the topics listed in the Key Indicia, please explain why.
4. Has the policy been published or made available to users of the Benchmark? If so, please provide evidence (e.g. a hyperlink).
5. What is the process for resolution of informal disputes?
6. Please describe in detail the process followed if a complaint results in a Benchmark determination being changed. Is this Published or Made Available to anyone?
7. Do you anticipate the existing arrangements to change in the future? If so, please describe how and when. If applicable, please also describe how the changes will assist in your implementation of the Key Indicia of the Principle.

17 Audits

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.

Key Indicia of implementation of Principle

- 17.1 Administrators 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.
- 17.2 Frequency of audits is proportional to the size and complexity of the Administrator's operations.
- 17.3 Where appropriate to the level of existing or potential conflicts of interest identified by the Administrator an Administrator appoints an independent external auditor with appropriate experience and capability to periodically review and report on the Administrator's adherence to its stated Methodology.

- 17.4 The frequency of audits is proportionate to the size and complexity of the Administrator's Benchmark operations and the breadth and depth of Benchmark used by Stakeholders.

Key Questions

1. Have you appointed an auditor to conduct an audit of your adherence with your stated policies and methodologies the Principles? If not, why not?
2. If so, please describe the details of this appointment and the anticipated audit process in detail.
3. If the process is documented, please provide a copy.
4. Have you appointed an auditor to conduct a period audit of your compliance with the Benchmark's methodology? If not, why not?
5. If so, please describe the details of this appointment and the anticipated audit process in detail. Please include in your response a justification of why the anticipated frequency of audits is proportionate to the size and complexity of your Benchmark operations and the breadth and depth of Benchmark use by Stakeholders.
6. If the process is documented, please provide a copy.
7. Do you anticipate the existing arrangements to change in the future? If so, please describe how and when. If applicable, please also describe how the changes will assist in your implementation of the Key Indicia of the Principle.

18 Audit Trail

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 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.

Key Indicia of implementation of Principle

- 18.1 Administrators, subject to national legal or regulatory requirements, retain for five years written records 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.
- 18.2 Administrators may rely on these records held by a Regulated Market or Exchange for compliance with this Principle, subject to appropriate written record sharing agreements.

QUESTION: Should we ask the Administrator make some effort to determine whether the Submitting bank carries out this Principle's requirement on record retention?

Key Questions

1. Please describe in detail your record keeping policies including detailed descriptions of kinds of data and information retained, manner of retention and time for which data and information is retained.
2. If you do not have such policies, or your policies do not cover the topics listed in the Key Indicia, please explain why.
3. Are these policies documented? If so, please provide a copy.
4. Do you have record sharing arrangements with a relevant regulated market or exchange? If so, please provide details of these arrangements.
5. Do you anticipate the existing arrangements to change in the future? If so, please describe how and when. If applicable, please also describe how the changes will assist in your implementation of the Key Indicia of the Principle.

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.

Key Indicia of implementation of Principle

- 19.1 Relevant parties make readily available and hand over promptly on request, relevant documents, Audit Trails and other documents subject to the Principles to the relevant Regulatory Authorities in in carrying out their regulatory or supervisory duties.

Key Questions

1. Please describe in detail your policies and procedures relating to sharing of information with Regulatory Authorities, including the kinds of information and data covered under these arrangements.
2. If you do not make relevant documents, Audit Trails and other documents available to the Regulatory Authorities, please explain why.
3. Are these policies and procedures documented? If so, please provide a copy.
4. Do you anticipate existing arrangements to change in the future? If so, please describe how and when. If applicable, please also describe how the changes will assist in your implementation of the Key Indicia of the Principle.

ANNEX I – DEFINED TERMS

Administration: Includes all stages and processes involved in the production and dissemination of a Benchmark, including:

- a) Collecting, analysing and/or processing information or expressions of opinion for the purposes of the determination of a Benchmark;
- b) Determining a Benchmark through the application of a formula or another method of calculating the information or expressions of opinions provided for that purpose; and
- c) Dissemination to users, including any review, adjustment and modification to this process.

Administrator: An organisation or legal person that controls the creation and operation of the Benchmark Administration process, whether or not it owns the intellectual property relating to the Benchmark. In particular, it has responsibility for all stages of the Benchmark Administration process, including:

- a) The calculation of the Benchmark;
- b) Determining and applying the Benchmark Methodology; and
- c) Disseminating the Benchmark.

Arm's-length Transaction: A transaction between two parties that is concluded on terms that are not influenced by a conflict of interest (e.g., conflicts of interest that arise from a relationship such as a transaction between affiliates).

Audit Trail: For the purposes of the Benchmark-setting process, the documentation and retention of all relevant data, Submissions, other information, judgments (including the rationale for any exclusions of data), analyses and identities of Submitters used in the Benchmark-setting process for an appropriate period.

Benchmark: The Benchmarks in scope of this Assessment Methodology are prices, estimates, rates, indices or values that are:

- a) Made available to users, whether free of charge or for payment;
- b) Calculated periodically, entirely or partially by the application of a formula or another method of calculation to, or an assessment of, the value of one or more underlying Interests;
- c) Used for reference for purposes that include one or more of the following:
 - determining the interest payable, or other sums due, under loan agreements or under other financial contracts or instruments;
 - determining the price at which a financial instrument may be bought or sold or traded or redeemed, or the value of a financial instrument; and/or
 - measuring the performance of a financial instrument.

Benchmark Publisher: A legal entity publishing the Benchmark values, which includes Making Available such values to Subscribers, on the internet or by any other means, whether free of charge or not.

Bona Fide: Refers to data where the parties submitting the data have executed, or are prepared to execute, transactions generating such data and the concluded transactions were executed at arm's-length from each other.

Expert Judgment: Refers to the exercise of discretion by an Administrator or Submitter with respect to the use of data in determining a Benchmark. Expert Judgment includes extrapolating values from prior or related transactions, adjusting values for factors that might influence the quality of data such as market events or impairment of a buyer or seller's credit quality, or weighting firm bids or offers greater than a particular concluded transaction.

Front Office Function: This term means any department, division, group, or personnel of Submitter or any of its affiliates, whether or not identified as such, that performs, or personnel exercising direct supervisory authority over the performance of, any pricing (excluding price verification for risk management purposes), trading, sales, marketing, advertising, solicitation, structuring, or brokerage activities on behalf of a third party or for proprietary purposes.

Interest: Refers to any physical commodity, currency or other tangible goods, intangibles (such as an equity security, bond, futures contract, swap or option, interest rates, another index, including indexes that track the performance of a rule-based trading strategy or the volatility of a financial instrument or another index), any financial instrument on an Interest, which is intended to be measured by a Benchmark. Depending on the context, it is assumed that the word "Interest" also includes the market for such Interest.

Market Authority: A Regulatory Authority, a Self-Regulatory Organisation, a Regulated Market or Exchange, or a clearing organisation (as the context requires).

Market Participants: Legal entities involved in the production, structuring, use or trading of financial contracts or financial instruments used to inform the Benchmark, or which reference the Benchmark.

Methodology: The written rules and procedures according to which information is collected and the Benchmark is determined.

Panel: Subset of Market Participants who are Benchmark Submitters.

Publish or Make Available: Refers to the expectation that a party such as an Administrator should provide a document or notice to Stakeholders. The means by which such notice is made should be proportionate to the breadth and depth of Benchmark use by Stakeholders, as determined by the Administrator on a "best efforts" basis. Ordinarily, posting a document or notice on the Administrator's website will meet this expectation.

Regulated Market or Exchange: A market or exchange that is regulated and/or supervised by a Regulatory Authority.

Regulatory Authority: A governmental or statutory body (not being a Self-Regulatory Organisation) with responsibility for securities and/or commodities and futures regulation.

Stakeholder: Refers to Subscribers and other persons or entities who own contracts or financial instruments that reference a Benchmark.

Submission(s): Prices, estimates, values, rates or other information that is provided by a Submitter to an Administrator for the purposes of determining a Benchmark. This excludes data sourced from Regulated Markets or Exchanges with mandatory post-trade transparency requirements.

Submitter: A legal person providing information to an Administrator or calculation agent required in connection with the determination of a Benchmark

Subscriber: A person or entity that purchases Benchmark determination services from an Administrator.

ANNEX II – EXTRACT FROM CONSULTATION REPORT

“Accordingly, the Task Force is of the view that a Benchmark should as a matter of priority be anchored by observable transactions entered into at arm’s length between buyers and sellers in order for it to function as a credible indicator of prices, rates or index values. The discipline of observable transactions, providing they are of a bona-fide nature, should give a level of confidence that the price discovery system is accurate.³² Moreover, a predominant reliance by an Administrator on non-transactional data such as expert judgements (e.g., extrapolating values from related transactions) may increase the potential for manipulation or for an “outlier” trade to corrupt the Benchmark values.³³

This does not mean that non-transactional information is inappropriate. The hierarchies established by the *IOSCO Principles for Oil Price Reporting Agencies*, the *Wheatley Review of LIBOR: final report*, and the CFTC’s *Barclays and UBS Orders* allow consideration of other types of information such as bids and offers and adjustments based on expert judgement (e.g., extrapolation from prior or related transactions, adjustments for factors that might influence the quality of data such as, but not limited to, market events or credit quality).³⁴

However, at some point, an insufficient level of actual transaction data raises concerns as to whether the Benchmark continues to reflect prices or rates that have been formed by the competitive forces of supply and demand.

Where the underlying market has diminished, it may be necessary to re-evaluate the Benchmark. For example, its definition may need to be reviewed, the range of trades in which it is anchored may need to be reassessed or consideration given to whether a better alternative exists. These issues are examined in more detail in the next section.

The ability to use non-transactional data such as bids and offers may be an accommodation that allows a Benchmark to be produced during periods when daily transactions may not be available.

³² The existence of observable market transactions provides visible evidence of market metrics and commercial practices in the referenced market, which not only fosters confidence by Market Participants but also facilitates surveillance by relevant authorities.

³³ See discussion above on conflicts of interest. For example, although attempts at manipulating LIBOR predated the decline in unsecured inter bank borrowing, the decline in this market created other conflicts of interest for banks, and submissions to LIBOR became increasingly reliant on expert judgement rather than transactions, which created an incentive for banks to manipulate the submissions that compile the rate. *The Wheatley Review of LIBOR Initial Discussion paper* at p.9.

³⁴ FR06/12 *Principles for Oil Price Reporting Agencies*, Report of the Board of IOSCO (05 Oct 2012), principle 2.2(b) at p. 13 available at <http://iosco.org/library/pubdocs/pdf/IOSCOPD391.pdf>, *The Wheatley Review of LIBOR: final report*, Box 4B: LIBOR SUBMISSION guidelines, p.28 available at: http://cdn.hm-treasury.gov.uk/wheatley_review_libor_finalreport_280912.pdf, *CFTC Order in the matter of Barclays PLC* (June 27, 2012), “Determination of Submissions Factors 1-3 paragraph, pp. 32-33 available at: <http://www.cftc.gov/ucm/groups/public/@Irenforcementactions/documents/legalpleading/enfbarclaysorder062712.pdf>

The aforementioned reports and orders anticipate the use of non-transactional data as an adjunct (i.e., as a supplement) to transactions.³⁵

Whether the extent of a Benchmark's reliance on non-transactional information is appropriate requires an analysis of the *structure* of the underlying market in question and the identification of factors that might be influencing liquidity. The factors discussed in Chapter 2, such as size, liquidity, market concentration and market dynamics, will be relevant to this inquiry.³⁶

For example, a low liquidity market might indicate the commercial realities of that market or seasonal fluctuations in a market which otherwise has sufficient commercial activity. Low liquidity markets may also be due to certain markets (e.g., developing markets) being at an earlier stage of development. Alternatively, a market may in fact be diminishing due to slowly occurring structural evolution or, such as LIBOR, because of sudden shocks affecting the ability of the underlying market to function normally. Given this, the size and volume of current transactions in relation to historic metrics should also be considered.

If one concludes that a low liquidity market reflects normal commercial usage and functions as an accurate price discovery market, then verifiable firm (i.e., executable) bids and offers might be credible *estimates* of supply and demand and used as adjunct data in compiling a Benchmark.³⁷ It will be critical, however, for adequate governance requirements to be in place to ensure the *bona-fide* status of any such adjunct data (e.g., any bids or offers considered should in fact be required to be executed). It also is important in such cases that the transparency framework allows users to understand the potential limitations of a Benchmark operating in an illiquid and imperfect market.

All of these determinations have a temporal element; they cannot be a one-off analysis based on static data. As markets evolve, the underlying market for a particular Benchmark could be diminished (e.g., the submissions could become heavily reliant on non-transactional data, or indeed the use of a particular Benchmark may be marginal). In those circumstances the reliance on such a "market" to underpin a Benchmark should be questioned. Accordingly, the duration (and expected duration) of reliance upon non-transaction data also needs to be considered.

³⁵ See FR06/12 *Principles for Oil Price Reporting Agencies*, Report of the Board of IOSCO (October 5, 2012) A PRA should use its market data, giving priority in the following order, where consistent with the PRA's approach to ensuring the quality and integrity of a price assessment: (1) concluded and reported transactions; (2) bids and offers; (3) other market information. If concluded transactions are not given priority, the reasons should be disclosed);

The Wheatley Review of LIBOR: final report, Box 4B: LIBOR SUBMISSION guidelines, p.28 -- "The greatest emphasis should be placed on transactions undertaken by the contributing bank."; and

CFTC Order in the matter of Barclays PLC "Determination of Submissions" p. 32 (June 27, 2012) --"Barclays' transactions shall be given the greatest weight in determining submissions, subject to applying appropriate Adjustments and Considerations in order to reflect the market measured by the Benchmark Interest Rate)

³⁶ Considerations addressing physical commodity markets are discussed in FR07/11 *Principles for the Regulation and Supervision of Commodity Derivatives Markets*, Final Report, Technical Committee of the International Organization of Securities Commissions (September 2011) ("characteristics of underlying physical markets") available at: <http://iosco.org/library/pubdocs/pdf/IOSCOPD358.pdf>

³⁷ However, a Benchmark based on a low level of transactions and informed by judgements might not necessarily be an appropriate reference for the settlement of a commodity derivatives contract. See FR06/12 *Principles for Oil Price Reporting Agencies*, Report of the Board of IOSCO (05 Oct 2012), p. 5 available at <http://iosco.org/library/pubdocs/pdf/IOSCOPD391.pdf>

Finally, conclusions regarding the robustness of a market should also take into account the impact that the Benchmark has on the economy. For example, one might conclude that a relatively small and illiquid market, where transactions are widely used as a basis for determining rates in financial instruments having a nominal value that is several multiples of the value of the underlying market transactions, is *insufficiently* robust to serve as the basis for a Benchmark.”
