

Principles for Oil Price Reporting Agencies

Final Report



OICU-IOSCO

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

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Chapter 1 - Introduction

This report is the IOSCO Board's¹ response to the G20 Leaders' Cannes Summit Final Declaration (2011) for work relating to oil price reporting agencies (PRAs) for "...Recognising the role of Price Reporting Agencies for the proper functioning of oil markets, we ask IOSCO, in collaboration with the IEF, the IEA and OPEC, to prepare recommendations to improve their functioning and oversight to our Finance Ministers by mid-2012", and the G20 Leaders' Los Cabos Declaration.²

This report builds upon issues that were identified in the joint report of the International Energy Forum ("IEF"), International Energy Agency ("IEA"), Organization of Petroleum Exporting Countries ("OPEC") and IOSCO,³ and has been informed by the comments received in response to IOSCO's March 2012 PRA Consultation⁴ as well as discussions and comment by the IOs at key points.

This report is a publication by IOSCO and as such reflects IOSCO members' experiences and views based on their discharge of regulatory oversight responsibilities in relation to *derivatives* markets. We note the separate work IOSCO is undertaking on the broader issue of benchmarks across securities and derivatives and other financial sectors.

PRAs are publishers and information providers who report prices transacted in physical and some derivatives markets, and give an informed assessment of price levels at distinct points in time. Some PRAs also report news stories relevant to the commodity markets.⁵ This report and principles focus on the price reporting activities of PRAs in oil markets, with particular reference to assessments that are linked to derivatives contracts.

¹ A new IOSCO Board was constituted at the 37th Annual Conference held in Beijing, China in May 2012. The Board, an initiative of the Strategic Direction Review, has absorbed the functions of the Executive Committee, the Technical Committee and Emerging Markets Committee Advisory Board.

² *G20 Leaders' Cannes Summit Final Declaration* (November 2011), ¶56
<http://www.g20.org/images/stories/docs/eng/cannes.pdf>;

G20 Leaders' Los Cabos Declaration (June 18-19) ¶62,
http://g20.org/images/stories/docs/g20/conclu/G20_Leaders_Declaration_2012_1.pdf

We also look forward to IOSCO's recommendations to improve the functioning and oversight of Price Reporting Agencies in November 2012, which will be produced in collaboration with other mandated organizations (IEF, IEA and OPEC), and task Finance Ministers to take concrete measures in this area as necessary.

³ See Oil Price Reporting Agencies, Report by IEA, IEF, OPEC and IOSCO to G20 Finance Ministers (October 2011) (the "*Joint IEA-IEF-OPEC-IOSCO report*"),
<http://iosco.org/library/pubdocs/pdf/IOSCOPD364.pdf>

⁴ See CR04/12 *Functioning and Oversight of Oil Price Reporting Agencies, Consultation Report of the Technical Committee of IOSCO* (March 2012)(the "PRA Consultation Report")
<http://iosco.org/library/pubdocs/pdf/IOSCOPD375.pdf> See also *Update to G20 Leaders on IOSCO's Consultation on the Functioning and Oversight of Oil Price Reporting Agencies, Report of the Technical Committee of IOSCO* (June 2012) <http://iosco.org/library/pubdocs/pdf/IOSCOPD383.pdf>

⁵ See *Joint IEA-IEF-OPEC-IOSCO report*, supra fn.3.

PRA-assessed benchmark prices are to varying degrees used as references for transactions in a number of physical oil markets, exchanges, clearing houses and over-the-counter (“OTC”) oil derivatives contracts, making these prices significant to the functioning of these markets and clearing houses. The activities performed by PRAs have, accordingly, an effect, not only with respect to the oil derivatives markets that are subject to regulation by International Organization of Securities Commissions (“IOSCO”) members, but also on physical oil markets, the broader financial markets and the global economy.⁶

IOSCO’s Focus is on PRAs’ Impact on Oil Derivatives Markets

IOSCO acknowledges that PRAs meet a legitimate physical oil market need, have increased transparency in the markets for physical oil where there are no requirements for transaction reporting to PRAs, have facilitated hedging activities by creating benchmark prices and have, to varying degrees, instituted policies that reflect a concern for quality and integrity in their work-product.⁷ The PRAs assert that their commercial success reflects their value to the physical and derivatives oil markets. IOSCO also appreciates that PRA price assessment processes involve analyses of complex and varied oil markets and products and produce market views that promote price discovery in the physical oil markets.

It does not follow, however, that every type of PRA price assessment, particularly assessments that are based on a low level of transaction data and informed by judgments, necessarily will be acceptable as reference prices for the settlement of a commodity *derivatives* contract (notwithstanding that the assessment has valid informational value in the physical oil markets).

A variety of issues are raised by the impact of PRA-assessed prices on oil derivatives markets. Such issues include, among others, the adequacy of a commodity derivatives contract’s design, the accuracy and integrity of price formation in a commodity derivatives contract that references a potentially deficient price assessment, the transparency of the various factors impacting oil derivatives pricing including PRA assessment methodologies and processes, and the susceptibility of an oil derivatives contract to manipulation.⁸

These issues are relevant for the *reliability* of PRA assessments that are referenced by the terms of a derivatives contract as an indicator of the underlying market values (i.e., the physical oil market). Regardless of the underlying physical commodity, a market authority following IOSCO’s *Principles for the Regulation and Supervision of Commodity Derivatives*

⁶ See the PRA Consultation Report, p. 8, supra fn. 4. For example, PRA-assessed prices are used as references for many physical and financial transactions, and also as tax, royalty, profit share and cost recovery reference prices, Joint IEA-IEF-OPEC-IOSCO Report , ¶36 (October 2011), supra fn. 3. The precise extent to which any one or more PRA price assessments are relied upon by physical oil market participants is unknown.

⁷ The major PRAs, Platts, Argus and ICIS, have issued a draft code, which promotes quality control procedures and represents ongoing concern for the integrity of price assessment process. See <http://www.platts.com/IM.Platts.Content/aboutplatts/mediacenter/mediakits/draftiprcode30apr12.pdf>

⁸ See *Standing Committee on Commodity Futures Markets Update to G20 Leaders on IOSCO's Consultation on the Functioning and Oversight of Oil Price Reporting Agencies*, Report of the Technical Committee of IOSCO (June 2012) (“Update to G20”) - <http://iosco.org/library/pubdocs/pdf/IOSCOPD383.pdf>

*Markets*⁹ will want to determine that a PRA-assessed price that is referenced by the terms of a derivatives contract *accurately* reflects the transactions in the market that it purports to measure, the data are *sufficient* to represent that market and such data are *bona fide*.¹⁰

IOSCO has not made judgments about specific PRA assessment methodologies. Instead, IOSCO has examined numerous PRA processes for the purposes of identifying common vulnerabilities that could, *if not addressed by appropriate controls and policies*, result in an assessed price that is an unreliable indicator of the physical oil market value it is intended to reflect.

Broadly, these vulnerabilities result from the following factors:

1. Selective reporting: The data that are provided by some physical oil market participants to PRAs are submitted on a purely voluntary basis. Of those participants who choose to submit data, there is no requirement that they submit all of their data.
2. Opacity and variations in assessment methodologies: The methodologies used by PRAs to assess oil prices show considerable variation both across PRAs and within a single PRA. Some methodologies involve actual concluded transactions while others may take into account bids, offers and other relevant market information. Some methodologies are not based solely on transactions, particularly in low liquidity markets. The time periods (i.e., windows) in which data are collected, the relative importance assigned to each type of data and the extent to which other market information is considered will vary based on the PRA's methodology. The methodologies often require the application of judgment, particularly when data are extrapolated or when there is a paucity of reported transactions (i.e., in low liquidity markets).

It should be understood that these factors result from the realities and complexities of the physical market for oil, which are nonstandard and diverse.

The ability to selectively report data on a voluntary basis creates an opportunity for manipulating the commodity market data that are submitted to PRAs. For example, a firm might selectively submit data or submit misleading data in an attempt to influence the level of the assessed price.

The need for assessors to use judgment under some methodologies creates an opportunity for the submitter of data deliberately to bias a PRA's assessment in order to benefit the submitter's derivatives position. For example, a trader seeking to manipulate a price might attempt to influence the personnel responsible for the assessment to put differing levels of emphasis on certain aspects of the methodology or to depart from the methodology, using judgement. An assessor might be tempted to alter a price assessment in a way that benefits the assessor's personal interest.

⁹ See FR07/11 *Principles for the Regulation and Supervision of Commodity Derivatives Markets*, Report of the Technical Committee of IOSCO (September 15, 2011). This report responded to the request by the G20 at its November 2011 summit in Seoul, Korea for further work on regulation and supervision of commodity derivatives markets.

¹⁰ See Chapter 4's discussion of IOSCO's contract design principles.

Selective reporting or improper influence on an assessor could result in an inaccurate assessment - even in the absence of manipulative intentions - if it distorts the PRA's view of the "real" market price.

A methodology that bases assessments on a mix of both transaction data (*i.e.*, completed transactions, bids and offers) and other non-transaction market information, and is informed by judgments, could, if not properly designed and subject to quality control policies and practices, result in an assessed price that is an unreliable indicator of the physical commodity market's values and conditions.

The reliability of the referenced price assessment is essential to ensure the usefulness of the oil derivatives contract for price-discovery and risk management purposes. Reliability is also critical because an unreliable reference price makes an oil derivatives contract more susceptible to manipulation or price distortion.

The cases cited in this report involving incidents of false reporting to influence derivatives trading illustrate that the potential for such misconduct is not mere conjecture.¹¹ Moreover, notwithstanding differences in the process by which LIBOR interbank interest rates and PRA price assessment are constructed, the recent LIBOR settlements¹² illustrate the vulnerability of benchmark setting processes to potential manipulation in order to benefit positions on derivatives markets.

PRA Principles Establish a Framework of Best Practices

Accordingly, IOSCO is issuing principles which detail a set of recommended practices for PRAs that produce assessments which are referenced by oil derivatives contracts. Although the PRA principles were developed in the context of PRAs and oil derivatives markets, PRAs are encouraged to implement the principles more generally to any commodity derivatives contract that references a PRA assessed price without regard to the nature of the underlying.

The PRA Principles are designed to:

1. Minimize the vulnerability of the assessment process to factors that could undermine the reliability of a PRA assessment as an indicator of physical oil market values or increase the susceptibility of an oil *derivatives* contract to manipulation or price distortion.
2. Facilitate a market authority's determination as to whether a PRA-assessed price that is referenced by the terms of an oil *derivatives* contract *accurately* reflects the transactions in the physical oil market that it purports to measure, the data are *sufficient* to represent that physical oil market and such data are *bona fide*.
3. Facilitate a market authority's ability to detect, deter and if necessary take enforcement action with respect to manipulation or other abusive conduct.

¹¹ See fns. 46 and 55 *infra*.

¹² CFTC press release 6289-12 (June 27, 2012) <http://www.cftc.gov/PressRoom/PressReleases/pr6289-12> and FSA press release FSA/PN/070/2012 (June 27, 2012) <http://www.fsa.gov.uk/library/communication/pr/2012/070.shtml>

The PRA principles also establish a benchmark against which market authorities can determine whether a PRA assessed price referenced or proposed to be referenced in an oil derivatives contract has been constructed under procedures that reflect the PRA principles. A negative determination makes it likely that a market authority would conclude that the assessed price was constructed through processes that undermine the reliability of that price as an indicator of physical market values.

It is important to understand that these principles recognize that there is no requirement on any physical market oil participant to submit transaction data to PRAs. Because data are submitted on a voluntary basis, precipitous regulation of PRAs or requirements that oil market participants who submit data to PRAs submit all of their transaction data potentially could result in some oil market participants to decrease or even cease their submission of data to PRAs.

IOSCO's approach has therefore focused on creating incentives for PRAs to institute processes that IOSCO believes will enhance reliability of assessments that are indicators of the values in the physical oil underlying a derivatives contract.

Mechanisms for Implementation

Timely and effective mechanisms for implementing the principles should include the following:

1. Voluntary adoption and implementation of the principles by PRAs in their internal policies and procedures and/or through industry codes¹³; and/or
2. The use by a market authority of its rule approval and/or review authority over derivatives contracts, as appropriate, to refuse admission to exchange trading or central clearing of any oil derivatives contract that references a PRA-assessed price which, in the opinion of the market authority, has been developed under policies and procedures that do not reflect effective implementation of the PRA principles and call into question the reliability of an assessment.¹⁴

In this regard, IOSCO recommends that market authorities consider whether to prohibit trading in any commodity derivatives contract that references a PRA-assessed price unless that assessment follows the IOSCO Principles for Oil Price Reporting Agencies.

IOSCO, in collaboration with the IEA, IEF and OPEC, will review the extent of implementation over the next 18 months. Such a review will evaluate the degree to which the principles have been implemented by PRAs and their impacts. IOSCO will seek to obtain the input of market authorities, stakeholders, and PRAs and make further recommendations as appropriate at the end of the evaluation period. IOSCO intends to work cooperatively with

¹³ The IOSCO Principles contemplate that implementation can be achieved not only through regulation but also through, among other things, industry codes. See, i.e. FR08/11 *IOSCO Methodology for Assessing Implementation of the IOSCO Objectives and Principles of Securities Regulation* (2011), Secondary Markets at p.204 <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD359.pdf>

¹⁴ Any such determination would be made within the scope of a market authority's contract design and listing regulations and policies, including whether to apply the PRA Principles to OTC derivatives or the admission of a derivatives contract to central clearing.

PRA to achieve implementation of the principles set out in this report. IOSCO acknowledges that due to the substantial variations between the services offered, price assessment methodologies and policies used by different PRAs, some of the principles set out in this PRA Report may already find expression in some PRA practices.

In the event that IOSCO's review concludes that implementation has been ineffective, or that further steps are required to achieve the principles' overall objectives, IOSCO will consider other options, such as recommending direct governmental regulation of PRAs by an appropriate authority with expertise in energy markets and/or the creation of non-governmental statutory self-regulatory organizations (both alternatives may require careful evaluation of the risks and benefits of such regulation by authorities responsible for energy matters and legislative action).

Summary of the Principles

These principles are intended to promote the reliability of oil price assessments that are referenced in derivatives contracts subject to regulation by IOSCO members. Although the principles articulate uniform expectations, the principles do not contemplate a “one-size-fits-all” *method* of implementation to achieve those expectations.

The PRA principles require:

- The formal documentation and disclosure of all criteria and procedures that are used to develop an assessment, including guidelines that control the exercise of judgment, the exclusion of data as well as the procedures for reviewing a methodology. This information facilitates the evaluation of the impact of a methodology on the reliability of an oil derivatives contract. [**Methodology**]
- Transparency of procedures by which PRAs will advise stakeholders of any proposed changes to a methodology, including the opportunity for stakeholder comment on the impact of any changes. This is critical to allow a market authority to determine whether such changes, if proposed, may affect the reliability of a derivatives contract or otherwise result in possible market disruption. This principle also calls on PRAs to routinely re-examine methodologies to ensure their continued reliability. [**Changes to a Methodology**]
- PRAs to give priority to concluded transactions in making assessments and implement measures intended to ensure that the transaction data submitted and considered in an assessment are *bona fide*, including measures to minimize selective reporting. These measures are intended to promote the quality and integrity of data and in turn the reliability of assessments. [**Market Data Used in Price Assessments**]
- Procedures to ensure the integrity of information, including procedures to set standards for who may submit data, quality control procedures to evaluate the identity of a submitter and internal controls to identify and respond to improper communication between submitters and assessors. These measures are intended to promote the accuracy and integrity of assessments. [**Integrity of the Reporting Process**]

- The adoption of guidelines to ensure the qualifications of assessors, including their training and experience levels. This principle also addresses continuity and succession planning in respect of assessors. These measures are intended to promote the integrity and consistency of assessment. [**Assessors**]
- The institution of internal controls requiring ongoing supervision of assessors and procedures for internal sign-off on assessments as a means to promote the integrity and reliability of assessments. [**Supervision of Assessments**]
- The contemporaneous documentation and retention for five (5) years of all relevant information and judgments made in reaching a price assessment, including any exclusions of data. This is intended to facilitate inquiries by market authorities. [**Audit Trails**]
- The documentation, implementation and enforcement of measures to avoid conflicts of interest. These measures are intended to insulate assessments from improper influences, such as commercial or personal interests of the PRA or any of its personnel. The measures call for the functional and operational separation of a PRA's assessment business from any other business that may present a conflict of interest. These requirements are intended to protect the integrity of assessments. [**Conflicts of Interest**]
- A written and published procedure for receiving, investigating and retaining records concerning complaints about a PRA's assessment process, including recourse to an independent third party appointed by the PRA. The principle also requires that details concerning complaints should be documented and retained by a PRA. These measures are intended to promote the reliability of assessment methodologies through stakeholder input and alert a market authority to possible factors that might affect the reliability of assessments. [**Complaints**]
- A commitment to make available to relevant market authorities audit trails and other related documentation. This is intended to facilitate a market authority's ability to access data that are needed to determine the reliability of a given assessment referenced in an oil derivatives contract or to access information that might be needed to investigate and prosecute illegal conduct affecting a derivatives market. [**Cooperation with Regulatory Authorities**]
- An annual independent external auditing of a PRA's compliance with its methodology criteria and the requirements of these principles, which should be published. This is intended to encourage compliance with the principles and provide additional confirmation to market authorities of such compliance. [**External Auditing**]

Chapter 2 – The PRA Principles¹⁵

A. Scope and Application

These principles intend to promote the reliability of oil price assessments that are referenced in derivatives contracts subject to regulation by IOSCO members.

PRA's also are encouraged to implement these principles generally in order to avoid a two-tier approach to assessments, ideally through their individual internal policies or more generally through industry codes.

Although the principles articulate uniform expectations, the principles do not contemplate a “one-size-fits-all” *method* of implementation to achieve those expectations. For example, differences in methodological approach or in the specific measures implemented by PRA's to obtain *bona fide* data and other information are consistent with these principles, as long as the approaches and measures meet the objectives set out in the principles.

Nothing in these provisions is intended to restrict a PRA from adopting its own unique methodologies or from adapting their methodologies to changing market conditions.

Where certain measures are called for, a “reasonableness” standard is contemplated, including for example, with respect to the length of any explanations that are called for in daily assessments.

B. The PRA Principles

1. QUALITY AND INTEGRITY OF PRA METHODOLOGIES

Methodology

1.1 A PRA should formalize, document, and make public any methodology that it uses for a price assessment.

1.2 A methodology should aim to achieve price assessments which are reliable indicators of oil market values, free from distortion and representative of the particular market to which they relate.

1.3 At a minimum, a methodology should contain and describe:

- a) All criteria and procedures that are used to develop an assessment including how the PRA uses the specific volume, concluded and reported transactions, bids, offers and any other market information (collectively "market data") in its assessment and/or assessment time periods (i.e., windows), why a specific reference unit is used (i.e., barrels of oil), how the PRA collects such market data, the guidelines that control the exercise of judgment by assessors and any other information, such as assumptions, models and/or extrapolation from collected data that are considered in making an assessment;

¹⁵ See Appendix A Glossary of Common Terms for an explanation of terms used in the principles and this report.

- b) Its procedures and practices that are designed to ensure consistency between its assessors in exercising their judgment;
- c) The relative importance that generally will be assigned to each criterion used in forming the price assessment (i.e., type of market data used, type of criterion used to guide judgement). This is not intended to restrict the specific application of the relevant methodology but is to ensure the quality and integrity of the price assessment.
- d) Criteria that identify the minimum amount of transaction data (i.e., completed transactions) required for a particular price assessment (the “transaction data threshold”). If no such threshold exists, the reasons why a minimum threshold is not established should be explained, including procedures where there is no transaction data;
- e) Criteria that address the assessment periods where the submitted data fall below the methodology’s recommended transaction data threshold or the requisite PRA’s quality standards, including any alternative methods of assessment (i.e., theoretical estimation models). That criteria should explain the procedures used where no transaction data exists;
- f) Criteria for timeliness of market data submissions and the means for such submissions (i.e., electronically, via telephone, etc.);
- g) Criteria and procedures that address assessment periods where one or more reporting entity submits market data that constitute a significant proportion of the total data upon which the assessment is based (i.e., key submitter dependency). The PRA should also define in its criteria and procedures for what constitutes a “significant proportion” for each price assessment;
- h) Criteria according to which transaction data may be excluded from a price assessment.

1.4 A PRA should describe and publish the:

- a) Rationale for adopting a particular methodology, including any price adjustment techniques and a justification of why the time period or window within which market data is accepted is a reliable indicator of physical market values;
- b) Procedure for *internal* review and approval of a given methodology, as well as the frequency of this review;
- c) Procedure for *external* review of a given methodology, including the procedures to gain market acceptance of the methodology through consultation with stakeholders on important changes to their price assessment processes.

Changes to a Methodology

1.5 A PRA should adopt and make public to stakeholders explicit procedures and rationale of any proposed material change in its methodology. Those procedures should be consistent with the overriding objective that a PRA must ensure the continued integrity of its price assessments and implement changes for good order of the particular market to which such changes relate. Such procedures should:

- a) Provide advance notice in a clear timeframe that gives stakeholders sufficient opportunity to analyse and comment on the impact of such proposed changes, having regard to the PRA's assessment of the overall circumstances;
- b) Provide for stakeholders' comments, and the PRA's response to those comments, to be made accessible to all market stakeholders after any given consultation period, except where the commenter has requested confidentiality.

1.6 A PRA should engage in the routine examination of its methodologies for the purpose of ensuring that they reliably reflect the physical market under assessment. This should include a process for taking into account the views of relevant stakeholders.

2. QUALITY AND INTEGRITY OF PRICE ASSESSMENTS

2.1 A PRA should take measures that are intended to ensure the quality and integrity of the price assessment process.

Market Data used in Price Assessments

2.2 A PRA should:

- a) Specify with particularity the criteria that define the physical commodity that is the subject of a particular methodology;
- b) Utilize its market data, giving priority in the following order, where consistent with the PRA's approach to ensuring the quality and integrity of a price assessment:
 1. Concluded and reported transactions;
 2. Bids and offers;
 3. Other market information.

Nothing in this provision is intended to restrict a PRA's flexibility in using market data consistent with its methodologies. However, if concluded transactions are not given priority, the reasons should be explained as called for in 2.3(b)

- c) Employ sufficient measures designed to use market data submitted and considered in a price assessment, which are *bona fide*, meaning that the parties submitting the market data have executed, or are prepared to execute, transactions generating such market data and the concluded transactions were executed at arms-length from each other. Particular attention should be made in this regard to inter-affiliate transactions;

- d) Establish and employ procedures to identify anomalous (i.e., in the context of a PRA's methodology) or suspicious transaction data and keep records of decisions to exclude transaction data from the PRA's price assessment process.
- e) Encourage parties that submit any market data ("submitters") to submit all of their market data that falls within the PRA's criteria for that assessment. PRAs should seek, so far as they are able and is reasonable, that data submitted are representative of the submitters' actual concluded transactions.
- f) Employ a system of appropriate measures so that, to the extent possible, submitters comply with the PRA's applicable quality and integrity standards for market data.

2.3 A PRA should describe and publish with each assessment, to the extent reasonable without delaying a price reporting deadline:

- a) A concise explanation, sufficient to facilitate a PRA subscriber's or market authority's ability to understand how the assessment was developed, including, at a minimum, the size and liquidity of the physical 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 an assessment; 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 judgment (i.e., exclusions of data which otherwise conformed to the requirements of the relevant methodology for that assessment, basing prices on spreads or interpolation/extrapolation, or weighting bids or offers higher than concluded transactions etc.), if any, was used in establishing an assessment.

Integrity of the Reporting Process

2.4 A PRA should:

- a) Specify the criteria that define who may submit market data to the PRA;
- b) Have quality control procedures to evaluate the identity of a submitter and any employee(s) of a submitter who report market data and the authorization of such person(s) to report market data on behalf of a submitter;
- c) Specify the criteria applied to employees of a submitter who are permitted to submit market data to a PRA on behalf of a submitter; encourage submitters to submit transaction data from back office functions and seek corroborating data from other sources where transaction data is received directly from a trader;
- d) Implement internal controls and written procedures to identify communications between submitters and assessors that attempt to influence an assessment for the benefit of any trading position (whether of the submitter, its employees or any third party), attempt to cause an assessor to violate the PRA's rules or guidelines or identify

submitters that engage in a pattern of submitting anomalous or suspicious transaction data. Procedures should include provision for escalation by the PRA of inquiry within the submitter's company. Controls should include cross-checking market indicators to validate submitted information.

Assessors

2.5 A PRA should adopt and have explicit internal rules and guidelines for selecting assessors, including their minimum level of training, experience and skills, as well as the process for periodic review of their competence.

2.6 A PRA should have arrangements to ensure its assessments can be produced on a consistent and regular basis.

2.7 A PRA should maintain continuity and succession planning in respect of its assessors in order to ensure that assessments are made consistently and by employees who possess the relevant levels of expertise.

Supervision of Assessors

2.8 A PRA should institute internal control procedures to ensure the integrity and reliability of assessments. At a minimum, such internal controls and procedures should require:

- a) The ongoing supervision of individual assessors to ensure that the methodology was properly applied;
- b) Procedures for internal sign-off by a supervisor prior to releasing prices for dissemination to the market.

Audit Trails

2.9 A PRA should have rules and procedures in place to document contemporaneously relevant information, including:

- a) All market data;
- b) The judgments that are made by assessors in reaching each price assessment;
- c) Whether an assessment excluded a particular transaction, which otherwise conformed to the requirements of the relevant methodology for that assessment and the rationale for doing so;
- d) The identity of each assessor and of any other person who submitted or otherwise generated any of the above information.

2.10 A PRA should have rules and procedures in place to ensure that an audit trail of relevant information is retained for at least five (5) years in order to document the construction of its assessments.

Conflicts of Interest

2.11 A PRA should document, implement and enforce comprehensive policies and procedures for the identification, disclosure, management and avoidance of conflicts of interest and the protection of integrity and independence of assessments. The policies and procedures should be kept up to date.

2.12 At a minimum, those policies and procedures should:

- a) Ensure that price assessments are not influenced by the existence of, or potential for, a commercial or personal business relationship or interest between the PRA (or its affiliates), its personnel, clients, any market participant or persons connected with them;
- b) Ensure that PRA personnel's personal interests and business connections are not permitted to compromise the PRA's functions, including outside employment, travel, and acceptance of entertainment, gifts and hospitality provided by PRA clients or other oil market participants;
- c) Ensure, in respect of identified conflicts, appropriate segregation of functions within the PRA by way of supervision, compensation, systems access and information flows.
- d) Protect the confidentiality of information submitted to or produced by the PRA, subject to the disclosure obligations of the PRA;
- e) Prohibit PRA managers, assessors and other employees from contributing to a price assessment by way of engaging in bids, offers and trades on either a personal basis or on behalf of market participants.
- f) Effectively address identified conflicts of interest which may exist between its price assessment business (including all staff who perform or otherwise participate in price assessment responsibilities), and any other business of the PRA.

2.14 A PRA should ensure that its other business operations have in place appropriate procedures and mechanisms designed to minimise the likelihood that conflicts of interest will affect the integrity of price assessments.

2.15 A PRA should ensure it has appropriate segregated reporting lines amongst its managers, assessors and other employees (as appropriate) and from the appropriate managers to the PRA's most senior level management and its Board (if any), designed to ensure (i) the PRA satisfactorily implements the requirements listed in these principles; and (ii) that responsibilities are clearly defined and do not conflict or cause a perception of conflict.

2.16 A PRA should disclose to its stakeholders as soon as it becomes aware of a conflict of interest arising from the ownership of the PRA.

Complaints

2.17 A PRA should have in place and publish written procedures for receiving, investigating and retaining records concerning complaints made about a PRA's assessment process.

2.18 Among other things, such complaint mechanisms should ensure that:

- a) A PRA should have in place a mechanism detailed in a written complaints handling policy, by which its subscribers may submit complaints on whether a specific price assessment is representative of market value, proposed price assessment changes, applications of methodology in relation to a specific price assessment and other editorial decisions in relation to price assessment processes;
- b) A PRA should ensure that its written complaints handling policy includes, among other things, the process and target timetable for handling of complaints;
- c) Formal complaints made against a PRA and its personnel are investigated by that PRA in a timely and fair manner;
- d) The inquiry is conducted independently of any personnel who may be involved in the subject of the complaint;
- e) A PRA aims to complete its investigation promptly;
- f) A PRA advises the complainant and any other relevant parties of the outcome of the investigation in writing and within a reasonable period;
- g) There is recourse to an independent third party appointed by the PRA should a complainant be dissatisfied with the way a complaint has been handled by the relevant PRA or the PRA's decision in the situation no later than six (6) months from the time of the original complaint;
- h) All documents relating to a complaint, including those submitted by the complainant as well as a PRA's own record, are retained for a minimum of five (5) years.

2.19 Disputes as to daily pricing determinations, which are not formal complaints, shall be resolved by the PRA with reference to its standard appropriate procedures. If a complaint results in a change in price, that should be communicated to the market as soon as possible.

Cooperation with Regulatory Authorities

2.20 Audit trails, other documentation required by these principles and all other relevant information shall be readily available to market authorities in carrying out their regulatory duties and handed over without delay in accordance with applicable law.

External Auditing

2.21 A PRA should appoint an independent, external auditor with appropriate experience and capability to review and report on the PRA's adherence to its stated methodology criteria and with the requirements of the principles. The first resulting audit should be completed within one year of the publication of these principles by IOSCO and its results published within fifteen months of the publication of the principles. Subsequent audits should take place annually and be published three months after each audit is completed with further interim audits carried out as appropriate.

Chapter 3 – Background

This report has been prepared by IOSCO Committee 7 on Commodity Futures Markets, (Committee 7) which is a permanent committee that is the successor to the Task Force on Commodity Futures Markets (Task Force).¹⁶ Committee 7 in turn reports to the IOSCO Board.

The G-20's mandate was directed at IOSCO to work in collaboration with the IOs. IOSCO therefore has led the work and drafted this report. As noted in the terms of reference prepared by IOSCO, IOSCO requested the input of the IOs at key points in the process.¹⁷ The terms of reference made clear, however, that the report will be a publication of IOSCO, informed by its collaboration with IEA, IEF and OPEC.

IOSCO's development of the principles has been informed by the IOs' collaboration, including exchanges of views at meetings and written comments on IOSCO's reports at key points in IOSCO's process.¹⁸ Notwithstanding this valuable collaboration, this report represents the work of IOSCO and reflects the perspective of its members who regulate *derivatives* markets. Accordingly, the views expressed in this report therefore should be attributed solely to IOSCO.

Background on IOSCO Committee 7

The IOSCO Technical Committee created the Task Force in 2008 in response to global concerns, including those expressed by the G8 Finance Ministers, concerning oil price volatility. The successor Committee 7¹⁹ has proceeded against this background to produce recommendations which are intended to improve the efficiency and functioning of commodity derivatives markets.

IOSCO's primary focus in this area, given the remit of its derivatives regulator member authorities, has been on commodity derivatives, i.e., exchange-traded and OTC commodity derivatives. However, as noted below, IOSCO has also commented on and produced recommendations which have a bearing on physical commodity markets, since physical commodity and commodity derivatives markets are closely linked and operate with mutual dependency.

IOSCO Committee 7's remit covers all commodity derivatives. Given its significance to the global and to national economies, Committee 7 has focused thus far on oil derivatives

¹⁶ IOSCO converted the prior Task Force on Commodity Futures Markets into a permanent working committee at its annual conference in Beijing (May 2012). All prior reports that reference IOSCO's Task Force on Commodity Futures Markets should be understood to refer to the work of this new Committee 7.

¹⁷ See Terms of Reference for G20 Mandated International Organizations at Appendix C.

¹⁸ This includes facilitating the engagement of consultants to prepare a report on PRAs, exchanges of written comments on the consultants' report and *Oil Price Reporting Agencies Report by IEA, IEF, OPEC and IOSCO to the G20 Finance Ministers* (October 2011), discussions and comment on IOSCO's consultation report (March 2012), a meeting in Washington DC (April 2012), comments on the proposed principles and discussions at a meeting in Oslo (July 2012), with follow-up written comments on the principles and final report.

¹⁹ Committee 7 members are listed in Appendix D.

markets, and the related, underlying physical oil markets. This current focus has been in response to direction from the G20.

Overview of IOSCO's Work on Oil PRAs

Recognising the role of PRAs as collators of information on oil prices transacted in the spot physical and over-the-counter derivative markets and publishers of benchmark oil prices (i.e., derived as a differential to derivatives exchange quotes), IOSCO has already made recommendations in relation to PRAs themselves, as well as to regulated markets and their use of the prices reported by PRAs.

In March 2009²⁰, IOSCO recommended that: *Futures market regulators should encourage private organisations that collect relevant fundamental commodity information to adopt best practices and should evaluate what improvements are appropriate to enhance fundamental cash market data and develop recommendations for improvements.*

In June 2010²¹ IOSCO recommended that a physical markets agency should lead a study on the functioning and impact of PRAs, a recommendation it repeated in November 2010²² which, as discussed below, was taken up by the G20. IOSCO's recommendation was based on its continued concern for the efficient functioning and transparency of the physical oil as well as oil derivatives markets.

In September 2011, IOSCO adopted comprehensive *Principles for the Supervision and Regulation of Commodity Derivatives Markets*.²³ In its discussion of contract design IOSCO stated that: "... information provided by third-party price reporting agencies (PRAs) plays a critical role with regard to the design of commodity derivatives contracts and as a basis for the floating price component for settlement of OTC commodity derivatives contracts."

G20 Mandates on Oil PRAs

The G20 has identified oil PRAs as an important area for consideration in its overall policy reform agenda relating to oil markets. In its Seoul Summit Leaders' Declaration of November 2010²⁴, the G20 Leaders stated: "*We also request the IEF, IEA, OPEC and IOSCO to produce a joint report, by the April 2011 Finance Ministers' meeting, on how the oil spot market prices are assessed by oil price reporting agencies and how this affects the transparency and functioning of oil markets.*"

²⁰ *Task Force on Commodity Futures Markets Final Report*, the Technical Committee of IOSCO (March 2009) <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD285.pdf>

²¹ *OR08/10 Task Force on Commodity Futures Markets, Report to G-20*, Report of the Technical Committee of IOSCO (2010) <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD324.pdf>

²² *OR08/10 Task Force on Commodity Futures Markets Report to the G-20*, Report of the Technical Committee of IOSCO, *supra* fn. 21.

²³ *Principles for the Regulation and Supervision of Commodity Derivatives Markets*, Report of the Technical Committee of IOSCO (September 15, 2011), *supra* fn. 9.

²⁴ *G20 Seoul Summit Leaders' Declaration* (November 11-12, 2010) <http://www.g20.org/images/stories/docs/eng/seoul.pdf>

In response to that request, IEA, IEF, IOSCO and OPEC issued a report which was published in October 2011²⁵.

The joint IEA, IEF, IOSCO and OPEC report gave a largely factual background to current PRA operations in the oil markets and the methodologies used by PRAs to report data and raised issues and concerns that warranted further consultation with market participants. As the request was fact-finding in nature, that report also did not give recommendations to the G20 of possible policy directions which could enhance PRA functioning and mitigate any risks arising from PRA market impact.

In its November 2011 Cannes Summit Final Declaration, the G20 Leaders stated:²⁶

“Recognising the role of Price Reporting Agencies for the proper functioning of oil markets, we ask IOSCO, in collaboration with the IEF, the IEA and OPEC, to prepare recommendations to improve their functioning and oversight to our Finance Ministers by mid-2012.”

At its April 2012 meeting of the G20 Finance Ministers and Central Bank Governors in Washington, DC, the Final Communiqué stated, among other things:²⁷

We look forward to the IOSCO progress report on the implementation of its Principles for the Regulation and Supervision of Commodities Derivatives Markets at our next meeting in November. We welcome the consultation by IOSCO on the functioning and oversight of price reporting agencies and look forward to an update on their emerging recommendations for leaders in Los Cabos.

The G20 Leaders’ June 2012 Declaration stated:²⁸

We also look forward to IOSCO’s recommendations to improve the functioning and oversight of Price Reporting Agencies in November 2012, which will be produced in collaboration with other mandated organizations (IEF, IEA and OPEC), and task Finance Ministers to take concrete measures in this area as necessary.”

IOSCO’s Consultation on PRAs

In January 2012, the IOSCO Task Force on Commodity Futures Markets met in Paris to, among other things, take forward the G20’s November 2011 Cannes Summit request. At that meeting the Task Force met with the representatives of three major PRAs, Argus, Platts and ICIS to discuss the PRAs assessment processes generally and to learn their views on matters raised by the October 2011 joint report. The Task Force also discussed the development of a consultation report to obtain stakeholder input on PRAs and their processes.

²⁵ *Joint IEA-IEF-OPEC-IOSCO Report*, (October 2011), *supra* fn. 3.

²⁶ *G20 Leaders’ Cannes Summit Final Declaration*, ¶56, *supra* fn.2.

²⁷ See *Final Communiqué Meeting of G20 Finance Ministers and Central Bank Governors*, Washington DC (April 2012) <http://www.g20.utoronto.ca/2012/2012-120420-finance-en.html>

²⁸ *The G20 Leaders’ Los Cabos Declaration* (June 18-19) ¶62, *supra* fn. 2.

On March 1, 2012, IOSCO published a public consultation report (Consultation Report),²⁹ as part of its objective of answering the mandate of the G20 Leaders' Cannes Summit Final Declaration. The Consultation Report was prepared as a means for IOSCO to obtain the views of stakeholders on the questions and potential recommendations posed in that report to inform its final proposals to G20. The questions posed for consultation built upon issues that were identified in the report of the November 2011 report submitted to the G-20.³⁰

The consultation period closed on March 30, 2012. On April 18 and 19, the Task Force held a meeting in Washington, DC to discuss the comments that were received. As part of that meeting, the Task Force met with IEA, IEF and OPEC and had a very helpful and informative exchange of views, which led to some modifications in the draft principles under discussion.

In May 2012, Committee 7 prepared and IOSCO submitted a report to the G20 that described IOSCO's actions on its work and provided a preliminary indication of the areas of potential concern that Committee 7 would discuss (in collaboration with the IOs) relative to forthcoming recommendations called for by the G20.³¹ In July 2012, IOSCO Committee 7 met in Oslo to discuss its PRA work, including draft PRA Principles and a draft report. During this meeting IOSCO Committee 7 members met again with the IOs to discuss the draft principles and report, which resulted in numerous substantive and editorial changes to the draft principles and report.

In August 2012, Committee 7 met with representatives from the three largest PRAs, Platts, Argus and ICIS, together with the IOs and relevant stakeholders to discuss the PRA Principles.

Chapter 4 – IOSCO's Focus

PRA benchmark price assessments impact oil derivatives markets

PRA price assessments are referenced by a range of oil derivatives contracts. These include non-cleared OTC bilateral transactions, OTC transactions that are cleared by central counterparties and regulated exchange-traded cash settled contracts. Other than for contracts traded on regulated exchanges, it is difficult to obtain definitive data on the volume and size of transactions which reference PRA benchmarks. While the consultative research underlying the IOs report to the G20 shows that some firms are reluctant to share their trading volumes, IOSCO members' market surveillance indicates that the number of transactions referencing PRA benchmarks is significant and diverse.

Data on exchange-traded benchmarks are customarily published by exchanges. There is considerable trading volume in this space which reference PRA benchmark prices. One particular example is the Light Sweet Crude oil futures contract traded on NYMEX and the ICE Futures Europe Brent Futures Contract, which references in their cash-settlement

²⁹ *PRA Consultation Report*, IOSCO, (March 2012), *supra* fn.4.

³⁰ *Joint IEA-IEF-OPEC-IOSCO Report*, (October 2011), *supra* fn. 3.

³¹ *Update to G20*, IOSCO (June 2012) *supra* fn. 8.

procedure a basket of PRA produced prices.³² These are, by volume, the two most widely used oil futures exchange-traded benchmark globally. A further example is the Tokyo Commodity Exchange's Crude Oil futures contract which is settled on the Yen-based monthly average value of Dubai and Oman crudes, based on prices reported by a PRA.

Collation of data on OTC contracts is currently unavailable. However, the reporting of OTC derivatives to trade repositories will be required by financial legislation reform in many jurisdictions.³³ PRA benchmarks are widely referenced in OTC derivatives contracts. Indeed relevant sections of the industry standard International Swaps and Derivatives Association Master Agreement make specific provision for pricing references to PRA benchmarks. For example, one trade association commented to IOSCO that their OTC derivatives business, which is dependent on PRA benchmark prices, represents about 20% of the global jet fuel consumption (40 million tons).

Reference to PRA price assessments are written into many long-term physical market contracts as reference prices. Many of these contracts are for the supply of oil to consumers and are, accordingly, of great importance to those contracting parties.

Additionally, one PRA commented that it understands that its price assessments are used by a wide range of market participants for a number of different purposes in the trading process, including to set bilateral contracts.³⁴

In summary, PRAs have varying degrees of impact on the overall functioning of oil derivatives markets, on the price discovery process and on risk management. However, IOSCO's review of PRAs and oil derivatives markets concluded that PRA activities did not raise *systemic* risks to the global financial system, as that term is understood. This conclusion was similarly expressed by commenters to IOSCO's consultation.³⁵

Notwithstanding their importance, PRAs and their activities relating to price assessments in oil markets remain subject to no form of regulatory scrutiny or accountability beyond that which is expected of them as normal commercial enterprises.

Against this background, the integrity and availability of PRA benchmarks is clearly important to the functioning of the commodity derivative markets. PRA benchmarks need to have satisfactory protections against potential manipulation and be generated by processes which are governed by appropriate systems and controls, backed by suitable standards of corporate governance.

³² In 2011, volume in the NYMEX Light Sweet Crude contract was 175.04 million contracts and in the ICE Futures Europe Brent contract was 132.05 million contracts. Source: *Futures Industry Association Annual Volume Survey* <http://www.futuresindustry.org/files/css/magazineArticles/article-1383.pdf>

³³ As examples, in Europe the European Parliament and Council of the European Union have adopted Regulation on OTC derivatives, central counterparties and trade repositories (PE-CONS 8/12) at <http://register.consilium.europa.eu/pdf/en/12/pe00/pe00008.en12.pdf> and in the United States the Dodd-Frank Wall Street Reform and Consumer Protection Act <http://www.sec.gov/about/laws/wallstreetreform-cpa.pdf>

³⁴ See Feedback Statement, Question 2.

³⁵ See Feedback Statement Question 4.

IOSCO principles direct members to consider contract design principles as a means to ensure fair and orderly markets

The IOSCO *Objectives and Principles of Securities Regulation (IOSCO Principles)* provide that organized exchanges and trading systems should be subject to regulatory approval and oversight.³⁶ A major objective of such oversight is to help ensure fair and orderly markets.³⁷

IOSCO's *Methodology for Assessing Implementation of the IOSCO Objectives and Principles of Securities Regulation (IOSCO methodology)* states that "the regulator should, as a minimum requirement, be informed of the types of securities and products to be traded on the exchange or trading system, and should review/approve the rules governing the trading of the product, where applicable. In doing so, the market and/or the regulator should [among other things] consider product design principles, including where applicable, listing requirements and trading conditions."³⁸

IOSCO's *Principles for the Regulation and Supervision of Commodity Derivatives Markets* provide detailed recommendations for the regulation and supervision of commodity derivatives markets. The *Principles for the Design and/or Review of Physical Commodity Derivatives Contracts (contract design principles)* set out in that report are intended to promote the design of commodity derivatives contracts (*i.e.*, futures contracts) that will be effective for price discovery and risk management needs of market users.

In this regard, to be an effective economic tool for hedging and price discovery, a commodity derivatives contract intended for that purpose must accurately reflect the characteristics and operation of the referenced underlying physical commodity market, and not contain factors which may inhibit or bias the delivery process.³⁹

Where contract terms are not consistent with commercial practices or the delivery process is biased in favour of either participant, the contract may not be commercially successful or it may be susceptible to market abuses or manipulation and contribute to price distortion and disorderly markets. A non-robust contract design may lead to a lack of price convergence between a commodity futures contracts and the referenced underlying physical commodity at the expiration of the contract. As a result, the contract is of less use as a hedging tool and could even increase risk by multiplying positions, rather than offsetting them.⁴⁰

A key objective of the *contract design principles* is to eliminate, to the extent possible, the susceptibility of the commodity derivatives contract to price manipulation or distortion. However, even well-designed contracts can be subject to manipulation or price distortion, which may result

³⁶ Principles for Secondary Markets, Principle 33 *Objectives and Principles of Securities Regulation (IOSCO Principles)* (June 2010) <http://iosco.org/library/pubdocs/pdf/IOSCOPD323.pdf>

³⁷ Introduction to Principle 33, FRO8/11 *Methodology for Assessing Implementation of the IOSCO Objectives and Principles of Securities Regulation*, (October 2011) <http://iosco.org/library/pubdocs/pdf/IOSCOPD359.pdf>

³⁸ IOSCO *Methodology*, Principle 33, Key Issue 4.

³⁹ FR07/11 *Principles for the Regulation and Supervision of Commodity Derivatives Markets*, IOSCO, p. 14, *infra* fn. 9.

⁴⁰ *Id.*

from schemes involving different types of commodity markets, both commodity derivatives markets (i.e., futures and OTC derivatives) and physical commodity markets.⁴¹

The *contract design principles* are set out in Appendix B to this Report.

Cash settled commodity derivatives contracts have unique concerns

The IOSCO *contract design principles* make clear that cash settled contracts, such as oil derivatives contracts that reference PRA price assessments have unique concerns that are distinct from physically settled contracts.

For derivatives contracts calling for delivery of the underlying physical commodity, delivery is the critical mechanism that drives price convergence.⁴² Effective convergence requires not only that the terms and conditions of the contract generally reflect the operation of the underlying physical market (see preceding condition), but also that those terms and conditions will result in an adequate deliverable supply that reasonably can be expected to be available to both long and short traders at its market value in normal physical marketing channels. The totality of these design considerations helps ensure that the contract will not be susceptible to manipulation or price distortion at expiration.⁴³

In contrast, cash settled derivatives contracts are settled by cash payment in place of physical delivery of the underlying commodity. Typically, the settlement terms in a cash-settled derivatives contract will specify a mechanism for calculating the settlement price. Where the settlement price references a price assessment or index constructed by third parties, regulatory concern focusses on the susceptibility of that reference price to manipulation or distortion.

Erroneous PRA prices could negatively impact oil derivatives contracts

IOSCO's discussion of its *Contract Design Principle on Promotion of Price Convergence through Settlement Reliability*⁴⁴ illustrates how an erroneous PRA price could impact an oil derivatives contract. IOSCO's discussion made clear that the overarching concern is that the contract should not be susceptible to manipulation or price distortion. The susceptibility of a contract to manipulation or price distortion might arise from the market's structure itself

⁴¹ *Id.*

⁴² For example, as a futures contract approaches expiration, differences between the futures price and the cash price (which generally reflect the sum of the costs and benefits of storing, handling, transporting and lending income and convenience yield of the cash commodity (i.e., the carrying costs) should be reduced. There always will be some *frictional* differences due to differences between the terms and conditions of the commodity derivatives contract and the physical commodity actually delivered, such as for example actual storage and transportation costs and recognized delivery grade variations.

Principles for the Regulation and Supervision of Commodity Derivatives Markets at p. 23, *supra* fn. 9. <http://iosco.org/library/pubdocs/pdf/IOSCOPD358.pdf>.

⁴³ Price distortion refers to a price that does not reflect supply and demand fundamentals.

⁴⁴ Principle: Promotion of Price Convergence through Settlement Reliability - *Settlement and delivery procedures should reflect the underlying physical market and promote reliable pricing relationships and price convergence and should be regularly evaluated to ensure that they meet this standard. Settlement and delivery terms should be specified and made available to market participants.*

[Note: Settlement is the act of fulfilling the performance requirements of the commodity derivatives contract. Settlement may be effected either by physical delivery or cash payments.]

(which may be more or less transparent, efficient and liquid) or, in the context of a PRA price assessment referenced by an oil derivatives contract, from the methodology used to construct the price upon which settlement is based.⁴⁵

The size and liquidity of the underlying physical commodity market could make the derivatives contract conducive to manipulation. Situations susceptible to manipulation include those in which the volume of cash market transactions and/or the number of participants determining the cash-settlement prices are relatively low. Under such circumstances there could be the potential to manipulate or artificially influence the data from which the cash-settled price is derived or to exert undue influence on the cash-settlement price's computation in order to profit on a derivatives contract position in that commodity.⁴⁶

Market authorities also should focus on the reliability of the price series or index referenced in the commodity derivatives contract. A key concern with respect to the methodology used to construct a price is that the data from which the cash-settlement price is derived will not be susceptible to manipulation or otherwise artificially influenced or distorted.

A commodity derivatives contract should be less readily susceptible to manipulation or distortion if the price used for settlement is reliable (i.e., the settlement price should accurately reflect prices in the underlying physical commodity market). Contract design

⁴⁵ *Principles for the Regulation and Supervision of Commodity Derivatives Markets*, Report of the Technical Committee of IOSCO (September 15, 2011), *supra* fn. 9. The 2011 report's discussion of structural and methodology concerns has been set out in the current report as it is instructive for a market authority's inquiry into PRA developed price assessments.

⁴⁶ In 2008 the CFTC obtained a \$10 million civil monetary penalty in a consent order settling charges against *Energy Transfer Partners, L.P.*, of Dallas, Texas, and three ETP subsidiaries: *Energy Transfer Company*, of San Antonio and Houston; *Houston Pipeline Company*, of Houston; and *ETC Marketing, Ltd.*, located in San Antonio and Houston. The defendants were charged with attempting to manipulate natural gas prices at the Houston Ship Channel (HSC) delivery hub. The CFTC's complaint alleged that from September 2005 to early December 2005, the defendants (1) attempted to manipulate the price of natural gas for delivery at the HSC by selling on the Intercontinental Exchange (ICE) massive quantities of natural gas at HSC to place downward pressure on natural gas prices at HSC; and (2) by reporting those transactions to *Inside FERC Gas Market Reports* (Inside FERC), attempted to manipulate the index price of natural gas at HSC that was calculated and disseminated by *Inside FERC* in its October and December 2005 monthly subscriptions. The complaint further alleged that the defendants engaged in this scheme in an attempt to benefit their financial basis swap positions tied to the *Inside FERC* October and December 2005 HSC natural gas index prices. The vast majority of the physical HSC natural gas transactions and the financial basis swaps at issue in the complaint were executed on ICE. <http://www.cftc.gov/PressRoom/PressReleases/pr5471-08.html>.

In 2006 the CFTC entered in to separate consent orders (orders) with defendants, settling charges that defendants falsely reported and attempted to manipulate natural gas prices. The orders arose from a CFTC lawsuit filed in 2005, charging that between January 2000 and late 2000 or early 2001, defendants repeatedly submitted, and directed others to submit, false natural gas trading information, including fabricated price, volume and counterparty information, to certain firms that compile natural gas price indexes.

The CFTC complaint charged that during the summer and fall of 2000, defendants submitted false natural gas trading information to a natural gas price index. The complaint further charged that defendants and their co-defendant knowingly submitted, and worked actively in concert to submit, the false natural gas trade information to companies that calculated natural gas price indexes including *Inside FERC Gas Market Report*, *Gas Daily*, and *Natural Gas Intelligence*, in an attempt to skew that index at multiple natural gas delivery locations to benefit their trading positions.

<http://www.cftc.gov/opa/enf05/opa5045-05.htm> and <http://www.cftc.gov/PressRoom/PressReleases/pr5258-06.html>.

considerations addressing reliability should include an analysis of the reliability of the physical commodity reference price on which pricing of the contract is based, public availability and timeliness of pricing information, commercial acceptability and public availability of the price series or index that is used to calculate the cash settlement price, liquidity of the physical market and the potential for price manipulation or distortion of the price used for cash settlement.⁴⁷

Design considerations should also ensure that the size of the sample used to determine the price series or index is sufficiently broad to be representative of the underlying physical market. The price series or index should be based on a sufficiently large record or survey of transactions such that it cannot be readily manipulated to advantage a position in the cash-settled contract. Moreover, the price series should be based on sufficient physical market activity – geographically and seasonally – covering a broad cross-section of market participants.⁴⁸

For these reasons, IOSCO previously concluded that market authorities responsible for contract design or the review of contracts that reference a price series or index should be able to demonstrate that the relevant price series or index is reliable, acceptable, publicly available and timely. In addition to disclosure of the methodology used to construct an index, Market Authorities should be able to access the actual reported transactions used to form the price series or index, to be able to assess whether the prices reliably reflect actual physical commodity market prices.⁴⁹

IOSCO Principle 23 supports inquiry into information providers

PRAAs are not currently subject to IOSCO members' jurisdiction. It does not follow, however, that the absence of direct regulatory jurisdiction bars IOSCO from examining the activities of unregulated entities that have an impact on oil derivatives markets and products.

Principle 23 of the *IOSCO Principles*, which falls under *the Principles for Auditors, Credit Rating Agencies, and Other Information Service Providers*, supports IOSCO's evaluation of whether entities such as PRAAs require regulation:⁵⁰

Principle 23 - “*Other entities that offer investors analytical or evaluative services should be subject to oversight and regulation appropriate to the impact their activities have on the market and the degree to which the regulatory system relies on them.*”

Summary

⁴⁷ FR07/11 *Principles for the Regulation and Supervision of Commodity Derivatives Markets*, Report of the Technical Committee of IOSCO (Sept 2011) at p. 22, *supra* fn. 9.

⁴⁸ *Id.*

⁴⁹ *Id.* p.23.

⁵⁰ *IOSCO Objectives and Principles of Securities Regulation*, 10 June 2010 <http://iosco.org/library/pubdocs/pdf/IOSCOPD323.pdf>. Deciding whether an entity should be regulated is a separate and distinct question from deciding who should regulate PRAAs.

It is appropriate for IOSCO to evaluate the activities of PRAs and consider improvements into procedures that support the assessment process given the substantial impact of PRA assessments on regulated commodity derivatives trading.

IOSCO's interest in PRA processes is directly related to the impact that PRA assessments have on oil derivatives trading. It is crucial that their arrangements governing how they operate and how they assess prices provide for sufficient safeguards to ensure the integrity of the price assessment function and the reliability of any assessed prices that are referenced by an oil derivatives contract. Moreover, it is equally critical that the responsible regulator of the derivatives market be able to access the information it needs to carry out its oversight responsibilities.

IOSCO's examination of PRAs and its response to G20's mandate should therefore be viewed in this context.

Chapter – 5 Key Issues Addressed by the PRA Principles

Introduction

IOSCO's inquiry into PRA practices has disclosed that there are substantial variations between the services offered, price assessment methodologies and policies used by different PRAs.⁵¹ A market authority's review of a particular oil derivatives contract that references a PRA-assessed price must therefore focus on the specific details of that PRA's methodology and policies as applied to the particular physical oil market underlying the derivatives contract that is under consideration. Accordingly, this PRA Report does not draw any conclusions with respect to any particular PRA's methodology.

Notwithstanding the diversity of PRA methodologies and policies, IOSCO has identified certain areas of PRA practices and policies that should be addressed by PRAs to ensure that their price assessments will be reliable indicators of physical oil market transactions and will not be vulnerable to manipulation.

As noted previously, IOSCO's inquiry has included a consultation with stakeholders. A Feedback Statement that summarizes the comments received to its consultation has been published separately by IOSCO, together with the comment letters. ([See Feed Back Statement](#)).

Although the comment letters revealed a broad spectrum of views, the various viewpoints can be categorized into three broad groups. A minority of commenters expressed views that to

⁵¹ For example, the methodologies used by the PRAs analysed in the *Joint IEA-IEF-OPEC-IOSCO Report*, (October 2011), *supra* fn. 3 (Platts, Argus Media, Asia Petroleum Price Index (APPI), and ICIS London Oil Report) showed considerable variation. The methods of reporting data range from the almost entirely subjective approach adopted by ICIS, based on the first-hand extensive trading experience of its reporters, to the almost entirely mechanical approach of APPI based on data submitted in writing to an accounting firm by a panel of traders. The two most significant PRAs in the oil market, Argus and Platts, use a combination of mechanistic analysis and judgment. *Joint IEA-IEF-OPEC-IOSCO Report*, ¶2, *supra* n. 3.

varying degrees praised the work of PRAs and objected to any involvement of IOSCO in examining PRAs. Another minority expressed views that to varying degrees concluded that PRA processes were flawed and that PRAs should be regulated. IOSCO does not find either of these two views to be persuasive.

The former view appears to possibly misperceive IOSCO's focus, which, as discussed in Chapter 3 to this Report, is based firmly on IOSCO members' oversight responsibilities with respect to *derivatives* that are subject to their jurisdiction. A majority of commenters expressed a variety of views that essentially supported the work of PRAs, found that PRAs fulfilled a market need, but in some cases identified methodology and governance practices that raised concerns. IOSCO finds this balanced view of the operations of PRAs and the need for some forms of public accountability to be the most persuasive.

Finally, a significant number of the commenters who subscribe to the services of PRAs, trade oil derivatives and/or are involved in the production of oil provided thoughtful comments on a wide range of issues. The scope of some comments proposed went beyond the scope of IOSCO's regulatory concerns or focussed on issues that are not the focus of this inquiry, such as proposed changes to the PRA governance structure.⁵² No inferences should be drawn from the fact that such suggestions were not included in the PRA principles or discussed in this report.

Core Concern – the Reliability of PRA Assessments

Although a variety of issues are raised by the impact of PRA-assessed prices on oil derivatives markets,⁵³ these issues all implicate the *reliability* of PRA assessments that are referenced by the terms of a derivatives contract as an indicator of the underlying market values (*i.e.*, the physical oil market). That is, regardless of the underlying physical commodity, a market authority following IOSCO's *commodity derivatives principles* will seek to determine that a PRA's price assessment that is referenced by the terms of a derivatives contract *accurately* reflects the transactions in the market that it purports to measure, the data are *sufficient* to represent that market and that such data are *bona fide*.⁵⁴

The reliability of the referenced PRA-assessed price is essential to ensure the usefulness of the oil derivatives contract for price-discovery and risk management purposes. Reliability is also critical because an unreliable assessed reference price makes an oil derivatives contract more susceptible to manipulation or price distortion.

IOSCO's examination of PRA practices has revealed certain vulnerabilities that potentially could undermine the reliability of PRA assessments as an indicator of physical oil market values. These vulnerabilities also create the potential for manipulating the *physical oil market*

⁵² The status of the Platts e-window and whether it should be regulated as an exchange is not the subject of this particular PRA mandate.

⁵³ Such issues include, among others, the adequacy of a commodity derivatives contract's design, the accuracy and integrity of price formation in a commodity derivatives contract that references a potentially deficient, the transparency of the various factors impacting oil derivatives pricing including PRA assessment processes, and the susceptibility of an oil derivatives contract to manipulation. *Update to G20, IOSCO (June 2012) supra* fn. 8.

⁵⁴ See Chapter 4's discussion of IOSCO's contract design principles.

data that are submitted to PRAs or exerting improper influence on the PRA's assessment processes in order to advantage a manipulator's *oil derivatives position*.

Broadly, these potential vulnerabilities result from the following factors: the voluntary reporting of data to PRAs and the use of judgment in assessments.

Voluntary Reporting of Data

Because there is no mandatory regulatory requirement for physical oil market participants to submit transaction data to any entity, data are submitted voluntarily by oil market participants to PRAs. Of those participants who choose to submit, there is no requirement that they submit all of their transactions. Nor is there a requirement that persons who submit transaction data notify the PRA if the transaction was subsequently reversed.

Market participants may consider it desirable to report transactions to PRAs as a way of ensuring that the price of transactions they have entered into have a bearing on the PRA-published benchmark price. IOSCO acknowledges that the voluntary reporting of legitimate transactions to PRAs brings beneficial transparency to markets. In addition, the assessment of benchmark prices by PRAs has permitted the design of hedging instruments based on those prices and thus promoted trading activity in the underlying commodity.

However, voluntary reporting raises two distinct issues – the potential for selective reporting in order to manipulate the price assessment and whether the data relied upon in an assessment are sufficient to conclude that the assessment reliably reflects transactions in the oil market that is referenced in a derivatives contract.

Potential for Selective Reporting

PRAs do not contractually require the market participants that participate in their price formation processes to submit all of their market transactions. This introduces an opportunity for oil market participants to selectively report market data in order to benefit a related oil derivatives contract.⁵⁵

⁵⁵ See also fn. 46 *supra*. See also *In re Marathon Petroleum Company LLC*, CFTC Docket No. 07-09 (CFTC filed Aug. 1, 2007) Marathon Petroleum Company LLC (“MPC”) settled charges for attempting to manipulate a price of spot cash West Texas Intermediate (WTI) crude oil delivered at Cushing, Oklahoma on November 26, 2003, by attempting to influence downward the Platts market assessment for spot cash WTI for that day. As a net purchaser of foreign crude oil priced off of the Platts spot cash WTI assessment if its conduct was successful, MPC would have benefited from lower Platts spot cash WTI assessment. The order finds that, on November 26, 2003, MPC purchased NYMEX WTI contracts with the intention of selling physical WTI during the Platts window at prices intended to influence the Platts WTI spot cash assessment downward. Further, during the Platts window, MPC knowingly offered WTI through the prevailing bid at a price level calculated to influence downward the Platts WTI assessment
<http://www.cftc.gov/PressRoom/PressReleases/pr5366-07>

In re Dominion Resources, Inc., CFTC Docket No. 06-06 (CFTC Sept. 27, 2006) The order finds that, from at least December 2000 through November 2002, several traders on Dominion's natural gas trading desks knowingly reported false, misleading and knowingly inaccurate natural gas trading information, including price and volume information, to Gas Daily, Inside FERC, and Natural Gas Intelligence. According to the order, the reports contained both fictitious trades and certain actual trades in which the prices and/or volumes were altered, as well as selected trades observed in the market, all of which were represented to be Dominion's actual trades.

A majority of commenters acknowledged that there are risks to the voluntary reporting of transactions used in certain PRA assessments but commenters were divided on whether some sort of mandate for reporting would be beneficial or detrimental. Those that supported a mandate felt that it would increase the number of transactions on which to base assessments and eliminate selective reporting by market participants.⁵⁶

For example, one trade association commented that voluntary reporting allows market participants “to include or exclude trades according to what would work to their favour. It can cause a distortion of market prices.” The association commented that mandating reporting is “desirable” because it would reduce the risk of “no-trade days” that leave price setting “at the PRA’s editor’s discretion.” A group of academics commented that voluntary reporting “tends to be fraught with risks for the users” and that “regulation of this domain would be beneficial”. Two trade associations said that “mandating reporting [...] would aid consistency and robustness in the price formation process” but recognized “that there may need to be a mechanism to protect confidentiality, price stability and liquidity for commercially large transactions”.

Other commenters acknowledged the risks of voluntary reporting yet nonetheless suggested that a mandatory reporting requirement was not advisable, with some voicing concern that such a requirement would reduce the quality of data reported.

One exchange felt that voluntary reporting poses risks because market participants only report trades if they believe it is in their best interests but, again, felt that the “mandatory reporting of transactions either contractually or by legislation would be arduous and cumbersome to control”. One oil company said that selective reporting could have an impact on prices published by PRAs, but was not concerned that “selective reporting by market participants is a serious risk to the integrity of these prices”. One oil producer commented that voluntary reporting always runs the risk of missing some transactions, but that regulating PRAs would amount to “regulating the wrong entities”.

One PRA commented that “more data is better than less data” but “the quality and transparency of the data...factored into its price assessments are of paramount importance”. The PRA was concerned that “having a multitude of potentially irrelevant mandated disclosures could confuse and/or conceal price formation rather than improve transparency”. They currently attempt to mitigate the risks of using voluntarily reported transactions by “monitoring and assessing both the validity and integrity of the information provided”. Another PRA noted that “transparency rather than universality” is required for reliable prices and expressed its support for “any initiative by the authorities to encourage market

<http://www.cftc.gov/PressRoom/PressReleases/pr5233-06c> and
<http://www.cftc.gov/PressRoom/PressReleases/ssLINK/enfdominionresourcesorder>
In re Entergy-Koch Trading, LP, Docket No. 04-10 (CFTC filed Jan. 28, 2004)
<http://www.cftc.gov/files/enf/04orders/enfentergy-order.pdf>; *In re e prime, Inc.*, Docket No. 04-12
(CFTC filed Jan. 28, 2004) <http://www.cftc.gov/files/enf/04orders/enfeprime-order.pdf>; *In re Coral Energy Resources, L.P.*, Docket No. 04-21 (CFTC filed July 28, 2004)
<http://www.cftc.gov/opa/enf04/opa4964-04.htm>.

⁵⁶ See Feedback Statement Q.6.

participants to report more widely to PRAs on pre-trade and post-trade information in the interests of transparency”.

IOSCO appreciates that trade data often is used for different purposes. For example, in financial market oversight transaction data and position data are often used differently for market surveillance purposes. However, IOSCO does not share one PRA’s suggestion that full disclosure of actual transactions conceals rather than improves transparency.

Sufficiency of Data

During IOSCO’s PRA inquiry, stakeholders commented that the number of completed transactions reported to a PRA for inclusion in its benchmark price assessment is low in many cases. Specifically, the number of transactions in certain benchmark assessments can often be less than five and not infrequently there are no prices submitted to a particular PRA on which it can base its assessments. A low level of actual transactions calls into question the reliability of such price assessments as indicators of physical market values in derivatives contracts.

In such cases, PRAs have alternative procedures for making an assessment. For example, where there are no deals done the reporters must use their own judgment to arrive at price assessments that the trading community would deem objectively reasonable.⁵⁷

Those commenters who addressed this issue focused on low volume physical markets.⁵⁸ For example, one trade association commented that “jet fuel markets are significantly impacted” and suggested that transactions should be eligible for submission to PRAs to be used in their assessments at any point during the entire day, rather than during only a 30 minute window. One exchange believed that “low transaction levels in the [Platts’] Dubai [window] pricing assessment undermine the integrity of the price discovery process”. Two trade associations responded that “where there is limited liquidity in the underlying physical markets to form assessments, *i.e.*, (Liquid Petroleum Gas) LPGs such as Butane and Propane, there is the possibility that the assessment process can lead to unrepresentative price formation”.

Other market participants felt that the current PRA methodologies were designed to deal with the constraint and are the best way to deal with illiquid markets. One consultant said that refiners have used product markets for decades to determine the relative value of different crudes and that “PRAs replicate this process and thus can make sure the published relative values are correct”. One trade association thought PRAs ensure “the best outcomes” and found “it difficult to suggest a better methodology [than theirs]”.

One PRA questioned the premise that the price assessment process “should be based purely on transaction data as a matter of preference”. It noted that “price discovery in physical oil markets is the balance between tightly defining the assessment and increasing the number of pricing inputs. The precision of a benchmark must always be weighed against the volumetric liquidity behind it.”

Judgment in the Assessment Process

⁵⁷ *Joint IEA-IEF-OPEC-IOSCO Report*, (October 2011), p.9, *supra* fn. 3.

⁵⁸ See Feedback Statement Q.7.

The methodologies used by PRAs to assess oil prices show considerable variation – some involve actual reported transactions while others may take into account bids, offers and general market information. The methodologies often require the application of judgment, particularly when data are extrapolated or when there is a paucity of reported transactions (i.e. some methodologies are not transaction-based). For example, judgment is used by PRAs in determining whether to include or exclude bids, offers and trades in assessments and in determining how to extrapolate prices from a submitted data set.

While judgment is inherent in an assessment process that is based upon voluntary reports, over short periods, and in markets with relatively few trades or trades at less than the standard PRA criterion, the dependence of price assessments on human judgment raises concerns with regard to the policies and procedures that guide the exercise of such judgment. The existence of judgment in the assessment process also provides an avenue for potential preferential treatment of traders (particularly where bids, offers and transactions are not anonymous) and conflict of interest by the person exercising judgment.

Although most commenters felt that the current PRA procedures to obtain information to base their assessments on in the absence of submitted transactions are adequate,⁵⁹ those commenters who addressed the issue of the role of subjective judgment in assessments raised concerns.

One trade association subscriber of PRA assessment services believed that “PRAs have consistently applied their own devised methodologies, but these sometimes involve subjective judgment and exclusions of certain trade activities that could result in an assessment that does not necessarily reflect the true market. Illiquidity of many of the markets that the PRAs assess subjects these methodologies to a significant risk of manipulation.”⁶⁰ One oil company responded that where PRA methodologies are followed, the results are generally close to the market, but when PRA methodologies incorporate “judgment” inconsistencies can result.⁶¹ Two trade associations expressed concern in relation to the substantial amount of discretion and judgment employed by PRAs when applying their methodologies to price assessments.⁶²

Implications for Margining

Although not addressed in the consultation or comment letters, assessments that are based on low levels of transaction data and include journalistic judgments raise issues related to the margining of a derivatives contract that references such an assessed price.

Briefly stated, the IOSCO and the Basel Committee on Banking Supervision consultative paper on margin requirements for non-centrally cleared derivatives made clear, among other things, that methodologies for calculating initial and variation margin should reflect the potential future exposure (initial margin) and current exposure (variation margin) associated with the derivative at issue and ensure that all exposures will be covered with a high degree

⁵⁹ See Feedback Statement Q.8.

⁶⁰ See Feedback Statement Q.1.

⁶¹ See Feedback Statement Q.5.

⁶² See Feedback Statement Q.5.

of confidence.⁶³ This requires that potential exposures can be reliably quantified. IOSCO's report on *Requirements for Mandatory Clearing* makes clear that among the factors an authority will need to consider in assessing whether to impose a mandatory clearing obligation is, among other things, the availability of fair, reliable and generally accepted pricing sources for a product.⁶⁴

A derivatives contract that references an assessment that is based on a low level of actual transactions and includes judgments based on information in addition to market data raises the issue of whether the relevant regulator, market or clearing organization would be able to reliably quantify potential exposures of such a derivatives contract. A low level of completed transactions in an assessment may also raise questions concerning the reliability of the assessment and in turn the reliability of the pricing mechanism for the derivatives contract.

Ultimately, any decisions on clearing and ability to margin are within the discretion of the relevant market authority.

Need for Public Accountability

A majority of commenters acknowledged that there are risks to the voluntary reporting of transactions used in PRA. Although few commenters commented directly on the issue of judgment, those commenters who explicitly addressed the issue raised concerns about the discretion and judgment employed by PRAs. IOSCO finds in the comments corroboration of its core concerns with voluntary reporting and the application of judgment in assessment. The comments reflect a broad range of views, but the majority sense of the comments is that the risks identified by IOSCO are a concern.

IOSCO's concerns about the potential for abusive reporting and manipulation that attach to voluntary reporting and the exercise of judgment (discretion) are firmly grounded in regulatory experience. The potential for harm resulting from processes that are vulnerable to abusive conduct are illustrated by the cases cited in this report involving incidents of false reporting to influence derivatives trading. Moreover, notwithstanding differences in the process by which LIBOR interbank interest rates and PRA price assessments are constructed, the recent LIBOR settlements⁶⁵ illustrate the vulnerability of processes that are voluntary and rely on the exercise of judgment to potential manipulation in order to benefit positions on derivatives markets.

In light of the impact of PRA assessments on oil derivatives trading, IOSCO concludes that the potential vulnerabilities it has identified in PRA processes must be addressed.

In this regard, IOSCO finds support in the comments for developing some form of public oversight of PRAs, although commenters were divided on the specifics.

⁶³ *Margin Requirements for Non-Centrally-Cleared Derivatives*, Consultative Report of the Basel Committee on Banking Supervision and the Board of IOSCO, p.4 (July 2012)
<http://iosco.org/library/index.cfm?section=pubdocs>

⁶⁴ *OR05/12 Requirements for Mandatory Clearing*, Report of the Technical Committee of IOSCO (February 2012) <http://iosco.org/library/pubdocs/pdf/IOSCOPD374.pdf>, p. 16-17.

⁶⁵ CFTC press release 6289-12 (June 27, 2012) <http://www.cftc.gov/PressRoom/PressReleases/pr6289-12> and FSA press release FSA/PN/070/2012 (June 27, 2012)
<http://www.fsa.gov.uk/library/communication/pr/2012/070.shtml>

A minority of respondents expressed concerns about the current lack of public oversight of PRAs.⁶⁶ For example, a trade association argued that PRAs should be subject to public oversight in relation to their “structure, governance, and assessment methodology and complaint procedures” so that overall it “safeguard[s] all stakeholders from unilateral PRAs decision[s] that may compromise a fair price assessment”. Similar arguments were repeated, to a greater or lesser degree, by other respondents including a group of academics, three trade associations and an investment bank.⁶⁷

Neutral commenters, who were in small minority argued for proportionality in oversight following a cost/benefit analysis, particularly one exchange, whilst one consultant recommended that oversight be focused only on specific attributes of the system, such as the Platts e-Window.

A sizable minority of commenters argued strongly against any form of public oversight, including one trade association, two oil companies, an individual and one exchange. The PRA respondents argued that they are publishers and should remain unfettered, are already accountable and have robust controls in place with transparent operations. One said it has “nothing to hide” but acknowledged that issues relating to accuracy and representativeness of data should be subject to public scrutiny.

Chapter – 6 Conclusion

The adoption of the PRA Principles is IOSCO’s response to the G20’s call to improve the functioning and oversight of price reporting agencies in oil.

The PRA Principles in particular are intended to enhance the quality and integrity of oil price assessments which will enhance the reliability of any oil derivatives contract that references such assessments. This in turn will enhance the price discovery and risk management function of the oil derivatives markets and any other type of commodity derivatives contracts that references PRA-assessed prices.

It is important to understand that these principles recognize that there is no requirement on any physical market oil participant to submit transaction data to PRAs. Because data are submitted on a voluntary basis, precipitous regulation of PRAs or requiring that oil market participants who submit data to PRAs submit all of their transaction data potentially could result in some oil market participants to decrease or even cease their submission of data to PRAs.

IOSCO’s approach has therefore focused on creating incentives for PRAs to institute processes that IOSCO believes will result in enhancing the reliability of assessments that are

⁶⁶ See Feedback Statement Q. 10.

⁶⁷ The investment bank argued for some form of public oversight in relation to price methodology, dispute resolution and participation in PRA trading forums such as the Platts e-Window. One oil company shared concerns about the need for oversight of “pricing methodologies and dispute resolution” and thought that PRAs should be subject to “some degree of reasonable constraint to their ability to overcharge/terminate their services in a way that may be detrimental to the market”. A number of other respondents, including another trade association and a consultant, specifically reiterated the argument for regulatory oversight of the Platts e-Window as a trading system.

indicators of the values in the commodity underlying a derivatives contract. IOSCO will work cooperatively with PRAs, in collaboration with IEA, IEF and OPEC, to evaluate the degree to which the principles have been implemented by PRAs and its impacts and to make further recommendations as appropriate.

Appendix A

Glossary of Common Terms

Arm’s-length transaction – A transaction between two parties that is concluded on terms that are not influenced by a conflict of interest (i.e., most often arising from a relationship such as a transaction between affiliates).

Assessment - The process of applying a methodology and/or judgement to market data and other information to reach a conclusion about the price of oil.

Assessors – The employees of a PRA who are responsible for developing assessments.

Audit trail - The documentation and retention of all market data, other information, judgments (including the rationale for any exclusions of market data), analyses, identities of submitters and identities of assessors relating to the development of a particular price assessment, retained for a period of at least five (5) years.

Bona fide – Refers to market data where the parties submitting the market data have executed, or are prepared to execute, transactions generating such market data and the concluded transactions were executed at arms-length from each other. Particular attention should be made in this regard to inter-affiliate transactions)

International organizations or “IOs” - The International Energy Agency (“IEA”), the International Energy Forum (“IEF”) and the Organization of the Petroleum Exporting Countries (“OPEC”); mandated by the G-20 to work in collaboration with IOSCO on the PRA issue.

Market authority - A governmental regulator, a self-regulatory organization, a regulated market or a clearing organization.

Market data – The specific volume, concluded and reported transactions, bids, offers and any other market information that are considered by a PRA in developing a price assessment.

Methodology - The written practices, procedures and guidelines that explain and control how a PRA develops a price assessment.

Other market information - Any information in addition to market data, such as assumptions, models and/or extrapolation from collected data that are considered in making an assessment.

Personnel - Employees of PRAs including managers, assessors and other employees.

PRA-assessed price – A price that has been produced by an assessment.

PRA principles – The principles set forth in this report.

Price assessment – Synonym for assessment.

Price reporting agencies or “PRAs” - Publishers and information providers who report prices transacted in physical and some derivatives markets, and give an informed assessment of price levels at distinct points in time. PRAs also report news stories relevant to the commodity markets. This report focuses on PRA assessments in oil.

Principles – Synonym for PRA principles

Report - This report: *Principles for Oil Price Reporting Agencies Final Report*

Self-regulatory organization or “SRO” - An organization 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>

Stakeholders – Anyone who subscribes to a PRA’s assessment service and derivatives markets that list derivatives which reference PRA-assessed prices. (Although derivatives market participants who trade in oil derivatives contracts that reference PRA price assessments have an interest in methodological changes, the obligation of providing such notice to derivatives market participants falls to the relevant derivatives market.)

Submitter(s) – Oil market participants who choose to submit market data to a PRA.

Transaction data - Completed transactions.

Transaction data threshold - The minimum amount of transaction data (i.e., completed transactions) that are required for a particular price assessment.

Window – The time period specified in a methodology within which a PRA accepts market data from submitters.

Appendix B

Contract Design Principles

Principle: Accountability – *Market Authorities should establish a clear framework as to design and review criteria or procedures for commodity derivatives contracts. Market Authorities should be accountable for compliance with statutory and/or self-regulatory standards on a continuing basis and should retain powers to address the provisions of existing contracts which produce manipulative or disorderly conditions. At a minimum a statutory Market Authority should have legal powers to address and where necessary to vary contract provisions which produce, or are deemed likely to produce, manipulative or disorderly conditions.*

Principle: Economic Utility - *Contracts should meet the risk management needs of potential users and promote price discovery of the underlying commodity. The design and/or review of commodity derivatives contracts should include a determination that the contract can meet the risk management needs of potential users of the contract and/or promote price discovery of the underlying commodity. The determination of economic utility may be supported by surveys of potential contract users or may be implied - for example, from an analysis of the physical market.*

The regulator should, as a minimum requirement, be informed of the type of products to be traded on an exchange or trading system and should review and/or approve the rules governing the trading of the product.

Principle: Correlation with Physical Market - *Contract terms and conditions generally should, to the extent possible, reflect the operation of (i.e., the trading in) the underlying physical market and avoid impediments to delivery.*

Principle: Promotion of Price Convergence through Settlement Reliability - *Settlement and delivery procedures should reflect the underlying physical market and promote reliable pricing relationships and price convergence and should be regularly evaluated to ensure that they meet this standard. Settlement and delivery terms should be specified and made available to market participants.*

Principle: Responsiveness - *The views of potential contract users should be taken into account in designing commodity contracts.*

Principle: Transparency - *Information concerning a physical commodity derivatives contract's terms and conditions, as well as other relevant information concerning delivery and pricing, should be readily available to Market Authorities with respect to all derivatives transactions within its jurisdiction and to market participants in organized derivatives markets.*

Appendix C

Terms of Reference for G20 Mandated International Organizations⁶⁸

Objective

To fulfil the request of the G20 in its Cannes Final Summit Declaration of November 2011⁶⁹:

“56. Recognizing the role of Price Reporting Agencies for the proper functioning of oil markets, we ask IOSCO, in collaboration with the IEF, the IEA and OPEC, to prepare recommendations to improve their functioning and oversight to our Finance Ministers by mid-2012.”

Output

A report by IOSCO, informed by collaboration with IEA, IEF & OPEC, to the G20, which, if appropriate, provides recommendations to improve oil price reporting agency (“PRA”) functioning and oversight (the “Final Report”).

During the process of preparing the Final Report, additional update reports and presentations will be provided to G20, as it requests. These will also be led by IOSCO, collaborating with IEA, IEF & OPEC, as appropriate.

Collaboration between the Mandated International Organisations

G20’s mandate is directed at IOSCO, with an entreatment to collaborate with IEA, IEF and OPEC. IOSCO will therefore lead the work, and will draft all reports to G20, including the Final Report.

IOSCO will update and request the input of IEA, IEF and OPEC at key points in the process. In this way, collaboration among the IOs and timely contributions can be ensured.

Basis of the Final Report

The Final Report will be a publication by IOSCO, informed by its collaboration with IEA, IEF & OPEC.

The Final Report will build on the work already undertaken by the IOs, as presented to G20 in October 2011⁷⁰, developing the IOs’ work, where appropriate. In addition, the IOs may undertake further joint or separate work which they can present to the other IOs for consideration as further input for their contribution to the Final Report⁷¹. Each IO will give all of the other IOs appropriate opportunity to provide input to the work they are undertaking.

⁶⁸ The TOR has been edited to take out the original timeline as it no longer is accurate.

⁶⁹ <http://g20mexico.org/images/stories/docs/eng/cannes.pdf>

⁷⁰ <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD364.pdf>

⁷¹ *IOSCO Consultation*: As an example of work sponsored by an individual IO, IOSCO will be the conduit for a public consultation with market stakeholders to inform its input to the Final Report.

IOSCO will prepare a draft of the Final Report to be presented to IEA, IEF and OPEC for review and comment. The Final Report will reflect the IOs' joint views as well as allow for any dissenting views to be fairly represented.

Content of the Final Report

The Final Report will include but not be limited to discussion of and recommendations relating to:

- Impact of oil PRAs on physical and financial oil markets;
- Impact of on PRAs on the financial system;
- Governance of oil PRAs;
- Oil PRAs methodologies;
- Range of available benchmarks relevant to financial oil markets;
- Competition in the oil PRA sector;
- Role of oil PRAs as regulators of their markets;
- Role of oil PRAs in market development;
- Cost/benefit and risk analysis of each recommendation.

The report will give appropriate analysis of suggested recommendations.

Recommendations to G20 in the Final Report

The Final Report will present consensual recommendations to G20. Where this is not possible, IOSCO will include its own recommendations and ensure that any dissenting views are fairly represented.

IOSCO welcomes contribution from other IOs in this endeavour and has provided material to its IO colleagues for their comment. Consultation respondents may contribute through IOSCO's website and IOSCO will share the responses received with the other IOs. IOSCO will prepare a summary of responses and provide this to IEA, IEF & OPEC for comment.

Appendix D

Members of IOSCO's Committee 7 on Commodity Futures Markets

Co-Chairs

Financial Services Authority,
United Kingdom

David Lawton
Director, Markets Division

Staff: Louisa Diong, Natasha Stromberg,
Ted Morris

Commodity Futures Trading Commission,
United States

Jacqueline Mesa
Director, Office of International Affairs

Staff: Robert Rosenfeld, Aaron Miller

Members

Comision Nacional De Valores, Argentina Santiago Cámpora

Australia Securities Investment Commission Steven Bardy
Laurence White

Comissão de Valores Mobiliários, Brazil Marcos Galileu Lorena Dutra
Sergio Ricardo Silva Schreiner

Alberta Securities Commission, Canada Debra McIntyre
Dulles Wang

Ontario Securities Commission, Canada Kevin Fine

Autorité des marchés financiers, Quebec,
Canada Derek West
Philippe Vallée

China Securities Regulatory Commission Cheng Haibo
Li Hui

Dubai Financial Services Authority Eric Salomons
Arsheen Saulat

Autorité des marchés financiers, France Wayne Smith
Sonia Cattarinussi

Bundesanstalt für Finanzdienstleistungsaufsicht, Germany	Stefan Pankoke
Securities and Futures Commission, Hong Kong	Stanley Ng George Tam
Financial Services Agency, Japan	Kenji Hoki
Ministry of Agriculture, Forestry and Fisheries, Japan	Tetsuo Morioka
Ministry of Economy, Trade and Industry, Japan	Shoko Seta
Comisión Nacional Bancaria y de Valores, Mexico	Carlos Orta Tejada
Authority for the Financial Markets, Netherlands	Joost Wensveen
Finanstilsynet, Norway	Knut Godager
Comissão do Mercado de Valores Mobiliários, Portugal	Manuel Ribeiro da Costa
Capital Market Authority, Saudi Arabia	Abdullah F. Al-Abduljabbar John Mathias
Monetary Authority of Singapore	Chang Tze Ching Tan Beng Hwa
Comisión Nacional del Mercado de Valores, Spain	Jose Manuel Portero
Financial Market Supervisory Authority (FINMA), Switzerland	Roman Jucker
IOSCO SRO Consultative Committee	Karen Wuertz
IOSCO General Secretariat	Yukako Fujioka

Collaboration with the Following International Organizations

IEA

David Fyfe	Head of Oil Industry and Markets Division
Antoine Halff	Incoming Head of Oil Industry and Markets Division
Bahattin Buyuksahin	Senior Oil Market Analyst

IEF

Zack Henry	Director, Energy Dialogue
Dr. Namat Al-Soof	Senior Energy Analyst

OPEC