11 February 2013

IOSCO
Mr. Al Erpglu
Calle Oquendo 12
28006 Madrid
Spain
Benchmarksconsultationresponses@IOSCO.org

Re: Consultation Document on Financial Benchmarks

Dear Sir,

The Global Financial Markets Association[1] ("GFMA") is pleased to provide comment on IOSCO's Consultation Report on Financial Benchmarks. Recent events have called into question the integrity of certain financial benchmarks that have a significant role in the smooth functioning of global financial markets. GFMA supports the work of IOSCO and its Task Force in developing a framework of principles for Benchmarks used extensively in financial markets and is especially appreciative of IOSCO's emphasis on regulatory coordination and industry consultation.

Given the scope of IOSCO's membership and its relationship with the FSB, GFMA considers this consultation an especially important one that has the potential to strengthen benchmark practices globally. As such, GFMA attaches particular importance to this initiative and will be pleased to work with IOSCO to ensure that the standards developed have broad applicability proportionate to the significance of the benchmark and are adopted widely in the industry. In addition to IOSCO's consultation, GFMA notes and welcomes the Wheatley Review, the work

[1] The Global Financial Markets Association (GFMA) brings together three of the world's leading financial trade associations to address the increasingly important global regulatory agenda and to promote coordinated advocacy efforts. The Association for Financial Markets in Europe (AFME) in London and Brussels, the Asia Securities Industry & Financial Markets Association (ASIFMA) in Hong Kong and the Securities Industry and Financial Markets Association (SIFMA) in New York and Washington are, respectively, the European, Asian and North American members of GFMA. For more information, visit http://www.gfma.org.

of the European Parliament, the European Commission, EBA and ESMA, and discussions at the FSB on benchmarks. We acknowledge and support the efforts of all these bodies to promote a coordinated, global approach to any new policies in this area.

In light of the market significance of benchmark practices, GFMA initiated and introduced the attached *Principles for Financial Benchmarks* ("Principles"), a set of best practice standards for conducting benchmark price assessments with the goal of enhancing confidence in such assessments and, more generally, promoting both the integrity and efficiency of the global financial markets. GFMA issued these Principles prior to any of the government consultations in order to draw attention to the need for international standards in this area, and to offer the Principles as a basis for crafting such standards.[2] In addition, we are urging the adoption of the Principles by organizations responsible for developing and issuing benchmarks. In developing the Principles, GFMA took extensive input from its affiliate regional organizations, their members, major index sponsors across a range of asset classes, index calculation agents, financial data publishers and other trade associations. We appreciate that the IOSCO Task Force found the GFMA Principles helpful in undertaking this Consultation.

The GFMA Principles address industry practices, and we encourage benchmark participants to adopt them. However, we do not envision them – or any similarly derived principles -- as simply voluntary industry standards. As we elaborate in the attached comment response as well as the attached GFMA Principles, we believe that a global regulatory framework should overlay and complement these principles, in a manner that is proportionate to the significance of the benchmark.

The GFMA Principles are based on the view that the overall responsibility for any benchmark process lies ultimately with the sponsor (broadly equivalent to the "Administrator" in IOSCO's consultation). The Principles embody many general recommendations, such as the need for clear governance, sound methodologies, and practical control standards. By following these recommendations, a benchmark would meet the standards for a "credible benchmark" as outlined in the IOSCO Consultation.

GFMA's response to IOSCO's Consultation is outlined in Annex A. We would like to note that GFMA does not issue or use benchmarks, so we are unable to respond to aspects of the questions in the consultation that are more specifically addressed to individual market participants. Accordingly, GFMA will focus largely on the issues in the Consultation that overlap with those covered in the Principles, which are attached in Annex B.

[2] We note that both the *Wheatley Review of LIBOR* and the announcement of the IOSCO Board Level Task Force on Financial Market Benchmarks referenced the preliminary version of the GFMA Principles published in September 2012. A refinement of the Principles was published in November 2012.

* * *

GFMA appreciates the opportunity to provide comment on the IOSCO's consultation and would be happy to discuss our response as well as the attached Principles with you.

Sincerely,

Vickie Alvo
Executive Director, GFMA

Annex A
Consultation Questions

Chapter 1 - Introduction

Scope

1. Do you agree with the scope of the report and intended audience? Are there other Benchmarks or stakeholders that have idiosyncrasies that should place them outside of the scope of the report? Please describe each Benchmark or stakeholder and the idiosyncrasies that you identify and the reasons why in your view the Benchmark or stakeholder should be placed outside of the scope of the report.

Response:
GFMA agrees that a significant proportion of global financial activity is linked to benchmarks and that the universe of benchmarks is large and diverse. For this reason, GFMA believes that it is important to clarify the scope of application of any benchmark standards. As noted in the GFMA Principles, the key criterion for bringing a benchmark within scope of any Principles or like standards should be its use in a financial contract that determines a price or payment.

GFMA believes that standards such as the Principles should apply widely, including to:

- Benchmarks across all major asset classes - fixed income, interest rates, equities, currencies and commodities.

- Benchmarks determined under a variety of methods, ranging from the survey style used for IBORs, the price assessments in the commodities markets, to benchmarks based purely on transaction data or on exchange prices such as stock indices.

GFMA also considers that the scope of any standards should apply across a range of operating models and encompass all participants in the benchmark determination process, including the sponsor, calculating agents, publishers and data contributors. However, given the diversity in range and marketplace significance of benchmarks, GFMA believes that the application of such standards should be proportionate and adapted to the specifics of each benchmark.

IOSCO should consider the following *exception*s: indices that are primarily used for purposes other than pricing financial instruments or contracts; customized indices used for pricing bespoke bilateral or similar transactions among a limited number of counterparties; and indices issued by public sector entities. These exceptions are illustrated in the attached Principles.

Chapter 2: Discussion of Potential Issues

Benchmark Design

2. Do you agree that the design of a Benchmark should clearly reflect the key characteristics of the underlying interest it seeks to measure?

Response:
Yes. GFMA Principles IV and V cover issues of benchmark design, methodology and quality. As noted in Principle IV, GFMA believes that benchmarks should accurately reflect conditions in the underlying market. The sponsor is responsible for designing the benchmark methodology to ensure that this objective is met. Moreover, as described in Principle V, the sponsor should periodically review the design and methodology of the benchmark, as well as activities in the underlying market, to ensure that the benchmark continues to reflect market conditions on an ongoing basis.

In order to ensure the closest linkage between published benchmark levels and actual market conditions, GFMA believes that, as a general rule, benchmark design should give priority to data reflecting either executed transactions or executable bids and offers to enter into such transactions. Nevertheless, as we discuss further below, there are many markets where benchmarks play a valuable role for users but where trade information is not always available or may be too limited. In such cases a sponsor may have to rely on other methods for assessing prices, including dealer quotes, mathematical models that predict prices based on the observed prices of other products, good faith estimates, contributor surveys, or other methods.

Quality and Integrity of Methodologies

3. What measures should Administrators take to ensure the integrity of information used in Benchmarking-setting and that the data is bona fide? Please highlight any additional measures required where Benchmarks are survey based. Please also comment on each of the factors identified in the discussion on the 'vulnerability of data inputs' such as voluntary submission, discretion exercised by Administrators. Are these measures adequately reflected in the discussion of roles and responsibilities of the Administrator discussed in section E?

Response:
A framework of governance, methodological standards and operational controls is essential to ensuring data integrity and accuracy in a benchmark process. The development and

implementation of such a framework is a primary responsibility of the sponsor – and one that cannot be fully outsourced. Key elements of this framework are covered in the GFMA Principles. Those with a specific emphasis on data integrity include:

- The sponsor controls should include a process for selecting data sources, collecting data from the source, protecting the confidentiality of the source's data, evaluating the source's data submission process, and removing or applying other sanctions for non-compliance against the source, where appropriate.

- Clear roles and responsibilities should be set for all participants in the benchmark process. In particular, the responsibilities of the calculation agent for monitoring data quality should be articulated.

- Processes should be implemented for receiving, investigating, reporting, and documenting complaints or potential errors with the benchmark determination, including a process for escalating complaints, as appropriate, to the sponsor's governance body.

- Processes should be implemented to identify anomalous data, to exclude such data from the benchmark determination, and to take appropriate remedial actions to minimize the possibility of recurrence.

- Periodic independent reviews of quality and of controls should be undertaken.

Where a benchmark is survey-based, the sponsor should ensure that standards for contributions are specified in a Contributor Code of Conduct. The requirements of such a Code are described in the response to Question 4 below.

4. What measures should Submitters implement to ensure the integrity of information provided to Administrators? Are these measures adequately reflected in the discussion of a code of conduct for Submitters discussed in section E? In particular, should Submitters submit all input data and not a selection of such data so as to maximize the representation of the underlying market? Please comment on any practical issues that compliance with such an approach may give rise to.

Response:

It is critical that submitters be subject to controls over the data submission process. As noted in GFMA Principle IX, sponsors should ensure that standards for contributions are specified in a Contributor Code of Conduct, and that contributors should employ an appropriate set of internal controls over data submissions. The Contributor Code of Conduct should include policies and procedures covering the following:

- An internal governance structure and control framework at the contributor that promotes the integrity of the data submission process and conformity with the methodology specified by the sponsor
- Clearly defined roles and responsibilities for all staff associated with the data submission process
- Identification and management of conflicts of interest, with protections against insider dealing, segregation of responsibilities where practical, and information firewalls
- Prohibition of collusion with other data contributors
- Selection and training of individuals involved in the data submission process
- Reviewing adherence to the sponsor's methodology, and procedures for identifying violations
- Receiving and managing complaints
- Protection of confidential information
- Maintaining a resilient infrastructure for submitting data including contingency planning
- Appropriate notice period for withdrawal of the contributor
- Records retention
- Periodic independent review of data submissions and control framework.

These controls are further elaborated upon in GFMA Principle IX in Annex B.

With respect to the data to be submitted, the duty of the sponsor is to ensure that the design of the benchmark methodology leads to a published benchmark level that accurately reflects the underlying market. Under some circumstances, the sponsor may consider that certain transaction types, say over or under a threshold size, would not be reflective of normal market conditions and should be filtered out from submissions, either by the contributors directly or by the calculation agent. The published methodology and directions to contributors should specify the nature of data to be submitted, including when this involves transaction data, the criteria under which the data related to specific transaction types should be included in or excluded from the submission. The duty of the contributors, in turn, is to adhere to the methodology specified by the sponsor.

Transparency of Benchmark Methodologies

5. What level of granularity with regard to the transparency of Methodologies would enable users to assess the credibility, representativeness, relevance and suitability of a Benchmark on an on-going basis and its limitations with respect to their intended use? Relevant factors could include; criteria and procedures used to develop the Methodology, type of data used, how data is collected, relative weighting of data used, how and when judgment is used, contingency measures (e.g., methods when transaction data is unavailable etc), publication of information

supporting each Benchmark determination, etc. Please provide examples where you consider there are currently significant gaps in the provision of this information.

Response:
The GFMA Principles require the sponsor to operate with transparency with respect to benchmark development, methodology, and ongoing quality review.

Specifically, the sponsor should make the methodology for benchmark determination available to the parties that the sponsor identifies as being affected by that benchmark, including possibly the general public. The methodology should define the technical specifications of the benchmark, describe the determination method, including the roles of any third parties such as calculation agents and contributors, and the procedures and criteria for the use of judgment by the sponsor or agents. The sponsor should have particular regard to the transparency of the determination of the benchmark in circumstances of market disruption or abnormally poor liquidity. The sponsor should undertake periodic quality reviews of the benchmark and publish the results of such reviews to licensed benchmark users, or to the general public in the case of a benchmark used extensively.

Transparency of contingency provisions for episodes of market disruption, illiquidity or other issues

6. What steps should an Administrator take to disclose to Market Participants and other stakeholders the contingency measures it intends to use in conditions of market disruption, illiquidity or other stresses?

Response:
As noted in the response to Question 5, the GFMA Principles consider that the sponsor has a particular duty of transparency on how the benchmark is to be determined in the event of market disruptions. The sponsor should have in place a formal contingency plan for determining the benchmark in the absence of data from the normal market data sources, market disruptions, or the failure of critical infrastructure. The contingency plan should be operationally distinct from the normal determination process.

Transparency over Changes to the Methodology

7. What steps should an Administrator take to notify Market Participants of material changes to a Benchmark Methodology (including to Benchmark components) and to take their feedback into account?

Response:
As explained in detail in the attached GFMA Principles, a sponsor should operate transparently with respect to the benchmark methodology, including development and changes, taking due account of impacts on process participants and anticipated end users. As noted above in the response to Question 5, the sponsor should make the methodology for determining a benchmark available to those parties that are affected by the benchmark, provide such parties with notice of any proposed amendments to the methodology and ensure that there is a process for receiving and responding to any comments on proposed amendments.

8. How often should the Administrator review the design and definition of the Benchmark to ensure that it remains representative?

Response:
GFMA Principle V requires that the sponsor undertake a periodic review of the benchmark design and calculation methodology, as well as of the nature of the activities in the underlying market, to ensure that benchmark determination continues to adhere to sound design elements and to reflect market conditions. Such periodic reviews should supplement continuous monitoring of market conditions by the sponsor.

The frequency of such reviews will depend on the specific nature of the benchmark and of the underlying market, and on the significance of the benchmark. In practice, we anticipate that a formal review would be conducted at least annually.

The design elements to be considered in the review include:

- There should be sufficient trading activity in the underlying or closely-related markets on which the benchmark is based to allow a reasonable and regular price assessment to be made.

- The trading activity in the underlying market should be conducted in such a manner and among a sufficiently broad group of participants so as to allow for transparent price discovery.

- The terms of contracts and participants to the underlying transactions upon which the benchmark is based should share sufficiently similar characteristics to minimize idiosyncratic distortion to the benchmark over successive assessments.

A sponsor might also undertake a special review should it become clear that market conditions are causing a departure from the above design elements or that significant levels of anomalies are being detected in the data from which the benchmark is calculated.

Governance

9. The Consultation Report discusses a number of potential conflicts of interest that may arise at the level of the Submitters, between Submitters at different entities, and between Submitters, Administrators and other third parties. Are there other types of conflicts of interest that have not been mentioned that you consider may arise? If so, how best should these conflicts of interest be addressed? Are the measures discussed in the Consultation Report sufficient to address potential conflicts of interests at the level of the Submitters, between Submitters at different entities, and between Submitters, Administrators and other third parties?

Response:
GFMA concurs with IOSCO on the importance of identifying and managing conflicts of interest that may arise within and between the participants in a benchmark process. The GFMA Principles require such conflicts to be addressed through a number of means, including disclosure, clarity of roles and responsibilities, well-defined policies and procedures, segregation of responsibilities where practical and information firewalls. Adherence to these mitigating controls should be tested as part of the periodic independent reviews to be conducted at the sponsor and data contributors.

10. Do you agree that the Administrator should establish an oversight committee or other body to provide independent scrutiny of all relevant activities and management of conflicts of interest? Please comment if and why any different approaches might be appropriate for different kinds of Benchmarks. What is the minimum level of independent representation this committee or body should include?

Response:
GFMA Principle I requires that a benchmark sponsor appoint and appropriately empower a governance body that is accountable for the development, issuance and operation of the benchmark. The nature of the governance body may vary depending on the benchmark and may comprise a formal board, a dedicated committee or an individual manager. The governance body would be responsible for, *inter alia*, overseeing the benchmark methodology, the control framework, and the relationships between the sponsor and any third parties. In particular, the control framework should include policies and procedures for the identification and management of the various conflicts of interest that may arise within and between benchmark participants. The governance body, regardless of form, should also oversee the management responsible for operation of the benchmark, and stay informed about material issues and risks related to the benchmark.

While an oversight committee with independent representation, as envisioned by IOSCO, is one possible form of governance body, the GFMA Principles are less prescriptive and allow for other forms of governance, provided that an appropriate control framework is in place to ensure the integrity of the benchmark. Furthermore, the GFMA Principles require that:

- Periodic independent internal or external reviews be conducted to ensure that the operation of the benchmark continues to conform to the control framework;
- Benchmark development, changes and determination be undertaken transparently; and
- Governance structures or processes be implemented to receive and evaluate stakeholder input.

Provided that such guidance is followed and accountability is clear, we believe that it is less important to prescribe the particular structure of governance that should be implemented.

<u>Accountability</u>

11. Should the Submitters establish accountability procedures to assess their compliance with operational standards and scrutiny of Benchmark submissions?

12. Are the measures discussed in the Consultation Report (e.g. Audit Trail, external audits and requirement for regulatory cooperation) sufficient to ensure the accountability of Submitters? Should additional mechanisms be considered?

13. How frequently should Submitters be subject to audits? Should these be internal or external audits?

Response:
GFMA believes that the sponsor is responsible for ensuring that there is an appropriate control framework over the process for submitting and collecting data. In the case of benchmarks derived from data submitted by individual data contributors, the sponsor should develop and require the implementation a Contributor Code of Conduct. Contributors have a duty to ensure that they implement appropriate internal organization, controls and reviews to ensure that this Code is followed (Question 11). The minimum standards of such a Code of Conduct (Question 12) are specified in GFMA Principle IX and outlined in the response to Question 4 above. Audits of contributor processes (Question 13) should be undertaken by parties independent of the processes, for example an internal audit function or an external auditor. The frequency of such audits and the use of external auditors should be proportionate to the significance and potential vulnerability of the benchmark.

While the consultation covers the main control themes needed to ensure the integrity of the submission process, additional specific controls may be appropriate for the particular circumstances of individual benchmarks.

Accountability of the Administrator

14. Are the measures discussed in the Consultation Report (e.g., complaints process, Audit Trail, external audits and requirement for regulatory cooperation) sufficient to ensure accountability of the Administrator? Should additional mechanisms be considered?

Response:
GFMA considers independent review a critical component of a sound benchmark governance process. In addition to ensuring that certain principles of independent review are in place, GFMA believes that benchmark sponsors should be able to confirm that any remedial measures have been taken and appropriate parties have been advised as appropriate of matters arising from the reviews. Furthermore, the sponsor is responsible for ensuring that third-party data contributors are subject to a Contributor Code of Conduct to adhere to the sponsor's methodology, as discussed in this document and in Principle IX in Annex B.

15. If recommended, how frequently should Administrators be subject to audits? Should these be internal or external audits?

Response:
The periodic audit of sponsors is consistent with the principle of strong governance structure for the oversight of a benchmark. This includes independent review to assess the sponsor's adherence with the established methodology for determining the benchmark and the relevant control framework. As outlined in GFMA Principle VII, periodic reviews of sponsors may be performed by a sponsor's independent internal control function or an independent third party. However, for benchmarks that are used extensively in the marketplace, GFMA believes that an independent third party should be responsible for performing such a review.

16. Is public self-certification of compliance with industry standards or an industry code another useful measure to support accountability? This approach might also contemplate explanation of why compliance may not have occurred. If so, what self-certification requirements would make this approach most reliable and useful to support market integrity?

Response:
One of GFMA's primary objectives in issuing the Principles was to urge adoption of the Principles, or similar standards incorporating the Principles, by benchmark sponsors. In turn, the Contributor Code of Conduct detailed in Principle IX provides a template of standards to be observed by data submitters. GFMA believes that adoption of the Principles by benchmark participants would indeed enhance market integrity and the confidence of benchmark users. The decision to undertake a formal certification process for adoption the Principles or similar codes, or to require contributors to adopt the Code of Conduct, should be made by the sponsor, in the

light of the significance of the benchmark, the specific regulatory and legal environment, and the overall control framework for the particular benchmark.

Code of Conduct for Submitters

17. The Consultation Report discusses elements of a code of conduct for Submitters. Are the measures discussed (e.g., adequate policies to verify submissions, record management policies that allow the Submitter to evidence how a particular submission was given, etc.) sufficient to address potential conflicts of interest identified or do you believe that other control framework principles should be added?

Response:
GFMA's requirement for a Contributor Code of Conduct, and the main elements of such a Code, were discussed in the response to Question 4. The elements noted by IOSCO are included in the GFMA Code.

18. What would be the key differences in the code of conduct for Benchmarks based on different input types, for example transactions, committed quotes and/or expert judgment?

Response:
GFMA believes that the core elements of a Contributor Code of Conduct are common across the range of submission types. These include internal governance, management of conflicts of interest, clarity of roles and responsibilities, trained personnel, robust infrastructure, record retention and periodic independent reviews. The Code may of course contain specific additional provisions that reflect the particular control vulnerabilities of the data type and submission process. For example, in cases where transaction data are used, clear criteria should be specified to ensure that the selection of transactions complies with the sponsor's defined methodology.

Chapter 3 – Discussion of Options for Enhanced Oversight of Benchmark Activities

Approaches to Enhanced Oversight

19. What are the advantages and disadvantages of making Benchmark submissions a regulated activity?

20. What are the advantages and disadvantages of making Benchmark Administration a regulated activity?

Response:
GFMA welcomes the reviews of the regulatory framework for financial benchmarks by the global regulatory community and believes that benchmark activities should indeed fall within the regulatory perimeter. Regulation should be clear, applied consistently across jurisdictions and applied proportionately to the significance of a benchmark in the marketplace.

GFMA believes that regulators should establish a broad framework for benchmarks, within which the financial industry should be responsible for developing and operating the appropriate governance and control mechanisms, such as those in the GFMA Principles. This approach balances the public goals of market integrity and investor and consumer protection, on the one hand, with the legitimate commercial interests of the industry and the promotion of market innovation and development, on the other.

21. Do you agree with the factors identified for drawing regulatory distinctions? What other factors should be considered in determining the appropriate degree of oversight of Benchmark activities (discussed in Chapter 3)? Please provide specific recommendations as to how the distinctions discussed in Chapter 3 should inform oversight mechanisms.

22. What distinctions, if any, should be made with regard to Benchmarks created by third parties and those created by regulated exchanges?

23. Assuming that some form of enhanced regulatory oversight will be applied to an asset class Benchmark, should such enhanced oversight be applied to the Submitters of data as well as the Administrator?

24. What are the considerations that should be taken into account if the Submitters to a Benchmark operate in an otherwise unregulated market (e.g., physical oil, gold or agricultural commodity markets) and are not otherwise under any obligation to submit data to an Administrator?

Response:
GFMA agrees that a regulatory regime is called for, and encourages global regulators to use the Principles as a basis for a developing such a regime. We also concur that the same regulatory approach may not be appropriate for all situations and in fact the Principles are designed to be adaptable for that reason. The most important distinction we see is the market significance of the benchmark.[3]

[3] See also GFMA's 4 April 2012 response to IOSCO's *Consultation Paper on the Functioning and Oversight of Oil Price Reporting Agencies,* at http://www.gfma.org/Initiatives/Commodities/GFMA-Submits-Comments-to-International-Organization-of-Securities-Commissions-on-Functioning-and-Oversight-of-Oil-Price-Reporting-Agencies/.

GFMA suggests that a regulatory regime adopt the following concepts:

- All systemically significant financial benchmarks should be subject to regulatory oversight.

- To ensure that regulation is appropriately scaled and targeted, where a benchmark sponsor or other participant is already regulated by a financial regulator, then that regulator should oversee the implementation of the agreed-upon standards within the entity, in a manner that reflects the significance of the benchmark being regulated.

- Where no financial regulator has jurisdiction over a sponsor or other benchmark participant, GFMA recommends that appropriate administrative or legislative steps should be taken to ensure application of the standards to all participants in the benchmark process, also in a manner that reflects the significance of the benchmark.

- Any new regulation should be developed consistently across jurisdictions, avoiding duplication, and defining clear regulatory responsibilities for oversight of individual benchmarks.

25. Do you believe that a code of conduct, either on its own or in conjunction with other measures outlined within the report, would provide sufficient oversight to mitigate the risks that have been identified in Chapter 2? What measures should be established in conjunction with a code of conduct? For which Benchmarks is this approach suitable?

26. What other measures outlined in the report, if any, should apply in addition to a code of conduct? If you believe a code of conduct, either on its own or in conjunction with other measures outlined within the report, would provide sufficient oversight to mitigate the risks that have been identified in Chapter 2, what type of code of conduct should apply (e.g., a voluntary code of conduct, an industry code of conduct submitted to and approved by the relevant Regulatory Authority, a code of conduct developed by IOSCO, etc.)?

Response:
As noted in the response to Questions 19 and 20, GFMA believes that regulators should establish a broad framework for benchmarks, such as those in the Principles, within which the financial industry should be responsible for developing and operating the appropriate governance and control mechanisms. A regulatory regime, with appropriate sanctions for violations, and an industry-driven code of standards provide important mutual support.

GFMA believes that this framework has broad applicability. The balance between which elements of the governance and control framework are mandated under regulation or driven through the industry code may vary, based on the factors described in our response to Questions 21 through 24.

27. Do you believe that the creation of a Self-Regulatory Organization (.e.g., one that exercises delegated governmental powers) and itself subject to governmental oversight, whether or not in conjunction with industry codes is a viable alternative for sufficient oversight and enforcement to mitigate the risks that have been identified in Chapter 2? For which Benchmarks is this approach suitable? What if any complementary arrangements might be necessary, such as new statutory obligations or offences for Administrators and/or Submitters?

Response:
The establishment of a separate SRO may be a tactical alternative in some jurisdictions where the existing legislative or regulatory framework cannot be readily applied to benchmark activities. However, GFMA believes that, in the major jurisdictions, the enhancement or adaption of existing regulatory frameworks and authorities, in conjunction with industry-driven standards, offers the most efficient path to restoring confidence in benchmark determination.

28. Do you believe that, for some Benchmarks, reliance upon the power of securities and derivatives regulators to evaluate products that reference a Benchmark or exercise their market abuse or false reporting powers creates sufficient incentives for the Administrator to ensure sure that Submitters comply with a code of conduct?

Response:
Reliance on a form of indirect regulation of benchmarks, as described, may be a tactical alternative where the existing legislative or regulatory framework cannot be readily applied to benchmark activities. However, as a general matter, GFMA believes that it would be more efficient to ensure that clear regulatory responsibilities are established for oversight of individual benchmarks. This approach avoids confusing overlap, duplication of efforts and potential regulatory gaps.

29. Do you believe that users of a Benchmark, specifically, the users who are regulated or under the supervision of a national competent authority should have a role in enhancing the quality of Benchmarks? Which form should this role take: on a voluntary basis (e.g. the user being issued a statement that will only use Benchmarks that follow IOSCO principles), or on a compulsory basis (e.g., the competent authority could request that users who are registered under their jurisdiction should only use Benchmarks that fulfill IOSCO principles)?

Response:
GFMA believes that ultimate responsibility for the quality of a benchmark rests with the sponsor. The sponsor should ensure that the design of the benchmark reflects the broad terms of financial instruments and contracts for which it is generally intended to be used and should assess over time whether this continues to be the case by periodically reviewing the activities in the underlying market. Sponsors should also encourage input from stakeholders, including benchmark users, and develop governance structures and processes for receiving and evaluating such input.

GFMA also believes that innovation and commercial development of benchmarks should be driven by the marketplace rather than mandated by central authorities. Rather than attempting to prescribe or proscribe the use of benchmarks, emphasis should be put on ensuring sound practices and transparency to users.

Chapter 4 – Discussion of Data Sufficiency and Transition

Data Sufficiency

30. Do you agree that a Benchmark should be anchored by observable transactions entered into at arm's length between buyers and sellers in order for it to function as a credible indicator of prices, rates or index values? How should Benchmarks that are otherwise anchored by bona-fide transactions deal with periods of illiquidity due to market stress or long-term disruption?

Response:
There are a wide variety of benchmarks, using a multiplicity of determination methods, in regular use. GFMA believes that it is unnecessarily limiting to mandate that a benchmark be based solely on actual transaction data. Provided that a sufficiently robust governance and control framework is in place and there is clear transparency, benchmarks determined under a variety of methods can be of great value to users.

The GFMA Principles note that, where feasible, a sponsor's methodology for determining a benchmark should give primacy to data reflecting either executed transactions or executable bids and offers to enter into such transactions. Where a benchmark is calculated using a "hybrid" approach, combining price data from actual transactions together with price quotations from survey contributors, the sponsor should consider formalizing the hierarchy of weights given to each data type in arriving at the final determination. Transaction data and executable prices should generally receive the highest weight in such a hierarchy.

31. Are there specific Benchmarks for which you consider that observable transactional data is not an appropriate criterion or the sole criterion? If so, please provide a description of such Benchmarks and what value you think such Benchmarks provide?

32. What do you consider the limitations or value in Benchmarks referencing asset classes and underlying interests where there is limited liquidity? Please describe the uses and value of such Benchmarks in the financial markets.

Response:
GFMA's Principles require that benchmark methodologies rely on high quality data, accurately reflect market conditions and use a sound design. Specific requirements are that there should be sufficient trading activity in the underlying or closely-related markets on which the benchmark is based to allow a reasonable and regular benchmark determination to be made, and that the trading activity in the underlying market should be conducted in such a manner and among a sufficiently broad group of participants so as to allow for transparent price discovery.

There are many markets where transaction volume is sparse but where nonetheless there is user demand for a benchmark. Examples of such benchmarks include aggregate credit indices where the volume of transactions in some of the individual underlying bonds may be small. Derivatives based on such benchmarks can nonetheless be a valuable portfolio management tool. Benchmarks in the commodities markets where the determination uses historic delivery spread data offer another case of commercially useful indices where underlying volume is low.[4]

In these cases, the GFMA Principles allow for a sponsor to rely on other methods for assessing prices, including dealer quotes, mathematical models that predict prices based on the observed prices of other products, good faith estimates, contributor surveys, or other methods. The sponsor may also exercise appropriate judgment in respect of data analysis, modeling and calculation methods. To maintain the integrity of the benchmark, the sponsor's benchmark process should not be overly reliant on data from a narrow range of contributors, and should be sufficiently resilient to allow for benchmark determination in the event of low or no liquidity in the underlying market during a determination period. Under such circumstances, the sponsor should have particular regard to transparency obligations in identifying how the benchmark level is determined.

33. Do you agree that the greatest weight should be given to transactions in the construction of a Benchmark and that non-transactional information should be used as an adjunct (e.g., as a supplement) to transactions?

---

[4] See GFMA's 4 April 2012 response to IOSCO's *Consultation Paper on the Functioning and Oversight of Oil Price Reporting Agencies*, ibid.

Response:
As noted in the response to Question 30, GFMA agrees that primacy in the data hierarchy used to calculate a benchmark should be given to executed transactions or executable bids and offers. Depending on the benchmark, data from other sources can be used as another component of the benchmark determination, or for testing for anomalous benchmark behavior.

34. What factors and how often should Administrators (or others) consider in determining whether the market for a current Benchmark's underlying interest is no longer sufficiently robust? What effective methods of review could aid in determining the insufficiency of trading activity within the market for a Benchmark's underlying interest?

Response:
The sponsor should undertake periodic quality reviews of the benchmark design and calculation method, as well as of conditions in the underlying market, to ensure that the benchmark continues to adhere to a sound design and reflects market conditions. The frequency of such reviews will depend on the nature of the benchmark, though in practice we anticipate that reviews would be undertaken at least annually. Such reviews should compare secular trends in underlying market liquidity and the quality of data submissions, against predefined thresholds, as two key elements in assessing the robustness of the benchmark.

<u>Transition</u>

35. What precautions by Benchmark Administrators, Submitters, and users can aid Benchmark resiliency during periods of market stress, mitigating the potential need for market transition?

Response:
GFMA's Principles require that a sponsor develop a contingency plan for conducting the benchmark determination in the absence of data from the normal market data sources, market disruptions, failure of critical infrastructure, or other factors. The contingency plan should be operationally distinct from the normal determination process. Data contributors, in turn, should also have contingency plans for submitting data in the case of a failure of infrastructure.

36. What elements of a Benchmark "living will," drafted by a Benchmark Administrator, should be prioritized?

37. By what process, and in consultation with what bodies, should alternatives be determined for Benchmark replacement?

38. What characteristics should be considered when determining an appropriate alternate Benchmark? (Examples below) Should any of these factors be prioritized?

- ***Level and Type of Market Activity***
- ***Diversity/Number of Benchmark Submitters***
- ***Length of historical price series for the Benchmark alternative***
- ***Benchmark Methodology***
- ***Existing regulatory oversight***
  Existing enforcement authority
- ***Volume, tenors and contract structure of the legacy trades***

39. What conditions are necessary to ensure a smooth transition between market Benchmarks?

40. What considerations should be made for legacy contracts which reference a Benchmark in transition? To what extent does a substantive legacy book preclude transition away from a Benchmark? What provisions can be included in [new and existing] contract specifications which would mitigate concerns if and when a Benchmark transitions occurs?

41. How should a timeframe be determined for market movement between a Benchmark and its replacement? What considerations should be made for:

- ***Altered regulatory oversight?***
- ***Infrastructure development/modification?***
- ***Revisions to currently established contracts referencing the previous Benchmark?***
- ***Revisions to the Benchmark Administrator?***
- ***Risk to contract frustration?***

Response:

GFMA's work has focused primarily on improving industry practices for existing benchmarks and for new benchmark development. GFMA believes that the primary focus should be on reform efforts and that such reform is both feasible and likely less costly and disruptive than the replacement of major benchmarks. Of course such reform efforts should also address resiliency issues, for example by ensuring that contingency operational arrangements are in place and that legal documentation is drawn sufficiently flexibly to minimize disruption if a benchmark needs to be substituted.

Transition arrangements in general will depend heavily on the nature of disruption giving rise to a perceived need to move to a new benchmark. Such disruptions include the corporate failure of the benchmark sponsor, a long-term secular decline in liquidity in the underlying market on which the benchmark is based, the sudden seizing up of the underlying market, loss of market confidence in the integrity of the benchmark, or the withdrawal of or decline in a substantial group of data contributors. Thus, disruptions can occur over short or long time scales, may be predictable or unanticipated, and can be driven by controllable or uncontrollable factors.

For disruptions that play out over a lengthy period and are based on market factors, GFMA believes that the benchmark sponsor should work closely with the various stakeholders and regulators to coordinate transition planning. Under the GFMA Principles, the sponsor is responsible for conducting regular quality reviews of the benchmark. As noted in the response to Question 34, such reviews should provide an early warning process for when the robustness of the benchmark may be becoming compromised. The benchmark governance body should consider contingency arrangements on a regular basis and in the light of these quality reviews.

In considering proposals on orderly benchmark transition, regulators should aim to minimize the impact on already issued financial instruments. This could include international regulatory and industry cooperation, a preferably market-led transition protocol, sufficient time for transitioning, and full transparency on any proposed path to transition.

* * *

Annex B

GFMA Principles for Financial Benchmarks

Principles for Financial Benchmarks

November 2012

INTRODUCTION

Financial benchmarks are widely used as references for determining payments under a variety of financial instruments and many have a significant impact on market activity globally. The integrity of these benchmarks is critical to the effective functioning of markets and investor confidence.

Recent events have placed the integrity of some of the most significant benchmarks into question and have contributed to public distrust in the financial industry. These events have prompted policy-makers to study enhancements to the benchmark-setting process. For instance, the United Kingdom's Chancellor of the Exchequer commissioned *The Wheatley Review* to focus on the reforms to the framework for setting the London Interbank Offered Rate. The final report[1] of this review was published on 28 September 2012. The International Organization of Securities Commissions (IOSCO) published its final Principles for Oil Reporting Agencies[2] on 5 October 2012, in response to a G20 Leaders' request to enhance the reliability of oil price assessments. Both the European Union and IOSCO are currently conducting wide-ranging reviews of financial benchmarks in general.

A broadly accepted set of best practice standards for conducting benchmark price assessment processes ("benchmark process") would serve to enhance confidence in such assessments and, more generally, promote both the integrity and efficiency of the global financial markets.

[1] http://cdn.hm-treasury.gov.uk/wheatley_review_libor_finalreport_280912.pdf

[2] http://www.iosco.org/library/pubdocs/pdf/IOSCOPD391.pdf

The Global Financial Markets Association[3] ("GFMA") has three objectives in issuing these *Principles for Financial Benchmarks* (the "Principles"):[4]

- To draw attention to the need for international standards that apply to the issuance of financial benchmarks;
- To offer the Principles as a basis for crafting such international standards; and
- To urge the adoption of the Principles by organizations responsible for developing and issuing benchmarks.

GFMA particularly welcomes the reviews of the regulatory framework for financial benchmarks by the global regulatory community. GFMA recommends that these reviews should be coordinated globally to ensure consistency and encourages the regulatory community to consider the enclosed Principles as a basis to guide the development of a regulatory regime. GFMA suggests that a regulatory regime should adopt the following concepts:

- All systemically significant financial benchmarks should be subject to regulatory oversight.
- To ensure that regulation is appropriately scaled and targeted, where a benchmark sponsor or other participant is already regulated by a financial regulator, then that regulator should oversee the implementation of the agreed-upon standards within the entity, in a manner that reflects the significance of the benchmark being regulated.
- Where no financial regulator has jurisdiction over a sponsor or other benchmark participant, GFMA recommends that appropriate administrative or legislative steps should be taken to ensure application of the standards to all participants in the benchmark process, also in a manner that reflects the significance of the benchmark.

[3] The Global Financial Markets Association (GFMA) brings together three of the world's leading financial trade associations to address the increasingly important global regulatory agenda and to promote coordinated advocacy efforts. The Association for Financial Markets in Europe (AFME) in London and Brussels, the Asia Securities Industry & Financial Markets Association (ASIFMA) in Hong Kong and the Securities Industry and Financial Markets Association (SIFMA) in New York and Washington are, respectively, the European, Asian and North American members of GFMA. For more information, visit http://www.gfma.org.

[4] The Principles were issued in preliminary form in September 2012, based on input from GFMA affiliates and member institutions. The refinement of the Principles to their current form was based on feedback from a broad variety of benchmark industry participants and informed by the publication of a number of regulatory reports, including those from the Wheatley review and IOSCO.

- Finally, GFMA notes that any new regulation should be developed consistently across jurisdictions, avoiding duplication, and defining clear regulatory responsibilities for oversight of individual benchmarks.

DEFINITIONS

Benchmarks

The types of financial benchmarks vary widely, in terms of the participants involved in developing and issuing benchmarks, determination methods, and in the uses and significance of the benchmarks.

For the purposes of the Principles, a **benchmark** will be defined as a commercial or published price assessment, distributed regularly to third parties and extensively used as a reference in determining the pricing of, or the amount payable pursuant to, a financial instrument or contract. Benchmarks may be established from the market prices or rates for transactions in debt or equity securities, the foreign exchange, money and commodity markets, or derivatives of any of these.

Operating Models

Operating models for designing, operating and publishing benchmarks vary considerably across markets. The key roles are normally divided between functions undertaken by the sponsor or its agents, on the one hand, and the entities that provide market data to allow the determination of the benchmark, on the other. There is no standardization of terminology, but for the purposes of the Principles, the participants in a benchmark process will be taken to comprise:

- **Sponsor:** an entity or group that develops and directs the determination, publication and possibly licensing of a benchmark;

- **Licensing Agent:** an agent or division of the sponsor responsible for licensing the benchmark for use by financial product providers, trading venues or clearing organizations;

- **Publisher:** an agent or division of the sponsor, or third party licensed by the sponsor, responsible for the regular dissemination of the benchmark to subscribers and/or the general public;

- **Calculation Agent:** an agent or division of the sponsor responsible for collecting inputs from market data sources and for using this data to conduct a benchmark price determination;

- **Market Data Sources:** Benchmarks may be determined based on a spectrum of market inputs, including but not limited to prices at which market transactions occur, price estimates from market participants, price observations from related markets or consolidated price or transaction data from trading venues and clearing houses. Combinations of information from such sources may also be used to arrive at a final benchmark determination or for back-testing the quality of a benchmark. For the purposes of the Principles, two specific data sources are highlighted:

    1. ***Contributor:*** an individual market participant that provides data to the calculation agent for the purpose of conducting a benchmark price assessment. An individual bank providing price quotations for a survey-style benchmark would be an example.

    2. ***Consolidator:*** an entity that provides an aggregation of price or transaction data across multiple individual market participants to the calculation agent for the purpose of determining a benchmark. A stock exchange providing closing prices would be a typical example.

Single entities may play a number of the above roles. For example, a division of the sponsor may also act as a market data source, while many of the operational roles may be carried on within a sponsor entity. The Principles recognize such variation in operating models by allowing for various governance, control and conflict management mechanisms to be implemented as appropriate to the particular process or operating model.

SCOPE

The Principles are intended to apply broadly to benchmarks across asset classes and operating models. The key criterion for bringing a benchmark within the scope of the Principles is its use in determining the price of or payments under financial contracts. Benchmarks may evolve from a variety of sources, for example as market level indicators or analytic measures for assessing portfolio performance. Nonetheless, once a benchmark is used as a reference for contract pricing, it should be considered to fall within the scope of application of the Principles.

There are some exceptions to application of the Principles. First, indices that are primarily used for purposes other than pricing financial instruments or contracts are excluded from scope. Examples include indices that are used primarily for the purpose of evaluating the returns or other performance characteristics of asset portfolios, and economic or market sentiment indices produced by private sector organizations. Second, customized indices used for pricing bespoke bilateral or similar transactions among a limited number of counterparties are excluded. Examples include customized or privately-negotiated indices, reference portfolios or baskets, defined in connection with issuances of structured notes, with bespoke transactions to effect investment strategies, or with similar bilateral or limited arrangements. Finally, indices issued by public sector entities are out of scope. Examples include economic indicators or other statistics published by government entities, even if some, such as inflation indices or weather data, are widely used in the pricing of financial instruments.

The Principles embody many general concepts, such as the need for clear governance, sound methodologies and practical control standards. Sponsors of benchmarks should evaluate their operations against the Principles and adapt the general governance and control provisions as appropriate to the specific design and significance of the benchmark.

PRINCIPLES FRAMEWORK

The overall responsibility for the benchmark process lies with the sponsor. The Principles are grounded in three fundamental sponsor obligations, which should be applied in a manner commensurate with the significance of the benchmark:

- **Governance:** A sponsor should ensure that there is an appropriate governance structure for oversight of the benchmark;

- **Benchmark Methodology and Quality:** A sponsor should employ sound design standards in devising the benchmark and ongoing processes related to its operations; and

- **Controls:** A sponsor should ensure that there is an appropriate system of controls promoting the efficient and sound operation of the benchmark process and should implement such a system of controls.

The Principles are grouped into three sections under the above headings accordingly.

THE PRINCIPLES

1. GOVERNANCE

PRINCIPLE I: OVERALL RESPONSIBILITY

A sponsor is ultimately responsible for the quality and integrity of a benchmark.

A sponsor should appoint and appropriately empower a governance body accountable for the development, issuance and operation of the benchmark. The nature of the governance body may vary depending on the benchmark and may comprise a formal board, a dedicated committee or an individual manager. In all instances, however, it is essential that there be a single identifiable authority with specific accountability for the sound operation of the benchmark.

The responsibilities of the governance body include overseeing the benchmark methodology, the control framework, and the relationships between the sponsor and any third parties. The governance body should oversee the management responsible for operation of the benchmark, take appropriate measures to remain informed about material issues and risks related to the benchmark, and commission periodic independent internal or external reviews to oversee that the benchmark continues to operate in accordance with the Principles.

While retaining ultimate authority for the benchmark, the sponsor should encourage input from stakeholders and should develop governance structures or processes for receiving and evaluating such input.

PRINCIPLE II: CLEAR ROLES AND RESPONSIBILITIES

A sponsor should define clearly the roles and responsibilities of the participants in the benchmark process.

A sponsor may enter into an agreement with a third party to act as its agent in calculating the price assessment, distributing the price assessment data, or licensing the benchmark. A sponsor should establish clear roles and responsibilities for any third party charged with acting on the sponsor's behalf.

In the case where the benchmark process relies upon individual contributors to provide the sponsor or sponsor's agent with market data or estimates, the sponsor should ensure that there are clear standards for contribution of data or estimates and ensure transparency regarding the nature of such participation for the end users of the benchmark. Such standards for contributors should be specified by the sponsor in a documented contributor code of conduct, as described in Principle IX.

Where a benchmark relies upon data from a consolidator, the sponsor will typically be reliant on the consolidator's controls for the integrity of the data so sourced. The sponsor should take reasonable steps to ensure that the consolidator has implemented and operates an appropriate control environment. Where the sponsor has a contractual relationship with the consolidator, the roles of each party with respect to the maintenance of data integrity should be clearly articulated.

Where one or more of the functions in the benchmark process are carried out within a broader organization, the sponsor should ensure that there are policies and procedures to identify and manage conflicts of interest arising either between the various benchmark functions or between the benchmark functions and the activities of the broader organization.

PRINCIPLE III: TRANSPARENCY

A sponsor should operate with transparency with respect to benchmark development and changes, taking due account of impacts on process participants and anticipated end users.

Specifically, the sponsor should make the methodology for determining a benchmark available to those parties that the sponsor can identify as being affected by the benchmark, provide such parties with notice of any proposed amendments to the methodology for determining a benchmark price assessment and ensure that there is a process for receiving and responding to any comments on these proposed amendments.

The sponsor should also ensure that there are procedures for the communication, management and timely resolution of complaints related to the benchmark process. The sponsor should make available the complaint procedures to those parties that the sponsor can identify as being affected by the benchmark. In the case of benchmarks using contributor data, the sponsor should provide a contributor with appropriate notice if the sponsor determines that a contributor is violating the contributor code of conduct. Any disputes should be handled in accordance with an appropriate dispute resolution process.

The sponsor should also make available the policies and procedures, required under Principle VI, for identifying and managing conflicts of interests to those parties that the sponsor can identify as being affected by the benchmark.

2. BENCHMARK METHODOLOGY AND QUALITY

PRINCIPLE IV: METHODOLOGY

A sponsor should ensure that there is a methodology for conducting the benchmark price assessment that relies on sound data and accurately reflects market conditions.

This methodology should:

- Define clearly the technical specifications for the benchmark;
- Be clearly documented;
- Describe the manner in which the sponsor determines the benchmark, including the responsibilities of any third parties, such as calculation agents and contributors, as well as the procedures and criteria for the application of judgment by sponsor personnel in determining the benchmark price assessment and for addressing periods where the quantity or quality of data falls below the standards set by the methodology;
- Use sound and transparent data. Where feasible, a sponsor's methodology for determining a benchmark price assessment should give primacy to data reflecting either executed transactions into which unrelated counterparties acting at arm's length have entered in such sizes and upon such other terms as the sponsor may define, or executable bids and offers to enter into such transactions.

  Where such information is sparse or unavailable, a sponsor may rely on other methods for assessing prices, including dealer quotes, mathematical models that predict prices based on the observed prices of other products, good faith estimates, contributor surveys, or other methods. The sponsor's benchmark process should not be overly reliant on data from a narrow range of contributors, and should be sufficiently resilient to allow for a benchmark price assessment in the event of limited liquidity in the underlying market or market segment. Under such circumstances of limited liquidity, the sponsor should have particular regard to transparency obligations in identifying how the benchmark assessment is reached.
- Permit the sponsor or the calculation agent to exercise appropriate judgment in respect of data analysis, modeling and calculation methods to promote the integrity of the

assessment.

PRINCIPLE V: BENCHMARK QUALITY

To promote the quality of a benchmark over time, a sponsor should follow best practice design elements.

Those elements include the following:

- There should be sufficient trading activity in the underlying or closely-related markets on which the benchmark is based to allow a reasonable and regular price assessment to be made.

- The trading activity in the underlying market should be conducted in such a manner and among a sufficiently broad group of participants so as to allow for transparent price discovery.

- The terms of contracts and participants to the underlying transactions upon which the benchmark is based should share sufficiently similar characteristics to minimize idiosyncratic distortion to the benchmark over successive assessments.

- While the sponsor cannot control all of the uses for which a benchmark may be employed by third parties, the design of the benchmark should reflect the broad terms of financial instruments and contracts for which it is generally intended to be used as a reference rate.

The sponsor should periodically review the benchmark design and calculation methodology, as well as the nature of activities in the underlying market, to promote continued adherence to sound design elements and reflection of market conditions. The sponsor should make the results of these periodic technical reviews available to licensed users of the benchmark, or to the general public when a benchmark is used extensively.

3. CONTROLS

PRINCIPLE VI: CONTROL FRAMEWORK

A sponsor should ensure that there is an appropriate control framework for conducting and maintaining the benchmark process and for distributing the benchmark price assessment.

At a minimum, this framework should cover:

- The engagement of suitably qualified and experienced personnel to carry out the sponsor's responsibilities;

- Appropriate periodic training, including technical and ethics training;

- Policies and procedures relating to the identification and management of conflicts of interest (including through disclosure). Such policies and procedures should take into account conflicts arising from the other activities of the sponsor, the calculation agent, or contributors;

- Policies and procedures for safeguarding confidential information, including confidential information received from contributors, and controls to prevent the premature, unauthorized or preferential disclosure of information concerning a benchmark price assessment;

- Policies and procedures for receiving, investigating, reporting, and documenting complaints or potential errors with the sponsor's benchmark price assessment, including a process for escalating complaints, as appropriate, to the sponsor's governance body;

- Policies and procedures to ensure that emerging issues that may affect market integrity are brought promptly to the attention of the appropriate regulators;

- Policies and procedures applicable to violations of the sponsor's procedures by the sponsor's personnel or agents, or of the contributor code of conduct by individual contributors. Such procedures should include appropriate reporting mechanisms to the sponsor's governance body, and clarity on the process for adjudication for violations;

- Policies and procedures for identifying anomalous data received from market data sources, excluding such data from the benchmark process, and taking appropriate remedial actions to minimize the possibility of recurrence;

- Procedures to notify end users promptly of errors and corrections in a benchmark price assessment;

- An infrastructure, with appropriate resiliency, reflecting the significance and criticality of the benchmark to the marketplace, and a process for the periodic testing of this infrastructure; and

- A contingency plan for conducting the benchmark price assessment in the event of the absence of data from the normal market data sources, market disruptions, failure of critical infrastructure, or other factors. The contingency plan should be operationally distinct from the normal determination process.

PRINCIPLE VII: INDEPENDENT REVIEW AND RECORD-KEEPING

The sponsor should ensure that the benchmark process and methodology are subject to a periodic review of controls by an independent internal or external party. Appropriate documentation of the benchmark process should be maintained to support the review.

Such reviews, commissioned by the sponsor's governance body, may be conducted by a sponsor's independent internal control function, by the sponsor's external auditor or by an independent third party, as appropriate to the scope of the benchmark and organization structure of the sponsor. For benchmarks that are used extensively in the marketplace, the review should be conducted by a third party.

The independent review should assess the sponsor's adherence to the established methodology for determining the benchmark and the control framework relating to the benchmark in light of the Principles. The sponsor should be able to confirm that periodic independent reviews have been conducted, that any necessary remedial measures have been taken and that appropriate parties have been advised as needed of matters arising from the review.

A sponsor, or by delegation, the sponsor's calculation agent, should maintain documentation and keep records (for a period defined by the sponsor commensurate with the significance of the benchmark) showing all inputs to the benchmark price assessment, the application of these inputs to determine the final benchmark price assessment, and the methodology utilized, as appropriate.

Such documentation should include an explanation for the sponsor's or the calculation agent's exercise of judgment, the disregard, if any, of observed transaction or contributor data, and descriptions of any pricing models defined in the methodology.

PRINCIPLE VIII: DATA COLLECTION

A sponsor should ensure that there are appropriate controls over the process for collecting data for use in a benchmark price assessment.

Where a sponsor uses data collected directly from a market data source, either an individual contributor or a consolidator, these controls should include a process for selecting the source, collecting data from the source, protecting the confidentiality of the source's data, evaluating the source's data submission process, and removing or applying other sanctions for non-compliance against the source, where appropriate.

PRINCIPLE IX: CONTRIBUTOR CODE OF CONDUCT

Where the benchmark price assessment requires the submission of data by a third party individual contributor, a sponsor should ensure that there are standards for contributions, specified in a contributor code of conduct, and contributors should employ appropriate controls over data submissions.

The contributor code of conduct should cover, at a minimum, the following:

- The existence of a governance structure that promotes integrity among the contributor and its personnel and associated policies and procedures governing the data submission process;

- Policies and procedures relating to the identification and management of conflicts of interest (including through disclosure), including protections against insider trading, segregation of responsibilities where practicable, and informational firewalls, as appropriate;

- Policies and procedures prohibiting the coordination of, or sharing of information regarding, contributor data submissions with other contributors;

- The engagement of suitably qualified and experienced personnel, including supervisors, to carry out the contributor's responsibilities;

- The clear definition of roles and responsibilities for contributor personnel associated with the data submission process;

- Appropriate periodic training, including technical and ethics training;

- An appropriate monitoring and testing process for reviewing that data communicated to a sponsor or a calculation agent are consistent with the sponsor’s methodology and the contributor’s policies and procedures. In cases where transaction data are used to inform contributor quotes or are being submitted directly to the calculation agent, clear criteria should be established to ensure that there is no unjustified filtering of the transactions for which the data are provided.

- Policies and procedures for receiving, investigating, reporting, and documenting complaints relating to the contributor’s data submissions;

- Policies and procedures applicable to violations of the contributor’s policies and procedures relating to the contributor’s role in the benchmark process. Such procedures should include appropriate reporting mechanisms to the contributor’s governance body;

- Controls for the protection of confidential information;

- An infrastructure, with appropriate resiliency, to support the timeliness and accuracy of submissions, and periodic testing of this infrastructure;

- A contingency plan for submitting data due to a failure in the infrastructure or other factors, where practicable;

- An appropriate notice period to be given to the sponsor by the contributor before a withdrawal from the contribution process in order to avoid precipitate disruption to the benchmark determination;

- A process for retaining records relating to data provided to a sponsor, including documentation deemed the most relevant by a contributor in its assessment, in a form which facilitates subsequent review; and

- A periodic independent internal or external review of the contributor’s data submissions and control framework.

* * *