

Principles for Financial Benchmarks

Final Report

**THE BOARD
OF THE
INTERNATIONAL ORGANIZATION OF SECURITIES COMMISSIONS**

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Foreword

The Board of the International Organization of Securities Commissions (IOSCO) has published this Final Report.

This Report, which has been prepared by the IOSCO Board Level Task Force on Financial Market Benchmarks (Task Force), sets out IOSCO's final Principles on Financial Benchmarks. This report also summarizes and discusses the comments received on a *Consultation Report: Principles for Financial Benchmarks*,¹ published by IOSCO on 16 April 2013.

Key terms are defined in the Glossary in Annex A.

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¹ See CR04/13 *Principles for Financial Benchmarks, Consultation Report*, The Board of IOSCO, 16 April 2013, available at: <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD409.pdf>.

Chapter 1 Introduction

Background

On 16 April 2013 the International Organization of Securities Commissions published a *Consultation Report: Principles for Financial Benchmarks*² (April Consultation Report), which requested comments from the public on proposed final Principles for Financial Benchmarks. The principles were developed by IOSCO's Board Level Task Force on Financial Market Benchmarks. The IOSCO Board created the Task Force in light of investigations and enforcement actions regarding attempted manipulation of major interest rate Benchmarks³. Those investigations and enforcement actions raised concerns over the fragility of certain Benchmarks – in terms of both their integrity and their continuity of provision - that has the

² *Principles for Financial Benchmarks*, IOSCO, April 2013, supra fn No 1

³ Japan Financial Services Agency (JFSA) took administrative action against RBS Securities Japan Limited (12 April 2013): <http://www.fsa.go.jp/en/news/2013/20130412.html>

US Commodity Futures Trading Commission (CFTC) Order against UBS AG and UBS Securities Japan Co. Ltd to pay a \$700 million penalty to settle charges of manipulation, attempted manipulation and false reporting of certain global benchmark interest rates (19 December 2012): <http://www.cftc.gov/PressRoom/PressReleases/pr6472-12> and <http://www.cftc.gov/ucm/groups/public/@lrenforcementactions/documents/legalpleading/enfubsorder121912.pdf>

UK Financial Services Authority (FSA), fined UBS AG £160 million for significant failings in relation to the London Interbank Offered Rate (LIBOR) and the Euro Interbank Offered Rate (EURIBOR) (19 December 2012): <http://www.fsa.gov.uk/library/communication/pr/2012/116.shtml> and <http://www.fsa.gov.uk/static/pubs/final/ubs.pdf>

Swiss Financial Market Supervisory Authority (FINMA) ordered UBS AG to disgorge CHF 59 million in profits to the Swiss Confederation for seriously violating financial market legislation in connection with the submission of interest rates, particularly LIBOR (19 December 2012): <http://www.finma.ch/e/aktuell/Pages/mm-ubs-libor-20121219.aspx>

US CFTC Order against Barclays PLC, Barclays Bank PLC and Barclays Capital Inc. to pay a \$200 million penalty for attempted manipulation of and false reporting concerning LIBOR and EURIBOR (27 June 2012): <http://www.cftc.gov/PressRoom/PressReleases/pr6289-12> and <http://www.cftc.gov/ucm/groups/public/@lrenforcementactions/documents/legalpleading/enfbarclaysorder062712.pdf>

UK FSA fined Barclays Bank PLC £59.5 million for misconduct relating to LIBOR and EURIBOR (27 June 2012): <http://www.fsa.gov.uk/library/communication/pr/2012/070.shtml> and <http://www.fsa.gov.uk/static/pubs/final/barclays-jun12.pdf>.

JFSA took administrative action against UBS Securities Japan Ltd and UBS AG, Japan branches, (16 December 2011): <http://www.fsa.go.jp/en/news/2011/20111216-3.html>

JFSA took administrative action against Citigroup Global Market Japan Inc. (16 December 2011): <http://www.fsa.go.jp/en/news/2011/20111216-2.html>

JFSA took administrative action against Citibank Japan Ltd. (16 December 2011): <http://www.fsa.go.jp/en/news/2011/20111216-1.html>

potential to undermine market confidence potentially harming both investors and the real economy.

The April Consultation Report was informed by the comments received to IOSCO's initial Consultation Report in January 2013 (January Consultation Report),⁴ as well as by comments received at stakeholder meetings on 21 February 2013 at the Financial Services Authority (FSA) (the predecessor organisation to the UK Financial Conduct Authority (FCA) in London and on 26 February 2013 at the US Commodity Futures Trading Commission (CFTC).

During the course of this work, the Task Force also has taken into consideration the related work undertaken within a variety of regulatory and industry fora. These include:

Regulatory Work streams:

- The IOSCO *Principles for Oil Price Reporting Agencies* (PRA Principles) which was undertaken by IOSCO Committee 7 on Commodity Futures Markets;
- Significant reviews of domestic interbank Benchmarks, notably the CFTC *UBS Order*, the CFTC *Barclays Order*⁵ and FSA Order, and *The Wheatley Review of LIBOR: final report*,⁶
- The European Commission's Consultation on the *Regulation of Indices*;⁷
- The European Securities and Markets Authority/European Banking Authority's *Principles for Benchmark-Setting Processes in the EU*;⁸ and
- The Bank for International Settlements' Board of Governors Economic Consultative Committee report.⁹

Industry Work streams:

⁴ CR01/13 *Financial Benchmarks: Consultation Report*, Report of the IOSCO Board 10 Jan. 2013: <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD399.pdf>

⁵ See *Principles for Financial Benchmarks*, IOSCO, April 2013, supra fn No 1

⁶ *The Wheatley Review of LIBOR: Final Report* (Sept 2012): http://cdn.hm-treasury.gov.uk/wheatley_review_libor_finalreport_280912.pdf

⁷ European Commission, consultation document on *The Regulation of Indices: a Possible Framework for the Regulation of the Production and Use of Indices serving as Benchmarks in Financial and other Contracts* (5 September – 29 November 2012): http://ec.europa.eu/internal_market/consultations/2012/benchmarks_en.htm

⁸ European Securities and Markets Authority (ESMA) and European Banking Authority (EBA), *Principles for Benchmarks-Setting Processes in the EU*, ESMA/2013/658 (5 June 2013): <http://eba.europa.eu/documents/10180/217545/2013-658+ESMA-EBA+Principles+on+Benchmarks+Final+Report.pdf>

⁹ See press release: <http://www.bis.org/press/wnew.htm> and Bank for International Settlements report *Towards better reference rate practices: a central bank perspective* (18 March 2013): <http://www.bis.org/publ/othp19.pdf>.

- Best practice standards for conducting Benchmark price assessments issued by the Global Financial Markets Association (GFMA);¹⁰ and
- The proposal by Argus Media, ICIS and Platts for a price reporting code for independent price reporting agencies (IPRO).¹¹

Objective of IOSCO's Work on Benchmarks

As stated in the January Consultation Report, IOSCO's objective is to create an overarching framework of Principles for Benchmarks used in financial markets¹². Specifically, the IOSCO Board seeks to articulate policy guidance and principles for Benchmark-related activities that will address conflicts of interest in the Benchmark-setting process, as well as transparency and openness when considering issues related to transition.

To inform this work, IOSCO's Task Force initially reviewed a selection of Benchmarks, representing a number of asset classes in different jurisdictions. That review, as well as IOSCO's consideration of Benchmark issues in the context of oil price reporting agencies and in work being conducted in other fora, helped identify certain broad, generic risks to the credibility of Benchmarks arising from vulnerabilities in the Benchmarks' Methodology, transparency and governance arrangements.¹³

As discussed in both consultation reports, these risks arise from incentives stemming from conflicts of interests, which may be amplified when Expert Judgement is used in Benchmark determinations. The following factors should be taken into account when assessing the risk of a Benchmark:

1. Submissions to Benchmarks: As described in the January Consultation Report, there are a variety of methods by which different forms of data are developed, collected and transmitted to Administrators. The Submission process may create additional vulnerabilities to the determination process if not addressed by appropriate controls and policies. For example, there may be conflicts of interests in and incentives to manipulate the determination process where the Submitters are also Market Participants with stakes in the level of the Benchmarks. Furthermore, there may be other conflicts of interests and opportunities for manipulative conduct created by the possibility of voluntary and/or selective Submissions, the varied composition of Submitters, and discretion in the selection of data to be submitted.
2. Content and transparency of Methodologies: If the procedures and policies concerning the Methodology do not contain adequate detail, the ability of Stakeholders to evaluate

¹⁰ Global Financial Markets Association (GFMA), *Principles for Financial Benchmarks* (November 2012) and GFMA *Updated Principles for Financial Benchmarks* (November 2012)

¹¹ *The Price Reporting Code for Independent Price Reporting Organizations* (Draft) 30 April 2012: <http://platts.com/IM.Platts.Content/aboutplatts/mediacenter/mediakits/draftiprcode30apr12.pdf>

¹² CR01/13 *Financial Benchmarks, Consultation Report*, IOSCO, 10 Jan. 2013, *supra* fn 4.

¹³ See *Id.* at Appendix B. As stated in the January 2013 Consultation Report at p.8, IOSCO's Task Force did not make recommendations relating to any given Benchmark

the credibility of a Benchmark may be restricted. Furthermore, a lack of transparency may allow abusive conduct to influence Benchmark determinations. Low transparency in the absence of strong internal controls may also create opportunities for gaming Submissions to influence a Benchmark.

3. Governance processes: The enforcement cases reviewed by the Task Force illustrate that conflicts of interest at both the Submitter and Administrator levels can create incentives for abusive conduct. These conflicts can arise within the variety of structures that may exist in the Benchmark Submission and compilation processes. For example, Submitters, Administrators, Calculation Agents or other third parties may attempt to manipulate a Benchmark by submitting false or misleading data or by attempting to influence personnel at the Administrator level who are responsible for the exercise of Expert Judgment.

The final Principles have been developed, and should be read collectively, to address these vulnerabilities.

Scope

As noted above, IOSCO's objective is to create an overarching framework of Principles for Benchmarks used in financial markets. Consistent with this objective, the definition of Benchmark that has been adopted for these Principles is very broad.

Benchmark Administration by a National Authority used for public policy purposes (e.g., labour, economic activity, inflation or consumer price indices) is not within the scope of the Principles. However, Benchmarks where a National Authority acts as a mechanical Calculation Agent are within the scope of the Principles. The Principles also exclude reference prices or settlement prices produced by Central Counterparties (CCPs), provided that they are produced solely for the purposes of risk management and settlement. The prices of single financial securities (e.g., equity securities underlying stock options or futures) are not considered Benchmarks for the purposes of these Principles.

However, because the universe of Benchmarks is large and diverse - a point repeatedly stressed in the comment letters and Stakeholder meetings - the Task Force has first developed a set of high level Principles that would be applicable to all Benchmarks. A subset of more detailed Principles also has been developed that address Benchmarks having specific risks arising from their reliance on Submissions (Principles 4, 5, 11, 14 and 18) and/or ownership structures (Principles 3 and 5), as set out below.

Benchmark Administrators Should Adopt the Recommended Practices

The Principles should be understood as a set of recommended practices that should be implemented by Benchmark Administrators and Submitters. The application of these Principles should be proportional to the size and risks posed by each Benchmark and/or Administrator and the Benchmark-setting process.

Implementation

The consultation feedback brought to light a number of questions regarding the application of the Principles, in particular about the more detailed Administrators' and Submitters' control framework, accountability and transparency requirements.

IOSCO recognized in its April Consultation Report that “although the Principles set out uniform expectations, IOSCO does not expect a *one-size-fits-all* method of implementation to achieve the objectives of the Principles.” Given the large universe of Benchmarks in scope of this work, IOSCO believes the implementation of the Principles will not be identical for each Benchmark. Rather, the Principles provide a framework of standards, which might be met in different ways depending on the specificities of each Benchmark. In particular, the application and implementation of the Principles should be proportional to the size and risks posed by each Benchmark and/or Administrator and the Benchmark-setting process. This would also include the proportional application to new or emerging Benchmarks, in order to avoid material regulatory barriers to entry.

The proportional implementation of Principles should also take into account the source of underlying data inputs¹⁴. In particular, the application of the Principles to Benchmarks that are derived from data sourced from Regulated Markets or Exchanges with mandatory post-trade transparency requirements could be less intensive.¹⁵ This is justified by the nature of checks and monitoring in place at the Regulated Markets or Exchanges, as well as an IOSCO member's authority over rules governing the listing and trading of financial instruments referencing these Benchmarks.

As examples, complying with the Principles in a proportional manner could mean for some Benchmarks:

- For Principle 3(c): Explaining why segregation of reporting lines may not be feasible, for instance because of limited staff numbers, and explaining the control measures that can mitigate this.
- For Principle 3(d): Explaining why the individual sign-off of each Benchmark determination is not possible, for instance because of the large numbers of determinations. Instead a general framework to validate determinations could be proposed. This might include sampling, such as regular or random manual validation of individual Benchmark determinations.
- For Principle 5: Clearly explaining to Stakeholders in a Benchmark how the oversight functions described in the Principle are performed, and explaining why, if a specific oversight committee is not used, the type of governance structure in place is appropriate. If the full terms and individual membership (including names) cannot be made public for confidentiality reasons, the Administrator should explain the composition in terms of positions, skills and experience.

¹⁴ The concept of proportionality is not intended to affect the requirement in Principle 7 that a Benchmark must be anchored in an active market having observable, Arms-length Transactions.

¹⁵ For example, Benchmarks that regularly publish their Methodologies would satisfy Principle 9 when derived from data sourced from Regulated Markets or Exchanges with mandatory post-trade transparency requirements would satisfy Principle 9. See Principle 9.

- For Principle 17: Explaining why the form of audit (internal, external or independent) is adequate for the size of the operation and the risk features it displays.

In some of the examples above, general procedures may be used by the Administrator to comply with those Principles as long as they demonstrate that the functions required by the Principles are met.

Benchmark Administrators Should Disclose Compliance with Principles

Benchmark Administrators should publically disclose the extent of their compliance with the Principles annually. If implementation in any way deviates from the Principles, the Administrator should explain why it believes it meets the objectives and functions of the Principles, including to the extent they are relying on a proportionate view of the Principles (as that concept has been described above).

Benchmark Administrators should publically disclose their compliance with the Principles within twelve months of the publication of this report.

Specific Application for Oil PRAs

In October 2012, IOSCO adopted the PRA Principles, which were developed in collaboration with the International Energy Agency (IEA), International Energy Forum (IEF), and the Organization of Petroleum Exporting Countries (OPEC)¹⁶. IOSCO recommended voluntary adoption and implementation of the PRA Principles and established a review process over the 18 months following their publication, pursuant to which IOSCO, in collaboration with the IEA, IEF and OPEC, will evaluate the degree to which the PRA Principles have been implemented by PRAs. IOSCO further stated that it will seek the input of market authorities, stakeholders and PRAs and make further recommendations as appropriate at the end of the evaluation period.

As noted above, IOSCO took into consideration the PRA Principles during the development of these Principles for Financial Benchmarks¹⁷. Moreover, the PRA Principles were developed with due regard to the specifics of the oil markets, while these Principles for Financial Benchmarks focus on Benchmarks generally. As a result, while both sets of principles reflect similar high-level concerns, they differ in specifics.

In order to respect the circumstances under which these two sets of principles have been adopted, as well as the on-going evaluation process of the PRA Principles, IOSCO expects that the oil PRAs should continue to comply with and implement the PRA Principles.

IOSCO will, in the context of its collaboration with the IEA, IEF and OPEC, consider the need in due course for any modification of the PRA Principles to align them more closely with these Principles for Financial Benchmarks.

¹⁶ FR06/12 *Principles for Oil Price Reporting Agencies*, Report of the Board of IOSCO, October 2012, <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD391.pdf>

¹⁷ For example, Principle 9 of the principles for Financial Benchmarks is based on principle 2.3 of the oil PRA Principles.

IOSCO members should encourage implementation of the Principles including through regulatory action where appropriate.

This Report does not make specific recommendations with respect to any particular Benchmarks. The majority of IOSCO members do not regulate Benchmark Administrators or Submitters. Nonetheless, IOSCO members should consider whether regulatory action (or recommendations for action by other relevant National Authorities in their own jurisdiction) may be appropriate to encourage implementation of the Principles. A policy decision in this regard will depend upon, many factors, including:

- Facts and circumstances of Benchmark activity in a particular IOSCO member's jurisdiction;
- Impact of such activity on the IOSCO member's regulatory responsibilities;
- Investor and retail usage;
- Economic and financial stability impacts of such activity;
- Existing review and approval authority over rules governing the listing and trading of securities and derivatives that reference Benchmarks;¹⁸
- Allocation of regulatory responsibility within the jurisdiction; and
- An IOSCO member's determination as to the need for, and effectiveness of, any policy changes.

The factors discussed in the January Consultation Report on drawing regulatory distinctions are also pertinent to this inquiry.¹⁹ Moreover, different approaches may be appropriate for different Benchmarks.

IOSCO Statement on Appropriate Enforcement Powers

An effective and credible enforcement programme should include robust powers over market manipulation, including attempted manipulation and securities fraud. These powers might be general in their application or they might relate directly to Benchmark activity.

In practice, despite not commonly having express powers to take action for Benchmark misconduct, Regulatory Authorities have deployed their existing powers in relation to securities breaches in order to bring cases against manipulation and attempted manipulation of

¹⁸ The January 2013 Consultation Report noted that the *IOSCO Objectives and Principles of Securities Regulation* provide that a regulator should be informed of the types of securities and products to be traded on an exchange or trading system and review or approve the rules governing the trading of the product. *FROB/11 Methodology for Assessing Implementation of the IOSCO Objectives and Principles of Securities Regulation* (October 2011), Principle 33, key issue 4, products and participants at p. 207.

¹⁹ See discussion at pages 34-37 in CR01/13 Financial Benchmark's, Report of the Board of IOSCO (10 January 2013). *Supra* fn 4.

Benchmarks. For example, the US CFTC and the UK FSA have fined three banks in aggregate more than US\$ 2.6 billion between June 2012 and February 2013. These investigations involved significant information-sharing and cooperation under the IOSCO Multilateral Memorandum of Understanding (MMoU) in accordance with the paragraph 7 of the IOSCO MMoU stating that signatories provide one another with the “fullest assistance permissible” to secure compliance with the securities laws applicable in their jurisdictions.

The momentum of these recent events has led to a number of proposals for regulators to be given express powers to take action against Benchmark misconduct. For example, with effect from 1 April 2013 the UK FCA has the power to prosecute a new criminal offence, which has been introduced if a person makes false or misleading statements in relation to LIBOR-setting (section 91, Financial Services Act 2012). In the European Economic Area, the new Market Abuse Regulation (expected to come into force by 2014) introduces provisions specifying that manipulation of the calculation of a Benchmark constitutes misconduct under the European Market Abuse regime.²⁰ These developments are welcome.

Accordingly, IOSCO Members should initiate action (or recommendations for action by other relevant National Authorities in their own jurisdiction), appropriate to their jurisdiction’s legal and regulatory structure, to adopt enforcement regulations that make manipulation and attempted manipulation of a Benchmark an offense where such Benchmark is referenced in a financial contract or financial instrument.

Principles are Not Intended to Supersede Existing National Laws

The Principles are not intended to supersede existing laws, regulations or relevant regulatory or supervisory frameworks in specific jurisdictions, including any IOSCO Principles or undertakings agreed with Regulatory Authorities relating to a specific type of Benchmark, or a related activity. Rather, these Principles are intended to provide guidance to Administrators, Submitters and regulators and supplement existing IOSCO Principles.

Evaluation

Following the publication of the Principles, IOSCO intends to review within an 18-month period the extent to which the Principles have been implemented by obtaining the input of Stakeholders, Market Authorities and, as appropriate, Benchmark Administrators.

²⁰

http://ec.europa.eu/internal_market/securities/abuse/index_en.htm

Chapter 2 –Principles for Financial Benchmarks

Summary of the Principles

These Principles are intended to promote the reliability of Benchmark determinations, and address Benchmark governance, quality and accountability mechanisms. Although the Principles set out uniform expectations, IOSCO does not expect a *one-size-fits-all* method of implementation to achieve these objectives. The Principles provide a framework of standards that Administrators should implement according to the specificities of each Benchmark. In particular, the application and implementation of the Principles should be proportional to the size and risks posed by each Benchmark and/or Administrator and the Benchmark-setting process. Moreover, nothing in these Principles is intended to restrict an Administrator from adopting its own unique Methodology or from adapting their Methodologies to changing market conditions in order to meet the Principles.

Governance:

These Principles are intended to ensure that Administrators will have appropriate governance arrangements in place in order to protect the integrity of the Benchmark determination process and to address conflicts of interest. Specifically, these Principles address:

- The retention by the Administrator of primary responsibility for all aspects of the Benchmark determination process, such as the development and determination of a Benchmark and establishing credible and transparent governance, oversight and accountability procedures. This Principle makes clear that, regardless of the particular structure for Benchmark determination and administration, there should be an overall entity which is responsible for the integrity of the Benchmark. **[1. Overall Responsibility of the Administrator]**
- The adoption by the Administrator (and its oversight function) of clearly defined written arrangements setting out the roles and obligations of the parties involved in the Benchmark determination and the monitoring of any third party's compliance with those arrangements. This Principle reflects the concern that any outsourcing of functions should be subject to oversight by the Administrator. This Principle applies only where activities relating to the Benchmark determination process are undertaken by third parties, for example with respect to collection of inputs, or where a third party acts as the Calculation Agent or Publisher of the Benchmark. **[2. Oversight of Third Parties]**
- The documentation, implementation and enforcement of policies and procedures for the identification, disclosure, management and avoidance of conflicts of interest, including the disclosure of any material conflicts of interest to Stakeholders and any relevant Regulatory Authority. This framework should be appropriately tailored to the level of existing or potential conflicts of interest identified by the Administrator and should seek to mitigate existing or potential conflicts of interest created by the ownership or control structure or due to other interests arising from the Administrators' staff or wider group in relation to Benchmark determinations. This Principle is intended to address the

vulnerabilities that create incentives for Benchmark manipulation. **[3. Conflicts of Interest for Administrators]**

- An appropriate control framework at the Administrator for the process of determining and distributing the Benchmark, which should be appropriately tailored to the materiality of the potential or existing conflicts of interest identified, and to the nature of Benchmark inputs and outputs. The control framework should be documented, available to any relevant Regulatory Authority and Published or Made Available to Stakeholders. Among other things, a control framework should include an effective whistleblowing mechanism in order to facilitate early awareness of potential misconduct. **[4. Control Framework for Administrators]**
- An oversight function to review and provide challenge on all aspects of the Benchmark determination process, which should be appropriate to the Benchmark in question (i.e., including its size, scale and complexity) and provide effective oversight of the Administrator. The oversight function and its composition 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. A separate committee or other appropriate governance arrangements should carry out the oversight function. **[5. Internal Oversight]**

Quality of the Benchmark:

These Principles are intended to promote the quality and integrity of Benchmark determinations through the application of design factors that result in a Benchmark that reflects a credible market for an Interest measured by that Benchmark. The Principles also clarify that a variety of data may be appropriately used to construct a Benchmark, as long as the Data Sufficiency Principle is met (i.e., based on an active market). Specifically, these Principles address:

- The design of a Benchmark should take into account generic design factors that are intended to result in a reliable representation of the economic realities of the Interest that the Benchmark seeks to measure and to eliminate factors that might result in a distortion of the price, rate, index or value of that Benchmark. The factors presented are generic and non-exclusive illustrations. **[6. Benchmark Design]**
- The data used to construct a Benchmark should be based on prices, rates, indices or values that have been formed by the competitive forces of supply and demand (i.e., in an active market) and be anchored by observable transactions entered into at arm's length between buyers and sellers in the market for the Interest the Benchmark measures.²¹ This Principle recognizes that *Bona Fide* observable transactions in active markets provide a

²¹ The term “*active market*” is not defined, as this is a determination that is made by the Administrator during the design of the Benchmark (Principle 6) as well as in its periodic review of the selected reference market (Principle 10). The January Consultation Report discusses a variety of factors, such as size, liquidity, market concentration and market dynamics that will be relevant to this inquiry. See discussion at pages 40-42 in CR01/13 Financial Benchmarks, Report of the Board of IOSCO 10 Jan. 2013, *supra* fn 4.

level of confidence that the prices or values used as the basis of the Benchmark are credible. Principle 7 does not mean that every individual Benchmark determination must be constructed solely from 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.²² Depending upon the Administrator's Methodology, this could result in an individual Benchmark determination based predominantly, or exclusively, on bids and offers or extrapolations from prior transactions.

- Provided that an active market exists, 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. 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.
- The 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. The Principle also does not preclude the use of non-transactional data for 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. **[7. Data Sufficiency]**
- The establishment of clear guidelines regarding the hierarchy of data inputs and the exercise of Expert Judgment used for the determination of Benchmarks. This Principle is intended to make transparent to users the manner in which data and Expert Judgment may be used for the construction of a Benchmark. This Principle is not intended to create a rigid checklist or otherwise 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, set out in the Benchmark Methodology, provided that the Data Sufficiency Principle is met. **[8. Hierarchy of Data Inputs]**
- The publication with each Benchmark determination, to the extent reasonable without delaying the Administrator's publication deadline, of a concise explanation sufficient to facilitate a Subscriber's or Market Authority's ability to understand how the Benchmark determination was developed, as well as a concise explanation of the extent to which and the basis upon which judgment, if any, was used by the Administrator in establishing a

²²

As noted in the January Consultation Report, a low liquidity market that reflects the commercial realities of a market and functions as a price discovery market could support a Benchmark consistent with this Principle, even though non-transactional data such as verifiable (firm) bids and offers might be used as an adjunct to the low number of transactions in compiling a Benchmark. See *id.* at 41.

benchmark determination. Benchmarks that regularly publish their Methodologies would satisfy principle 9 when derived from data sourced from Regulated Markets or Exchanges with mandatory post-trade transparency requirements. In addition, a Benchmark that is based exclusively on executable quotes as contemplated by Principle 7 would not need to explain in each determination why it has been constructed with executable bids or offers, provided there is disclosure in the Methodology. **[9. Transparency of Benchmark Determinations]**

- The periodic review by the Administrator of 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 (e.g., the Interest has diminished to the extent that it can no longer function as the basis for a credible Benchmark). In order to facilitate Stakeholders' understanding of the viability of a Benchmark, a summary of such reviews should be Published or Made Available when material revisions have been made to a Benchmark, including the rationale for the revisions. **[10. Periodic Review]**

Quality of the Methodology:

These Principles are intended to promote the quality and integrity of Methodologies by setting out minimum information that should be addressed within a Methodology, which should be Published or Made Available so that Stakeholders may understand and make their own judgments concerning the overall credibility of a Benchmark. The Methodology should also address the need for procedures that control when material changes are planned, as a means of alerting Stakeholders to these changes that might affect their positions, financial instruments or contracts.

The Principles also establish that Administrators should have credible policies in case a Benchmark ceases to exist or Stakeholders need to transition to another Benchmark. These policies are intended to encourage Administrators and Stakeholders to plan prospectively for the possible cessation of a Benchmark.

These Principles also address vulnerabilities in the Submission process (e.g., conflict of interest, improper communication between Submitters and Administrators, selective Submission of data) by outlining the responsibilities that should be undertaken by Submitters (i.e., a Submitter Code of Conduct). These Principles also make clear the Administrator's responsibilities to have internal controls over the collection of data from regulated sources. Specifically, these Principles address:

- The documentation and publication of the Methodology used to make Benchmark determinations, with 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. **[11. Content of the Methodology]**
- The publication of 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 Benchmark use) of changes. **[12. Changes to the Methodology]**

- Clearly written policies and procedures that address the need for possible cessation of a Benchmark, due to market structure change, product definition changes, or any other condition, which makes the Benchmark no longer representative of its intended function. 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. Administrators should encourage Subscribers and Stakeholders to have robust fall-back provisions in contracts or financial instruments that reference a Benchmark. **[13. Transition]**
- The development of guidelines for Submitters (“Submitter Code of Conduct, which should be available to any relevant Regulatory Authorities and Published or Made Available to Stakeholders. Note: This Principle is only applicable to a Benchmark based on Submissions. **[14. Submitter Code of Conduct]**
- Appropriate internal controls over the Administrator’s data collection and transmission processes – when an Administrator collects data directly from a Regulated Market, Exchange or other data aggregator, which address the process for selecting the source, collecting the data and protecting the integrity and confidentiality of the data. **[15. Internal Controls over Data Collection]**

Accountability:

These Principles establish complaints processes, documentation standards and audit reviews that are intended to provide evidence of compliance by the Administrator with its quality standards, as defined by these Principles and its own policies. The Principles also address making the foregoing information available to relevant Market Authorities. Specifically, these Principles address:

- The establishment and publication of a written complaints policy by which Stakeholders may submit complaints concerning whether a specific Benchmark determination is representative of the underlying Interest it seeks to measure, application of the Methodology to a specific Benchmark determination and other Administrator decisions in relation to a Benchmark determination. This Principle is intended to promote the reliability of Benchmark determinations through Stakeholder input and alert Market Authorities to possible factors that might affect the reliability of determinations. **[16. Complaints procedures]**
- The appointment of 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 the requirements of the Principles. The frequency of audits should be proportionate to the size and complexity of the Administrator’s operations. Under certain circumstances (i.e., appropriate to the level of existing or

potential conflicts of interest identified by the Administrator) an Administrator should appoint an independent external auditor to periodically review and report on the Administrator's adherence to its stated Methodology criteria. These provisions are intended to promote compliance with the Principles and provide confirmation to relevant Market Authorities and Stakeholders of such compliance. **[17. Audits]**

- The retention of written records by the Administrator for five years, subject to applicable national legal or regulatory requirements. This Principle is intended to safeguard necessary documents for Audits. Additional requirements apply for Benchmarks based on Submissions. **[18. Audit Trail]**
- Relevant documents, Audit Trails and other documents addressed by 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. This is intended to facilitate a Regulatory Authority's ability to access information that might be needed to determine the reliability of a given Benchmark determination or to access information that might be needed to investigate misconduct. **[19. Cooperation with Regulatory Authorities]**

Principles for Benchmarks

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.

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.

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.

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.

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.

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).

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.²³

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.

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.

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.

9. Transparency of Benchmark Determinations²⁴

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.

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.

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

²⁴ See Annex C for further elaboration of this Principle. Benchmarks that regularly publish their Methodologies would satisfy Principle 9 when derived from data sourced from Regulated Markets or Exchanges with mandatory post-trade transparency requirements. In addition, a Benchmark that is based exclusively on executable quotes as contemplated by Principle 7 would not need to explain in each determination why it has been constructed with executable bids or offers, provided there is disclosure in the Methodology.

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.

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.

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.

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.

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.

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.

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.

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.

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.

Chapter 3 – Discussion of Consultation Feedback

Key Issues raised by the consultation feedback and revisions to the final report

The final report has been informed by the public comment letters received as part of the consultation process on the draft Principles on Financial Benchmarks, the summary of which can be found in Annex B.

In general, there was a good level of support for the Principles with the majority of comments on the technical detail rather than the substantive policy approach.

Below are a number of common issues raised in the feedback, which IOSCO considers warranted further clarifications. These clarifications are designed to help address misconceptions about the intended scope and implementation of the Principles and describe in further detail some key issues concerning the usage of transactions.

This chapter also describes how IOSCO has responded to the consultation feedback, both in terms of revised Principles and suitable application of the Principles.

Scope

The scope of the proposed Principles was deliberately kept very broad in the April Consultation Report, excluding only publically produced Benchmarks. Given this large scope, the Principles propose a multi-tiered approach to capture the particular risks of certain types of Benchmarks.

This approach and coverage was broadly supported by the public comments, including that the Principles should apply to equity Benchmarks, a point on which a specific question was asked. Nevertheless some respondents argued that certain Principles were not relevant for indices based on transaction data obtained from Regulated Markets and Exchanges and queried the definition of Submission.

It is therefore important to stress that those Principles or portions of Principles which apply to Submission-based Benchmarks (sub-set of Principles under Principles 4, 5, 11, 14 and 18) would be less relevant for Benchmarks that are based on prices that are made public (e.g., equity indices). As a result, the report has explicitly excluded from the definition of *Submissions* data sourced from Regulated Markets or Exchanges with mandatory post-trade transparency requirements.

Related to this, a number of equity and other traded securities Benchmark providers argued that certain transparency practices should not apply to them given the strong market incentive to provide the best transparency to Stakeholders in their commercial segment of the Benchmark universe. IOSCO believes that a proportional application of the transparency Principles (as explained above) would be beneficial to Stakeholders.

Principles 4, 5 and 12 have therefore been amended to make clear that transparency to Stakeholders does not mean full disclosure of proprietary information. In particular, summary information and key features may be disclosed to Stakeholders to comply with these Principles.

Some commenters also argued that Benchmarks based on transactions in securities on regulated markets have not raised the governance and operational concerns associated with some Submission based Benchmarks. Moreover, many commenters argued that the some Principles do not always fit the practices and structures of index providers. This report is sympathetic to some of these points. Principles 2 and 18 were thus refined to reduce practices on such Benchmarks.

IOSCO believes that the objectives set out in the general Principles remain relevant to all Benchmark providers, albeit not all details will be relevant to every index provider's practices and structure.

As set out in the April Consultation Report, IOSCO has developed these Principles as a set of recommended practices and all Administrators, including index providers, should apply the Principles to the extent that those Principles apply to their practices and structures. In this regard IOSCO does not expect a *one-size-fits-all* method of implementation. See the discussion of *Proportionality* in Chapter 1 in this regard.

Although IOSCO has not made specific recommendations about the practices and structures of equity index providers, IOSCO noted in its January Consultation Report that the listing of securities and derivatives containing such Benchmarks remain subject to the authority of the relevant Market Authority and could form the basis for drawing a regulatory distinction with regard to implementation of the Principles²⁵. The January Consultation Report also took into consideration responses which sought to exclude smaller, customised or bilateral Benchmarks and Benchmarks used to assess returns against a standardised portfolio (performance Benchmarks) from the scope of the Principles. In keeping with the policy put forward by the January Consultation Report, it was considered by IOSCO that proportional application of the Principles should be sufficient to ensure unnecessary burdens are not borne by the industry, whilst making sure that confidence is restored in the integrity of Benchmarks used in financial markets.

Finally, the report reflects a number of comments in letters that sought to exclude Central Counterparty (CCP reference and settlement prices. In IOSCO's view, prices produced exclusively for the purpose of risk management and settlement by regulated CCPs should be excluded from the Principles, since those CCPs that are regulated already have to comply with stringent governance and risk management requirements. Additional obligations may have the impact of reducing the publication of such reference prices and may have impacts on the risk management of CCPs which is not the intention of this report. IOSCO notes that broader use of such prices and references beyond CCP risk management purposes would fall within the scope of the Principles.

As noted above, the consultation feedback questioned the application of certain features of the Principles to all Benchmark Administrators. In response, IOSCO has clarified that the application of the Principles should be proportional to the size and risk posed by each Benchmark and/or Administrator and the Benchmark-setting process.

²⁵ *Financial Benchmarks*, Consultation Report, IOSCO, 10 Jan. 2013, *supra* fn 4, pp.32-34 and 36

Voluntary Submission

The January Consultation Report illustrated the dependence of many Benchmarks on Submissions and data provided voluntarily by market participants who are not always regulated. The feedback received in the April Consultation Report also mentioned this dependence and highlighted risks that excessive requirements on the Submission process could decrease the participation in Benchmark Submissions and potentially reduce the representativeness of each Benchmark.

IOSCO recognises the importance of maintaining participation in Benchmarks and recognises the risks that degrading Benchmark representativeness may have on the transparency brought by Benchmarks to the Interests they seek to measure. However, it also believes that some measures are necessary at Submitter level to ensure the robustness of the data submitted.

IOSCO therefore has focused on creating incentives for Administrators to institute processes that IOSCO believes will enhance reliability of Benchmarks for the benefit of all Market Participants. The Principle on codes of conduct for Submitters (Principle 14) should therefore be seen in light of this strengthening of market integrity. IOSCO considers this should provide incentives to participate whilst also providing confidence in the integrity of the Benchmark determination process.

Front Office Submissions

Some consultation responses argued that it might not always be possible or desirable to prevent front office staff from participating in the Benchmark determination. It was argued that smaller organisations may not be able to segregate staff and valuable market information may be lost by applying such a ban. However IOSCO is still of the view that the conflicts of interest and incentives to manipulate Benchmark Submission are amplified when front office staff are involved.

In light of this, the Principle 14(g)(xi) has been amended to make clear that Submissions from Front Office Functions are disfavoured but permissible, as long as the Administrator is satisfied that there are adequate internal oversight and verification procedures, including safeguards and supervision to address possible conflicts of interest.

Transparency Regarding the Use of Expert Judgment

In response to the specific question in the April Consultation Report, there was a good level of support for the general proposition that there should be transparency as to how an individual Benchmark was developed and with respect to the use of Expert Judgment (consultation question 3). Commenters were concerned, however, that such a principle would impose burdens that would delay the publication of a Benchmark determination or add undue costs.

IOSCO notes that the proposed requirements to concisely explain the source of the determination and to note the usage of Expert Judgment (subsections (a) and (b) of consultation question 3) track paragraphs 2.3 (a) and (b) of the PRA Principles. Benchmarks that regularly publish their Methodologies would satisfy Principle 9 when derived from data sourced from Regulated Markets or Exchanges with mandatory post-trade transparency requirements. In addition, a Benchmark that is based exclusively on executable quotes as contemplated by Principle 7 would not need to explain in each determination why it has been constructed with executable bids or offers, provided there is disclosure in the Methodology.

Moreover, IOSCO addressed concerns regarding the perceived burdensome scope of these requirements in the context of the PRA Principles in a *Frequently Asked Questions* paper issued on 15 March 2013 (Oil PRA FAQ).²⁶ The specific question and answer from the Oil PRA FAQ has been included as part of this Report in Annex C.

Based on the responses received, IOSCO believes that the information contemplated by the addition of Principle 9 will provide material information to Benchmark users and is therefore adopting the proposed paragraphs. This is not intended to require disclosure by an Administrator of every situation that resulted in the use of discretion nor a detailed explanation. Rather the intent is that the use of discretion be noted using standard rationales and descriptions, as provided in the Oil PRA FAQ, which has been referenced in this Report as Annex C.

Data Sufficiency and hierarchy of data inputs (Principle 7 and 8)

Commenters generally supported the objective that Benchmarks should be *anchored* in transactions. Cautionary comments that were received on the Data Sufficiency Principle appear to be based on perceptions that the Principle required the sole usage of transactions, imposed a rigid hierarchy of data use, excluded the consideration of bids and offers or Expert Judgment, failed to take into account the characteristics of less transparent or low liquidity market characteristics and prohibited adjustments to data based on quality considerations.

IOSCO does not share these interpretations of the Principles.

The Data Sufficiency Principle is based on the underlying concept that Benchmarks should be based on prices, rates, indices or values that have been formed by the competitive forces of supply and demand (i.e., an active market) in order to provide confidence that the price discovery system is reliable. As noted by some commenters, the existence of a market does not preclude manipulation. However, the existence of a transparent, active market²⁷ with *observable*

²⁶ See International Organization of Securities Commissions (IOSCO), *Frequently Asked Questions on IOSCO Principles for Price Reporting Agencies Report* (Oil PRA FAQ) (Mar. 15, 2013), <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD406.pdf>.

²⁷ IOSCO made clear in the January Consultation Report that a low liquidity market could function as an active market. See discussion in *Financial Benchmarks*, Consultation Report, IOSCO, 10 Jan. 2013, *supra* fn. No.4, pp. 40-41

transactions provides visible evidence of market metrics and commercial practices, which can provide confidence to market participants and facilitate surveillance by relevant Market Authorities. Accordingly, as stated in the Data Sufficiency Principle a Benchmark should be underpinned or *anchored* by an active market with observable transactions.

IOSCO reiterates that this does not mean that Benchmarks must be constructed solely of transaction data, or that data must always be used in a rigid order. IOSCO recognises that there might be circumstances when a confirmed bid or offer might carry more meaning than an outlier transaction or when non-transactional data such as bids and offers and extrapolations from prior transactions might predominate (e.g., in a low liquidity market). All of these other forms of data usage are permissible in line with the Administrator's Methodology. This is encapsulated in the Data Hierarchy Principle which makes clear that provided that the Data Sufficiency Principle is met (i.e., data is based on an active market), an Administrator retains 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).

Provided that subparagraphs (a) and (b) of Principle 7 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. 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.

IOSCO 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, market or other aspects of an active market. Accordingly, Data Sufficiency Principle 7, has been revised to make clear that the Principle does not preclude the use of non-transactional data for such types of 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.

ANNEX A

GLOSSARY OF KEY 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 report 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.

Calculation Agent: A legal entity with delegated responsibility for determining a Benchmark through the application of a formula or other method of calculating the information or expressions of opinions provided for that purpose, in accordance with the Methodology set out by the Administrator.

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.

National Authority: Refers to a relevant governmental authority such as a central bank, which might not be a Market or Regulatory Authority, but which has responsibility for or a governmental interest in Benchmark policies.

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.

Self-Regulatory Organisation or “SRO”: An organisation that has been given the power or responsibility to regulate itself, whose rules are subject to meaningful sanctions regarding any part of the securities market or industry. This authority may be derived from a statutory delegation of power to a non-governmental entity or through a contract between an SRO and its members as is authorized or recognized by the governmental regulator. See *IOSCO Methodology*, Principle 9, p.50. <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD359.pdf>

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 B

FEEDBACK STATEMENT

Process: IOSCO's April Consultation Report, published on 16th April 2013, provided for a one month consultation period on the issues presented in the report. The consultation closed on 16th May 2013.

Respondents: 40 responses were received, of which 9 came from industry associations and trade bodies, 10 from Benchmark Administrators, 7 from exchanges and clearing houses, 5 from buy side firms and 2 from authorities.

Questions: The Consultation report asked the four questions below:

1. **Equity indices:** *Indices may be used to measure a wide range of underlying Interests, using a variety of calculation methodologies and inputs. In the specific case of equity indices, inputs are typically based on transactions concluded on Regulated Markets. In light of this: are there any Principles or parts of the Principles that cannot, or should not, be applied to equity indices? If so, please identify these Principles and explain why their application is inappropriate.*
2. **Additional measures to address risks resulting from Submission-based Benchmarks or ownership or control structures:** *Additional measures have been specified within certain Principles to address specific risks arising from a reliance on Submissions (Principles 4, 10, 13 and 17) and/or from ownership or control structures (Principles 2, 5 and 16).*
 - a. *Should these additional requirements apply to Submitters and Administrators of all Submission-based Benchmarks or Benchmarks with the specified ownership/control structures?*
 - b. *If not, please explain why all or some Submission-based Benchmarks or Benchmarks with the specified ownership/control structures should be exempt.*
3. **Notice Concerning Use of Expert Judgment:** *Should Administrators be required to briefly describe and Publish with each Benchmark determination:*
 - a. *a concise explanation, sufficient to facilitate a User's or Market Authority's ability to understand how the Benchmark determination was developed, terms referring to the pricing methodology should be included (e.g., spread-based, interpolated/extrapolated or estimate-based); and*
 - b. *a concise explanation of the extent to which and the basis upon which judgment (i.e. exclusions of data which otherwise conformed to the requirements of the relevant methodology for that Benchmark determination, basing determinations on spreads, interpolation/extrapolation or estimates, or weighting bids or offers higher than concluded transactions etc.), if any, was used in establishing a determination.*

4. **Revisions to the Principles:** Please provide any suggested changes to specific Principles or definitions of key terms set out in Annex A, including drafting proposals and rationale.

Are any other Principles needed: Should Principles to address any additional issues, risks or conflicts of interest be developed? Please provide a summary of the issue and drafting for the proposed Principle.

Consultation Question 1:

Commenters generally supported IOSCO's proportionate approach to the application of the principles and cautioned against any attempt to find a *one-size-fits-all* approach for the wide and diverse universe of indices and Benchmarks. Many commenters believed that IOSCO should develop principles applicable to equity indices, but most commenters noted that particular Principles were inapplicable or unnecessary for equity indices.

Commenters largely agreed in their observation that certain principles should not apply to equity indices. There was a wide range of responses, however, as to which specific principles were inapplicable to equity indices. Several principles were commonly identified, while other principles were identified by only few commenters. Nearly all principles were mentioned at least once as needing to be revisited if applied to equity indices (not 10 and 15).

Several commenters suggested that IOSCO's question regarding equity indices should be expanded to include other indices based on observable transaction data, such as fixed-income indices. Many commenters proposed a different bifurcation to determine the proportionate treatment of the Principles, proposing categories such as: public data versus survey Benchmarks; objective versus subjective Benchmarks; commercial indices versus survey-based Benchmarks; Benchmarks with a certain market impact versus Benchmarks without; and Benchmarks set by a single estimation or survey versus indices derived in substantial part from market transaction data and/or multi-participant estimation.

Many commenters highlighted the fundamental differences in the production of reference rates and market indices, noting that market indices' reliance on transaction data and operation in a competitive market demanding adequate disclosure and transparency minimized, if not eliminated, the risks of conflicts of interest and manipulation present with reference rates. Numerous commenters expressed the view that commercial indices already adhere to robust standards and codes of conduct, and thus should either be excluded from the principles altogether or permitted to proportionately implement the principles. Many of these commenters believed that existing regulation and voluntary codes of conduct were sufficient for transaction-based indices, which they suggested do not present the same weaknesses and structural concerns of reference rates like the IBORs.

Several commenters identified the diverse ways in which market indices are used by market participants to manage risks, to implement trading strategies, or to measure portfolio performance, and concluded with the view that only Benchmarks used to price financial instruments should be subject to the principles, due to a concern that even a minimal amount of added compliance burden could discourage innovation and competition for these purposes. Numerous commenters suggested that IOSCO revisit the definition of “Benchmark” to clarify the application of the principles to indices that are used for purposes other than pricing financial instruments or contracts. These commenters believed that strategy indices, settlement prices used by clearing firms for risk management purposes, indices used to evaluate returns or performance of portfolios, economic or market sentiment indices, and prices for single instruments should be excluded from the scope of the report by adoption of a narrower definition of “Benchmark.”

Consultation Question 2:

Commenters generally supported IOSCO’s approach that additional measures should apply to Submitters and Administrators of Submission-based Benchmarks or Benchmarks with specified ownership/control structures. However, a number of commenters did not, however, address question 2. Several commenters stated that the process of data Submission leads to additional risk, especially where the Submitters are market participants with stakes in the level of the Benchmark. Commenters also generally supported IOSCO’s approach to proportional implementation of the Principles, taking into account the size and risks posed by each Benchmark Administrator and Benchmark-setting process.

Several commenters argued that the additional measures should not apply to products subject to the PRA Principles. In particular it was noted that additional controls for Submitters (Submitter Code of Conduct) were not identical to those in the PRA Principles. They also argued that the Principles on Financial Benchmarks are seeking to reintroduce provisions that were considered and ultimately rejected in the context of the PRA Principles, in recognition of the voluntary nature of commodity market participants’ interactions with PRA price reporting processes.

Some commenters suggested that IOSCO include or clarify the definition of some terms, in order to provide certainty about the scope of the Principles on Financial Benchmarks. These terms included Front Office Functions, Submitters, Submissions and Submissions-based. One commenter argued that for the additional measures to apply, the terms Submitter and Submission should exclude, at a minimum, data reflecting observable transactions and other actual market information.

Several commenters also argued that IOSCO should further refine the definition of Benchmarks to ensure that certain indices are not inadvertently caught. Commenters were primarily

concerned about strategy indices, reference prices produced by central counterparties to measure their positions and exposure, prices discovered on a Regulated Market or Exchange, settlement prices used for clearing, and prices for individual instruments.

Some commenters argued that IOSCO's framework assumes that a transaction-based Benchmark is *per se* more credible and reliable than an estimation-based one without providing a basis for this. Commenters argued that Expert Judgment is necessary and a transaction-based Benchmark cannot replace a well-established IBOR Benchmark. Even where Benchmarks are anchored in observable transactions, Expert Judgment is necessary to filter out unrepresentative market volatility and outlier transaction data. One commenter also criticised IOSCO for not considering the risks associated with transactions-based Benchmarks and suggested that IOSCO should develop a framework for risks associated with transactions-based processes and market rates, whether Submission-based or not.

Consultation question 3

Commenters generally supported IOSCO's approach that additional transparency requirements should apply to Benchmark determinations based on estimates and Expert Judgment. However, a number of commenters did not address question 3.

Many commenters argued that the underlying methodologies for exercising expert judgement including fall-back provisions and downgrades in the data input hierarchy must be disclosed transparently and in detail.

Several commenters argued that the scope of these requirements should be limited e.g., to large and relevant Benchmarks or Benchmarks that are prone to conflicts of interest or that rely on subjective Submissions.

Several commenters argued that a notice that is Published with each Benchmark determination could be disproportionate and burdensome for administrators and suggested that explanations and standards for the exercise of Expert Judgment should be addressed at the level of the Benchmark Methodology and the Code of Conduct.

One commenter suggested a clarification of the term "concise explanation" which should allow administrators to decide how and when judgment will be used, but not so that every exercise of judgment must be explained and disclosed.

One commenter argued that a Benchmark Administrator would not be able to explain Expert Judgment exercised on the level of the Benchmark Submitter. In addition, detailed explanations could compromise the vital confidentiality of the Submitter inputs.

One commenter suggested that the content and method for the publication of an explanation regarding Expert Judgment should be discussed between the Administrator and the Submitters and should be determined based on the characteristics of each Benchmark.

Consultation Question 4

Overall there is general support for two levels of Principles and for the overarching aims of most of the Principles. The comments received were more technical than arguing the aims and objectives of the Principles.

Some respondents argued that the scope needs to be more focused to clearly define which Benchmarks would fall under the proposed Principles and which would not (e.g., equity indices, CCP reference prices, proprietary Benchmarks). Many definitional issues/revisions were highlighted in addition to revisions of stated Principles

Some respondents are against the Principle which gives hierarchy to transactional data over other inputs (such as bid-offer quotes). These respondents stressed that not all markets are liquid or transparent enough to take into account non-transactional data or Expert Judgment only as a supplement to transactional data.

Generally, the commenters were in support of the Code of Conduct. However, some commenters argued that the Code of Conduct imposed on Submitters should be reconsidered by IOSCO. Given the voluntary nature of most data Submissions, some commenter said the burden would discourage data Submitters. Some commenters also suggested that IOSCO should state that the Code of Conduct applies only if a cost-benefit analysis has been undertaken.

Some respondents suggested that the restriction on Submissions from Front Office Functions (in the code of conduct for Submitters) should be removed since they will have the most expertise and proximity to the underlying interest for a Benchmark. Limiting to non-front office Submissions would adversely impact the quality of the Benchmark. Other controls are adequate to manage the relevant conflicts faced by front office staff.

Some respondents were concerned that the proposed procedures and audits may increase efforts and cost to Submitters of less prominent Benchmarks driving them out of the market. Similarly, there is concern that certain costs such as maintaining an audit trail, may exceed the benefits, and those costs would likely be passed on to investors. Thus, the application of Principles should follow a proportional approach and allow more lead time for adoption.

Some respondents felt that the responsibility of the Benchmark was too concentrated within the administrator's function and that other stakeholders that are also involved in the Benchmark setting process should be held accountable or share the responsibility.

Some commenters said that information about IT policies and human resource are often confidential, which will make it difficult to implement Principles related to disclosing

information on control framework (Principle 4). Similarly, there is the risk that making the methodology publicly available would divulge confidential or proprietary information to competitors.

ANNEX C

Guidance on Principle 9 - Transparency of Benchmark Determinations

The following guidance is based substantially on the guidance that previously was issued in relation to the PRA Principles²⁸ and also will apply to Principle 9 “Transparency of Benchmark Determinations” in these Principles for Financial Benchmarks.

Question: With respect to judgment referenced throughout the Principles, how detailed should a description of a specific judgment be?

Response:

The focus of Principle 9 is on providing Stakeholders with sufficient information to allow Stakeholders to understand how a determination was developed. Whilst the format of disclosure is within the discretion of the Administrator, the minimum information called for in Principle 9 should be provided with each published Benchmark determination.

Principle 9 contemplates that each published Benchmark determination would identify, and explain the rationale for, the exercise of judgment in each published Benchmark determination. The term *judgment* is illustrated in Principle 9 as being employed in the exclusion of data otherwise conforming to the requirements of the relevant Methodology, in basing a Benchmark determination on spreads, in interpolation or extrapolation, in weighting bids or offers higher than concluded transactions, or, in general, in a more qualitative assessment in the absence of hard data.

With respect to the level of detail needed, the Principles for Financial Benchmarks report makes clear in the introduction that “the application and implementation of the Principles should be proportional to the size and risks posed by each Benchmark and/or Administrator and the benchmarking process.”

For example, consistent with the proportionality concept, it would be appropriate for Administrators to develop standard descriptions and rationales for the type of judgments that tend to be exercised in Benchmark determinations and publish those descriptions and rationales as relevant with each Benchmark determination but with a degree of aggregation where appropriate.

Although Administrators may therefore develop disclosures in the most efficient manner, any such disclosures should provide more than the permissive procedures of the methodology. However, a Benchmark that is based exclusively on executable quotes as contemplated by

²⁸ Frequently Asked Questions (FAQ) on IOSCO Principles for Price Reporting Agencies (Oil PRA FAQ)(March 2013) <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD406.pdf> supra fn No26

Principle 7 would not need to explain in each determination why it has been constructed with executable quotes, provided there is disclosure in the Methodology.

Benchmarks that regularly publish their Methodologies would satisfy Principle 9 when derived from data sourced from Regulated Markets or Exchanges with mandatory post-trade transparency requirements.