

RESPONSE TO THE WHEATLEY REVIEW:

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Overview:

The unsecured interbank lending market provides liquidity insurance for banks that may have temporary shortages or surpluses in deposits (liabilities). In principle, excess liquidity can be recycled to other parts of the banking system, which is temporarily short, and if lent out, will limit banks' funding difficulties. Unsecured lending is priced at various spreads over the policy rate but the LIBOR rate has come to be accepted as indicative of rates at which banks can borrow from each other on an unsecured basis and so forms the floor for many money market operations. For many years, the interbank market had ample liquidity and LIBOR spreads over policy rates that were both low and stable. The growing importance of the LIBOR market reflected over time the change in the funding model used by banks and an increase in the use of wholesale funding from the interbank market, and other money markets. So rather than a form of temporary funding that reflected idiosyncratic shocks to individual banks' balance sheets, to some extent, the market became the source of structural funding. Northern Rock was, of course, the prime example of this change in the market. When the market had its 'heart attack' in August 2007, the banks that were most reliant on this source of funding became the most vulnerable.

The LIBOR interest rates quoted in the unsecured interbank market therefore not only reflect interbank lending rates but also evolved to quote settlement prices for a whole range of financial contracts and hence, following the crisis, were used to measure the extent of dislocation in this market as they started to reflect various risk premia. The LIBOR spreads may have risen following the financial crisis in response to heightened demand or restricted supply of loanable funds. But without any actual lending data we cannot know which, given the over-the-counter nature of this market. And as the LIBOR rates reflect a survey of potential borrowers rather than actual deals struck, we cannot know whether any of the LIBOR rates quoted reflect actual rates paid by institutions. Clearly, price rises in response to heightened demand may not be an important policy issue but if supply of funding is severely dislocated then banks may have to rein back their activities in an unanticipated manner. And it may be worse. Banks' abilities to fund themselves in the crisis would depend on perceptions of their solvency. Individual banks' Credit Default Swap rates were known as were the LIBOR spreads they thought they faced and there is some rudimentary evidence to suggest some two-way causality. And so there was an incentive to portray banks as more creditworthy than they actually were so that this would have had an impact on funding costs: the overshoot of bank CDS premia over some LIBOR spreads was, for example, at the very least puzzling.

But ultimately, if the spreads quoted in the interbank market are not thought to be accurate, actual lending may further dwindle and parallel market interest rates for financial transactions will develop and ultimately liquidity will be sourced from elsewhere. In this case, that has meant, from central banks rather than the interbank market. There are two issues to solve concurrently in any reform of the interbank lending market: how to get the market functioning so that banks can insure each other against liquidity shortfalls and, secondly, how to ensure that accurate reference interest rates are quoted. At present LIBOR continues to be quoted on the basis of limited surveys in a broken market rather than actual transactions and so are unique in being able to be manipulated by the simple response to a questionnaire. This is no way to run such an important market.

Proposals to Reform the Market:

The current daily survey, run by Thompson-Reuters for the British Bankers' Association, asks a small sample of banks what their perceived borrowing costs are. A trimmed mean is then published every morning for various tenors and currencies and this is used as the reference rate for LIBOR contracts. The survey responses given by correspondent banks are also published. It is difficult to verify the accuracy of this survey and it is subject to manipulation or, at least, clear incentives to mislead the market, particular after 2007. At present the interbank lending market does not currently work as there is little or no unsecured lending at term. Actual transaction data has always been hard to obtain from this over-the-counter market but now there is also insufficient trading at a daily frequency to allow actual transaction data to be used in any reform of the quoting procedures. As the main alternative, banks now borrow overnight, rolling over daily for the required term, and hedge at term using Overnight Index Swaps (OIS), which leaves significant rollover risk of the loan should the interbank market be subject to further disruptions.¹

There is therefore an urgent need to get interbank unsecured lending to work at term as well as overnight in various major currencies because it is such an important insurance mechanism. In its absence central banks are acting as bilateral, or centralised, liquidity providers. If the interbank market worked well, we would be in a position to verify relatively easily any quotes obtained from surveys and this could act as the reference rate. The problem is that a reference rate is required at high frequency across many tenors – to some extent independently of whether the market is suffering any temporary or persistent dislocation. Any reference rate also needs to be clear as to whether it represents the best interbank rate or an average of interbank rates in a particular risk class? In this case, we need to solve the problem of producing a reference rates in the first instance and set up some plan for restoring order to the interbank market concurrently.

¹ In effect, a bank borrows overnight in the interbank money markets every day for the period of its loan and simultaneously it borrows money at the OIS rate for that same period, which is the expected money market rate, and hedges the unanticipated changes in overnight rates from receipts from the counterparty in the OIS swap.

Possible mechanisms:

In any solution to the interbank market and the need to obtain an accurate LIBOR reference rate, the following issues and principles should guide policymakers:

- (i) What exactly is the LIBOR rate? If it is to be more or less the interbank lending rate for investment grade banks then let it be so defined;
- (ii) Who should best run the rate-setting process? The BBA or a body with more market and regulatory experience?;
- (iii) Where possible more market participants – not only more borrowers but also lenders - ought to be surveyed so that the ability of any one correspondent to influence market quotes is dissipated;
- (iv) the appropriate level of transparency for the surveys needs some thought - survey responses perhaps should not necessarily be published if publication gives the correspondents an inappropriate incentive, for example, for potential borrowers to overstate their creditworthiness, on the other hand, the market might benefit from the publication of potential lenders' survey responses as these might lead to the deepening of market liquidity;
- (v) how can we best use (lumpy) actual transactions data for the evaluation of the reference rates?

Let us assume that the actual market represented by LIBOR is that for investment grade banks then one overriding mechanism to help fix this market is to ensure that more participants are surveyed, certainly more potential borrowers but perhaps also to survey lenders as well. If both sets of participants are surveyed, one possibility is that the actual reference rate for LIBOR at all tenors could then be the average of the median borrower and lending rates obtained by the survey.² And then the actual transactions data could then be publically used by regulator of this process to verify the quotes, in some manner, possibly with legal sanction in the case of any clear manipulation. We think that some thought needs to be given to moving the process from the BBA, which is a representative and administrative body for banks, to somewhere with both markets experience and also with regulatory powers. This might be placed in the space between the Markets and the Monetary and Financial Statistics Division of the Bank of England, but as the Bank also has extra supervisory remits with the Prudential Regulatory Authority, it might be a task best given to the Financial Conduct Authority.

In detail, the survey should first ask a wider range of potential borrowers for their view as to the rate they can borrow in an average-sized lot. The survey could publish the median of these respondents' answers, in order to offset the bias induced by averaging. The respondents' survey results should probably be anonymised so that no artificial signalling effects are obtained by publishing an unrepresentative quote. All potential borrowers in the investment grade of some other category should be surveyed and responses made mandatory.

² Taking the median of borrowers' responses will reduce the potential for bias from extreme survey responses, whereby averaging across the medians of both borrowers and lenders simply allows information from both sides of the market to be reflected in the LIBOR reference rate.

By surveying across the whole sector, some aspects of the law of large numbers come into effect and any one bank or cohort of banks will be unable to impact directly on the published quotes. This mechanism of widening participation of potential borrowers and introducing some anonymity will by itself help the credibility of reference LIBOR rates.

But we could go further and the survey could then also survey potential lenders, from banks to other financial institutions, to obtain the median rate at which they would be willing to lend to an investment grade bank. In this case, the actual reference rates published for the LIBOR market across tenors and currencies could then simply be the average of the median borrower and lending rate. Over time we would like to see these potential lending rates tested by the market, or by the regulatory authority, to use these quotes to source interbank liquidity. By combining borrowers and lenders, the survey would better approximate the way in which actual rates are set in market situations. There would also be an important cross-check in place as the survey of a potential borrower's rate could be compared to the survey of a potential lender's rate at the same time. Common knowledge of this cross-check ought to improve the accuracy of the surveys.

To further help verification even more, we would like to see a commitment to publish data on actual lending rates and quantities borrowed at all tenors and major currencies and a formal analysis undertaken of whether surveyed rates corresponded to actual transactions. Because the data would be available and published with a lag, inevitably this analysis will be backward-looking. But any survey respondent will know that their survey response will be subject to analysis some months from now and so will have an incentive to ensure that the survey response accurately reflect market conditions.

The combination of increased participation in the survey and cross checks we have suggested, alongside the movement of the rate-setting body away from the BBA to the FCA, would act as crucial step to the reform of the interbank market and the re-establishment of LIBOR as a reference rates.

SEPTEMBER 2012.

Dear Sirs,

Having read your discussion paper I would just like to make the following comments. Please note that the views given here are expressed in a personal capacity.

Firstly, I think that the importance of unsecured lending to the functioning of, and growth in the economy should not be forgotten. It is not a question of whether the current illiquidity in unsecured lending is cyclical or representative of a structural change (perhaps encouraged by regulation), it is more important to recognise that the persistence of this illiquidity is a threat to the revival of a healthy economy. An unsecured loan symbolises basic trust between two parties, there being no demand for collateral to cover the lender's risk. If banks are not lending to each other on an unsecured basis then there is a basic deficiency in the banking system which will act as a drag on broader lending in the economy. I know it is not the responsibility of the Wheatley Review to suggest ways to improve the functioning of money markets, but I feel it should be recognised that current conditions are as a result of a severe crisis followed by extreme monetary policy measures. During the credit crisis banks withdrew from unsecured term lending because of counterparty risk concerns. Now, via Quantitative Easing, the Bank of England has flooded the system with reserves, held by the commercial banks on overnight deposit at the Bank and which earn interest at Base Rate. While QE persists, therefore, banks have continuous remunerated liquidity in overnight deposits with the central bank. The extreme monetary policy stance, although necessary to restore the health of the UK economy, has therefore, at the same time reduced the need for banks to enter into longer term liquidity management arrangements. I am therefore making a plea here that any alterations that may be made to libor are made with the understanding that the current conditions remain exceptional. Ultimately, a normal functioning unsecured interbank market should and in fact needs to return.

Secondly, given the basic importance of the unsecured loan as described above, the idea of searching for alternatives is misplaced. By all means improve the integrity of the rate setting process, but don't seek to replace this basic building block of the financial system. It is more important that the market itself is fixed. Switching to some other measure that somehow worked within the current malfunctioning market would be totally misguided. It would make more sense to insist that the structure of the rate setting process employed methods to ensure that the result was corroborated by derivative markets or hedging instruments rather than replaced by them. Thus the mathematical relationships between, for example, three month money, short sterling futures, overnight index swap rates and possibly a basket of bank CDS rates, could be employed to support and validate the quote. This would be particularly useful in a period of limited liquidity in the underlying instrument.

The discussion paper raises the question as to whether it is necessary to have so many different periods and currencies quoted for libor. I would question whether it is the role of the regulator to intervene here. The market has created the current array of rates and they have existed for many years. It is unnecessarily meddlesome, not to say dangerous, to tamper with structures that have developed over time as a result of free market activity. There is, however, a broader question here. Supposing the regulator were to "regulate" say just three, six, nine and twelve month money. The market in the intervening months would still exist and there would be no reason why a company couldn't issue a bond paying coupons three times a year, linked to the four month money rate quoted by one specified bank. Unusual and unlikely perhaps, but what is important is the principal that excluded ("unregulated") benchmarks could be used. Should an investor in such an issue expect some support from the regulatory system or would they be allowed to fall between the cracks? At the same time, it is clearly impossible for the regulator to cover all possible yardsticks that issuers/investors may decide to use to link payments on

securities to. The conclusion to be drawn from this is that it is better for regulation to confine itself to ensuring the integrity of the people and processes involved in creating/pricing benchmarks and to leave the market to decide which ones it wants to create and use.

I hope these comment are helpful,

John Hamilton
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10 September 2012

The Wheatley Review of LIBOR: initial discussion paper

Dear Sirs

This letter provides the response of the LCH.Clearnet Group ("LCH.Clearnet") to HMT's Wheatley Review of LIBOR. LCH.Clearnet is the world's leading clearing house group, serving major international exchanges and platforms, as well as a range of OTC markets. It clears a broad range of asset classes including: securities, exchange traded derivatives, commodities, energy, freight, interest rate swaps, credit default swaps and bonds and repos. Its SwapClear service clears more than 50% of the interest rate swaps market, with \$325trillion equivalent outstanding in aggregate contractual notional amount. Of this, \$164 trillion of the contracts have LIBOR as a reference across five currencies and a range of tenors.

LCH.Clearnet's ability to manage and dispose of the positions of Interest Rate Swaps participants in the event that they default is critical to the safe and effective running of the service. Anything which jeopardises this, either by challenging certainty of valuation or by reducing trading liquidity, introduces additional risk, potentially on a large scale. Given the regulatory drive to promote the use of clearing for OTC derivatives, and the increasingly central role played by clearing houses in the new market structure, we urge a full and thorough consideration of the market impact of any proposed change.

Chapter 2: Issues and failings with LIBOR

Q. Do you agree with our analysis of the issues and failings of LIBOR?

We do not intend to opine in detail on the issues and failings of LIBOR identified in this report. However, we have a vested interest in ensuring the transparency, reliability and integrity of the financial market indices against which contracts registered at SwapClear are referenced, and recognise that the LIBOR methodology and governance structure have limitations which may no longer be compatible with its role in the market.

Chapter 3: Strengthening LIBOR

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Q. Can LIBOR be strengthened in such a way that it can remain a credible benchmark?

We believe that the methodology, production and governance of LIBOR can be strengthened in order to restore its position as a credible benchmark.

Q. Could a hybrid methodology for calculating LIBOR work effectively?

The pros and cons of a given methodology are a function of its specifications. We cannot find a definition of the “hybrid methodology” in the Discussion Paper and would need more information on the specifics in order to be able to provide a considered response.

Q. Could the number of maturities and currencies currently covered by the LIBOR benchmark be reduced?

Clearing houses will typically face risk only to those indices in which liquidity is concentrated, and do not have insight into wider market needs. However, from this narrow perspective, we believe that the number of currencies and maturities could be reduced provided that there is no reduction in the range of maturities. In other words, we believe that some intermediate maturities could be eliminated provided that the shortest and longest maturities are retained and there are widely agreed industry standards for interpolation.

Q. Is an alternative governance body for LIBOR required in the short term?

An alternative governance body for LIBOR in the short term could bring benefits but the potential for unnecessary disruption must be duly taken into account. It is essential that the governing body has the right experience, authority and motives.

Q. Should the setting of and/or the submission to LIBOR be regulated activities?

We understand the motives for making submission to LIBOR and production of LIBOR regulated activities and believe this could be beneficial for the market in the presence of balanced incentive structures. It is essential that there is a strong code of conduct, transparency over the process and data as well as periodic public review.

Q. Should the regulator be provided with specific powers of criminal investigation and prosecution in relation to attempted manipulation and manipulation of LIBOR?

We would like to see further evidence in support of the benefits of specific powers of criminal investigation and prosecution. We believe more general powers to prevent market abuse are likely to achieve the desired effect. In addition, we believe that the factors we identify in response to the previous question could act to clarify and promote acceptable behaviour.

Q. What role should authorities play in reforming the mechanism and governance of LIBOR?

We foresee an important role for the authorities in proposing or requiring a reform of the methodology, production and governance process for LIBOR and other similar indices. However, we also believe that practitioners within the industry are well positioned to provide feedback to the authorities in developing an optimal solution. Once adopted, the nature of

the reforms could lead to varying levels of involvement for the authorities in the day-to-day fixing process and its surveillance.

Q. Which types of financial contract, if any, would be particularly affected by the risks of a transition from LIBOR?

From LCH.Clearnet's perspective, the risk of transition from or modification of LIBOR stems from its exposure to a very substantial portfolio of registered interest rate swap contracts which use LIBOR as a reference for their payment obligations.

Chapter 4: Alternatives to LIBOR

Q. Are there credible alternative benchmarks that could replace LIBOR's role in the financial markets?

We are primarily motivated to answer this question from our perspective as a major participant in the interest rate swap. In this context, the availability of credible alternative benchmarks which enable the continued performance of existing contracts varies by currency as follows (we use the definitions of Floating Rate Options provided in the ISDA 2006 Definitions booklet):

Currency	Credible Alternative Benchmark
AUD	AUD-BBR-BBSW
CAD	CAD-BA-CDOR
NZD	NZD-BBR-BID
DKK	DKK-CIBOR2-DKNA13
SEK	SEK-STIBOR-SIDE
EUR	EUR-EURIBOR-Reuters
CHF	No credible alternative
GBP	No credible alternative
JPY	No credible alternative
USD	No credible alternative

We cannot comment on whether these benchmarks are credible for other LIBOR users.

Q. Should particular benchmarks be mandated for specific activities?

As noted above, we are in favour of reforming LIBOR so that it remains a credible benchmark for all the markets it serves and enables continued performance of existing contracts. Given the connections between markets, a fragmentation in benchmarks would create undue disruption. Most fundamentally, market benchmarks need to be fit for purpose: LIBOR was originally introduced to provide an accessible reference for prevailing inter-bank money market rates against which to peg corporate loan activity. It was subsequently adopted as the natural reference for interest rate swaps (IRS). Let us for example consider the relevance of LIBOR to IRS users. Since the IRS markets now dwarf the loan markets, we might argue that there two types of IRS users: (i) those for whom the link to LIBOR remains a requirement in order to hedge their loans or assets; and (ii) those for whom it is vital only that their contracts remain referenced to the industry benchmark so as to provide

for and sustain maximum liquidity in these contracts. Since liquidity is a function of broad use of a benchmark, and the two types of IRS users are found to rely on each other, the argument for specific benchmarks for specific activities becomes circular. On this basis, we do not advocate particular benchmarks for specific activities.

Q. Over what time period could an alternative to LIBOR be introduced?

We are not in favour of introducing an alternative to LIBOR. However, if this option is pursued we urge the authorities to take into account the difficult current market conditions as well as the regulatory reforms when setting a timeframe. We believe that at least two years would be needed to ensure that all stakeholders are given sufficient notice to plan and implement their responses.

Q. What role should authorities play in developing and promoting alternatives to LIBOR?

If alternatives to LIBOR are deemed necessary, we are in favour of market participants playing the dominant role in developing and promoting these.

Chapter 5: Potential implications on other benchmarks

Q. Are there other important markets or benchmarks that could face similar issues to those identified relating to LIBOR?

We are confident that the attention currently directed towards LIBOR will act as an incentive for stakeholders of other indices to re-examine the integrity of these indices and take any action necessary. We note that the European Commission has recently published a consultation on the regulation of indices.

Q. Should there be an overarching framework for key international reference rates?

We believe that certain common standards of integrity, transparency and access are important in global markets and guidelines from supra-national bodies such as CPSS/IOSCO could be helpful. However, we do not see a need for specific regulations.

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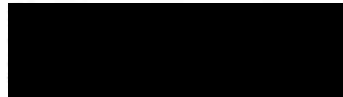
Yours faithfully



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7th September 2012

Dear Mr. Wheatley,

RE: Submission to the Wheatley Review

Lloyds Banking Group plc (the “**Group**”) welcomes the opportunity to respond to the initial discussion paper published as part of the Wheatley Review on 10th August 2012. The Group urges the Wheatley Review to reach clear recommendations and implement with appropriate speed so that LIBOR can be strengthened to remain a credible reference rate for the future.

This letter highlights the key views of the Group and is structured as follows:

- Section 1 comments on the outlook for the wholesale unsecured funding market, which is the basis for LIBOR.
- Section 2 provides the Group’s view on why LIBOR should continue.
- Section 3 provides a brief overview of alternative structural options for LIBOR and highlights the Group’s preferred approach.
- Section 4 provides further detail on the Group’s preferred approach.
- Appendix: Responses to specific questions posed within the Wheatley Review discussion paper.

As a contributor to LIBOR, and user of the reference rate, the Group recognises the importance of balancing and protecting the interests of contributors and users in any proposed changes. In the Group’s view, a key part of the successful delivery of that balance will be the development of an enhanced governance regime together with (i) the regulatory oversight of the determination of LIBOR, and (ii) a stronger regulatory environment. The systemic significance of LIBOR calls for such changes.

1. Wholesale unsecured funding market outlook

There has been a structural change in the inter-bank unsecured funding market since the start of the global financial crisis. Volumes of inter-bank transactions underpinning the current definition of LIBOR have declined, particularly in smaller currencies and longer maturities. It is unlikely that inter-bank transaction volumes will recover to pre-2008 levels, given the impact of regulation (particularly Basel III) and the increased focus on customer deposits, secured short-term funding and longer-term wholesale funding.

This low volume of transactions has necessitated judgment calls by contributors at times, reflecting guidance published by the BBA, but which may not have been properly understood by all users. The likelihood that volumes will remain lower than they have been in the past underscores the need to revisit the scope of LIBOR, and has implications for available options of how LIBOR is derived in the future, as detailed in Section 3 below.

2. Continued use of LIBOR

The Group believes that LIBOR should continue to be produced for selected currencies and maturities, where it can be robust and resilient, such that it is useful for users and has less risk and operational cost for contributors. As a measure of wholesale unsecured bank funding costs, LIBOR is a valuable reference rate for certain applications, particularly bank lending and associated interest rate hedging, and a useful performance benchmark for a variety of other arrangements unrelated to lending.

While there are other reference rates reflecting wholesale unsecured funding costs in some currencies, most face the same market challenges as LIBOR. There are no other reference rates that provide a rate that conveys a value of the combination of a base interest rate curve for a specific currency plus a value for credit and a value for liquidity, as LIBOR does.

Other interest rate references, such as repo, OIS or treasury rates, are valuable for other applications; however, as they do not reflect marginal bank funding costs, they could increase the cyclical nature of bank lending, and result in either a decrease in supply or increase in pricing of lending to end customers.

In addition, even with a carefully planned transition, a decision to stop producing LIBOR would have an enormous effect on the markets and potentially create a risk to financial stability, given the large stock of instruments already referencing LIBOR or using it as a performance benchmark.

3. Alternative structural options for deriving LIBOR

There are only a limited number of structural approaches to derive inputs to LIBOR, all of which have challenges.

A pure transaction-based approach, formulaically driven by the rates of executed transactions, would be ideal if there was a substantial volume of transactions at all times. However, as noted above, this is not always the case, creating three key potential issues:

- 1) during times of market disruption and at other times of thin volumes such as during the summer and the period running up to New Year, lack of transactions could mean that LIBOR does not reflect changes in market conditions – particularly in terms of the credit and liquidity premia embedded within LIBOR;
- 2) users could influence the rate inappropriately by entering into a number of transactions with panel banks, particularly in low volume currencies;
- 3) 'technical volatility', not driven by changes in market conditions, could create uncertain outcomes and therefore make the reference unattractive to users.

Furthermore, use of pure transaction data would provide an average funding rate over a period (rather than an offer rate at 11.00am) which would likely cause a change in the level of LIBOR and thus cause transition issues for existing transactions referencing LIBOR. As a result, the Group does not believe that a pure transaction-based approach is optimal.

An executable quote-based approach, where panel banks publish two-way committed quotes executable at a certain transaction size, also has conceptual appeal. Contributors would be directly incentivised to quote appropriate rates, automatically bringing market discipline similar to other active secondary markets. However, such an approach would require each panel bank to have constantly available credit lines for other panel banks. This is not currently the case, and would be very challenging under current conditions where funding, balance sheet and capital are scarce resources. The Group does not believe an executable quote-based approach is viable.

This leaves two broad approaches, which both involve a combination of executed transaction data and expert judgement but differ in terms of which has primacy:

1. hybrid approach, using transaction-based prices where available and expert judgement only to 'fill gaps'; or
2. an expert judgement-led approach, with a defined set of principles to derive LIBOR contributions, with greatest weight placed on relevant transaction prices when available.

The hybrid approach would only have a material number of data points based on transaction prices, if all transactions were included, rather than just transactions executed at the offer rate. This would potentially lead to the requirement for the documentation for existing transactions referencing LIBOR to be amended as the definition is materially changed from an 'offered rate' to an 'average rate': as a result there would be a change in the actual level of LIBOR.

Under the expert judgement-led approach, the ‘offered rate’ definition could be retained, with expert judgement informed by transactions executed at the offered rate as well as other transactions and market information. This should reduce transition issues.

Both approaches would rely on expert judgement, when there was a lack of transaction data, and could have identical results if the expert judgement was equal to the transaction-based prices, where it was available. However, the expert judgement-led approach could be different in some situations since it would allow the expert to not only use all information from transactions, but also use judgement to make over-rides where it is appropriate to:

- reduce vulnerability to inappropriate influence by users; and
- reduce ‘technical volatility’ driven by day-to-day changes in types of transactions (e.g. counterparty type, bid vs. offer transaction) which is not reflective of changes in market conditions.

To sum up, the Group recognises that both approaches would involve the use of expert judgement and therefore have similar requirements in terms of governance. However, on balance, the Group has a preference for the expert judgement-led approach, which is described in more detail in the next section.

4. The Group’s preferred approach

The Group thought it would be helpful to set out in more detail why we prefer the expert judgement-led approach, through a variety of headings below that articulate our view on: what improvements could be made on the technical aspects of LIBOR; what enhancements in regulation, governance and transparency should be considered in light of the changing environment; and finally considerations for transition.

Definition

Minor changes should be made to the definition of LIBOR contributions from panel banks, so that it becomes the rate at which the bank could borrow wholesale unsecured funds in the London market, by asking for, and then accepting offers in reasonable market size, just prior to 11am London time.

The key change from the current definition is to widen the type of offers included. The current ‘inter-bank’ definition would change to ‘offers for wholesale unsecured funds from banks and financial institutions’, recognising that non-bank counterparties such as money market funds and sovereign wealth funds now represent a larger share of the unsecured market – particularly at longer maturities. The definition should include Commercial Paper and Certificates of Deposit issued by the panel bank as well as cash deposits, to broaden the scope of relevant transactions. However, corporate deposits and SMEs should be excluded. It is not expected that this widening of the definition would have a structural impact on the level of LIBOR, as it continues to be an ‘offered’ rate.

The Group recommends that the ‘London market’ definition is retained, to avoid potentially distorting impacts of some differently priced markets and avoid operational issues associated with capturing all global transactions within a single system. The ‘London market’ definition should be articulated in detail to ensure a consistent approach across panel banks.

Guidance on the application of ‘reasonable market size’ should be provided within any code of practice, details of which are outlined in the section on governance below.

The Group also recommends that the ‘own bank’ cost of funds definition is retained, as this provides greatest scope for justification by executed transactions and directly observed offers.

Indeed, we believe that a better understanding across the industry of these technical considerations associated with the calculation of such an interest rate reference as LIBOR will inform the debate, and afford a better view of the benefits of an enhanced LIBOR process/rate.

Scope

Given low underlying transaction volumes for some currencies and maturities, even under the wider definition proposed above, the Group’s preference is to reduce the scope of LIBOR rates produced going forward to focus on rates which are actively used and can be supported by reasonable transaction volumes at least during ‘normal’ periods.

The following changes are suggested:

- Remove 4 and 5 month points and all maturities beyond 6 months.
- Stop producing LIBOR for specific currencies where underlying volumes are particularly low and LIBOR is less heavily used – subject to agreement on a way forward with authorities in each country.

These changes in scope would need to be subject to careful planning and communication, with a public consultation and advanced notice (likely one year) required.

Removal of the 12 month point is likely to be most problematic, since this removes a reference for interpolation of intermediary rates. However, given the low underlying transaction volumes at 12 months, it is difficult for panel banks to provide sufficient justification for future quotes. In future, users could either extrapolate themselves or the market could develop alternative market references (e.g. the swap curve could be more actively used at longer LIBOR maturities).

Derivation of LIBOR inputs

Clear principles should be formalised that all panel banks should use to derive expert judgement-led LIBOR contributions to ensure consistency between banks.

These principles should include:

- The greatest weight should be on the price of actual wholesale unsecured funding transactions executed at the offered rate by the bank, where available.
- Where no such transactions are available to the bank, expert judgement should be informed by the following factors:
 - Rates of offered rate transactions executed by the bank at other maturities / currencies
 - Rates of other wholesale unsecured transactions executed, including bid-rate transactions
 - Unfulfilled offers for wholesale unsecured transactions from clients / counterparties
 - Observed changes in market levels in the wholesale unsecured funding market
 - Changes in other market references, e.g. OIS, treasury bills, secondary market bond prices
 - Other appropriate market discussions.
- The following adjustments may be applied with respect to the above factors:
 - Time: factors closer to the 11.00am submission time are more relevant.
 - Market events: market events, including price variations in related markets, that occur prior to submission, can be incorporated within the submission.
 - Non-representative transactions: to the extent that transactions are not representative and diverge in an objective manner from other transactions (e.g. structured transactions), these should be excluded.

This approach requires the capture of data of all wholesale unsecured transactions executed by a panel bank. This data, as well as general market reference data, should be available on a real-time basis to LIBOR submitters to ensure the LIBOR submitter is aware of all relevant transactions which have been executed.

LIBOR submitters should also document the basis for each rate contribution, including whether or not it was informed by relevant executed transactions and the rationale for any deviation from the rate of these transactions. This documentation would provide a basis for internal and external audit of approaches to rate setting.

To a large extent the above approach reflects merely an enhancement and a formalisation of current practices within contributing banks.

Regulation and governance

Whilst recognizing the need for stronger regulation and governance in this sector, given changes in the environment for LIBOR, any proposed changes to governance need to ensure that there is clarity and consistency of approach going forward, within a robust regulatory regime.

That could most effectively be achieved by:

- Regulating contributions to and operation of LIBOR as regulated activities;
- Introducing a LIBOR Code, describing responsibilities and expectations of panel banks that would be owned and enforced by the regulator;
- Providing the regulator with specific powers of criminal investigation and prosecution in relation to manipulation or attempted manipulation of LIBOR.

The Group contributed to the development of the draft LIBOR Code along with peer banks and the FSA as part of the BBA LIBOR Review. In principle, the Group broadly supports the recommendations contained within the draft LIBOR Code which includes:

- Responsibilities of contributing banks
- Process for setting LIBOR
- Systems and controls, including policies, organisation, people, systems, record keeping, analysis and management information, compliance and audit, and disciplinary procedures.

The Group is also contributing to other industry led work on best practices for systemically significant financial benchmarks. The LIBOR Code should be consistent with any broader industry codes.

The enhanced role of the regulator in the future governance of LIBOR should obviously be subject to the usual procedural safeguards under FSMA. In particular, any changes to definition which will impact users should be subject to due process, including consultation with industry stakeholders, involving panel banks, users and public authorities. We consider that the industry has an important part to play. It is felt that the day-to-day operation and maintenance of LIBOR should reside with an industry body, with oversight from the regulator.

Transparency

Transparency is an important element to ensure the integrity of LIBOR and to rebuild the trust people have lost in our industry. However, the current real-time publication of LIBOR contributions of individual banks can potentially lead to unnecessary conflicts of interest. The Group therefore recommends that LIBOR contributions from individual panel banks continue to be made available to public authorities on a real-time basis, but are released publicly with a one month delay.

Another component of transparency should be to inform users of the volumes of transactions which underpin each LIBOR rate. To achieve this, a statistical monthly bulletin should be produced which provides ex post insight on underlying transaction volumes by currency and maturity on an aggregated basis across banks.

The Group believes that this enhanced level of rate and volume data, albeit on a one month delayed basis, will promote a greater degree of market transparency which the Group notes is one of the key outcomes sought by the Review Team.

Transition

The proposed changes described above should not, per se, result in a structural change in the level or volatility of LIBOR. Therefore, these changes may not create a need for users to re-negotiate existing contracts which the Group considers to be an important consideration for the market as a whole.

However, the discontinuation of LIBOR for certain currencies or at certain maturities is considered necessary and will cause transition problems for users which have existing contracts referencing a discontinued LIBOR rate.

A transition plan will need to be carefully developed and executed which should include:

- Clear communication on proposed changes in advance of the changes being implemented, to cover:
 - Identification of LIBOR rates which will be discontinued
 - Guidance on what users should do if they have contracts referencing LIBOR rates which will be discontinued, ideally providing standard protocols which users can adopt
 - Clear timeline of when LIBOR rates will be discontinued
 - Communication of what will happen during the transition period.
- LIBOR rates should continue to be published during the transition period, either based on direct submissions from panel banks or on interpolation from other LIBOR rates.

Any assessment of the likely transition impact is obviously highly dependent on what ultimately is proposed. Given the very many likely variants in the use of and reference to LIBOR in relevant contractual documentation, there could be additional transitional issues arising from changes in name or other minor variants that would need to be considered.

5. Conclusion

The evolution of LIBOR is an important part of the wide-ranging efforts to restore trust in financial markets and maintain financial stability. The Group is committed to helping ensure that the aims of the Wheatley Review in this regard are met. In particular, the Group strongly supports the aim of creating a stronger governance and regulatory regime in this area to balance and protect the interests of users **and** contributors.

The Group recognises that there has been significant discussion with various interested parties about evolving LIBOR to more trade-based approaches. However, the Group believes that these approaches would not be in the best interest of users or in maintaining financial stability.

The Group's view on the best way forward is predicated on the assertion that such an approach is only tenable if it is accompanied with a clear role for the regulatory authorities in the ongoing governance and regulation of LIBOR.

If there is anything further you or the Review team would like to discuss with regard to this submission, please do not hesitate to contact me.

Yours sincerely

A handwritten signature in black ink, appearing to read "A.W. Géczy". The signature is stylized and written in a cursive-like font.

Andrew W. Géczy
CEO, Wholesale Banking & Markets

Enc.

Appendix – Consultation questions

Chapter 2: Issues and failings with LIBOR

Do you agree with our analysis of the issues and failings of LIBOR?

The Group notes the analysis included in the Discussion Paper. In particular, the Group recognises the challenges presented by the structural shift in the wholesale unsecured funding market, as described in section 1 of the covering letter, and the need for stronger regulatory involvement, as described in section 4.

Chapter 3: Strengthening LIBOR

Can LIBOR be strengthened in such a way that it can remain a credible benchmark?

The Group believes that LIBOR can be strengthened in such a way that it can remain a credible reference rate for the future, as described in section 4 of the covering letter.

Could a hybrid methodology for calculating LIBOR work effectively?

The Group believes that a structure involving a combination of executed transaction data and expert judgement could work effectively. There are two main variants which depend on whether transaction data or expert judgement is given primacy. The relative advantages of each variant along with the Group's preferred approach are described in sections 3 and 4.

Is an alternative governance body for LIBOR required in the short term?

The Group recognises that there are compelling arguments for the review of self regulation in this sector and supports increased regulatory involvement within the governance of LIBOR in both the short and longer term, subject to the usual procedural safeguards. It is important that governance includes requirements that any changes to definitions or scope which will impact users should be subject to due process, including consultation with industry stakeholders, such as panel banks, users and regulatory authorities. It is felt, however, that the day-to-day operation and maintenance of LIBOR should reside with an industry body overseen by the regulatory authorities.

Should the setting of and/or the submission to LIBOR be regulated activities?

The Group would support a change that would designate submissions to LIBOR by contributing banks as a regulated activity.

Should the regulator be provided with specific powers of criminal investigation and prosecution in relation to attempted manipulation and manipulation of LIBOR?

The Group acknowledges that the regulatory authorities already have powers of this nature; however, the Group would support a change that would provide the regulatory authorities with the specific aforementioned powers to clarify and bring greater focus to them. The regulatory authorities might also wish to consider encouraging a greater degree of consistency to ensure the powers and the penalties for the manipulation of benchmark rates are aligned across all major jurisdictions.

What role should authorities play in reforming the mechanism and governance of LIBOR?

Going forward, the Group believes regulatory authorities should play an active role in reforming the mechanism and governance of LIBOR, whilst continuing to seek input from, and consult with industry stakeholders, including contributors and users.

Which types of financial contract, if any, would be particularly affected by the risks of a transition from LIBOR?

The Group believes that most financial contracts that reference LIBOR would be affected by the risks of a transition from LIBOR to another reference rate, particularly syndicated and bilateral commercial loans, interest rate derivatives and retail loans linked to LIBOR. Whilst most industry-wide standard contracts, such as the LMA suite of loan documents or the ISDA Definitions contemplate what to do in the event of market disruption, i.e. fallback provisions upon temporary unavailability of the LIBOR rate, none specifically provide for an automatic orderly transition from LIBOR to another equivalent sponsored reference rate. Therefore, parties would have to agree to the new rate and the associated documentation will need to be amended.

Additional transition issues could be caused by other potential changes to LIBOR:

- Change in name – various references are used in contracts, including LIBOR, BBA-LIBOR, [GBP]-LIBOR;
- Changes in screen location – some contracts refer to specific Thomson Reuters' screens, although most provide for replacement service providers.

Chapter 4: Alternatives to LIBOR

Are there credible alternative benchmarks that could replace LIBOR's role in the financial markets?

Although several alternative benchmarks are available, most unsecured rates face similar market challenges given the outlook for the wholesale unsecured funding market outlined in section 1 of the covering letter. Other interest rate references, such as repo, OIS or treasury rates, are valuable for some applications but they do not reflect relative marginal bank funding costs, and are therefore not a direct substitute for LIBOR.

Should an alternative benchmark fully replace LIBOR, or should it substitute for LIBOR in particular circumstances?

There is a continued need for LIBOR as a measure of wholesale unsecured bank funding costs for use in some applications, particularly bank lending and associated interest rate hedging, however, alternative interest rate references might be of interest to other applications where you want to hedge just pure interest rate risk. Further detail on this is provided in section 2 of the covering letter.

Should particular benchmarks be mandated for specific activities?

The Group does not see the need to mandate particular benchmarks for specific activities. This should be a matter of participants' choice provided such benchmarks are robust.

Over what time period could an alternative to LIBOR be introduced?

The Group believes that any change which results in the discontinuation or change in level of LIBOR should be subject to a minimum notice period of 12 months following public consultation to allow the transition to a new rate, as described in section 4.

What role should authorities play in developing and promoting alternatives to LIBOR?

The Group does not believe that it is necessary to create an alternative to LIBOR but this is an area which should be kept under review including ongoing engagement between the industry and regulatory authorities.

Chapter 5: Potential implications on other benchmarks

Are there other important markets or benchmarks that could face similar issues to those identified relating to LIBOR?

Most other wholesale unsecured reference rates are likely to face similar market challenges to LIBOR, given the change in the unsecured funding market highlighted in section 1 of the covering letter.

Should there be an overarching framework for key international reference rates?

Similar governance requirements should be applied across all systemically significant indices to maintain consistency and the future credibility and robustness within the market. Indeed, the Group is contributing with peer banks to an industry led best practice guidelines exercise for benchmark reference rates.

6 September 2012

Dear Sirs

Response to The Wheatley review of LIBOR: initial discussion paper ("the Consultation")

The Loan Market Association ("LMA") welcomes the opportunity to provide a response to the Consultation and hopes that its comments will be useful in the ongoing review.

The LMA is the trade body for the European syndicated loan market and was founded in December 1996 by banks operating in that market. Its aim is to encourage liquidity in both the primary and secondary loan markets by promoting efficiency and transparency, as well as by developing standards of documentation and codes of market practice, which are widely used and adopted. Membership of the LMA currently stands at 490 and consists of banks, non-bank investors, law firms, rating agencies and service providers. The LMA has gained substantial recognition in the market and has expanded its activities to include all aspects of the primary and secondary syndicated loan markets. It sees its overall mission as acting as the authoritative voice of the European loan market vis à vis lenders, borrowers, regulators and other interested parties.

The following summarises the LMA's initial response to the specific questions raised in the consultation as well providing additional commentary on issues specific to the syndicated loan product.

Overview

Given the short timeframe for responses and the likelihood that many LMA members will submit individual responses, this LMA submission focuses primarily on LIBOR as a benchmark within loan documentation. We are, of course, very aware of the widespread use by syndicated loan borrowers and lenders of derivative products as hedging tools, such as swaps, caps, collars and floors and the importance of LIBOR as a common benchmark for such instruments, but feel commentary on this aspect falls outside our specific area of expertise.

In addition, it should be recognised that, while larger UK syndicated loans are typically benchmarked to LIBOR, many SME loans are likely to be either at fixed rate or benchmarked to base rate. The same may be true in other European jurisdictions.

LMA Documentation Language

The current LMA loan facility template agreements include the following language in the various primary template facility agreements:

Calculation of interest

The rate of interest on each loan for each Interest Period is the percentage rate per annum which is the aggregate of the applicable:

(a) Margin

(b) LIBOR [or in relation to any Loan in euro, EURIBOR]; and

(c) Mandatory Costs if applicable.

The same approach is taken with reference to the calculation of Default Interest.

"LIBOR" is defined as:

(a) the applicable screen rate; or

(b) (if no Screen Rate is available for the currency or interest period of that loan) the Reference Bank Rate,

as of the Specified Time on the Quotation Day for the currency of that Loan and for a comparable period to the Interest Period of that Loan.

"Screen Rate" is defined as:

(a) in relation to LIBOR, the British Bankers Association Interest Settlement Rate for the relevant currency and period; and

(b) in relation to EURIBOR, the percentage rate per annum determined by the Banking Federation of the European Union for the relevant period,

displayed on the appropriate page of the Reuters screen. If the agreed page is replaced or service ceases to be available, the Agent may specify another page or service displaying the appropriate rate after consultation with the Company and Lenders.

While we do not have access to actual loan agreements, we understand that this "standard LMA language" has been typically incorporated into actual loan facility agreements over the course of the past ten years or so.

We have also issued an advisory paper to members with optional wording that can be used if they seek to address situations where LIBOR rates have been negative.

The proposed revised LIBOR definition is:

(a) the applicable screen rate; or

(b) (if no Screen Rate is available for the currency or interest period of that loan) the Reference Bank Rate,

as of the Specified Time on the Quotation Day for the currency of that Loan and for a comparable period to the Interest Period of that Loan and, if any such rate is below zero, LIBOR will be deemed to be zero.

LIBOR is also referenced in other LMA documents such as:

- the LMA Terms and Conditions for trade transactions incorporates the concept of delayed settlement compensation and the calculation methodology includes using average LIBOR rates over the delay period.
- the concept of "breakfunding" arises in the secondary market. This seeks to ensure that neither party to the trade is disadvantaged as a result of movements in the underlying funding rate where the trade settlement date does not coincide with the next rollover date and the calculation is based on the difference between the LIBOR from Settlement Date to the next loan rollover date and the relevant funding rate for the loan during the interest period. Breakfunding is not an LMA standard default position within the Standard Terms and Conditions but we understand it is frequently applied in the market as an "additional term of trade."

Finally, we have been advised that most CLO agreements use a LIBOR benchmark with fallback to Reference Banks. As there is no alternative benchmark and so any new benchmark would require revision to existing contracts. CLO vehicles have been substantial investors in loans over the past few years and this aspect should be borne in mind when considering possible revisions to existing benchmarks.

Given this widespread use of LIBOR in documentation, we are concerned that revising the method of calculation or reference to the "BBA" might introduce legal uncertainty and this must be a key consideration in the review.

The attached Appendix lists the specific questions to which we have provided an LMA response. Given the LMA role, we believe that it is more appropriate for market participants to respond to most of the questions

Yours faithfully



Clare Dawson
Managing Director
The Loan Market Association

Appendix - Consultation Questions

Question	LMA Comment
<p>Could the number of maturities and currencies currently covered by the LIBOR benchmark be reduced?</p>	<p>Our research indicates that, while the majority of drawings under syndicated loan agreements are in GBP, USD and EUR, other currencies are drawn. While the latter is a relatively small percentage, it nonetheless is a substantial amount given the very large volume of syndicated loans outstanding.</p> <p>Our research indicates that the vast majority of maturities are for 2-week, 1-month, 3-month and 6-month periods.</p>
<p>Which types of financial contract, if any, would be particularly affected by the risks of a transition from LIBOR?</p>	<p>A great many current loan agreements use LIBOR as a benchmark and we are concerned that a transition from LIBOR would introduce a degree of legal uncertainty. Any transition period would have to be lengthy and very carefully managed.</p>
<p>Are there credible alternative benchmarks that could replace LIBOR's role in the financial markets?</p>	<p>It is not clear that credible alternative benchmarks currently exist that replicate all the practical useful features of LIBOR.</p>
<p>Should an alternative benchmark fully replace LIBOR or should it substitute for LIBOR in particular circumstances?</p>	<p>Difficult to envisage this being practicable in the loans context as they are private agreements between borrowers and lenders.</p>
<p>Should particular benchmarks be mandated for specific activities?</p>	<p>Difficult to envisage a "mandatory" benchmark in the loans context.</p>
<p>Over what time period could an alternative to LIBOR be introduced?</p>	<p>The transition period would have to be lengthy, say 5 years, but it should be noted that longer term loan facilities may be seen in certain sectors of the market e.g. project finance.</p>



LSEG Response to the Wheatley Review of LIBOR

Submitted online at: wheatleyreview@hmtreasury.gsi.gov.uk

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07 September 2012

INTRODUCTION

The London Stock Exchange Group (LSEG) welcomes the opportunity to respond to the Discussion Paper: The Wheatley Review of LIBOR.

The LSEG is well qualified to respond to a consultation on indices and benchmarks. The Group includes a range of entities that have a long and broad experience of providing neutral market services. Of particular relevance is FTSE International Ltd (FTSE), which was established as a joint venture with the Financial Times in 1995 to create, manage and operate a range of indices that serve the needs of the wide range of markets and market participants and investors. Since late 2011, FTSE has been 100% owned by the Group.

Since its inception in 1995, FTSE has operated on the basis of providing strong index governance procedures that have proved invaluable in balancing the often competing desires of participants from various market sectors. As an index provider with long experience of managing equity, fixed income, currency and alternative asset indices that underlie many financial products, FTSE has established a reputation for transparent, robust, rules driven index construction overseen by a system of independent committees.

The LSEG is highly experienced in operating in a regulatory environment and having regulatory responsibilities in that context. As a result we have substantial regulatory interaction with numerous market regulators and central banks around the world. We also engage regularly with supranational regulatory bodies such as the European supervisory authorities (ESAs) and with IOSCO.

This submission represents the views and experience of London Stock Exchange plc, Borsa Italiana, FTSE, EuroMTS and other market operators and investment firms within LSEG.



In Part A we set out some general thoughts and in Part B we deal with the specific consultation questions. It should be noted that we only deal with those aspects where we have relevant experience or view, and not some of the wider points, where other bodies and market participants will have relevant views.

We confirm that we acknowledge that this response may be published by HM Treasury.



PART A

General Principles

1. The LSEG strongly supports the conclusions in the paper that the mechanism for calculating LIBOR could be significantly improved, and in particular that the credibility of LIBOR would be strengthened by the construction of a rigorous and robust governance framework.
2. LIBOR and similar benchmarks were created for the unsecured lending market. Although the current post crisis situation means that there is little unsecured lending, LIBOR's role in many contracts remains and any evolution of LIBOR must allow for minimum potential for disruption and maximum continuity.
3. We believe that in the short and medium term the only feasible approach is to strengthen LIBOR, as it would be almost inconceivable to consider replacing LIBOR. As the paper suggests, the value of existing open contracts based on LIBOR could be worth between \$300tn - \$800tn. The magnitude of such an exercise and the massive market disruption and uncertainty it could create would most likely entirely defeat the purpose.
4. A strengthening solution based solely on executed "trade" data will not be sufficient; in current and likely future market conditions, any calculation method must allow for times where trading is minimal or non-existent (e.g. Sept/Oct 2008).
5. Any strengthening solution is likely to require a combination of political, regulatory and commercial approvals and input.
6. A strengthening solution is likely to require:
 - international regulatory acceptance;
 - clear and full regulatory oversight, and appropriate sanctions regime;
 - transparent and rigorous governance arrangements, including allocation of responsibilities to all relevant parties (index provider, regulator, contributors) and management of conflicts of interest;
 - a transparent and accepted process that combines all relevant elements (trades, comparable market rates and judgement) to set a rate;
 - appropriate contractual arrangements to allow for full distribution, development and client servicing; and
 - an industry wide acceptance that the solution provides a continuation of the benchmark that does not allow for the termination or other variation of contracts and arrangements based on current LIBOR.



PART B- Consultation Questions

Chapter 2: Issues and failings with LIBOR

Do you agree with our analysis of the issues and failings of LIBOR?

7. On the basis set out in the paper, we agree with the analysis of the issues and failings of LIBOR. We propose that these failings should be addressed by the imposition of a rigorous and transparent governance structure that would re-establish credibility in the LIBOR benchmark. We further propose that credibility will be additionally enhanced by increased regulatory oversight of contributors; and the potential for regulators to deploy enforcement proceedings and apply sanctions against offenders.
8. As set out in Part A, we at LSEG believe that many of these issues can be overcome by a combination of improvements in the governance, calculation and oversight processes.

Chapter 3: Strengthening LIBOR

- **Can LIBOR be strengthened in such a way that it can remain a credible benchmark?**
- **Could a hybrid methodology for calculating LIBOR work effectively?**
- **Could the number of maturities and currencies currently covered by the LIBOR benchmark be reduced?**
- **Is an alternative governance body for LIBOR required in the short term?**
- **Should the setting of and/or the submission to LIBOR be regulated activities?**
- **Should the regulator be provided with specific powers of criminal investigation and prosecution in relation to attempted manipulation and manipulation of LIBOR?**
- **What role should authorities play in reforming the mechanism and governance of LIBOR?**
- **Which types of financial contract, if any, would be particularly affected by the risks of a transition from LIBOR?**

Credible Strengthening of LIBOR

9. We believe that LIBOR can, and should be, credibly strengthened, in some of the ways we discuss below.
10. In addition to regulatory oversight, we believe that wherever possible, benchmarks compiled through submissions from participants should be validated through comparison with actual trades and available market rates. We believe this will make a substantial contribution to the confidence of market participants in the quotes submitted and the accuracy and reliability of the LIBOR benchmark rate.



11. We also believe that banks' actual trade data can be used for validating quote submissions. However, in recognition of the relative paucity of actual trade data, we believe that in the medium term more consideration should be given to requiring rates submitted by participants to be posted as committed quotes on a simple electronic quotes system.
12. The details of such an arrangement would need to be agreed with market participants, and in the mandatory use of committed quote-based arrangements or actual transaction levels may not be appropriate in all circumstances. However, it is not necessarily the case that such arrangements suffer from small sample size or high cost to contributors: web-based execution systems operating a quote-based mechanism are made widely available to participants at a low cost. Use of such a system would ensure proper consideration of the rates submitted and assist in anchoring submitted quotes to reality.
13. The other types of bank own-data that could be used to infer quote reasonableness include rates paid on commercial paper and deposits, and credit adjustments made by bank officers when seeking fair valuations of bank assets and liabilities. Examples of market rate data that can also be used for comparison purposes include: Overnight Indexed Swap rates, GCF repo rates, and rates inferred from FX-swaps and Eurodollar futures.
14. As will be seen from the following discussion of Governance, the committee structures provide an appropriate forum for the discussion and development of issues, methodologies and proposed new arrangements.

Alternative Governance Body

15. Enhanced governance would be achieved by the creation of a new technical committee that drew its membership from the full cross-section of LIBOR stakeholders including banks; corporate and local authority treasurers; exchanges and clearing houses; fund managers; derivative product providers and representatives from trade bodies.

Regulators and other authorities, for example central banks, should be part of the committee, either as members or observers.
16. The committee would be responsible for agreeing the LIBOR calculation; specifying the immediate checks that would be performed on submissions and the policy for dealing with outliers; agreeing the restatement policy (if any) for correcting LIBOR in the event of erroneous submissions; and reviewing a bank's historic submissions in the light of comparable, contemporaneous data. Knowledge that submissions will be reviewed *ex-post* will deter banks from gaming submissions.



17. FTSE's experience of committees is that the working level expertise of technical committees is particularly effective when combined with strategic oversight from senior industry executives tasked with a holistic and long-term view on future index developments. For example, although the technical committee should be best placed to develop and agree specific statistical tests designed to test the integrity of submissions, any proposals to evolve the definition of LIBOR, for example to require quotes for a hypothetical bank or to explicitly bring comparative data into the LIBOR calculation, should require strategic as well as technical ratification.
18. A description of FTSE's governance structure is provided in the appendix. This serves to illustrate how such principles have been successfully deployed in other index products.

The role of the regulator in the setting of LIBOR

19. We agree with the analysis in the review that a regime for the regulation of LIBOR would provide greater clarity and would provide a mandate for the regulatory authorities to get involved.
20. We believe that the list of quote providers should be approved and that approval should be the responsibility of the regulator, and not the responsibility of the LIBOR committee or LIBOR calculation agent. Regulatory approval for quote submission would be contingent on satisfactory demonstration of, *inter-alia*: internal controls, training procedures, whistle-blowing procedures, internal audit extent and frequency, and Chinese walls between quote providers and LIBOR users. Those submitting quotes or their managers should hold Approved Person status.
21. We further believe that the responsibility for sanctioning those perceived to have submitted misleading quotes should lie with the regulator, and not with the LIBOR committee or the LIBOR calculation agent. As a participant on the LIBOR committee with member or observer status, the regulator and other authorities will be privy to analysis that identifies any quotes that appear to be at odds with comparable rates observed in other bank products or in the market. The regulator will be able to use this analysis as a basis for querying the submitting bank, and thence determine whether the perceived outliers were justified by contemporaneous conditions and if not, whether sanctions should be imposed.



Chapter 4: Alternatives to LIBOR

- **Are there credible alternative benchmarks that could replace LIBOR's role in the financial markets?**
 - **Should an alternative benchmark fully replace LIBOR, or should it substitute for LIBOR in particular circumstances?**
 - **Should particular benchmarks be mandated for specific activities?**
 - **Over what time period could an alternative to LIBOR be introduced?**
 - **What role should authorities play in developing and promoting alternatives to LIBOR?**
22. For the reasons set out in Part A, it is our view at present that it is not feasible or desirable to seek to replace LIBOR, at least in the short to medium term. We would see any "replacement" more as an issue of "development" in order to achieve the desired outcome.
23. In that respect, as the paper appears to envisage, many of the concepts for alternative calculation methods discussed in Chapter 4 could be usefully explored as part of any such LIBOR development process.
24. Adoption of the strengthened and transparent approach we advocate in Section 3 above would provide the appropriate context for undertaking the relevant consultation and research exercises and then exploring these options with the technical and strategic committees.

Chapter 5: Potential implications on other benchmarks

Are there other important markets or benchmarks that could face similar issues to those identified relating to LIBOR?

Should there be an overarching framework for key international reference rates?

25. The experience of FTSE is that indices need a robust, transparent governance structure and that indices are best operated with defined ground rules and calculation methodologies. This is particularly true for those indices that have become benchmarks for financial products which have attracted sizeable assets. Unanticipated changes to the composition of such indices can result in significant gains and losses for market participants. The publication of clear and practical ground rules minimises the probability of market participants being caught unawares, and is much to be preferred to the selection of index constituents by panels exercising expert, but subjective, judgements.
26. Recent consultations by ESMA and IOSCO have reinforced the preference of these regulatory bodies for the composition, rules and methodologies of indices underlying Exchange Traded Funds to be freely and publicly available.



27. From first principles, if other benchmarks are operated in a similar way to LIBOR, they are likely to be exposed, at least in theory, to the same issues and failings identified in the analysis in Chapter 2. On that basis, following either empirical investigation or as a preventative measure, all or some might benefit from application of the same type of “strengthening” process. Again, the issues around replacement as opposed to strengthening are likely to reflect the prevalence of use of the particular benchmark and the ease with which it could be replaced without causing market instability and or cost.
28. It is suggested that the principles and approach derived from the work in relation to LIBOR would, if generally accepted as a solution for LIBOR, be of equal or parallel application to such other benchmarks.

CONCLUSION

29. We believe that immediate credibility problems besetting LIBOR can be quickly and adequately addressed by imposing a stronger, independent governance structure on the index. This enhanced governance structure would operate under the aegis of the regulator and would require the following:
 - clear and full regulatory oversight, and appropriate sanctions regime;
 - transparent and rigorous governance arrangements, including allocation of responsibilities to all relevant parties (index provider, regulator, contributors) and management of conflicts of interest;
 - a transparent and accepted process that combines all relevant elements (trades and judgement) to set a rate;
 - appropriate contractual arrangements to allow for full distribution, development and client servicing; and
 - an industry wide acceptance that the solution provides a continuation of the benchmark that does not allow for the termination or other variation of contracts and arrangements based on current LIBOR.



APPENDIX 1- example of FTSE Governance and Committee Structure

Figure 1 below shows the committee structure that FTSE employs to ensure good governance of its indices. The three regional equity committees and the bond committee draw their membership from market participants with high levels of technical expertise. Additionally, meetings of the bond committee are attended by a representative of the Debt Management Office with observer status; this allows the DMO to have sight of impending changes to index and yield calculations. These committees assist FTSE in making changes to the index rules and calculation methodologies that improve the usability of the indices, for example, by ensuring that the index treatment of difficult and unusual corporate events matches, as far as possible, the real life experience of portfolio managers.

These technical committees are supplemented by three other specialist committees tasked with making decisions on nationality assignments, industry assignments and country classifications that can occasionally be contentious and politically sensitive. For example, the UK Index Series, which includes the FTSE 100 and the FTSE All Share indices, has seen a recent influx of companies that have chosen to list and trade in London, but have their incorporation, tax residence and operations elsewhere. Based on the responses to a client consultation in 2011, the Nationality Committee agreed to the introduction of more stringent eligibility criteria that took into account the competing concerns of both buy- and sell-side market participants.

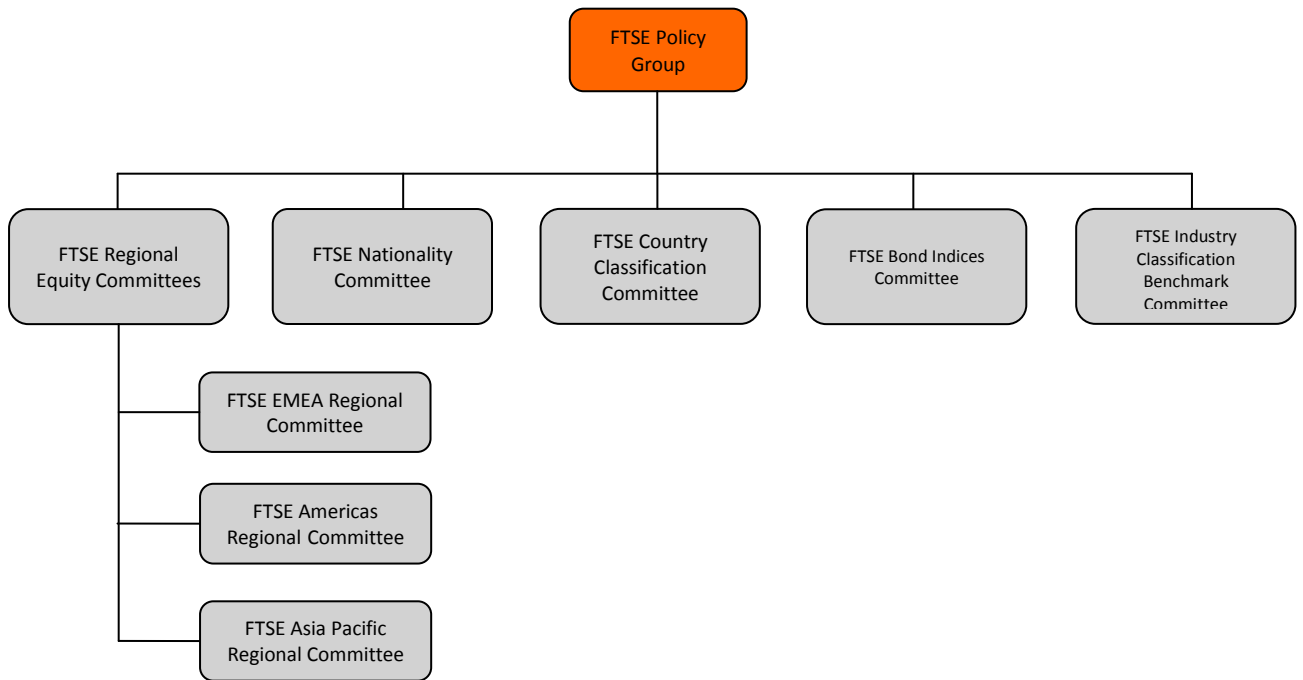
Country classification into developed, emerging and frontier markets is another process that can prove politically contentious. Here too FTSE has benefited from the use of a committee tasked with making objective judgements about the quality of country equity markets based on their regulatory, trading, settlement and custody infrastructure. This committee draws its membership from those who have day-to-day experience of portfolio management, trading and custody. The mechanisms for assessing, promoting and demoting markets, based on the assessments of committee experts, exemplify FTSE's objective and transparent approach to index management.

The above committees report into FTSE's most senior committee, the FTSE Policy Group. In contrast to the other committees which draw their members from technical experts, the FTSE Policy Group appoints its members from the most senior level of the investment community. Policy Group members supplement the technical expertise of the junior committees with business and strategic insights. All rule change proposals emanating from the junior committees must be ratified by the Policy Group. The Policy Group provides direction for the junior committees and acts as an appeal court for companies wishing to challenge nationality and industry assignments.

This hierarchy of committees ensures that all sides of the debate can be heard, allows affected bodies a venue to voice their concerns, and so enhances the legitimacy of index related decisions.



Figure 1



07 September 2012

The Wheatley Review
HM Treasury
1 Horse Guards Road
London
SW1A 2HQ

Submitted via: wheatleyreview@hmtreasury.gsi.gov.uk

Re: The Wheatley Review of LIBOR: initial discussion paper

Dear Sir/Madam:

Markit¹ is pleased to submit the following comments to HM Treasury (the "**Treasury**") in response to *The Wheatley Review of LIBOR: initial discussion paper* (the "**Initial Discussion Paper**").

Introduction

Markit is a provider of financial information services to the global financial markets, offering independent data, valuations, risk analytics and related services across regions, asset classes and financial instruments. Our products and services are used by a large number of market participants to reduce risk, increase transparency, and improve the operational efficiency in their financial markets activities.

For many years we have operated pricing and valuation services for a large variety of financial products with a particular focus on those that do not trade on a continuous basis and are hard-to-value. Our services, which often also take into account daily contributions from market makers, will provide, for example, pricing for OTC derivatives and for cash instruments across asset classes that our clients will use for their internal valuation procedures or risk management. Over many years we have developed and refined the processes that we use to determine which contributors should be included in a service, which individual contributions to accept or reject, and how to produce a reliable price indication on the basis of the contributions that we received and the wealth of other data we use to corroborate the contributions. We have also gathered extensive experience in designing and operating auction procedures that serve to determine market-clearing prices, for example for the settlement of outstanding transactions in credit default swaps ("**CDS**") following a credit event.² Based on this experience we are pleased to provide the Review team with our views on the Initial Discussion Paper.

Comments

For a benchmark rate as important as LIBOR, given that it is referenced in and determines the cash flows of contracts with a notional outstanding value of "at least USD 300 trillion", it is essential to restore market and public confidence as quickly as possible. We therefore welcome the publication of the Treasury's Initial Discussion Paper and we appreciate the opportunity to provide you with our comments. Specifically, we believe that market confidence in LIBOR will depend on applying several enhancements to the current process which could include more transparent rules on submission, the use of auctions and transaction

¹ Markit is a financial information services company with over 2,700 employees in Europe, North America, and Asia Pacific. The company provides independent data and valuations for financial products across all asset classes in order to reduce risk and improve operational efficiency. Please see www.markit.com for additional information.

² The Markit Auction platform provides comprehensive auction and auction management services across asset classes. Since 2005, Markit has been responsible or jointly responsible for administering more than 130 auctions worldwide. The Markit Auction Platform was originally developed for credit event auctions in conjunction with the International Swaps and Derivatives Association and Creditex. Credit event auctions are the process for valuing credit derivatives after a default. Today, the platform is compatible with a full array of financial assets, as well as with the unique requirements of multiple types of environmental credits, including emission permits and water quality credits.

data, design of appropriate incentives for the submission of accurate data, and the use of rigorous data cleansing procedures.

1. Issues and challenges

LIBOR rate fixings are intended to represent the term structure of short-term prime credit exposure. Ideally, they would be based upon an observable and liquid underlying market. However, the global short-term bank lending markets have become illiquid and inhomogeneous over the last couple of years. Today, most of the activity in unsecured term inter-bank lending that LIBOR should be based upon has been replaced by other forms of financing. Therefore, a reliable LIBOR fixing cannot be produced solely based on transactions, and the submissions of contributors to the LIBOR fixing will often have to be based on their judgment as opposed to observable data.³

We believe that this situation presents policy makers and market participants that are trying to address “the LIBOR problem” with several fundamental challenges:

- Any individual steps that are taken in isolation to strengthen the LIBOR fixing mechanism are unlikely to fully compensate for the simple lack of liquidity and transactions in the underlying market.
- Alternative rates that represent more liquid underlying markets reference, implicitly or explicitly, government rather than corporate credit and/or overnight rather than term lending. They will therefore, by their very nature, not be representative of prime term corporate credit rates, making any attempt to transfer existing transactions to such a new benchmark technically difficult and, arguably, undesirable.

That said, we base our below recommendations on the following assumptions:

- A voluntary novation of existing LIBOR-referencing transactions to a different benchmark is extremely unlikely, as participants would find it impossible to agree on the basis between the new benchmark rate and LIBOR. On the other hand, a compulsory novation is unthinkable, as it is likely to result in creating large profits or losses for some participants. As any replacement of LIBOR references in the many contracts that exist today would be complex and potentially disruptive, we believe that it cannot really be considered as a practical option. We therefore assume that LIBOR will continue to exist and that current efforts must focus on identifying effective measures to strengthen it.⁴
- We believe it is unlikely that the use of a single measure in isolation would improve and strengthen the LIBOR fixing sufficiently⁵ and we therefore recommend for a number of actions to be implemented simultaneously. Improvements that should be considered in this context include the systematic collection and use of transaction data, the use of auction mechanisms, expert day-to-day analysis of submissions, improved incentives for contributors, and a strengthened governance structure as well as regulatory oversight.⁶
- However, in addition to strengthening the existing LIBOR fixing, regulators and market participants should also promote the use of alternative fixings that are based on more liquid underlying markets.⁷ Such benchmarks already trade in the swap markets and could also be used as reference for other markets. Over time they could naturally replace LIBOR by attrition, which seems much preferable to a forced replacement.

³ Be it individually or collectively, deliberately or accidentally.

⁴ Furthermore, if at some point in the future inter-bank credit markets regained their liquidity, LIBOR could become a much more reliable benchmark again and its destruction would then seem precipitate. In response to Box 4.A Consultation question: “Should an alternative benchmark fully replace LIBOR, or should it substitute for LIBOR in particular circumstances?”

⁵ In response to Box 4.A Consultation question: “Are there credible alternative benchmarks that could replace LIBOR’S role in the financial markets?”

⁶ In response to Box 3.A Consultation question: “Can LIBOR be strengthened in such a way that it can remain a credible benchmark?”

⁷ In response to Box 4.A Consultation question: “What role should authorities play in developing and promoting alternatives to LIBOR?”

2. Recommendations

We believe that making some small changes to LIBOR in isolation, such as just enlarging the panel sizes, is likely to be ineffective. On the other hand, forcing the entire market to adopt an alternative benchmark would be highly disruptive, operationally complex and would probably create arbitrage opportunities for some and losses for others. We therefore believe that one should consider the use of a number of carefully calibrated measures in combination in order to significantly strengthen the robustness of LIBOR rate fixings:

a) Participation

- We agree in principle that increasing the number of contributors to a benchmark fixing could improve its quality. Specifically, we believe that the groups of contributors to the respective LIBOR fixings should be broadened up to the point where all active market participants take part. However, our experience has shown that, at the same time, one must avoid being overly inclusive and adding submitters beyond this group. This is because the inclusion of “non-experts” will only create unnecessary noise and result in reducing the quality of the fixing, sometimes significantly so.
- We believe that one should consider establishing appropriate economic incentives for potential contributors to a benchmark fixing to encourage participation. Relevant measures could be, for example, the use of give-and-get provisions, different levels of detail or delays for the data,⁸ and/or the design of a licensing regime. In the latter framework, parties that hold positions in financial instruments that reference LIBOR would pay a fee for their use of the LIBOR fixings, while contributors would be compensated for their efforts by receiving a portion of these licensing fees.
- However, the Review team should take into account that material disincentives exist for contributing to benchmark fixings such as LIBOR as recent experience has demonstrated the significance of liabilities that contributors might be exposed to.⁹ Therefore, in addition to establishing appropriate economic incentives that could encourage contributions to the LIBOR fixing, one should also consider making it mandatory for active market participants. We believe that the decision whether a firm is an “active market participant” and should hence be obliged to contribute to the LIBOR fixing should be, to the extent possible, based on objective factors such as transaction volumes.

b) Data submission and cleansing

- Submissions
 - We believe that the actual data submission and collection should be as automated, efficient, and objective as possible. The individuals that are submitting should be properly segregated from trading activity, the submission rules should be tightly controlled, and the submission process itself should be fully automated and auditable.
 - A thorough analysis of all individual submissions should be performed by a qualified, independent third party upon receipt of the data. This analysis should be designed to detect any abnormal or suspicious patterns early on and would form the basis for the acceptance, challenge, or rejection of individual contributions. It should employ not only sophisticated, automated data cleansing techniques but also ad-hoc analysis by financial market data experts.
- Generate and/or use additional relevant data
 - Transaction data
 - We agree that a broader use of transaction data could be helpful to improve the quality of the LIBOR fixing. To achieve this objective, we believe that mechanisms could be established to systematically collect relevant transaction data and make it available when

⁸ Such model would work based on the principle that only contributors to the fixing, or that only those contributors whose contributions have been accepted, will have access to the detailed dataset.

⁹ Importantly, this issue will represent a challenge not only in relation to the contributors, but it could also discourage any qualified third party from being involved in the determination of the LIBOR fixing. We therefore urge the Review team to consider how the potential liabilities that third parties that are involved in the LIBOR fixing can be addressed.

and where appropriate. We believe that the experience gathered in relation to the creation of Trade Repositories in the OTC derivatives markets over the last couple of years might provide helpful guidance in this respect.

- Auctions
 - To create additional, reliable data points regular auctions could be designed and operated, where needed, similar to what has been established in other financial markets in recent years.¹⁰ Such auctions should result in creating “tradable” or “traded” fixings at least for some currencies or maturities. The auction procedures should be designed with a high degree of automation and should include the use of appropriate rules and incentives to ensure the accuracy of the individual contributions. However, while forcing contributed prices to be executable within a regime of fixed bid/ask spreads often produces fairly reliable results, one must note that factors such as credit lines might limit the ability to transact or that trade sizes may sometimes not be sufficiently large to effectively secure the quality of the submissions.
- Other relevant data
 - We also believe that data that is referencing other, but somehow related financial products should be used more extensively. This data could include, for example, short-dated CDS spreads of the contributing firms that will be useful for the validation of their individual contributions to LIBOR.
- The actual fixing methodology
 - We believe that more sophisticated methodologies than a simple “top and tail” should be used to decide whether an individual contribution to LIBOR should be rejected or accepted. These techniques should include, for example, the corroboration with transaction data, with other submissions, as well as with other relevant data points.
 - Interpolation (but not extrapolation) techniques should be employed to estimate or validate the less liquid points of the term structure where needed and appropriate. Interpolation could be performed not only between maturities, but also between dates and with reference to moves in other markets such as interest rate and FX swaps. Any models or financial engineering techniques used in constructing the yield curves should be transparent.
 - The use of data aggregation techniques that are not just simple averages should also be considered. For example, it might be appropriate to use weightings that reflect the difference in relevance between the various contributions rather than an equal weighted average.

c) Transparency

- An appropriate level of transparency must be established around the LIBOR fixing and the contributions that it is based upon in order to restore public confidence. Importantly, one should aim to create the *appropriate* level of transparency and not just *maximum* transparency, as the latter could easily lead to detrimental results. Specifically, while the contribution data points and the list of contributors should be published, we believe that individual contributions should not be labelled to prevent the “signalling” driven contributions that occurred in the past. However, the full labelled data sets should be available to the relevant regulatory authorities and governing bodies.

d) Governance and regulatory oversight

¹⁰ Markit and Creditex have jointly acted as administrators of CDS auctions since their inception in June 2005. Credit Event Auction is an industry standard mechanism designed to ease the settlement of credit derivative trades following a credit event. The auction process determines the cash settlement price of a CDS, with the compensation received by the protection buyer based on the final agreed auction price. The Auction was based on the iTraxx Europe weekly fixings methodology developed by Creditex and Markit, then refined by market participant groups and ISDA to become what it is today. ISDA updated their standard definitions to incorporate Auctions in April 2009 (Big Bang Protocol). Auction protocols are available on the ISDA website at www.isda.org and the over 130 auction results are available on www.creditfixings.com

- The governance of the LIBOR fixing should be transparent and create more accountability towards regulators and the public as opposed to just market participants. This could include a panel that consists of a diverse range of stakeholders, including users of LIBOR, as well as regulatory authorities. Minutes of panel meetings, names of the members, and voting rules should be made publicly available.
- The process of the LIBOR fixing, including contributing to LIBOR, should be a regulated process, instead of a self-policing one. However, we believe that further discussions are required to determine what exactly the involvement of regulatory authorities in this process should be, and whether it should include any intervention in the daily fixing process, reporting of detailed information to them, or it would consist mostly of creating a generic rule framework to govern it.

3. Alternatives to LIBOR¹¹

When identifying suitable alternatives to LIBOR, those that are based on liquid underlying markets may be the most suitable, as it will ensure that any fixing can be based on transaction data instead of having to rely on panelists' unsubstantiated opinions.¹² That said, we believe that rate-fixes based on the repo¹³ or on the OIS¹⁴ markets could indeed constitute a basis for alternative rate fixings. However, regulatory authorities should carefully consider the characteristics of these markets before making any further decisions.^{15,16}

* * * * *

Markit appreciates the opportunity to comment on HM Treasury's Initial Discussion Paper: *The Wheatley Review of LIBOR*. We would be happy to elaborate or further discuss any of the points addressed above. In the event you may have any questions, please do not hesitate to contact the undersigned or Marcus Schüller at [REDACTED]

Yours sincerely



Kevin Gould
President
Markit North America, Inc.

¹¹ In response to Box 4.A Consultation question: "Are there credible alternative benchmarks that could replace LIBOR's role in the financial market?"

¹² In addition, any above recommendations in relation to strengthening the existing LIBOR fixing should also be taken into account.

¹³ As a deep and liquid repo market has existed in a number of currencies for many years, repo rates have been suggested as an alternative to LIBOR rates. However, while a degree of term structure has also developed in some repo markets, volumes are heavily weighted towards overnight lending. More importantly and similar to OIS, repo rates do not represent prime term corporate credit. This generally calls into question the usefulness of repo rates as a replacement for LIBOR.

¹⁴ OIS (Overnight Indexed Swap) rates are based on interest rate swaps where the floating rate is equal to the geometric average of an overnight index over the payment period. Interestingly, a number of market participants have started using OIS rates instead of LIBOR in the recent past to construct the yield curves that they use to discount cash flows of derivative transactions. This is because they believe that OIS rates more accurately reflect their funding costs and the rates that are appropriate for cash collateral that is held under derivative collateral agreements.

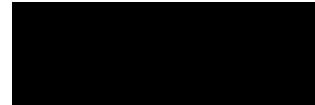
¹⁵ OIS rate fixes are averages of actual transactions in the overnight markets, and many of them are already well used as reference rates for swaps (e.g. EONIA, SONIA, Fed Funds). However, a 6-month average of an overnight borrowing rate is not the same thing as a 6-month borrowing rate: the latter has a much higher element of credit risk inherent in it. 3 or 6 month LIBOR is a more realistic proxy for a rate paid by a bank or corporate rolling over its debt on a 3-6 month frequency than a compounded and averaged OIS rate is. Therefore, a non-zero and volatile basis exists between OIS and LIBOR rates, as they represent different types of exposures. The LIBOR-OIS spread has historically hovered around 10 basis points. However, in the midst of the financial crisis of 2007–2010, the spread spiked to an all-time high of 364 basis points in October 2008.

¹⁶ While a degree of term structure has also developed in some repo markets, volumes are heavily weighted towards overnight lending. More importantly and similar to OIS, repo rates do not represent prime term corporate credit. This generally calls into question the usefulness of repo rates as a replacement for LIBOR.



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Moulton Park
Northampton
NN3 6NW

The Wheatley Review
HM Treasury
1 Horse Guards Road
London
SW1A 2HQ



5th September 2012

Confidential

Dear Sir,

The Wheatley Review of LIBOR – initial discussion paper.

Nationwide Building Society welcomes the opportunity to respond to the initial discussion paper published by the Wheatley Review of LIBOR, and looks forward to being actively engaged in the continuing debate in relation to this matter.

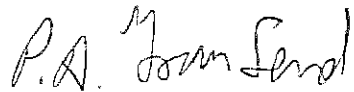
We are the UK's third largest mortgage lender, second largest High Street savings provider and sixth largest High Street Financial Services organisation, with around £190 billion in assets. We are the only building society that provides a viable alternative and challenge to the banks through our size and scale, product proposition, pricing structure, branch network and brand strength. As a modern mass-market mutual, we are owned by and run for the benefit of our 15 million members. We are naturally consumer focused and, though we must take a commercial approach to remain competitive, we do not compromise our mutual principles.

Our key thoughts can be summarised as:

- We are supportive of the view that the British Bankers' Association (via BBA LIBOR Ltd) should continue to administer the day-to-day running of LIBOR
- The existing processes associated with LIBOR and its publication should be the subject of regulations which increase control, oversight and accountability
- We would oppose the determining of rates by reference to actual money market transactions due to the fact that there may at times be insufficient liquidity in term markets
- We would not support increased participation in LIBOR panels, as any increase could potentially degrade the panel's credit quality and thus lead to inflated LIBOR rates
- We would also not support compelling institutions to participate in LIBOR panels, due to the onerous and costly obligations it may impose upon them
- Any subsequent changes to LIBOR should not disrupt, or materially affect the terms of any existing LIBOR linked contracts
- Whilst changes to LIBOR, and the processes associated with it, may impact Nationwide's derivative book and commercial loan portfolios, we would not expect them to directly or materially impact retail customers
- Whilst we would support the increased use of alternative underlying indices (eg SONIA) for swap transactions, we would oppose making the use of any such indices compulsory.

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FSA registration number 106078

We provide detailed thoughts and answers to specific questions in Annex 1, which we trust will be of assistance to the review in formulating its recommendations.
Yours sincerely,

A handwritten signature in black ink that reads "P.A. Townsend". The signature is written in a cursive style with a large initial "P.A." and a more fluid "Townsend".

Andy Townsend
Divisional Director Treasury

Annex 1 - Consultation questions

Chapter 2: Issues and failings with LIBOR

Do you agree with our analysis of the issues and failings of LIBOR?

Yes. LIBOR was seen to have been manipulated downwards during a period of market stress, due to the perceived credit-worthiness implications of submitting higher levels that may more accurately have reflected where a panel bank could borrow in the market.

Main issues revolved around:

- LIBOR-submissions potentially became more judgement-based due to a lack of volume and liquidity in the term unsecured lending markets (particularly the longer dated term markets).
- The lack of physical separation and / or Chinese walls within institutions, which allowed the integration of LIBOR submission departments within the trading division.
- The lack of effective governance and oversight, both within financial institutions and outside.

Chapter 3: Strengthening LIBOR

Can LIBOR be strengthened in such a way that it can remain a credible benchmark?

Strengthening the governance and controls related to the submission of LIBOR rates has already, and will continue to improve the benchmark's credibility going forward.

Could a hybrid methodology for calculating LIBOR work effectively?

We do not consider this to be a viable option due to the practical difficulties associated with the capture of trade data, as well as the potential lack of liquidity in longer term funding markets.

Is an alternative governance body for LIBOR required in the short term?

As previously advised, we continue to fully support the BBA in its role administering LIBOR rates.

Should the setting of and/or the submission to LIBOR be regulated activities?

Designating the submission of LIBOR rates as a regulated activity will continue to allow the controls and process oversight to improve, as well as providing for suitable regulatory sanction to be taken for non-compliance.

On a related point, whilst we understand the potential benefits of widening the submission panels, we would oppose the introduction of mandatory submissions for the reasons set out above as well as the fact that as a building society we would consider such an obligation to be outside of our remit / mandate.

Should the regulator be provided with specific powers of criminal investigation and prosecution in relation to attempted manipulation and manipulation of LIBOR?

No. We are of the view that bringing the submission process within the regulated framework should provide sufficient control, oversight and censure.

What role should authorities play in reforming the mechanism and governance of LIBOR?

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FSA registration number 106078

- LIBOR-submission departments should be physically separate from trading desks, and appropriate Chinese walls should be established.
- A code of conduct should be drawn up and published setting out the policies and procedures regarding governance and monitoring, systems, training, compliance, audit and potential disciplinary sanctions that should be put in place by a panel bank in relation to the submission of LIBOR rates.

Which types of financial contract, if any, would be particularly affected by the risks of a transition from LIBOR?

Interest rate derivatives and corporate loans would be most at risk from a transition from LIBOR.

As previously stated, LIBOR linked contracts should not be put 'at risk' by making fundamental changes to how it is set, or indeed by ceasing publication. Instead market participants should be encouraged to transition to SONIA based swaps, with the LIBOR fixing becoming a requirement solely for legacy transactions in much the same way as the EURO LIBOR fixing has been superseded by EURIBOR.

Chapter 4: Alternatives to LIBOR

Are there credible alternative benchmarks that could replace LIBOR's role in the financial markets?

Overnight Index Swaps could provide a credible alternative to LIBOR linked swaps if suitable term liquidity were to become available. However, it is unlikely this would be a suitable benchmark for rates on corporate loans where the credit/lending spread represents the premium over bank funding. OIS linked loans would require a re-negotiation of existing loans and commitments.

Should an alternative benchmark fully replace LIBOR, or should it substitute for LIBOR in particular circumstances?

As mentioned before, existing LIBOR linked contracts should not be altered, however the publication of LIBOR should become a more strictly regulated process to ensure ongoing, sustainable, credible and orderly markets.

Should particular benchmarks be mandated for specific activities?

Mechanisms such as pension discounting rates may encourage certain industry sectors to adopt a new index, but mandatory use of any new benchmarks should be avoided as it could increase the risks that current swap users are exposed to.

Over what time period could an alternative to LIBOR be introduced?

OIS already exists but liquidity is limited at longer maturities.

What role should authorities play in developing and promoting alternatives to LIBOR?

As part of the ongoing regulatory process, financial institutions could be 'encouraged' to utilise new swap markets.

Chapter 5: Potential implications on other benchmarks

Are there other important markets or benchmarks that could face similar issues to those identified relating to LIBOR?

We are of the opinion that both Euribor and TIBOR are benchmarks that could potentially face similar issues.

Should there be an overarching framework for key international reference rates?

Where possible yes, however the risk of un-intended consequences should be considered.

3 September, 2012

Response to Wheatley Review Consultation Questions

I. Introduction

The Norinchukin Bank would like to submit comments in response to the consultation questions contained in your initial discussion paper of August 2012 with a view to contributing to the effectiveness of the review exercise in which you are currently engaged.

The Norinchukin Bank believes that its processes and procedures have been and are fully in line with the LIBOR submission system, as originally intended. We are convinced that the practices of our Bank are robust and fully legally compliant.

It is necessary for the regulatory authorities to understand the particular characteristics of the Norinchukin Bank. It is a unique institution that is markedly different from the other reference bank members on the LIBOR panels. Norinchukin was established in 1923 as the central bank for Japan's agricultural, fishery and forestry cooperatives and was originally a quasi-governmental financial institution. It is now a private institution governed by a special legal instrument, The Norinchukin Bank Law. Under this law, the members of the cooperative system and their affiliates hold all of Norinchukin's ordinary shares. Despite having become a major investor on international markets, Norinchukin remains the cornerstone of Japan's cooperative system for agriculture, forestry and fisheries. Norinchukin is the national level financial institution providing funds for the agricultural and fisheries cooperatives, which hold savings accounts of members and others in their areas and providing financial services such as loans and making investments.

Norinchukin is not engaged in classic investment banking activities and it does not engage in significant activities on the wholesale banking market. Norinchukin's trading activity in financial derivatives is limited in volume, as Norinchukin has a policy of investing in other, more stable, financial instruments. Unlike some other reference banks with more of an investment bank profile, Norinchukin is not a market maker in the exchange of screen-traded derivatives. Norinchukin's primary objective when trading in financial derivatives is to hedge certain risks.

Consistent distribution of earnings to member cooperatives is essential for the stable operation of the cooperative banking business in which Norinchukin is engaged. Norinchukin has therefore implemented a policy of globally diversified investment aimed at realising a stable return in the medium-to-long term. Norinchukin's investment policy is conservative and geared towards investing in more secure market assets, which results in very high portion of AA bonds and credit assets in its portfolio.

Norinchukin's prudent investment stance is coupled with a rigorous approach to risk management. As a result of strong risk controls, Norinchukin has remained a highly capitalised institution, even during the recent financial crisis. Norinchukin's conservative profile is also reflected in its employment policies and in the compensation policy for its traders, which differs significantly from the market standard. The individual review processes and compensation are not driven by profit and loss; other qualitative factors override such considerations.

To conclude, Norinchukin's structure, business model and investment policies are very particular, indeed unique. In light of Norinchukin's position in the market, Norinchukin has had no incentive to engage in any misconduct in relation to LIBOR, notably because it would not have been able to profit from any alteration of these indices.

II. Response to the consultation questions

1) Do you agree with our analysis of the issues and failings of LIBOR?

We have discussed your paper. We acknowledge the importance of LIBOR and understand the need to improve the LIBOR setting process. In this regard, we agree with the points raised by the Wheatley review team.

There are several ways in which the reliability and transparency of LIBOR could be improved. The option we favour is calculating LIBOR based on actual trade data. In our view, this would require collecting the necessary data from a broad range of sources/banks. However, names of individual contributing banks should not be disclosed to reduce credit signalling risks.

If actual trade data is insufficient, it would be reasonable to rely on an expert judgment. However, relying only on the views of banks could potentially lead to manipulation or bias. An institution independent from banks, such as the BBA, should therefore be involved in making this expert judgement. Regulators could oversee the process of setting the rates on the basis of this expert judgement.

Assuming that such improvements are made, LIBOR could be strengthened by establishing systems, controls and governance arrangements to ensure that trade data is supplied without delay or omission and in an appropriate manner. The regulatory focus should primarily be to ensure that trade data is properly reported by individual banks and that the systems, controls and governance arrangements in individual banks meet appropriate regulatory standards.

2) Can LIBOR be strengthened in such a way that it can remain a credible benchmark?

LIBOR could remain a credible benchmark as long as the LIBOR-setting process is reformed and improved.

3) Could a hybrid methodology for calculating LIBOR work effectively?

As per the response in point 1) above, Norinchukin believes that a hybrid calculation mechanism could work effectively.

4) Could the number of maturities and currencies currently covered by the LIBOR benchmark be reduced?

In our view, it will be necessary to consider the possible impact of such changes on the huge amount of existing transactions that are linked with LIBOR. In addition, as explained in our response in point 1) above, Norinchukin believes that LIBOR should be calculated based on actual trade data and that, where there is no sufficient trade data, it would be reasonable to rely on an expert judgment adopted, for example, by the BBA. Therefore, in Norinchukin's view, LIBORs for major tenors and currencies that have a substantial impact on the market and for which there is normally a sufficient amount of trade data should be maintained.

5) Is an alternative governance body for LIBOR required short term?

Assuming that an independent institution such as the BBA is involved in making expert judgements to set LIBOR rates and that this process is supervised overall by regulators, we do not think that setting up a new governance body would be necessary.

6) Should the setting and/or the submission to LIBOR be regulated activities?

As per our response in point 1), the regulatory focus should primarily be on whether banks report trade data in an appropriate manner and if systems, controls and governance arrangements meet appropriate regulatory standards.

7) Should the regulator be provided with specific powers of criminal investigation and prosecution in relation to the attempted manipulation and manipulation of LIBOR?

Please see our response to point 1).

8) What role should authorities play in reforming the mechanism and governance of LIBOR?

As per our comments above, regulators could play a role in supervising the systems, controls and governance arrangements in banks in relation to trade data reporting and also as regards the process of adopting the expert judgement made by the BBA.

9) What types of financial contract, if any, would be particularly affected by the risks of a transition from LIBOR?

Generally speaking, LIBOR-based products such as Eurodollar futures, swaps, syndicated or bilateral loans, mortgages, and floating rate notes would be affected.

10) Are there credible alternative benchmarks that could replace LIBOR's role in the financial markets?

There are 5 requirements discussed in your paper under paragraph 4.9:

- i. The existence of a maturity curve;
- ii. Sufficient transaction volumes;
- iii. Rates should be resilient throughout periods of illiquidity;
- iv. Be simple and standardised; and
- v. Have a long data series.

In unsecured money markets, it may be quite difficult to meet the requirement mentioned in point iii). The repo rate could be an alternative benchmark, but, as noted in the discussion paper, we do not think it could replace the LIBOR rate due to the consistency issues and the huge impact on existing financial agreements.

11) Should an alternative benchmark fully replace LIBOR, or should it substitute for LIBOR in particular circumstances?

We do not think that any alternative benchmark could fully replace LIBOR.

12) Should particular benchmarks be mandated for specific activities?

As explained in points 10) and 11) above, we do not think there should be particular benchmarks for specific activities.

13) Over what time period could an alternative to LIBOR be introduced?

As per our response in point 10), it is quite difficult to set up an alternative benchmark to LIBOR. As explained in response to point 1) above, we believe that it is reasonable and preferable to strengthen the existing LIBOR framework. Therefore, we do not think a benchmark alternative to LIBOR should be developed.

14) What role should authorities play in developing and promoting alternatives to LIBOR?

As explained in point 13) above, we do not think that an alternative benchmark is necessary. Instead, we would expect the regulators to supervise the process of setting LIBOR as outlined in point 8) above.

15) Are there other important markets or benchmarks that could face similar issues to those identified relating to LIBOR?

We do not think there are any other benchmarks which face similar problems to those identified with respect to LIBOR.

16) Should there be an overarching framework for key international reference rates?

As discussed in your paper, the core elements required to create a framework for a credible international benchmark should be: 1) robust methodology; 2) credible governance structure; 3) formal oversight; and 4) transparency. While these broad principles provide useful guidance, international regulators and domestic authorities should translate them into more specific rules and regulations.

NYSE Euronext's Response to The Wheatley Review of LIBOR

1. NYSE Euronext

- 1.1 NYSE Euronext is a leading global operator of financial markets, a manager of index and other referential data and a provider of innovative trading technologies. NYSE Euronext's exchanges in Europe (Amsterdam, Brussels, Lisbon, London and Paris) and the United States provide for the trading of cash equities, bonds, futures, options, and other Exchange-traded products. NYSE Liffe is the name of NYSE Euronext's European derivatives business and is the world's second largest derivatives business by value of trading. It includes LIFFE Administration and Management ("LIFFE"), which is a self-clearing Recognised Investment Exchange pursuant to the Financial Services and Markets Act 2000 ("FSMA"). In addition, NYSE Euronext has over 25 years of experience in compiling, calculating and publishing a wide range of benchmark indices in Europe and the United States, including the CAC 40 and AEX indices.
- 1.2 LIFFE makes available for trading a broad range of futures and options contracts, including products based on Sterling LIBOR, Swiss Franc LIBOR and EURIBOR. In addition, NYSE Euronext's futures exchange in the United States, NYSE Liffe U.S., lists a futures contract based on U.S. Dollar LIBOR and has recently launched a product based on the DTCC's General Collateral Finance (GCF) Repo Index.

2. General Comments

- 2.1 NYSE Euronext welcomes the Wheatley Review of LIBOR ("The Wheatley Review"), as well as the regulatory investigations into interest rate benchmarks which are underway or planned in the United States and Continental Europe. The level of scrutiny by policy makers and regulatory authorities at the present time is extremely positive both in terms of finding a practical and effective solution to the issues which have been identified by the regulatory authorities and also in preventing the occurrence of further misconduct and abuse.
- 2.2 We note the fundamental premise of the Wheatley Review that retaining LIBOR unchanged in its current state is not a viable option, and that LIBOR must be significantly strengthened in order to address the weaknesses that have been disclosed by the regulators to date. Whilst NYSE Euronext is not privy to the confidential regulatory information upon which, in part, this premise is based, we agree that it is crucial to rebuild public trust and confidence in LIBOR benchmarks which form the basis of over \$300 trillion worth of wholesale market transactions, corporate loans, home mortgages and consumer credit agreements.
- 2.3 From that perspective, we believe that The Wheatley Review has correctly identified the key issues which need to be addressed and we would, in particular, emphasise the following points:
 - (a) **Extending Regulatory Powers:** Whilst the FSA has demonstrated that it is able to take enforcement action against authorised firms in relation to misconduct concerning LIBOR on the basis of breaches of the FSA Principles for Business, contributing to LIBOR and other interest rate benchmarks and managing and administering such benchmarks are currently not regulated activities under UK law. In consequence, the FSA does not currently have the ability to make specific rules governing such benchmarks; nor is it able to take enforcement action

against individuals within firms who have perpetrated misconduct unless those individuals happen to be registered with the FSA as Approved Persons for other purposes, or unless market manipulation can be proved (which is often difficult). These deficiencies need to be rectified as a matter of urgency and the regulatory perimeter should be expanded accordingly through appropriate amendments to the Financial Services Bill. As noted in The Wheatley Review, this is important not just in terms of the substance of regulatory scrutiny and powers, but also in terms of the perception within contributing banks of the status of the rate setting process. Changing perceptions among the individuals involved within the contributing banks is key to achieving the necessary improvements given that individuals' motivations and behaviour, and the management and compliance structures which oversee them within the banks, form the first line of defence against potential misconduct.

- (b) **Strengthening Governance and Accountability:** The governance framework which overlays the management and calculation of LIBOR and other interest rate benchmarks is the second line of defence against misconduct. It needs to be strengthened significantly in order to deliver a far greater degree of independence from the contributing banks, to facilitate enhanced monitoring and scrutiny of the rate setting process and to impose tougher sanctions on those who fail to meet the requisite standards of integrity. NYSE Euronext believes it would be well placed to perform the functions of administering and managing LIBOR in accordance with these requirements and standards.
- (c) **Enhancing the Calculation Methodology:** The LIBOR calculation methodology should be reviewed and, where necessary, enhanced to make it more robust. In doing so, it is important that the fundamental nature of LIBOR is not changed (i.e. it should remain an "offered rate" in the unsecured inter-bank market), otherwise there is a significant risk that the economic value of contracts which are based on LIBOR will be changed. The enhancements should include appropriate use of transaction prices to corroborate rate submissions, and consideration of the replacement of the current LIBOR question to contributing banks with one which is more akin to the EURIBOR question (i.e. focussing on the borrowing costs of a hypothetical prime bank).
- (d) **Alternatives to LIBOR:** Whilst it is perfectly legitimate to consider whether alternative benchmarks should be used in relation to particular forms of business, NYSE Euronext sees this as a market-driven exercise and would caution generally against regulatory authorities mandating the use of specific benchmarks for particular forms of business (an exception may be made in relation to business in government debt). We believe that the role of the regulatory authorities in this context is to set appropriate standards and requirements for all interest rate benchmarks and to oversee any migration by regulated entities from using one benchmark to another, given that any such migration would inevitably involve investor protection and market integrity issues.
- (e) **International Coordination:** As acknowledged in The Wheatley Review, benchmarks such as LIBOR serve international markets and regulatory investigations and consultations are underway, or are planned, in the United States and at EU level, as well as within the UK. Furthermore, while LIBOR is set in London and activities associated with it are subject to oversight by the UK authorities (albeit that the powers that the regulators currently have at their disposal need to be extended, as explained in sub-paragraph (a) above), other interest rate benchmarks are set in other jurisdictions and are overseen differently. It is vital that the separate initiatives that are underway to review such benchmarks are coordinated and that

they arrive at consistent conclusions in order that the policy responses are comprehensive, avoid the scope for regulatory arbitrage, and do not create inefficiencies by, in effect, preventing the use of a benchmark on a global basis and thus jeopardising its valuable network effects.

- 2.4 In summary, NYSE Euronext believes that the focus of the authorities should be on the more effective management and mitigation of the conflicts of interest which currently exist. This can be achieved by implementing a comprehensive package of measures which is designed to create a more robust LIBOR governance and rate-setting framework, to reduce the incentives for abuse, to bring the administration of LIBOR and submissions to LIBOR within the regulatory perimeter, to create bespoke regulations and sanctions in relation to these activities and to implement technical improvements in the LIBOR methodology.

3. Specific Comments and Answers to the Questions Raised in The Wheatley Review

- 3.1 This section of the paper provides answers to the specific questions which are raised in The Wheatley Review. For ease of reference, the section headings and chapter and page references (shown underlined) are those used in The Wheatley Review. The questions from The Wheatley Review are reproduced in bold italic text. In each case, they are followed by NYSE Euronext's response, which is shown in normal text.

3.2 Issues and Failings with LIBOR (Chapter 2, pages 9-20)

3.2.1 ***Question: Do you agree with our analysis of the issues and failings of LIBOR?***

- 3.2.2 The analysis contained within The Wheatley Review accords with NYSE Euronext's understanding of the failings that have been made public by the regulators (albeit that The Wheatley Review team will no doubt have access to confidential regulatory information to which NYSE Euronext is not privy).

- 3.2.3 The failings identified through regulatory investigations, which are discussed in The Wheatley Review, are diverse and range from cultural issues such as the perception of the LIBOR contribution process within some banks - which has given rise in some cases to the exploitation of conflicts of interest - to inadequate governance and monitoring of the rate setting process and to technical issues which exacerbated these problems.

- 3.2.4 Whilst The Wheatley Review does not at this stage come to definitive conclusions, it suggests that these issues need to be tackled in a holistic and coordinated fashion. NYSE Euronext agrees with that approach and has commented on each element of the requisite reforms in the remaining parts of section 3 of this paper.

3.3 Strengthening LIBOR (Chapter 3, pages 21-31)

3.3.1 ***Question: Can LIBOR be strengthened in such a way that it can remain a credible benchmark?***

- 3.3.2 Yes. NYSE Euronext believes that the key reforms which are necessary are the effective management and mitigation of the conflicts of interest which currently exist and the implementation of an appropriate regulatory framework. As explained in the remainder of this section of the paper, NYSE Euronext believes this can be achieved by implementing a comprehensive package of measures which is designed:

- (a) to implement technical improvements in the LIBOR methodology;
- (b) to create a more robust LIBOR governance and rate-setting framework;
- (c) to reduce the incentives for abuse;
- (d) to bring the administration of LIBOR and submissions to LIBOR within the regulatory perimeter; and
- (e) to create bespoke regulations and sanctions in relation to these activities.

3.3.3 **Question: Could a hybrid methodology for calculating LIBOR work effectively?**

3.3.4 If, by a “hybrid methodology”, one means the calculation of a single rate using both polled data and transaction data, it is not immediately obvious how this would work. LIBOR very specifically captures the “Offered Rate” at which banks could borrow funds, while transactions can happen at the bid price (i.e. LIBID), or at the offer price (LIBOR) or at a price point between LIBID and LIBOR. As such, the currently polled data and the transaction data are not reflective of the same rate and it is not clear how they could be combined without changing what LIBOR purports to represent. In theory, one could change LIBOR to be a mid-point rate, so that one asked a different question (i.e. what is the mid-point between the rate at which a bank is willing to lend in the inter-bank market and the rate at which it believes it could borrow) and this could be averaged and aggregated with transaction data in order to produce a single rate. However, this would have the effect of changing the rate away from an offered rate to a mid-point rate, with all of the dislocation issues that this would bring.

3.3.5 Moreover, as The Wheatley Review points out, the use of transaction data is not in itself a panacea:

“A transaction data approach is not immune to manipulation. Particularly in a low volume environment, only a small number of transactions at off-market rates would be sufficient to move the final rate fixing. Manipulation of this type may be harder to monitor as it could be attempted by both internal and external parties”¹.

3.3.6 Having said that, NYSE Euronext agrees with The Wheatley Review that transaction prices would be useful in corroborating contributions to LIBOR in that contributing banks should be able to articulate basis relationships between the “Offered Rate” and transaction prices in different instruments. In addition to money market transactions, prices from related markets (such as futures markets and FRA markets) would be helpful in this regard. They would, for instance, provide a useful tool to the manager within a contributing bank who is responsible for overseeing the rate submission process at that bank as they would provide him with empirical pricing points against which to compare – and if necessary question – rate contributions which had been submitted to him for authorisation. In addition, such data would be useful to the body which administers and manages LIBOR as a means of it cross-checking and, where warranted, querying rates submitted by contributing banks.

3.3.7 In order to facilitate that cross-checking role, market participants should be under an obligation to report their money market transactions, and transactions in related markets, to a trade repository to which the body responsible for administering LIBOR would have access. Some of the relevant

¹ Paragraph 3.6, Page 22, The Wheatley Review of LIBOR.

information will be held in the relevant settlement and financial messaging systems (e.g. Fedwire and SWIFT), but this is not comprehensive and may not lend itself easily to alternative uses. However, there are other options which would be viable. For instance, LIFFE has many years of experience of transaction and position reporting to the FSA and it, or an affiliate, would be capable of fulfilling a trade repository role in relation to the transactions in question.

3.3.8 **Question: Is an alternative governance body for LIBOR required in the short term?**

3.3.9 In order for public confidence in the integrity of LIBOR to be restored it is important for the governance arrangements to be strengthened and augmented without delay. The required reforms fall into the following categories:

- (a) **Composition of the Foreign Exchange and Money Markets Committee (“FX&MM Committee”)**: If the authorities decide it is appropriate to permit LIBOR to continue to be operated under BBA auspices, the independence of the oversight function exercised by the FX&MM Committee would need to be significantly increased by broadening the membership of the Committee, which is currently dominated by contributing banks. As well as appointing an independent person to chair the FX&MM Committee, it would also need to include more representatives from other stakeholders, such as users of financial products that reference LIBOR, and trading venues and central counterparties which provide trading and clearing services in respect of products based on LIBOR. Indeed, as The Wheatley Review rightly observes “in order to comply with generally accepted standards of corporate governance best practice, the balance of membership of FX&MM would include a majority of such “independent” (i.e. non contributing bank) members”². Alternatively, responsibility for administering and managing LIBOR could be transferred to another body, in which case that body would have to implement the substance of the arrangements described in paragraph 3.3.9(a)-(c).

If the authorities decide it is no longer appropriate for LIBOR to operate under BBA auspices, NYSE Euronext would be willing to fulfil the role of managing and administering LIBOR. NYSE Euronext operates a number of regulated entities in the UK (including the self-clearing Recognised Investment Exchange, LIFFE, two Multilateral Trading Facilities and a Service Company); it also manages and administers a large portfolio of international benchmark equity indices, including the CAC 40 and AEX indices. As such, NYSE Euronext is accustomed to operating in a highly regulated environment and is a proven, independent and trusted provider of services to market participants.

The Wheatley Review also asks whether the FSA should provide a representative to sit on the relevant LIBOR governance committee, whilst noting that this would need to be considered carefully. NYSE Euronext would advise against an FSA representative sitting on the committee because it would confuse the respective roles of the regulator on the one hand and the benchmark provider on the other. This would be particularly problematic if, in future, the function of managing a benchmark is a regulated activity under UK law.

- (b) **Oversight of the rate-setting process**: The Wheatley Review suggests that the efficacy of the rate setting process would be enhanced if the FX&MM Committee were to establish a code of conduct to which contributing banks would be required to adhere. The code of conduct would provide a much more comprehensive and detailed framework for contributing banks than that which is currently contained within the “Instructions to BBA LIBOR Contributor Banks” and

² Paragraph 3.28, page 26, The Wheatley Review of LIBOR.

would be important in establishing a standard benchmark for the quality, accuracy and integrity of contributions.

A code of conduct would need to be supported by effective and properly resourced oversight arrangements which are augmented by a sanctions regime that acts as a credible deterrent to misconduct and abuse. Such sanctions should go beyond those which are currently available to the FX&MM Committee and its sub-committees (which are limited to a power to expel a contributing bank from a LIBOR panel at the next review point) and should also include financial penalties and referrals to the FSA or other relevant regulatory authorities to consider whether additional action is warranted (e.g. the imposition of bans or suspensions against specific individuals under the Approved Persons regime).

- (c) **Transparency:** Membership of the FX&MM Committee and its sub-committees (or their equivalents if LIBOR administration is to move to another body) should be made public, as should key documents such as the code of conduct, the rate calculation methodology, the results of reviews of the rate setting process and an annual report summarising any issues and concerns which have arisen with the rate setting process, and the remedial action which has been taken or which is planned.

In relation to the LIBOR contributions submitted to Thomson Reuters by individual contributing banks, these are of course already transparent. However, there is a case for changing the existing transparency arrangements and, instead, making individual contributions public either on a deferred basis or in anonymous form only. This would help address one of the motivations which has been identified for the submission of inaccurate LIBOR contributions, i.e. the “credit-signalling or stigma effect” which, as has been established by the FSA, may motivate an individual bank to lower submissions during periods of market stress in order to avoid external perceptions that its relative creditworthiness has been negatively affected. Whilst this change would regrettably result in a reduction in the degree of existing transparency concerning the individual contributions upon which LIBOR is calculated, it would remove one of the main incentives for misconduct. That incentive might also be reduced, to some extent, by replacing the current LIBOR question to contributing banks (which asks them for the rate at which they could borrow funds in the inter-bank market) with one which is more akin to the EURIBOR question (i.e. focusing on the rate offered by one hypothetical prime bank to another).

3.3.10 **Question: Should the setting of and/or the submission to LIBOR be regulated activities?**

3.3.11 Whilst the FSA has demonstrated that it is able to take enforcement action against authorised firms in relation to misconduct concerning LIBOR on the basis of breaches of the FSA Principles for Business, contributing to LIBOR and other interest rate benchmarks currently is not a regulated activity under UK law. In consequence, the FSA does not have the ability to make specific rules governing the process of contributing to such benchmarks; nor is it able to take enforcement action against individuals within firms who have perpetrated misconduct unless those individuals happen to be registered with the FSA as Approved Persons for other purposes, or unless market manipulation can be proved (which is often difficult).

3.3.12 These deficiencies need to be rectified as a matter of urgency and the regulatory perimeter should be expanded accordingly through appropriate amendments to the Financial Services Bill. As noted in The Wheatley Review, this is important not just in terms of the substance of regulatory scrutiny and powers, but also in terms of the perception within contributing banks of the status of the rate setting process. It is noteworthy in this regard that The Wheatley Review observes the following:

“The fact that activities in relation to LIBOR are not currently regulated activities and subject to specific rules and regulation by the regulator may also have implications for how firms view such activities. The potential attempted manipulation of LIBOR suggests that many individuals within submitting institutions did not regard the activity of submitting to LIBOR in the same way as activities which are regulated activities. In particular, individuals do not appear to have attached the same importance to ensuring that submissions to LIBOR were made accurately and with integrity as they would have done to the performance of a regulated activity such as accepting deposits.”³

Changing perceptions among the individuals involved within the contributing banks is key to achieving the necessary improvements given that individuals’ motivations and behaviour – and the management and compliance structures which oversee them within the banks - form the first line of defence against potential misconduct.

- 3.3.13 In relation to the question about which individuals within contributing banks should be brought within the Approved Persons regime for these purposes, The Wheatley Review notes that the options are as follows:
- (a) Senior management within the authorised firm (who are already within the Approved Persons regime in light of their other responsibilities).
 - (b) Managers responsible for rate contributions.
 - (c) Staff who produce rate contributions.
- 3.3.14 NYSE Euronext would propose a “facts and circumstances”-based approach to ensure that knowing and wilful misconduct at any level would be subject to regulatory sanctions. This would point to individuals within each of the categories identified in The Wheatley Review being brought within the Approved Persons regime for these purposes. In addition, senior management would continue to be held responsible for the overall compliance culture and the systems and controls framework within their firm.
- 3.3.15 In relation to managing and administering interest rate benchmarks, there is a strong case for these activities to be brought within the regulatory perimeter too. This would ensure, for instance, that the FSA were able to make rules requiring organisations which manage and administer such benchmarks to have suitable governance frameworks, effective rate design and oversight arrangements and an appropriate level of transparency in relation to their activities. In the absence of a direct regulatory locus of this nature, it is unclear how the FSA could ensure that such checks and balances were in place and were being applied rigorously. Clearly, an organization whose only regulated activity were the management and administration of interest rate benchmarks would not need to be subject to the entire panoply of FSA rules as many aspects of the FSA Handbook would not be relevant to these activities. As such, it would be advisable for The Wheatley Review to consider whether a variant based on the FSA’s Service Company Regime would provide a suitably tailored regulatory framework for organisations which manage and administer interest rate benchmarks.

³ Paragraph B.3, Annex B, page 53, The Wheatley Review of LIBOR.

- 3.3.16 **Question: Should the regulator be provided with specific powers of criminal investigation and prosecution in relation to attempted manipulation and manipulation of LIBOR?**
- 3.3.17 In principle, NYSE Euronext agrees that criminal sanctions should be available to the FSA in order to deter and punish the most egregious misconduct which could be perpetrated in relation to rate setting. Benchmark rates such as LIBOR form the basis of an extensive range of financial arrangements including wholesale market transactions, corporate loans, home mortgages and consumer credit agreements, and any manipulation (actual or attempted) of such rates should be treated as a crime against society.
- 3.3.18 Having said that, as a practical matter NYSE Euronext is aware that it is often extremely difficult for charges of market manipulation to be established to the requisite standard of proof. This is the case both under the criminal “beyond reasonable doubt” standard of proof and under the civil sliding scale standard of the “balance of probabilities”. That has certainly been the experience under the Financial Services Act 1986 and FSMA. As such, NYSE Euronext would urge The Wheatley Review, in liaison with HM Treasury and the legal and enforcement divisions of the FSA, to conduct a realistic assessment of the likely effectiveness of new criminal powers in this area before coming to a definitive conclusion. This is important for the credibility of new criminal powers, since a law which were unenforceable would soon fall into disrepute and lose its deterrent effect. It is therefore incumbent on the authorities to design criminal powers and sanctions which will be effective in punishing abuse, which will provide a credible deterrent to future abuse and which command public confidence.
- 3.3.19 **Question: What role should authorities play in reforming the mechanism and governance of LIBOR?**
- 3.3.20 As described in paragraph 3.3.15, the main role for the authorities is to bring the administration and management of interest rate benchmarks within the regulatory perimeter. This would provide the legal basis on which the FSA could make specific rules in relation to appropriate governance frameworks, effective rate design and oversight arrangements and an appropriate level of transparency in relation to the activities of entities which administer and manage such benchmarks.
- 3.3.21 **Question: What degree of change to LIBOR can be accommodated before the existing volume of transactions referencing LIBOR is put at risk?**
- 3.3.22 The litmus test in relation to this issue will be the extent to which changes to the LIBOR rate setting methodology can be made without invalidating existing contractual arrangements or subjecting them to a significant risk of successful legal challenge (e.g. by changing the value of existing contracts). Given that in excess of \$300 trillion worth of existing contracts are referenced to LIBOR, such invalidations or litigation would cause severe market disruption and threats to investor protection which would impact wholesale and retail customers in multiple jurisdictions. Technical changes to the methodology for setting LIBOR will therefore need to be constrained to the extent that is necessary in order to avoid these risks. The two key factors in this regard are as follows:
- (a) **LIBOR is an “unsecured inter-bank” rate:** LIBOR represents the cost of borrowing in the inter-bank market on an unsecured basis. If the definition of funding were widened to include bank borrowing from money market funds, commercial paper, certificates of deposit, corporate deposits and other funding sources, it could be argued that the financial value of existing LIBOR-based contracts would be changed and there would be winners and losers in this process. For example, the pricing of credit risk associated with an unsecured three month

deposit may be significantly different from that associated with an instrument such as a certificate of deposit, which is tradable in the secondary market within that period.

(b) **LIBOR is an “offered” rate:** as noted in paragraph 3.3.4 above, LIBOR represents the cost of borrowing on the offered side of the market. As a result, any initiative to move away from LIBOR being calculated on the basis of an assessment of (actual or theoretical) offers to a mechanical calculation based on actual transactions should be treated with caution as it may be subject to challenge. This is because actual transactions will not necessarily have been agreed at the offered price (LIBOR), but may have been agreed at the bid price (LIBID). Therefore, a data set comprising the price of a series of money market transactions (e.g. for three month deposits) would facilitate the calculation of an average rate which would be more akin to a mid-point between LIBOR and LIBID (i.e. “LIMEAN”) rather than LIBOR per se. In the absence of any adjustment to take account of this fact, parties with existing contractual arrangements could claim that a key term of their contracts had been amended without their consent, such that their LIBOR-based contract had been changed to be a LIMEAN-based contract instead.

3.3.23 Moreover, for each currency concerned, LIBOR is a complex of 15 rates with maturities ranging from overnight to 12 months. At any one time a maturity within that complex will be more active or less active relative to the other maturities depending on a number of factors, including general economic and financial conditions, overall perceptions of creditworthiness and liquidity needs. It is unlikely that all maturities will experience periods of high activity simultaneously and, over time, it can be expected that the focus of activity will move between different points on the maturity curve. As a result, rates for some (i.e. currently inactive or less active) maturities will need to be calculated and judged by reference to their relationship with other (i.e. currently more active) maturities in order for the theoretical pricing of the entire complex to be constructed and maintained. Having said that, the full range of the existing 15 maturities should be reviewed and some degree of rationalisation should be applied, as it is unlikely that the continuance of the full range of existing maturities is necessary.

3.3.24 Provided the considerations and constraints described in the two previous paragraphs are acknowledged and respected, technical changes can be made to improve the methodology for setting LIBOR, e.g. along the lines suggested in paragraph 3.3.6 above.

3.3.25 In addition, the rate-setting process could also be enhanced by broadening the number of banks that contribute to it, either through the creation of appropriate incentives or the application of a regulatory mandate which, for instance, could require every institution which actively participates in the inter-bank deposit market in question to be a contributing bank. This would reduce the scope for any individual bank to have an undue influence on the final rate and would ensure that non-contributing banks were not free-riding on the process.

3.4 Alternatives to LIBOR (Chapter 4, pages 33-41)

3.4.1 ***Question: Are there credible alternative benchmarks that could replace LIBOR’s role in the financial markets?***

3.4.2 In answering this question it is important to distinguish between an alternative framework for setting LIBOR and an alternative interest rate to LIBOR. As specified in section 3.3 of this paper, NYSE Euronext believes that in order to restore public trust and confidence in LIBOR it is necessary that the framework for setting LIBOR must be significantly strengthened.

- 3.4.3 In relation to an alternative rate to LIBOR, one must consider what the rate is designed to capture. Is it designed to be broadly equivalent to LIBOR or is it intended to be an entirely different rate (e.g. based on the rate upon which banks fund themselves in current market conditions, such as a repo rate)?⁴ There are a number of important factors in considering these issues. First, when considering any interest rate on a loan between two counterparties, we need to be cognisant of the fact that the rate is governed by the period of the loan and the perceived risk of the counterparty defaulting on the repayment of the loan. Another factor is what else the depositor could have done with the funds over the period of the loan, i.e. the opportunity cost. Typically, the greater the perceived risk of the counterparty defaulting and the longer the funds are committed to that counterparty, the higher the interest rate. Consequently, when considering an alternative rate to any given LIBOR rate, it is necessary for continuity purposes to ensure that the alternative rate encapsulates the same period and credit factors as the original.
- 3.4.4 Failure to address the continuity issue could change the value of the existing stock of outstanding positions, which The Wheatley Review estimates to be worth in excess of \$300 trillion. In addition, given that new transactions are entered into in order to manage existing exposures that market participants have to LIBOR-based risk in other asset classes, those market participants would likely prefer to continue to hedge such risk in futures with the same or as close to identical financial characteristics as existing contracts.
- 3.4.5 Furthermore, to put the issue of alternatives into context NYSE Euronext would reiterate the sentiment contained in The Wheatley Review that no alternative benchmark could act as a panacea for the failings that have been uncovered in relation to LIBOR and that no interest rate benchmarks are immune from attempted misconduct or potential abusive practices. Specifically, in the context of considering alternative mechanisms for compiling an interest rate benchmark (based on uncommitted submissions such as LIBOR, average transaction prices, or committed quote-based trading), The Wheatley Review notes that:

“None of these mechanisms are immune from attempts to manipulate the benchmark, especially while conflicts of interest exist. Therefore, in order to mitigate these problems each mechanism would require credible governance and oversight procedures, and indeed, they may require official regulation.”⁵

NYSE Euronext agrees with these sentiments and believes that the key reforms which are necessary are the more effective management and mitigation of the conflicts of interest which currently exist. As suggested in the previous section of this paper concerning Strengthening LIBOR, this can be achieved by implementing a comprehensive package of measures which is designed to create a more robust LIBOR governance and rate-setting framework, to reduce the incentives for abuse, to bring the administration of LIBOR and submissions to LIBOR within the regulatory perimeter, to create bespoke regulations and sanctions in relation to these activities and to implement technical improvements in the LIBOR methodology. Each of these measures would need to be implemented in relation to any alternative to LIBOR.

- 3.4.6 In addition, transition to an alternative would bring with it the need to manage a complex set of migration issues, which would be fraught with technical, operational, logistical and legal problems. These problems could be avoided by placing the main emphasis on the strengthening of LIBOR rather than replacing LIBOR.

⁴ LIBOR is not necessarily the rate at which an individual bank could borrow in the inter-bank market, but is an average of perceived borrowing costs in that market.

⁵ Paragraph 4.23, page 38, The Wheatley Review of LIBOR.

- 3.4.7 As noted in The Wheatley Review, there is a wide range of different interest rate benchmarks which is available to the market. We believe that the role of the regulatory authorities in this context is to set appropriate standards and requirements for all interest rate benchmarks (including requirements that they be fit for the intended purpose), leaving it to the market to decide which benchmarks to use in practice. Moreover, the relative utility of a particular benchmark is likely to change over time and in response to different economic circumstances, as described in paragraph 3.3.23 above. This means that there is, in practice, a limit to which a mandating approach could be applied.
- 3.4.8 A number of these other benchmarks and the financial products based upon them do, indeed, play a key role in the operation of the financial markets. The role being played by NYSE Liffe U.S.'s Futures on DTCC General Collateral Finance (GCF) Repo Indices is particularly noteworthy. This suite of products is assisting market participants in managing the recent growth in the secured lending market.
- 3.4.9 ***Question: Should an alternative benchmark fully replace LIBOR, or should it substitute for LIBOR in particular circumstances?***
- 3.4.10 NYSE Euronext regards this issue as largely one of market choice. In other words, it is for the market to decide which interest rate benchmark is best suited to meet the needs of particular forms of business, subject to an overriding regulatory requirement that the chosen interest rate benchmark must be fit for the purpose that it is being used and the benchmark meets the other minimum requirements set by the regulators.
- 3.4.11 ***Question: Should particular benchmarks be mandated for specific activities?***
- 3.4.12 With the overarching proviso that any benchmark must be fit for the purpose for which it is being used, NYSE Euronext sees the use of benchmarks for particular forms of business as a market-driven exercise and would caution against governments or regulatory authorities generally issuing mandates in this area; an exception may be made in relation to business in sovereign debt. We believe that the role of the regulatory authorities in this context is to set appropriate standards and requirements for all interest rate benchmarks (including requirements that they be fit for the intended purpose) and to oversee any migration from the use of one benchmark to another, given that any such migrations would inevitably involve investor protection and market integrity issues, including the risk of legal challenge and operational risks as is acknowledged in The Wheatley Review.
- 3.4.13 ***Question: Over what time period could an alternative to LIBOR be introduced?***
- 3.4.14 As explained in paragraph 3.4.2, NYSE Euronext believes that the regulatory response to the issues identified with LIBOR should be focused on strengthening the framework governing the operation of LIBOR and other interest rate benchmarks, rather than planning a transition from LIBOR to an alternative. The market's need for certainty means that changes must be agreed and announced without delay. This would be extremely difficult to achieve in a scenario where LIBOR were being replaced (as explained in paragraph 3.4.15 below), but is much more achievable in relation to measures to strengthen LIBOR.
- 3.4.15 Regardless of whether any migration occurred through a "Big Bang" conversion of existing contracts or through a phased approach, the lead times involved are likely to be significant. This reflects the myriad of different types of LIBOR-related contracts which are in existence, held by both retail and wholesale customers, the different regulatory jurisdictions involved and the complex business, legal, operational, logistical and investor protection issues which would need to

be resolved. There would be a tension between these practical issues on the one hand and the market's need for achieving certainty and clarity, without undue delay, on the other.

3.4.16 **Question: What role should authorities play in developing and promoting alternatives to LIBOR?**

3.4.17 NYSE Euronext sees the development and promotion of any alternatives to LIBOR as a market-driven exercise and would caution against governments or regulatory authorities generally mandating the use of specific benchmarks for particular forms of business (albeit that an exception can be made where the relevant government is the issuer of securities to which the benchmark will be applied). As The Wheatley Review makes clear, "Ultimately, the choice of benchmarks for financial contracts is largely market-driven. If market participants decide that alternatives to established benchmarks such as LIBOR are more appropriate, they will move towards using these alternatives."⁶.

3.4.18 We believe that the role of the regulatory authorities in this context is to set appropriate standards and requirements for all interest rate benchmarks and to oversee any migration from one benchmark to another, given that any such migrations would inevitably involve investor protection and market integrity issues.

3.5 Potential Implications for other Benchmarks (Chapter 5, pages 43-47)

3.5.1 **Question: Are there other important markets or benchmarks that could face similar issues to those identified relating to LIBOR?**

3.5.2 NYSE Euronext believes that the policy makers should, at least in the first instance, concentrate their efforts and attention on the benchmarks where problems have demonstrably arisen. While NYSE Euronext agrees that there are some benchmarks that could theoretically face similar issues to those identified relating to LIBOR, we would also highlight that there is a spectrum along which these benchmarks reside in relation to their potential susceptibility to abuse. As The Wheatley Review points out, the setting of EURIBOR rates is already under consideration, albeit the EBF's process differs from the BBA approach in some key respects. These meaningful differences include the polling mechanism and the wording of the question posed, for example. Nevertheless, if there are any changes implemented to the LIBOR setting process, we would stress that all inter bank money-market rates based on quoted fixings (including EURIBOR) should be subject to the same standards.

3.5.3 It is appropriate that, in due course, international policy makers should consider whether the principles agreed for LIBOR and EURIBOR (and other global interest rate benchmarks) have broader application to benchmarks used in other parts of the financial sector. Moreover, it would be prudent for enabling powers to be included in the Financial Services Bill which would allow any new powers governing LIBOR to be extended to other benchmarks in due course if such an extension is judged to be necessary and justified. This approach would enable policy makers to retain their focus on addressing – as a matter of urgency - the issues which have occurred in relation to interest rate benchmarks on the one hand, without losing sight of the potential benefits of broader application of their policy action on the other. The benefits of wider application, and any requisite tailoring of regulatory requirements to other sectors, could then be given due consideration over the medium term without delaying the much needed action in relation to interest rate benchmarks.

3.5.4 With regard to The Wheatley Review's comments on the provisions in the proposed MIFIR legislation which seek to foster greater competition in the trading and clearing of instruments

⁶ Paragraph 4.37, page 40, The Wheatley Review of LIBOR.

based on proprietary indices, we do not regard these issues as central to the vulnerability or otherwise of the underlying calculation of equity-based indices. NYSE Euronext believes that while the calculation methodology of such indices is proprietary information, these instruments are less at risk of manipulation (albeit they are not immune to such risks), as the indices are based on shares traded on regulated markets, which themselves are tightly regulated institutions.

3.5.5 **Question: Should there be an overarching framework for key international reference rates?**

3.5.6 As acknowledged by the following quotation from The Wheatley Review, interest rate benchmarks such as LIBOR serve international markets and are used by participants in multiple jurisdictions as a result of valuable efficiency gains and network effects:

“As noted, the existence of a common benchmark for interest rates has significant benefits, reducing transaction costs for participants in markets, and driving substantial network effects in that the more a particular benchmark is used in financial products, the more liquid these financial products are and the easier it is to manage exposures and hedge risks.

Given the globalisation of financial markets, these benefits clearly also apply across national boundaries. Indeed, the history of the development of LIBOR suggests that even when a reference rate does not begin as a global benchmark, these characteristics will tend to drive global convergence to a common benchmark.”⁷

3.5.7 In light of these considerations, it would be appropriate for commonly-agreed international standards to be applied to global interest rate benchmarks such as LIBOR and EURIBOR. If common standards are not agreed, uncertainty will be created in the market and there will be a risk of regulatory arbitrage, along with the creation of inefficiencies caused by a reduction in the existing beneficial network effects which are delivered by global benchmarks.

3.5.8 Regulatory investigations and consultations are underway, or are planned, in relation to interest rate benchmarks in the United States and at EU level, as well as within the UK. It is vital that these separate initiatives are coordinated and that they arrive at consistent conclusions in order that the policy responses are comprehensive and avoid the scope for regulatory arbitrage.

4. Next Steps

4.1 NYSE Euronext appreciates the fact that The Wheatley Review has been tasked with reporting by the end of the summer in order that relevant provisions regarding the regulation of LIBOR may be included in the Financial Services Bill. Notwithstanding the fact that time is short, NYSE Euronext would urge the Review team to engage with it further prior to finalising its recommendations, particularly if it requires any clarification about the contents of this consultation response. The relevant contact details are set out in section 5.

4.2 NYSE Euronext is content for its response to the Wheatley Review to be made public.

⁷ Box 2.D on page 20 of The Wheatley Review of LIBOR.

5. Contact Information

5.1 If the Review team would like to discuss any of the points made in this response it should contact the following:

Laurence Walton
Director of Regulatory Policy
European Government Affairs and Public Advocacy
NYSE Euronext

[REDACTED]
[REDACTED]
[REDACTED]

Cannon Bridge House
1 Cousin Lane
London EC4R 3XX

7 September 2012

7 September 2012

The Wheatley Review
HM Treasury
1 Horse Guards Road
London
SW1A 2HQ

Via electronic mail: wheatleyreview@hmtreasury.gsi.gov.uk

Dear Mr. Wheatley:

On behalf of The McGraw-Hill Companies, Inc. and Platts, I thank you for the opportunity to respond to the questions raised in *The Wheatley Review of LIBOR: Initial Discussion Paper* (the "Discussion Paper").

Platts, a division of McGraw-Hill Companies, Inc., is the leading publisher of price assessments for the commodities markets, including the oil markets. Platts does not participate, directly or indirectly, in the traditional financial markets and does not participate in the LIBOR-setting process. However, we believe that our experience in publishing price assessments over the last century is relevant to several of the issues that you are exploring in the Discussion Paper.

We share a common goal. Like the regulatory community, Platts seeks to ensure the availability of sound price assessments based on data derived from orderly and transparent trading in the over-the-counter ("OTC") markets. Indeed, Platts, along with two other price reporting organizations, developed a draft code of conduct to serve the marketplace and provide a governance framework for the price assessment process in the oil markets. The code also created a process for independent review of our practices.

The price assessment process, especially in the OTC markets, is more complex than many observers recognize. For exchange-traded instruments, where traded volumes are high, liquidity is deep, bid/offer spreads are tight, participation is broad, products are fungible and trades are centrally cleared, identifying market value is relatively straight-forward. These conditions typically do not exist in the world of physical commodities that Platts observes. The products we assess have significantly diverse attributes and require detailed specifications. They are delivered physically on ships of varying quality to ports all over the world. Tradable volumes are finite and trade volume is often limited. Trading relies on the negotiation of bilateral credit arrangements.

Our goal is to issue price assessments that the market considers robust and reflective of market value over time, notwithstanding the absence of exchange-like trading conditions. This requires us to use our

judgment and discretion to, for example, adjust product specifications as markets evolve, evaluate the reliability of price information received from market participants, and produce sound assessments in the absence of ample trade data. Although our goal is always to be a neutral observer of market activity, we recognize that the actions we take may have an impact on market behavior. We consult with our customers, and with the marketplace more broadly, as we make these decisions. We recognize that our actions can sometimes be unpopular, but our steadfast objective is to protect the quality and integrity of the assessments we publish.

To ensure that we are acting in accordance with that objective, we adhere to four core values: independence, integrity, transparency and relevance.

- **Independence:** Platts considers itself to be independent. By independent, we mean that we do not participate in the markets for which we issue assessments. That is, we do not trade commodities, or any commodity derivatives. We do not hold any financial interest in any market participant. Our goal is to publish price assessments that are robust and reflect market value.
- **Integrity:** We strive to ensure the integrity of our price assessments. This includes conducting our business with due regard to basic principles of honesty and fair dealing. It also means constructing our price assessments on sound data, in a manner that will withstand scrutiny.
- **Transparency:** Transparency is the quality that makes it possible for observers to best assess the market value of a commodity and the reasons behind that value. The methodologies governing our price assessments, changes to those methodologies, and the data that we use in these assessments are readily available to the marketplace, and subject to regular ongoing scrutiny.
- **Relevance:** Finally, we strive to ensure that the products for which we issue price assessments are relevant to the marketplace. Maintaining the relevance of our price assessments over time is one of our main obligations to the market.

Platts' role in price assessments is analytical in nature based on observed transaction data and other market information, and governed by clear methodological guidelines. Platts has concluded after decades of experience in observing and reporting on markets that transaction volume is not a steady or dependable metric and we have constructed assessment methods that are not dependent on liquidity. It is the quality and integrity of data inputs — not the quantity — that are of primary importance.

Our methodologies are designed to ensure the integrity and transparency of the price assessment process and are freely available to the public. We believe this transparent approach builds trust and credibility in the markets and helps provide a fair deal to the end consumer.

Especially following the LIBOR scandal, there has been a great deal of attention focused on the use of discretion in the price assessment process. This has been closely linked with the desire to have price reporting organizations rely either solely or primarily on transaction data when conducting price assessments. Although the use of discretion and reliance on transaction data are sometimes linked in these discussions, we consider it useful to separate the concepts.

First, we focus on the use of transaction data. We take it as given that price reporting organizations should always utilize the most appropriate information available when conducting price assessments. That means that a price reporting organization is not free to disregard reliable transaction data and develop a price assessment based solely on its own judgment. As a general matter, transaction data are often the most useful indication of market prices. We base our Market-On-Close processes around this proposition. However, this does not mean that price reporting organizations should be prohibited from using either their own judgment or other sources of market information when conducting price assessments. There are many circumstances where transaction data may not be a reliable indicator of value, at least at the time of an assessment. Trade data can become stale or, for thinly-traded products, unavailable. In these cases, other types of market information can provide a clear indication of market value. As long as this is done in a transparent manner, we do not think it is necessary to place restrictions on using sources of data, other than transaction data, in conducting assessments. While our status as an independent price reporting organization makes it more likely that market participants will provide us with data including transaction data, which they do so on a completely voluntary basis, we seek a variety of data from a variety of sources in order to allow us to have the most robust information available.

We distinguish the use of judgment from the use of transaction data. We agree with commentators that, to the extent practicable, a price reporting organization's assessment methodologies should be clear as to the mechanics underlying the assessment processes. Two individuals reviewing the same inputs and applying the same methodology should derive the same assessment results. However, price reporting organizations are obligated to use their discretion in various ways. First, they must establish sound methodologies, and develop product definitions that are consistent with market practices and allow for price assessments that represent true market value. Second, price reporting organizations must decide, on a day-to-day basis, whether the data they have received from contributors meet appropriate quality standards and are suitable in the price assessment process. Finally, before issuing any price assessment, the price reporting organization must be satisfied that it reflects market price. Platts sees the value in notifying the marketplace of proposed changes in methodology and discussing these changes with the market, and we regularly engage with the marketplace for this purpose. We also, however, see danger in acquiescing to the stated needs of the marketplace, at the expense of the four core values discussed above. We believe that independence and the diversity of price reporting activities will help to ensure that the commodities marketplace continues to be well served with price benchmarks based on the most robust information available that are readily adaptive to changing market conditions and provide a true reflection of market value.

Platts is in the process of setting out its views on price assessment processes more broadly in an upcoming paper, and we believe we have a number of valuable insights to contribute on the topics of benchmark development and benchmark quality. We anticipate that this paper will be available for circulation later in September and would like to share a copy with you as you complete your review.

In the meantime, we are also enclosing the draft code of conduct we developed and issued for comment in April 2012 to serve as a framework governing price assessments in the oil markets.

We share your commitment to enhancing confidence and transparency in key benchmarks and we fully welcome review of our processes. Accordingly, Platts would heartily welcome the opportunity to discuss these topics with you or your staff in the near future.

Respectfully,



Lawrence Neal
President
Platts

Enclosures

Consultation Questions

Chapter 2: Issues and failings with LIBOR

1. Do you agree with our analysis of the issues and failings of LIBOR?

As noted above, Platts is not active in the financial markets. As a consequence, we cannot comment on the underlying facts relating to the failings of LIBOR. However, we have firmly-held views on the prerequisites for issuing sound price assessments reflective of market value, as discussed in our cover note.

As we understand it, you identified four major issues related to LIBOR:

- LIBOR is intended to represent the rate at which banks may borrow unsecured funds from one another; however, there is significantly less reliance on interbank unsecured funding now than when LIBOR was originally established;
- Individuals and institutions have an incentive to manipulate their LIBOR submissions;
- The administrative mechanisms for assessing LIBOR create opportunities for manipulation; and
- There are weaknesses in the governance arrangements related to LIBOR.

(paraphrased from Discussion Paper at ¶ 2.2).

We note that the issues identified in the Discussion Paper relate to the fundamental obligations of a publisher of price assessments. We address each briefly.

Maintaining LIBOR – According to the Discussion Paper, one of the weaknesses in LIBOR is that it represents an assessment of the price of a product (unsecured interbank lending) which is no longer in wide use. The Discussion Paper further notes that this has led to an increasing reliance on judgment, rather than transaction data, to set LIBOR rates. We would note the importance of maintaining the *relevance* of a benchmark over time. We see this as one of the fundamental obligations of a benchmark publisher.

Incentives for manipulation / Administrative process creates opportunity for manipulation – The Discussion Paper notes that individuals and institutions have incentives to manipulate LIBOR submissions. In our view, it is more likely that such incentives would exist if the institutions managing a given price assessment process had a vested interest in the outcome of that process. Platts, and other independent assessment providers, do not have such incentives. Moreover, Platts has established processes for controlling and mitigating the risks related to information submitted in conjunction with its price assessments, which may be relevant here. First, to the extent practicable, Platts does not rely on contributors to provide opinions or external judgments as to value. Instead, Platts prefers to receive objective and verifiable data from contributors, including information on completed trades and executable bids and offers. Second, to the extent it is necessary to rely on judgment to conduct a price

assessment, the exercise of that judgment is centralized at Platts, and subject to strict oversight and review, both internally and by the marketplace more broadly.

Weaknesses in governance mechanisms – Finally, the Discussion Paper notes weaknesses in the governance arrangement for the compilation process for LIBOR, and within contributing banks themselves. In our view, an independent sponsor of benchmark prices is critical to ensuring the level of oversight required to publish reliable price assessments.

Chapter 3: Strengthening LIBOR

2. Can LIBOR be strengthened in such a way that it can remain a credible benchmark?

Again, we stress that Platts has no specific expertise relative to LIBOR. However, we have experience in maintaining the integrity and relevance of a benchmark price assessment over time. In our view, there are several key ways to strengthen a benchmark, which include: (i) updating the specification or definition of the product which is subject to the assessment; and (ii) updating the methodology through which the assessment is calculated.

3. Could a hybrid methodology for calculating LIBOR work effectively?

Again, we do not claim to have any special expertise on LIBOR. However, we have a great deal of expertise in developing price assessment methodologies. The question asks whether a “hybrid methodology” might work well for calculating LIBOR. We are assuming, in this context, that “hybrid” means a methodology that does not rely exclusively on observed trades, nor exclusively on contributor submissions, but rather relies on multiple inputs to develop a price assessment.

In our view, every sound price assessment methodology is, in some sense, a “hybrid” methodology. In highly liquid products, for example, Platts’ methodologies rely heavily on traded prices as the basis for its price assessments. Even in these cases, however, before issuing a final price assessment, we will review the price derived from observed trades against, for example, firm bids and offers tested openly in the marketplace, prices of related commodities, prices of related derivatives contracts, including futures contracts, and other available market data. In most instances, these additional observations will confirm the quality of the trade data we have available. In some instances, however, these additional observations will reveal discrepancies or irrationality in observed prices. These discrepancies could indicate legitimate arbitrage trading opportunities in the marketplace. They could indicate issues with the underlying trade data we have available. Or, they could indicate issues with the supporting data we are reviewing.

Regardless of how reliable the underlying data, all of our price assessments ultimately depend on the expertise and experience of our price assessment staff. As a publisher of price assessments, we have an obligation to ensure that our assessments reflect value in the marketplace. Often, this can be done with heavy reliance on objective data inputs. However, even in these instances, we remain accountable for the prices that we publish, and cannot rely exclusively on the output of any single model.

4. Could the number of maturities and currencies currently covered by the LIBOR benchmark be reduced?

[Not answered]

5. Is an alternative governance body for LIBOR required in the short term?

Again, Platts offers no opinion on the specific governance mechanisms in place for LIBOR. In line with our earlier comments, however, we support, and currently operate, an assessment process independent of market participants. Such independence ensures quality price assessments. We also note the sponsor of a price assessment should have sufficient expertise, both to oversee the accuracy of the price assessment process on a day-to-day basis, and to maintain the quality of benchmark price assessments over time.

6. Should the setting of and/or the submission to LIBOR be regulated activities?

[Not answered]

7. Should the regulator be provided with specific powers of criminal investigation and prosecution in relation to attempted manipulation and manipulation of LIBOR?

[Not answered]

8. What role should authorities play in reforming the mechanism and governance of LIBOR?

Governmental authorities can play a constructive role in reforming LIBOR and price assessment processes generally. We believe that the government's primary role should involve endorsing best practices in this area, then encouraging those involved with the price assessment process to adhere to these practices.

9. Which types of financial contract, if any, would be particularly affected by the risks of a transition from LIBOR?

[Not answered]

Chapter 4: Alternatives to LIBOR

10. Are there credible alternative benchmarks that could replace LIBOR's role in the financial markets?

[Not answered]

11. Should an alternative benchmark fully replace LIBOR, or should it substitute for LIBOR in particular circumstances?

Platts believes that, since LIBOR is a significant benchmark, LIBOR's sponsor should be charged with maintaining the relevance of the price assessment over time (as discussed above).

12. Should particular benchmarks be mandated for specific activities?

Authorities should avoid mandating the use of specific benchmarks. In the commodities world, the market is a good arbiter of benchmark quality. So long as independence is respected, there should be no need for a governmental mandate.

13. Over what time period could an alternative to LIBOR be introduced?

[Not answered]

14. What role should authorities play in developing and promoting alternatives to LIBOR?

The authorities should play a role in defining the ground-rules (as to what constitutes sound practices in this area), including in the areas of independence, integrity, and transparency. Authorities should not force the market into using one benchmark over another. The market will gravitate over time toward a benchmark that is seen to adhere to best practices.

Chapter 5: Potential implications on other benchmarks

15. Are there other important markets or benchmarks that could face similar issues to those identified relating to LIBOR?

Note that other markets, especially commodities markets, are highly reliant on price assessments.

But, the commodities markets have developed a different model for conducting price assessments. Although some of the practices have been questioned, there is near universal agreement that the price assessments in the oil markets are robust and reflective of market value.

16. Should there be an overarching framework for key international reference rates?

[Not answered]

Draft IPRO Code as released by Argus, ICIS and Platts on 30 April 2012

The draft IPRO Code is available on the websites of Argus, ICIS and Platts.

Feedback is solicited from market participants, other potential IPRO Code signatories and any other interested parties. Responses may be sent directly to each publisher and are requested by 1 July 2012.

Once the IPRO Code is finalised, all independent price reporting organisations will be invited to become signatories and agree to adhere to the Code.

Please send feedback to:

info@argusmedia.com

iprocode@icis.com

comments@platts.com

**THE PRICE REPORTING CODE FOR
INDEPENDENT PRICE REPORTING ORGANISATIONS**

[] 2012

THE IPRO CODE

An independent Price Reporting Organisation (IPRO) may become a signatory to this code (the **IPRO Code**, or the **Code**) at any time by stating publicly that it has signed the Code and confirming that it intends at all times to seek to comply with the IPRO Code (as it may be amended from time to time).

The principles and price assessment standards for IPROs set out in this Code (the **Standards**) have effect from [1 2012] being the date on which the original signatories have affirmed their commitment to observe and comply with the IPRO Code.

The IPRO Code applies strictly to activities, policies and structures associated with the publication by the IPROs of price assessments in commodities markets and does not govern the specific design or substance of methodologies used by IPROs for determining their price assessments.

By becoming a signatory to this Code, each IPRO undertakes to comply with and adhere to the Code, as amended from time to time, within 12 months of the date of signature. The date that is 12 months from the date of an IPRO becoming a signatory to this Code is the date that the Code will be deemed to have come into effect with respect to that IPRO.

This Code is available to the public without charge on the website of each IPRO.

The signatories to this Code may revise this Code to reflect changes in market, legal, and regulatory circumstances and changes to their policies and other controls. Any revision to this Code will require the written approval of at least two (2) of the three (3) original signatories to this Code, as well as a majority of all then-current signatories to this Code.

Introduction

Independent Price Reporting Organisations (**IPROs**) are publishers and information providers: who prepare and report, on a commercial basis, price assessments in relation to commodities and/or commodity derivatives for use by, among other organisations, market participants in their day to day commercial activities. "Independent" for this purpose means the absence of a vested interest in the markets on which the IPRO reports, including that it does not itself provide trading or clearing services with respect to those markets. The price assessments published by IPROs may be used, among other things, in relation to commodity contracts transacted in physical and derivative markets. IPROs provide an informed assessment of commodity and commodity derivative price levels, using a variety of methodologies, including those based on observed trading data and other available market information. IPROs may also provide commentary and write news stories relevant to the commodities markets for which they publish price assessments; such publishing activity is beyond the scope and purview of this Code.

It is recognised that a broad spectrum of parties, including producers, generators, refiners, processors, distributors, traders, manufacturers and other private and public organisations with interests in international commodity markets refer to and rely upon the integrity of the price assessment reporting process undertaken by IPROs and the ability of an IPRO to publish price assessments that are representative of market value.

A key purpose of the IPRO Code is to demonstrate to those parties that an IPRO signatory has committed at a minimum to meet the high standards and principles of good governance required and promoted by the Code and its other signatories, and in that sense it may also be regarded as a measure of best practice among IPROs. IPROs remain free to take measures which go beyond those addressed in this Code.

Scope and interpretation

The IPRO Code applies in full to any IPRO which becomes a signatory; IPROs may not choose to adopt only a portion of the IPRO Code.

Where relevant, the Standards prescribed in the IPRO Code are intended to apply equally to all persons employed or otherwise engaged by and operating under the control of an IPRO to the extent they are involved in price assessment activities.

The IPRO Code is comprised of a number of Standards each of which is set out below in bold text. Following each Standard are additional guidelines (the **Guidelines**), the purpose of which is to provide commentary on how each of the Standards may be interpreted and how IPROs may seek to achieve compliance with the Standard; the Guidelines are set out in italicised text.

References in the IPRO Code to "price assessment activities" and "price assessment processes" refer to the processes by which an IPRO establishes and maintains its price assessment methodologies, receives transaction data and other information from market participants, applies its methodologies to the data and information it receives, and determines its price assessments.

It is expected that an IPRO will have regard to the Guidelines in interpreting all of the Standards set out below.

Monitoring of compliance with the IPRO Code

At the end of the 12 month period following the date on which this Code comes into effect for an IPRO and annually thereafter, each IPRO shall prepare, as appropriate, an Attestation of Compliance or an Explanation of Material Non-compliance. The Attestation of Compliance or Explanation of Material Non-compliance shall be signed by the IPRO's chief executive officer and shall be published prominently on the IPRO's website. In the case of an Explanation of Material Non-compliance, the explanation shall include the reason(s) for each case of material non-compliance and set forth a description of the remedial steps the IPRO will take (or, as the case may be, is already taking) to achieve compliance in the future.

In addition, on a periodic basis¹, each IPRO shall engage an internationally recognized external audit firm of its choosing or independent internal audit group within the IPRO's corporate organisation, to conduct an independent review of its compliance with the IPRO Code. The results of the review should be summarized in a report to that IPRO issued by the auditor and published by the IPRO within 30 days on its website.²

1. Governance

Standard 1: An IPRO shall maintain robust governance arrangements, including a clearly defined management structure with transparent lines of reporting and consistent allocation of authority and responsibility.

- 1.1 *It is the responsibility of the IPRO's Board, senior management of its ultimate corporate parent or equivalent body to provide oversight so that the IPRO's senior managers have the requisite skills, capacity, knowledge and experience to perform the duties assigned to them.*
- 1.2 *The Board, senior management of its ultimate corporate parent or equivalent body of the IPRO should provide oversight so that relevant employees of the IPRO are allocated with specific duties and responsibilities in relation to oversight and control functions, including a compliance infrastructure, regarding price assessment activities and have sufficient delegated authorities and resources to be able to discharge those duties and responsibilities effectively.*
- 1.3 *An IPRO should have in place appropriate reporting lines and organizational structures to facilitate effective checks and balances and transfers of management information to appropriate senior managers throughout the IPRO's organisation. Specifically, an IPRO's compliance and internal audit functions should report to senior management independently of editorial, product management and sales functions.*

¹ Frequency to be determined following stakeholder consultation.

² In the event of an acquisition by any signatory IPRO of an IPRO which is not a signatory to this Code, the acquiring IPRO will use all reasonable efforts to bring the acquired IPRO into conformance with this Code as soon as practicable.

- 1.4 *There should be a mechanism such that instances of material non-compliance with this Code are identified and escalated promptly to senior management of the IPRO.*
- 1.5 *An IPRO should conduct regular training for staff on the IPRO's methodologies and relevant policies and procedures in relation to the handling of confidential information, conflicts of interest, personal account dealing, editorial independence and data integrity.*

2. **Managing and mitigating conflicts of interest**

Standard 2: An IPRO shall seek to avoid actual or potential conflicts of interest arising in relation to its price assessment activities; to that end an IPRO shall establish a policy and control system designed to mitigate the risk of conflicts arising and to manage those that may arise.

- 2.1 *An IPRO should adopt, keep updated and make public on its website a written **conflicts policy** setting out the measures that it has taken and will take to monitor for, mitigate and manage actual or potential conflicts of interest which may arise from time to time, including those pertaining to its publishing and other businesses.*
- 2.2 *An IPRO should take reasonable steps to maintain a clear separation, structurally and operationally, between its price assessment activities and its other activities which could give rise to the risk, existence or perception of a conflict of interest.*
- 2.3 *Remuneration arrangements for staff engaged in price assessment activities should be determined having regard to the elimination or mitigation of any actual or potential conflicts of interest between the interests of those individuals and the interests of the IPRO and between the interests of those individuals and the interests of market participants.*
- 2.4 *An IPRO should adopt and keep updated a written **personal account dealing policy** applicable to all of its staff. The policy should seek to prohibit the IPRO's employees and other staff who are involved in price assessment activities, and persons closely connected with them, from engaging in any personal account trading activity which may give rise to the risk, existence or perception of a conflict of interest.*
- 2.5 *An IPRO should adopt and keep updated a **gifts policy** applicable to all of its staff who are involved in price assessment activities, which should prohibit such persons from soliciting gifts or favours in a business context, and from accepting a gift offered if the value of the gift exceeds an appropriately prudent monetary value.*
- 2.6 *An IPRO should review the work undertaken over a reasonable period of time by any member of its staff who was engaged in price assessment activities and leaves to work for or on behalf of a market participant where that individual has been involved in evaluating and reporting the price of a commodity in which the market participant is active to determine whether any actual or potential conflict of interest had arisen. Where an IPRO has become aware that an employee who is engaged in price assessment activities has accepted an offer of employment from a market participant, that employee should promptly be excluded from engaging in price assessment activities for that IPRO in the area of his/her future employment with the new employer.*

- 2.7 *An IPRO should make public on its website information concerning (a) the legal structure of the IPRO and the identity of any person or organisation which, directly or indirectly, owns or controls more than 20% of the share capital or voting rights in the IPRO and (b) any organisation from which the IPRO derived more than 10% of its annual revenue in the most recent full financial year.*

3. **The integrity and transparency of the price reporting process**

Standard 3A: An IPRO shall publish or otherwise make freely available the methodologies used by that IPRO to produce its price assessments. The methodologies shall be designed to produce price assessments that are representative of market value.

- 3.1 *The IPRO's methodologies should be available free of charge via the IPRO's website to support and underpin transparency and to provide market participants with a basis to compare and evaluate the methodologies of different IPROs relative to each other.*
- 3.2 *An IPRO should take into account feedback received from subscribers, data contributors and other market participants in the context of any review of its methodologies or price assessment processes.*

Standard 3B: An IPRO shall publish price assessments that are in accordance with its methodologies.

- 3.3 *An IPRO should devote sufficient resources and support so that its price reporting staff have appropriate skills, capacity, knowledge and experience to perform the duties assigned to them to enable the IPRO to comply with Standard 3B.*
- 3.4 *Each price assessment produced by an IPRO should be fully in accordance with the relevant published methodology.*
- 3.5 *An IPRO should adopt, implement and enforce written policies and procedures designed so that its methodologies and price assessment processes are systematically applied by price reporting staff and any demonstrable failure to adhere to such methodologies or processes is subject to internal review and, if appropriate, a disciplinary process.*

Standard 3C: An IPRO shall establish and maintain appropriate procedures and safeguards to maintain and preserve the independence from conflict of staff that are engaged in the price assessment process.

- 3.6 *An IPRO should take all reasonable steps so that its commercial interests in commercialising its price assessment publications or services do not impair the independence from conflict or the integrity of its price assessments.*
- 3.7 *Such steps should include the maintenance of appropriate and effective barriers between the price reporting function and those individuals responsible for the marketing and sale of price assessment publications and services.*

- 3.8 *Such steps should include at a minimum that operations relating to the price reporting processes are overseen by senior officers within the IPRO with sufficient authority to maintain effective oversight of the composition, policies, procedures and day-to-day operations of the price reporting function.*
- 3.9 *An IPRO should arrange its internal reporting lines so that the independence from conflict of its price reporting staff is not, nor is perceived to be, compromised.*
- 3.10 *The remuneration arrangements for price reporting staff should not be linked to the revenues derived from sales of price assessment publications or services to any individual subscriber.*

Standard 3D: An IPRO shall seek to comply at all times with applicable laws and regulatory requirements.

- 3.11 *An IPRO should allocate appropriate resources, and have in place adequate control systems, so that the IPRO and its staff can comply with all applicable laws governing its price reporting activities in each jurisdiction in which it operates.*
- 3.12 *An IPRO's executives and staff should be held to high professional standards of integrity and propriety, and an IPRO should implement measures designed so that it does not engage or retain staff with demonstrably compromised integrity or propriety.*
- 3.13 *An IPRO should maintain a "whistleblowing" policy so that members of staff have a means by which to raise concerns regarding unlawful or inappropriate practices.*
- 3.14 *An IPRO should, where practicable and appropriate, make available to government officials, regulators, market participants and other relevant interested parties, members of its senior management involved in price assessment activities to provide education relating to the IPRO's price assessment activities*

4. Non-discriminatory participation and data collection processes

Standard 4A: An IPRO shall have clear policies and processes for collecting, evaluating and utilising data for purposes of its price assessments.

Standard 4B: An IPRO shall deal fairly and consistently with all market participants in relation to its price assessment activities.

- 4.1 *If an IPRO has rules governing which market participants may be admitted to the constituency of persons inputting trade or other data into the IPRO's price assessment processes, the IPRO should publish such rules and the factors and criteria which the IPRO regards as being most relevant to such admittance.*
- 4.2 *Criteria for inclusion or exclusion of transaction data in the process of determining a price assessment should be set out in the IPRO's relevant methodology.*
- 4.3 *Decisions as to whether to consider or exclude transaction data provided by a market participant should not be influenced by the amount of revenues received from that*

applicant or market participant and in general, all such decisions should be made in a fair and non-discriminatory manner.

5. Timely publication of price assessments, corrections and methodology modifications

Standard 5A: An IPRO shall seek to disseminate its price assessments in a timely manner and shall promptly publish any material corrections or updates to those assessments.

5.1 An IPRO should publish its price assessments, and any material corrections to those assessments, in a timely, consistent and transparent manner.

Standard 5B: An IPRO shall, where reasonable and practicable to do so, consult with market participants in relation to any material proposed changes to its price assessment methodologies. An IPRO shall disclose modifications of its methodologies on its website in a timely manner.

5.2 Consistent with Guideline 3.2 above and in order to minimise the risk of market disruption and to promote fair dealing with market participants, an IPRO should, where reasonable and practicable to do so, consult with market participants in advance in relation to any material proposed changes to its price assessment methodologies.

5.3 An IPRO should publish material changes to any of its methodologies in a timely and transparent manner.

Standard 5C: An IPRO shall maintain reasonable business continuity and disaster recovery plans, the purpose of which is to enable the IPRO to continue to publish price assessments in an orderly and timely manner notwithstanding the occurrence of disruptive events.

6. Monitoring and detecting of non-representative transaction data in connection with the price reporting process.

Standard 6A: As part of its price assessment processes, an IPRO shall maintain controls to monitor for and detect data that is provided to the IPRO by market participants that does not conform to the IPRO's methodology.

6.1 An IPRO shall use data in conformity with its relevant methodology in determining its price assessments.

Standard 6B: An IPRO shall provide reasonable cooperation to regulatory or governmental authorities in relation to proper and legitimate enquiries or investigations regarding third parties.

6.2 Subject to any applicable legal or regulatory restrictions or rights or obligations, including in particular restrictions or rights relating to the IPRO's receipt, use or disclosure of confidential or otherwise sensitive information, an IPRO should provide

reasonable cooperation with proper and legitimate enquiries or investigations regarding third parties by regulatory or governmental authorities seeking information that the IPRO has published as part of its price reporting activities.

7. Responding to complaints

Standard 7A: An IPRO shall maintain policies and procedures for the prompt and fair handling of complaints.

- 7.1 *An IPRO 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 methodology changes, applications of methodology in relation to a specific price assessment and other editorial decisions in relation to price assessment processes. This policy should be prominently published on the IPRO's website.*
- 7.2 *An IPRO should ensure that its written **complaints handling policy** includes, among other things, the process and target timetable for the handling of complaints.*
- 7.3 *Oversight of the complaints handling policy, including ultimate right of appeal under it, should be by an independent non-executive member of the IPRO's Board, senior management of its ultimate corporate parent or equivalent supervisory body, or by the IPRO's Chief Compliance Officer or equivalent position.*

8. Confidential information and record-keeping

Standard 8A: An IPRO shall observe appropriate standards of confidentiality.

- 8.1 *An IPRO should adopt appropriate control systems and procedures to protect the confidential nature of information received by it from market participants in connection with its price assessment activities, if and to the extent such information is disclosed to the IPRO as being confidential in nature.*
- 8.2 *An IPRO should adopt and keep updated a written **policy on the handling of confidential information** and accompanying procedures designed so that relevant members of the IPRO's staff are made aware of any obligations to which the IPRO is subject to treat data received from market participants as confidential.*

Standard 8B: An IPRO shall maintain proper and up-to-date records in connection with its price assessments, policies, procedures and internal decision-making in relation to its price assessment processes.

- 8.3 *An IPRO should maintain adequate internal records in connection with its price assessment processes. Such records should be maintained for a reasonable period of time (and otherwise in accordance with applicable laws) and should include:*
- (A) *transactional and other data inputs that were used in determining price assessments;*

- (B) *a record of fees received in relation to subscriptions to price assessment services;*
- (C) *copies of internal written policies;*
- (D) *a complaints log;*
- (E) *where applicable, records of decisions to admit, suspend or exclude a market participant from the IPRO's price assessment activities and the information on the basis of which that decision was made.*

9. Other

- 9.1 *No IPRO assumes, or may be implied to assume, an obligation, duty or liability to any third party by virtue of becoming or being a signatory to this Code or by making this Code available to the public. Nor shall the Code create any contract with any third party or create third party rights to enforce any provision of the Code (directly or indirectly, contractual or otherwise) against an IPRO.*

DATE OF SIGNATURE BY ORIGINAL SIGNATORIES: [], 2012