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FINANCIAL MARKETS LAW COMMITTEE

BENCHMARK TRANSITION

Observations on proposals for benchmark reform

c/o Bank of England

Threadneedle Street

London EC2R 8AH

www.fmlc.org

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This paper has been produced by the Financial Markets Law Committee ("FMLC") Secretariat.[1]

The FMLC is grateful to the following for their comments:[2]

Michael Duncan	Allen & Overy LLP
Simon Firth	Linklaters LLP

1 Joanna Perkins (FMLC Director) and Sherine El-Sayed (FMLC Project Assistant).

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1. EXECUTIVE SUMMARY

1.1. The London Interbank Offered Rate ("LIBOR") is the benchmark against which payment obligations are measured in markets comprising financial transactions worth trillions of pounds. It has recently been the subject of close scrutiny in the context of on-going investigations into the alleged attempted manipulation of the benchmark by one or more credit institutions. In response, HM Treasury commissioned an independent review of LIBOR ("the Wheatley Review") on 2 July 2012 which published its final report on 28 September 2012, setting out a comprehensive plan for reform.[3]

1.2. The report ("the Wheatley Report") makes proposals which broadly relate to the administration of the benchmark, the range of tenors and currencies for which it is published, the basis on which submissions are made and the participation of banks in the process. This paper argues that these proposed reforms must be carefully structured if significant legal uncertainty is to be avoided as a consequence of their impact on existing contracts ("the legacy issue").

1.3. In considering, below, whether the "legacy issue" may give rise to unintended consequences in the context of the proposed reforms, the FMLC draws comfort from the fact that the Wheatley Report does not advocate changes to existing contracts. Moreover, the FMLC believes that there is universal agreement amongst the authors of the report, the Tripartite Authorities, panel banks, users of LIBOR and the British Bankers' Association ("the BBA") that the continuity of LIBOR should be preserved as far as possible in order to minimise the impact on financial instruments which have already been issued.

2. INTRODUCTION: BENCHMARKS

2.1. Benchmarks provide standardised ways of agreeing on prices and offer a statistical measure, typically a price or quantity calculated from a representative group of underlying data. Benchmarks often include an element of discretion, judgement or subjectivity. The parameters within which various benchmarks are calculated vary depending on the needs of

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[3] The Wheatley Review of LIBOR: final report, 28 September 2012: http://cdn.hmtreasury.gov.uk/wheatley_review_libor_finalreport_280912.pdf.

that market and the availability of data. Thus, some benchmarks are based on expert judgement or estimates and others on actual transactions.[4]

2.2. LIBOR functions as the primary benchmark, along with the Euro Interbank Offered Rate ("EURIBOR"), for short-term rates globally and is intended to reflect the cost of borrowing unsecured funds in certain interbank markets. It is currently calculated for 15 different maturities and for 10 different currencies.

2.3. LIBOR is administered and quoted by the BBA, which defines the benchmark as:

> the rate at which an individual contributor panel bank could borrow funds, were it to do so by asking for and then accepting interbank offers in reasonable market size, just prior to 11.00 am London time.[5]

2.4. On every working day the member banks of a panel inform Thomson Reuters ("Reuters") for each maturity and currency at what interest rate they would expect to be able to raise a substantial loan in the interbank money market at that moment if they sought offers for such a loan from other banks operating in London. Once Reuters has collected the rates from all panel banks, the highest and lowest submissions are eliminated. An average is calculated of the remaining "mid values" in order to produce the official LIBOR rate for the given day. For some currencies, more outliers are discarded than others owing to a higher number of contributing banks. Once calculated, this average is published as the BBA sponsored rate on the Reuters Screen LIBOR01 Page.

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4 European Commission "Libor Scandal: Amendments to proposed Market Abuse legislation to fight rate-fixing – frequently asked questions", 25 July 2012: http://europa.eu/rapid/press-release_MEMO-12-595_fr.htm?locale=fr.

5 See the BBA website: http://www.bbalibor.com/bbalibor-explained/definitions.

3. PROPOSED REFORMS

3.1. The Wheatley Report makes the following proposals for the reform of LIBOR:

i. The authorities should introduce statutory regulation of the administration of and submission to LIBOR, including an Approved Persons regime, to provide oversight and enforcement, both civil and criminal.

ii. The BBA should transfer responsibility for LIBOR to a new administrator. This should be achieved through a tender process to be run by an independent committee.[6] The new administrator will be responsible for compiling and distributing the rate as well as providing credible internal governance and oversight.

iii. The new administrator should fulfil specific obligations as part of its governance and oversight of the rate, having due regard to transparency and fair and non-discriminatory access to the benchmark. These obligations will include the surveillance and scrutiny of submissions, the publication of a statistical digest of rate submissions and periodic reviews addressing the issue of whether LIBOR continues to meet market needs effectively and credibly.

iv. Submitting banks should, where possible, make explicit and clear use of transaction data to corroborate their submissions.

v. The new administrator should as a priority introduce a code of conduct for submitters.

vi. The BBA should cease the compilation and publication of LIBOR for those currencies and tenors for which there is insufficient trade data to corroborate submissions:

a. the publication of Australian Dollars, Canadian Dollars, Danish Kroner, New Zealand Dollars and Swedish Kronor should be discontinued;

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[6] It has now been announced that the independent panel is to be chaired by Baroness Hogg.

b. for the remaining currencies, publication of LIBOR for four, five, seven, eight, ten and eleven month tenors should be discontinued; and

c. the continued publication of overnight, one week, two weeks, two months and nine months should also be reconsidered.

vii. The BBA should publish individual LIBOR submissions after three months to reduce the potential for submitters to attempt manipulation and to reduce any potential interpretation of submissions as a signal of creditworthiness.

viii. Banks, including those not currently submitting to LIBOR, should be encouraged to participate as widely as possible in the LIBOR compilation process, including, if necessary, through new powers of regulatory compulsion.

ix. Market participants using LIBOR should be encouraged to consider and evaluate their use of LIBOR, including the consideration of whether LIBOR is the most appropriate benchmark for the transactions that they undertake and whether standard contracts contain adequate contingency provisions against the possibility that LIBOR becomes unavailable for any reason.

x. The UK authorities should work closely with the European and international community and contribute fully to the debate on the long-term future of LIBOR and other global benchmarks, establishing and promoting clear principles for effective global benchmarks.

3.2. The report recommends that some of these reforms should be implemented immediately; whilst others might be implemented following a six to twelve month transition period (flexibility on this point is indicated).

3.3. HM Government has responded by agreeing with the Wheatley Report and specifically by stating that:[7]

[7] HM Government issued its response on 17 October 2012 and accepted the report's recommendations in full. See HM Treasury "Government accepts recommendations from the Wheatley Review of LIBOR in full", September 2012: http://www.hm-treasury.gov.uk/press_94_12.htm.

a. The BBA should give up its operational role with regards to the computation, administration and governance of LIBOR.

b. Other urgent reforms should be implemented—such as phasing out the benchmark rates for certain currencies and tenors "wherever they are not heavily used by the market and there is an available alternative".

c. The recommendation to consider the use of alternative benchmarks should be taken forward through the relevant international bodies.[8]

3.4. It is unclear to what extent this response reflects an intention to allow for flexibility in the implementation of the proposed reforms. Although the detail of the proposals' implementation is yet to be determined, it is, in some cases, already subject to consultation. [9]

3.5. To create a legal framework for the implementation of the proposals, the Financial Services Bill, which is currently before Parliament, will be amended:

a. to bring LIBOR activities within the scope of statutory regulation, including submission and administration of LIBOR;

b. to create a new criminal offence for misleading statements in relation to benchmarks such as LIBOR, as well as amending the language of existing offences; and

c. to provide the new Financial Conduct Authority with a specific power to make rules requiring banks to submit to LIBOR, with reference to a code of practice produced by the rate administrator.

The Bill is scheduled to receive royal assent in late 2012 or early in 2013.[10]

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8 See "Written Ministerial Statement", 17 October 2012: http://www.hm-treasury.gov.uk/d/wms_fst_171012.pdf.

9 The BBA published a consultative paper entitled, "Strengthening LIBOR – proposal to implement number 6 of 'The Wheatley Review of LIBOR'", 8 November 2012: http://www.bba.org.uk/media/article/bba-consults-on-implementing-wheatley-libor-reforms.

10 Proposals to amend secondary legislation (to bring LIBOR within the scope of regulation and to make the manipulation of LIBOR a criminal offence) are set out in HM Government's consultation paper "Implementing the Wheatley Review: draft secondary legislation", 28 November 2012: http://www.hm-treasury.gov.uk/d/implementing_wheatley_review281112.pdf.

3.6. The FMLC recognises that LIBOR faces a reputational problem which, as the authorities have correctly identified, may undermine market confidence in the benchmark. The rehabilitation of LIBOR is therefore an urgent priority, which may necessarily entail reforms that are structural rather than cosmetic. Nevertheless, the FMLC is concerned that the implementation of some of the proposals in the Wheatley Report may give rise to contractual uncertainty unless the transition is structured carefully and proceeds at a manageable pace.

3.7. The general nature of the legal uncertainty with which the FMLC is here concerned is the kind which arises when it can be said that a contract does not expressly cater for a change in circumstances upon which certain of its terms are premised. In this case the term in question is the contract's definition of the applicable interest rate and the putative change in circumstances is the implementation of certain proposed adjustments to LIBOR. Whether or not any contractual uncertainty arises will depend, first, on whether the adjustments take the benchmark outside the contractual definition of the applicable interest rate and, second, whether, if they do, the contract makes provision for this outcome, either expressly or impliedly. The discussion below explores these questions and begins with a brief account of certain contractual terms that reference LIBOR in the prevailing market standard documentation.

4. STANDARD CONTRACTS

4.1. Standard market documentation referring to LIBOR is produced by the International Swaps and Derivatives Association ("ISDA") and the Loan Market Association ("LMA").[11] Contracts on both ISDA and LMA terms provide contingency (or "fall-back") arrangements that address the possibility of LIBOR becoming unavailable. Further detail of market standard terms defining the applicable interest rate as well as those making provision for adverse contingencies is given below for specified categories of financial instrument. It should be borne in mind that parties may agree to vary these standard terms and that many existing contracts may reflect such variations.

11 LMA terms are used primarily for loans to UK residents (see Appendix 3 for a profile of the UK loan market). A brief discussion of the standard market terms commonly found in loans to US residents is to be found in n.55.

Over-the-counter derivatives

4.2. A wide variety of derivative contracts incorporate the ISDA Definitions, including interest rate swaps. The parties will identify a Floating Rate in their transaction confirmation by selecting an index from a list in the ISDA Definitions. The most common index chosen in the UK interest rate swaps market is "GBP-LIBOR-BBA", and:

> "GBP-LIBOR-BBA" means that the rate for a Reset Date will be the rate for deposits in Sterling for a period of the Designated Maturity which appears on the Reuters Screen LIBOR01 Page as of 11:00 a.m., London time, on that Reset Date. If such a rate does not appear on the Reuters Screen LIBOR01 Page, the rate for that Reset Date will be determined as if the parties specified "GBP-LIBOR-Reference Banks" as the applicable Floating Rate Option.

4.3. As outlined above, if the Floating Rate ("GBP-LIBOR-BBA") is not available, the Definitions provide a fall-back to "GBP-LIBOR-Reference Banks", which means that:

> the rate for a Reset Date will be determined on the basis of the rates at which deposits in Sterling are offered by Reference Banks at 11:00 am London time on that Reset Date to prime banks in the London interbank market.

If the "GBP-LIBOR-Reference Banks" fall-back provision applies, the Calculation Agent will request that the principal London office of each of the Reference Banks provide a quotation and if "at least two quotations are provided" the rate for that Reset Date will be "the arithmetic mean of the quotations". If fewer than two quotations are provided, the "rate for that Reset Date" will be:

> the arithmetic mean of the rates quoted by major banks in London selected by the Calculation Agent, at approximately 11:00 a.m., London time, on that Reset Date for loans in Sterling to leading European banks for a period of the Designated Maturity commencing on that Reset Date and in a Representative Amount.

4.4. The Definitions state that "Reference Banks" for the purposes of "any "LIBOR" Floating Rate" means four major banks in the London interbank market. These banks will typically be appointed by the Calculation Agent.

Cleared derivatives

4.5. The rulebook for a central counterparty usually contains procedures for determining the interim and final settlement prices for a cleared derivative. Under the General Regulations of LCH.Clearnet, "GBP-LIBOR-BBA" is listed as one of the "acceptable" indices for interest rate swaps. The definition for this is similar to that in the ISDA Definitions set out above. Under the SwapClear procedures, the Reset Rate will be published by the Clearing House via the Rate Reset reports. The following principle is applied in calculating the Reset Rate:

> "GBP-LIBOR-BBA" means that the rate for a Reset Date will be the rate for deposits in Sterling for a period of the Designated Maturity which appears on the Reuters Screen LIBOR01 Page as of 11.00 hours, London time, on that Reset Date.[12]

4.6. There is a fall-back arrangement that provides:

> in the event of no rate being available the Clearing House will, at its sole discretion, determine an applicable rate.[13]

In the case of a cleared derivative, the relevant central counterparty or exchange has discretion unilaterally to designate a replacement benchmark applying to all contracts under its authority if the contractual benchmark is unavailable. Exchange-traded Eurodollar futures and options (Liffe, CME) also have fall-back provisions which allow the exchange discretion to determine an applicable rate in these circumstances.

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12 SwapClear is LCH.Clearnet's global clearing service for interest rate swaps.

13 Clearing House Procedures, SwapClear, October 2012: http://www.lchclearnet.com/Images/section2c_tcm6-43744.pdf.

Loans

4.7. In the UK, most syndicated loan agreements incorporate LMA standard terms.[14] Under these terms, the applicable interest rate is the "Screen Rate" defined by the following clause:

> "Screen Rate" means:
>
> **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.

4.8. LMA standard terms contain Market Disruption provisions which provide alternatives for calculating the rate of interest in the event that the settlement rate is unavailable. The majority of bilateral loan agreements will have similar Market Disruption provisions.

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14 It is noted that the LIBOR definitions in typical US commercial loan agreements often operate in a similar way as the ISDA Definitions, with some variations in successor provisions (see paragraph 5.6.) and fall-back provisions. US commercial loan agreements will typically incorporate the following definition:

> "LIBO Rate" means, in respect to any Eurodollar Borrowing for any one month interest period, the rate appearing on the Reuters "LIBOR01" screen page (also known as Reuters BBA Libor Rates 3750) (or on any successor or substitute page providing rate quotations comparable to those currently provided on such a page, as determined by the Administrative Agent from time to time for the purposes of providing quotations of interest rates applicable to Dollar deposits in the London interbank market) at approximately 11:00 a.m., London time, on the Business Day for the commencement of such interest period, as the rate for Dollar deposits with a maturity comparable to such interest period.

This clause includes a fall-back arrangement which provides:

> In the event that such a rate is not available as such time for any reason, then the "LIBO Rate" with respect to Eurodollar Borrowing for such interest period shall be the rate at which Dollar deposits of $5,000,000 and for a maturity comparable to such interest rate period are offered by the principle London office of the Administrative Agent in immediately available funds in the London interbank market at approximately 11:00 a.m., London time on such Business Day.

A "Eurodollar Disaster Clause" will often be triggered if LIBOR cannot be determined from the Administrative Agent's London office or if the LIBOR determined under the loan agreement "will not adequately and fairly reflect the cost to [the Lenders] of making or maintaining" their loans (i.e. if the BBA rate is unrealistically low). Once this clause is triggered, the LIBOR interest rate option becomes unavailable to the Borrower who must instead borrow at rates that are typically based on the Lender's or Administrative Agent's announced "base rate" or "prime rate".

4.9. The fall-backs for loans are, principally: initially, "Reference Banks" (as with derivatives) and ultimately, "cost of funds". If the Reference Banks mechanism then fails to generate an applicable rate, or if LIBOR does not reflect the cost of funds for a significant percentage of banks, a Market Disruption Event is triggered and the cost of funds fall-back is implemented.

4.10. In summary, a Market Disruption Event will be triggered if:

a. the Screen Rate (i.e. LIBOR) is not available and none or only one of the Reference Banks provides a quotation; or

b. if more than a specified percentage of Lenders say that their cost of obtaining matched funding in the relevant market would be higher than LIBOR.

4.11. The Reference Banks are appointed by the Agent in consultation with the Borrower, on an individual basis. Commonly, three or four Reference Banks will be appointed and these banks will be named in the relevant loan documentation.

4.12. Once a Market Disruption Event is triggered, the rate of interest payable to each Lender is the aggregate of the Margin, the Mandatory Cost (if applicable) of the Lender's participation in the loan and the rate notified to the Agent by the Lender as the Lender's actual cost of funding for that loan from "whatever source it may reasonably select".

4.13. There is scope within Market Disruption clauses to agree an alternative arrangement; the "alternative basis of interest or funding" clause provides that:

a. If a Market Disruption Event occurs and the Agent or the Company so requires, the Agent and the Company shall enter into negotiations (for a period of not more than thirty days) with a view to agreeing a substitute basis for determining the rate of interest.

b. Any alternative basis agreed pursuant to paragraph (a) above shall, with the consent of all of the Lenders and the Company, be binding on all Parties.

(See paragraph 5.6. below for further discussion).

LMA alternative provisions

4.14. In response to market disruption which occurred in 2008-2009, the LMA made extensive amendments to the Market Disruption provisions outlined above. The amendments are designed to interpose an additional safety net before the cost of funds contingency provisions are activated.

4.15. Under the alternative provisions, if the Screen Rate is unavailable and the contractually required number of Reference Banks cannot provide quotations, a Market Disruption Event will occur. In these circumstances, the applicable rate will be that quoted by the "Alternative Reference Banks". This is a wider pool of banks intended to reflect more closely the likely composition of a lending syndicate.

4.16. Under the alternative provisions, the Lenders' cost of funds fall-back will only apply if an "Alternative Market Disruption Event" subsequently occurs (i.e. an event such that the contractually required number of Alternative Reference Banks cannot provide quotations).

Floating rate notes

4.17. In the documentation on which participants in the market for "floating rate notes" (or "FRNs") typically rely, issuers elect a particular route for ascertaining the interest rate: commonly, by reference to a particular Screen Rate, at a particular time, a particular number of days prior to each relevant interest period. Fall-back provisions are also incorporated in case the specified rate of interest is unavailable. These will usually contemplate an entire series of contingencies: for example, if the LIBOR Screen Rate is unavailable at the relevant time on a particular day, the Calculation Agent will ask for quotations from four named Reference Banks. If fewer than two such quotations are given, the Calculation Agent would then ascertain the rate from four "major banks" operating in that area or financial centre; and, finally, if the Calculation Agent is not able to determine a rate through any of these options, the ultimate fall-back is that the rate of interest will be the same as in the preceding interest period. FRNs can be issued on a standalone basis or in the context of programmes, such as Medium Term Note ("MTN") programmes. The interest rate provisions tend to be very similar in both.

Collateralised loan obligations

4.18. For a typical collateralised loan obligation ("CLO") transaction, the fall-back arrangements often specify that if the Calculation Agent cannot determine the applicable rate, the Trustee will do so instead, incorporating any necessary amendments to the terms and conditions of the bonds.

5. LIBOR REFORM: SHORT-TERM PROPOSALS

5.1. It will readily be seen, from the account given above, that the touchstone for market standard definitions referring to LIBOR is often the publication of the rate on the Reuters Screen LIBOR01 Page. This should provide comfort that minor adjustments to the rate-setting process for LIBOR will not give rise to contractual uncertainty for so long as the rate which is set by that process is published on the LIBOR01 Screen. Moreover, where a rate is unavailable on the LIBOR01 Screen, contingency provisions will almost certainly apply. It is safe to say, therefore, that market standard contracts do make broad provision for the outcomes contemplated by the Wheatley Report. Given the size of the markets in question, the FMLC finds this reassuring from the perspective of a concern for legal certainty.[15]

5.2. However, not all market standard definitions rely exclusively on the virtual locus of publication: some incorporate a reference to the sponsorship of LIBOR ("the British Bankers Association Interest Settlement Rate"), which is expected to change. Moreover, not all of the proposals set out in the Wheatley Report can necessarily be described as minor adjustments: the report contemplates the withdrawal of certain currencies and tenors and the increased use of transaction data to corroborate banks' submissions, which latter reform may conceivably result in a change to the value of LIBOR vis-à-vis the value derived from submissions which would otherwise be made. The paragraphs immediately below examine the legacy issue in the light of these proposals and the section which follows thereafter considers the extent to which the contingency provisions identified above can mitigate any negative consequences which may arise.

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[15] Data on the size of relevant markets can be found in Appendix 2.

5.3. The paragraphs below examine aspects of the legacy issue which, in the view of the FMLC, should be carefully considered by HM Government and, if necessary, addressed in the implementation of the proposals recommended by the Wheatley Report.

Sponsorship of the benchmark

5.4. According to HM Government's response to the Wheatley Report, the new rate administrator will be sought by a tender committee, chaired by Baroness Hogg. Meanwhile, it is expected that the BBA will continue to sponsor LIBOR until new legislation is passed (see paragraph 1.2.).[16] Many standard documents expressly refer to the BBA in defining the applicable interest rate by which payment obligations are measured. The possible consequences for particular financial contracts are considered below.

5.5. In LMA standard documents, as noted above at paragraph 4.7., the Screen Rate is defined as the British Bankers Association Interest Settlement Rate. An abrupt withdrawal of the BBA's sponsorship of LIBOR could arguably result in parties contending that the contractually-defined benchmark is unavailable and that the fall-back provisions should apply.[17] In other words and subject to what is said below, if parties come to believe they have been disadvantaged by changes to the administration of LIBOR and the parameters within which it is calculated, they may oppose the application of the reformed benchmark to their own contracts by contending that the new arrangements are not consistent with the contractual definition of the applicable rate. Given the significant number of contracts which refer to LIBOR, there must logically be a concern that this could lead to commercial disputes. This concern may, however, prove to be unjustified if the new arrangements:

- **a.** result in no apparent change to the value of LIBOR vis-à-vis the value derived from submissions which would otherwise be made; or
- **b.** receive the imprimatur of the BBA, albeit under new administration; and/or
- **c.** are approved by the LMA.

The FMLC finds these considerations reassuring.

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16 See The Financial Times, "Libor rates cull proposed", 8 November 2012: http://www.ft.com/cms/s/0/0741e55a-29c4-11e2-a5ca-00144feabdc0.html.

17 In the worst case scenario, following a failure of contingency arrangements, parties to loan contracts may possibly elect to argue that their contracts have been frustrated (see section 6 for further analysis).

5.6. The FMLC places less confidence, however, in reports that loan contracts make provision for the Agent to certify an alternative service for quoting LIBOR if the BBA ceases to provide this and in the implied suggestion that such contracts will not, for this reason, give rise to any legacy issue. These reports may refer to one of two provisions:

a. the "alternative basis of interest or funding" clause as set out in paragraph 4.13., which provides that the prior consent of all of the Lenders and the Borrower is required to agree a substitute basis for determining the rate of interest; or

b. the successor source clause which often provides for:

> any successor or substitute page providing rate quotations comparable to those currently provided on [the Reuters] page, as determined by the Administrative Agent from time to time for the purposes of providing quotations of interest rates applicable to [Dollar] deposits in the London interbank market at 11.00 am London time.

In the FMLC's view, the first clause merely makes it clear that the Agent's agreement to substitute the basis for determining the rate of interest will not be binding on the Borrower or Lender without their prior consent. This may be difficult to obtain. As regards the second clause, the better view may be that it is intended to allow the Agent to specify an alternative published source rather than to redefine the applicable Screen Rate.

5.7. If the parties to a loan contract take the pragmatic view that the LMA terms are sufficiently flexible to accommodate a settlement rate administered by a new sponsor, the Agent and Lenders may still adopt the conservative attitude that the existing contract terms are best amended to eliminate references to the BBA. The Agent to a syndicated loan is commonly among the largest lending banks within the syndicate and it has a strong commercial incentive to achieve the best practical outcome. In this respect, it is well-placed to negotiate any revisions. Moreover, there are clear commercial incentives for Borrowers to agree revisions given that the "cost of funds" fall-back might result in a higher applicable rate.[18] However, to agree new terms, the Agent must obtain the consent of all the Lenders, as well as the

[18] For further discussion see below, paragraph 6.11.

Borrower. Such a process is likely also to be administratively burdensome and difficult to achieve within a short period.[19] A key factor will be the approval of the LMA. If a new benchmark is introduced which is approved by the LMA it will probably be accepted by Borrowers and Lenders especially in the Investment Grade loan market.

5.8. The case for contractual certainty and continuity is stronger in the case of derivative contracts, which often refer to the Floating Rate as "GBP-LIBOR-BBA" (or the equivalent for another currency). The contractual definition, as set out in paragraph 4.2., refers to "the rate for deposits in Sterling" which appears on the Reuters Screen LIBOR01 Page rather than to the rate administered by the BBA. It seems likely, therefore, that anything published as LIBOR on the Reuters Page would satisfy the relevant provisions, as long as it represents the rate at which Sterling deposits are, or are estimated to be, made. In light of the fact that the BBA is referenced in identifying the "GBP-LIBOR-BBA" Floating Rate, some parties to derivative contracts may consider raising the question whether the benchmark, as defined, has become unavailable once the BBA is no longer a sponsor. However, the FMLC takes the view that this argument is unlikely to succeed given that "BBA" is referenced exclusively in the name of the benchmark, i.e. the defined term, rather than the definition itself.

5.9. FRN documents often contain similar provisions to those set out at paragraph 5.6., regarding an alternative service for quoting LIBOR. In contrast to an Agent to syndicated loan, the Trustee to a FRN will not have any commercial incentive to achieve a profitable outcome when identifying possible courses of action to foster and protect contractual continuity. It will, however, be required to consider and implement the course of action which is in the interests of noteholders. (The risk of liability (discussed further below) will also be relevant from the viewpoint of the Trustee.) Where noteholders' instructions are required, the difficulty in coordinating a noteholders' meeting and reaching consensus in such circumstances is worthy of note.

5.10. The FMLC takes the view that this proposal—transferring the supervision of LIBOR from the BBA to a new administrator—is an aspect of the reforms which requires careful planning in order to avoid creating contractual uncertainty. It is important to ensure that references to the benchmark incorporated into existing financial contracts will capture the new (i.e. non-BBA)

19 It has been suggested to the FMLC that Lenders may capitalise on a perceived chance to renegotiate a variety of other terms in their contracts (although this is likely to consist of only a minority of Lenders in the market) and this could unwind the entire structure of the loan. (It is also noted that the Capital Requirements Directive IV may incentivise some Lenders to reconsider their exposure during a negotiation process.)

LIBOR. From the perspective of contractual certainty, every effort should be made in implementing the Wheatley Report's recommendations to obtain the continuing imprimatur of the BBA for the benchmark notwithstanding the supervisory and operational responsibility of the new administrator.

Transaction data

5.11. Another solution proposed in the Wheatley Report is that submitting banks should, where possible, make explicit and clear use of transaction data to corroborate their submissions. Under proposed submission guidelines (in the absence of a code of conduct, the Wheatley Report recommends that panel banks comply with these guidelines at [4.7]), LIBOR submissions should be based on a hierarchy of transaction types and:

> in the absence of transaction data relating to a specific LIBOR benchmark, expert judgement should be used to determine a submission.[20]

Implementing this proposal will mean that LIBOR will remain, in the final analysis, a rate determined by contributors' best assessment of the rate at which they could borrow in the interbank market. The proposal is intended to combine the benefits of increased reliability, afforded by the link to transaction data, with the safety net of judgement-based submissions where transaction data are in short supply. Concerns are commonly expressed regarding the feasibility of basing submissions on transaction data, given the potential for illiquidity in the unsecured lending market, but the safety net alluded to is intended to meet those concerns. If, however, the concerns materialise and the safety net is relied upon as a matter of course, the benefits of corroboration will be lost.[21]

5.12. Perhaps of greater concern is the possibility—frequently alluded to but rarely, if ever, substantiated—that rates based on actual transaction data are likely to be higher than those determined in the absence of such data (and may thus be disadvantageous to Borrowers, in particular). While this does not create legal uncertainty, it may possibly provide parties with an incentive to challenge the terms of their agreements and lend colour, even perhaps

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20 See the Wheatley Report, page 28 (at Box 4.B]).

21 In an illiquid unsecured lending market, there may be insufficient market capacity to generate reliable and representative transaction data. In times of market disruption in particular, unsecured lending in some currencies will be very low. Commentators claim that in the current market environment borrowing by banks for more than one week is almost exclusively secured lending in the City of London. The new Basel III requirements discourage unsecured lending and thereby bring into question the viability of any unsecured lending benchmark tied to a transaction analysis too. It is noted that this is not merely a problem for LIBOR: there are interbank offered rates in other markets for which the same issues arise, such as EURIBOR.

substance, to the argument that the parameters of the reformed benchmark were not within the parties' contemplation or intentions when the contract was concluded. However, in the case of loans on LMA standard terms, it should be noted that the Borrower has agreed, in circumstances where LIBOR and Reference Banks' quotes are both unavailable, to pay the agreed Margin over cost of funds. Thus the contract already contemplates the possibility that, in the event of disruption to LIBOR, the rate to be applied is one which is likely to be higher than LIBOR itself and, indeed, extrapolated from transaction data.[22]

Loss of tenors and currencies

5.13. The Wheatley Report advocates a reduction to the number of tenors and currencies linked to LIBOR; it identifies that there is a lack of regular transactions for many of the currencies and tenors for which LIBOR is calculated and that the usage of LIBOR is concentrated in a few core currencies. A period of six or twelve months to phase out the specified tenors and currencies is recommended (at [5.12]) and this recommendation is reflected in a recent paper by the BBA.[23] The Wheatley Report states that in "due course" the new LIBOR administrator, through an open process of consultation with LIBOR users and submitting banks, should work towards implementing this recommendation (at [5.13]). The report goes on to argue that, in the absence of certain tenors, interpolation and extrapolation techniques could be used to create intermediate maturities between existing data points. In order to implement the Wheatley Report's recommendation, the BBA has proposed that the phased discontinuation of 120 tenors and of specified currencies should be completed within a six month timescale from the publication of the Wheatley Report, by the end of March 2013 (see n.23).[24] This is subject to consultation and feedback submitted by 8 December 2012.

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22 It is noted that for some Borrowers the fall-back to cost of funds might be positively advantageous. If the LIBOR rate is withdrawn and deals "fall back" to cost of funds, banks will be reluctant to certify that their cost of funds is high and, in some cases, their cost of funds may fall below LIBOR as a matter of course. Conceivably, Borrowers could be better off than if a LIBOR rate based on actual transaction data was introduced.

23 See "Strengthening LIBOR – proposal to implement number 6 of 'The Wheatley Review of LIBOR'", *ibid*. The BBA has proposed a phased removal of the below maturities and currencies by March 2013, in line with the Wheatley Report's recommendation. In summary, the BBA has recommended:

i. by end January 2013, the removal of ten currencies within the current LIBOR framework should be implemented;
ii. by end February 2013, the compilation and publication of all remaining tenors pertaining to Australian Dollar (AUD) and New Zealand Dollar (NZD) may be fully discontinued; and
iii. by end March 2013, the streamlining of LIBOR can be fully implemented; this will involve the discontinuation of all rates relating to the Canadian Dollar (CAD), the Danish Krone (DKK) and the Swedish Krona (SEK).

24 See *supra* n.23. It is noted that the Wheatley Report recommends the discontinuation of potentially 130 tenors, as mentioned earlier in this paper.

5.14. The FMLC is of the opinion that the projected period for phasing out potentially 130 (or 120, as the case may be) tenors and certain specified currencies is too short, particularly for currencies. For some of the less liquid currencies, benchmarks calculated in domestic jurisdictions tend to be preferred to LIBOR due to the greater liquidity in domestic markets. The Stockholm Interbank Offered Rate ("STIBOR") for instance, is used more frequently than the corresponding Swedish Krona LIBOR benchmark. Nevertheless, as the Wheatley Report acknowledges (at [5.11]), there are likely to be at least some outstanding contracts referencing every LIBOR rate. It is noted that for these outstanding contracts, counterparties will likely argue that their fall-back provisions apply.[25] However, the FMLC has been given to understand that in circumstances where a discontinued currency (such as Australian Dollar LIBOR, as proposed by the BBA) is used for a limited number of contracts for a tenor of, for instance, six months, the Reference Banks to a contract will likely provide quotations (as it would not seem too burdensome if the cases are very limited).

Compelling panel banks to participate in the LIBOR setting process

5.15. There are arguably minimal incentives for panel banks to participate in the LIBOR setting process.[26] Since the publication of the Wheatley Report, banks have greater reassurance over the viability of continuing their participation, but there is, nonetheless, some (slight) risk that this position could change and some panel banks will choose to withdraw from LIBOR before the appointment of the proposed replacement administrator or change to the fall-back arrangements in existing contracts. The Wheatley Report stipulates that, if necessary, a regulatory rule compelling banks to make submissions should be introduced (at [5.28]). This rule would, presumably, be accompanied by disciplinary sanctions for breach. However, the introduction of such a rule, and the attendant threat of sanctions, is not, perhaps, as significant as may first appear: banks may be familiar with regulatory and market rules which not only require disclosure but go further and require price-setting (for example stock exchange rules relating to market-making).[27]

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25 As mentioned above (n.22), following a failure of contingency arrangements, parties to loan contracts may possibly elect to argue that their contracts have been frustrated (see section 6 for further analysis).

26 The Economist, "Hammering LIBOR", 16 July 2012: http://www.economist.com/blogs/freeexchange/2012/07/libor.

27 Legal compulsion in the form of injunctions and other litigious remedies would seem unpalatable if imposed indefinitely. However, it seems more likely that disciplinary sanctions are intended.

6. THE POTENTIAL IMPACT OF THE PROPOSALS

Increased reliance on fall-back provisions

6.1. It has been suggested that the implementation of some of the short-term proposals for the rehabilitation of LIBOR, if not carefully structured, may result in parties arguing that the fall-back provisions in their contracts have been triggered. The clearest case in which increased reliance on fall-back provisions can be predicted is in contracts incorporating those currencies and tenors due to be discontinued. This may amount to a relatively small number of contracts.[28] It has also been suggested above that the abrupt withdrawal of the BBA's sponsorship of LIBOR could result in parties to some loan contracts adopting a similar position but only if the reassuring factors listed above (at paragraph 5.5.) cannot be said to apply.

6.2. Increased reliance on contingency provisions across larger markets, as the FMLC understands, would be unworkable, particularly if those fall-backs were expected to apply permanently (i.e. following the withdrawal of LIBOR or a contractually-material change in its identity). The implications of this are that, in the absence of amendments to the contingency provisions in existing contracts, parties may not be confident that an existing fall-back arrangement would be operable for the remaining life of their contract. The following paragraphs discuss the impact of increased reliance on fall-back arrangements. In what is said below about derivative contracts on ISDA standard terms, the FMLC bears in mind its view (at paragraph 5.8. above) that a change of sponsor is unlikely to affect the application of the "GBP-LIBOR-BBA" index.

6.3. As discussed in section 4 above, the typical fall-back provisions found in loan contracts on LMA standard terms, derivative contracts on ISDA standard terms and in FRNs stipulate that if LIBOR becomes unavailable, quotations from Reference Banks will be sought. In most cases, there are often around three or four Reference Banks appointed and a minimum of two quotations from these banks is required. With so few Reference Banks appointed, there is a possibility that none or only one of these banks will be able to provide quotations—particularly if the Reference Banks are also panel banks participating in the LIBOR setting process.[29] This problem is likely to be particularly acute where LIBOR has ceased to exist as

[28] The FMLC understands that there are very few trades in the currencies and tenors that are proposed for discontinuance.

[29] Indeed, the Wheatley Report also discusses this possibility (at [5.32]).

the Reference Banks (in common with other banks in the market) are likely to receive a large number of requests for quotations. Their response may be to decline to provide any further quotations.

6.4. In contracts on ISDA standard terms, if fewer than two quotes are provided by the Reference Banks, the Calculation Agent will determine the rate by reference to quotations from other banks. This is unlikely to be achievable for the long-term, given the huge volume of existing derivative contracts pegged to LIBOR. In addition:

> widespread use of these contingencies would mean that different contract provisions may lead to different interest rates payable in place of LIBOR between counterparties.[30]

Mismatching of back-to-back contracts in this way would itself create increased credit risk for parties and may possibly increase systemic risk overall. Back-to-back contractual arrangements likely to be affected include interest rate swaps used to hedge against interest payments on other facilities, such as loans and derivatives subject to clearing. In the latter case, if the interest rate applicable under the underlying contracts is not matched by the interest rate applicable between the clearing member and the central counterparty, the exposure to movements in LIBOR or "basis risk" increases for the clearing member. This risk also arises if the fall-back provision discussed above, which provides that the central counterparty will determine the applicable rate at its discretion, is triggered without a corresponding adjustment to the applicable rate in the underlying contract.

6.5. In LMA standard loan contracts, if Reference Banks cannot provide a quotation, the Lenders' cost of funds will apply.[31] Loan market participants commonly suggest that this could be disadvantageous to the Borrower as it may lead to higher borrowing costs. In any event, the increased administrative burden on the Agent of coordinating the application of the "cost of funds" provisions will be significant, even perhaps unmanageable. The fall-back arrangement will only prove workable if banks are prepared to be wholly transparent about their cost of

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30 *Ibid*.

31 As the FMLC is given to understand, the alternative provisions highlighted in paragraphs 4.14 to 4.16 of this paper have failed to gain general acceptance among Lenders. Some banks may feel that widening the group of Reference Banks would not necessarily solve the problem if the Reference Banks provisions prove unworkable. Some other banks may simply feel more comfortable being able to resort to the cost of funds fall-back straightaway without interposing an intermediate step. Therefore, as previously discussed, the majority of existing LMA standard loan contracts will likely revert to the cost of funds fall-back straightaway, if the appropriate number of Reference Banks cannot provide quotations.

funds. Even in this situation, it is noted that there could be scope for plenty of argument between Lenders and Borrowers about how a bank's actual cost of funds should be calculated.

6.6. In the case of CLOs, the fall-back arrangement common to many contracts provides that if the Calculation Agent cannot determine LIBOR, the Trustee will do so instead (see paragraph 4.18). One may expect the Trustee to take a conservative approach in exercising this power, and it may follow that this fall-back cannot be relied upon for the long-term.

6.7. In circumstances where LIBOR is no longer available overall, it would seem to be in the interests of all parties to the contract to agree a new benchmark and renegotiate their contracts to reflect such an agreement, rather than rely on fall-back provisions. Renegotiation would have to be undertaken on a case by case basis and would likely prove to be a greater administrative burden than that noted above (particularly with regards to syndicated loans which have numerous Lenders, often based in different regions across the world). Transition to a new benchmark is discussed below in section 7.

6.8. The paragraphs below consider the litigious consequences which may possibly arise following the failure of fall-back arrangements.

Litigation – frustration

6.9. In circumstances of increased market reliance on fall-back provisions, it is unlikely that such provisions would prove operable over the long-term. (Contracts such as Project Finance Loans may have a life of twenty-five or thirty years, see Appendix 3.) Where fall-back arrangements fail, parties may seek to argue that their contracts have been frustrated. This latter possibility is considered in the paragraphs below.

6.10. The doctrine of frustration operates to discharge a contract where:

> after the formation of the contract, something occurs which renders performance of contractual obligations impossible, illegal, or something radically different from that which was in the contemplation of the parties at the time of entry into the contract.[32]

32 McKendrick, Ewan, "Contract Law: Text, Cases and Materials"; Oxford University Press, New York, 2004, page 849.

If the doctrine is applied, the contract will automatically be brought to an end, irrespective of the wishes of the parties, and both parties will be released from their obligations to perform the contract. Demonstrating a concern for commercial certainty, the courts have adopted a restrictive approach to the operation of this doctrine.[33] Frustration will not apply where:

a. express provision has been made in the contract for the event that is argued to have frustrated the contract (since force majeure and hardship clauses seek to capture events which may impede performance of the contract, the impact of such events is likely to be regulated by the terms of those clauses rather than the doctrine of frustration);

b. the event alleged to have frustrated the contract was foreseen, or clearly foreseeable, by the parties; and

c. the alleged frustrating event was caused by the conduct of the party to the contract seeking to invoke frustration, rather than a supervening event.[34]

6.11. In the financial markets, fall-back provisions are set out in standard form contracts to cater for circumstances in which LIBOR becomes unavailable. The FMLC takes the view, therefore, that provision has been made for the unavailability of the benchmark and frustration will probably not apply. Given reason to do so, some parties may argue that standard fall-back provisions should be restrictively construed such that they apply exclusively to situations in which the applicable reference rate becomes temporarily unavailable, rather than a situation in which the benchmark is withdrawn or fundamentally altered. However, an argument of this nature is premised on the withdrawal or transformation of LIBOR and the risk that such an event occurs may be addressed by there being, following the proposed reforms, a revised or rehabilitated benchmark which impliedly still satisfies the contractual definition. Parties are more likely to argue that the fall-back provisions have been triggered by the changes to LIBOR and only later that the contract has been frustrated, should the fall-back provisions fail to work after a period of time. In either case, a strong legal opinion to the effect that a Court is unlikely to consider that existing contracts on standard terms have been frustrated in

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33 For further detail, see cases regarding the conditions (impossibility, illegality, and frustration of purpose) which must be satisfied for the doctrine of frustration to apply: i) impossibility: *Taylor v. Caldwell* (1863) 3 B & 826, ii) illegality: *Fibrosa Spolka Akcyjna v. Fairbairn Lawson Combe Barbour Ltd* [1943] AC 32 and iii) frustration of purpose: *Krell v Henry* [1903] 2 KB 740.

34 McKendrick, 2004, page 849.

circumstances of benchmark transition could play a pre-emptive role in maintaining market confidence, particularly if published.

Implied terms

6.12. The implementation of the proposals in Wheatley Report will not represent the first occasion on which the authorities have acted to revise a benchmark. In 1981, the Minimum Lending Rate ("MLR")—the minimum rate at which the Bank of England announced that it would make short-term money available to the market—ceased to be published.

6.13. The Bank of England announced that after 20 August 1981, it would no longer post the MLR. For existing contracts, i.e. those predating 21 August 1981, there was a very serious risk of contractual uncertainty and even market disruption given that standard form contracts did not, at the time, contain fall-back provisions as a matter of course. In advice to the Law Society considering what effect a Court might give to a contractual term referring to the MLR following this change, Leonard Hoffmann QC (as the FMLC Chairman then was) identified two alternative possible constructions. The first would have accepted that the interest period had become inoperable and that, accordingly, no ascertainable rate of interest was payable under the contract, leading to a frustration of the contract. The second required the implication of a new term into the contract in order to fill the perceived gap.[35] Hoffmann advised that a Court could be expected to treat a contract containing a reference to the MLR as subject to an implied term, i.e. one to the effect that, if MLR ceased to exist, there would be a substituted rate—the prevailing clearing bank rate.[36] This opinion was instrumental in garnering broad acceptance for the view that contracts would transition smoothly to the prevailing clearing bank rate. [37]

6.14. This case study may be relevant to the process of reforming LIBOR today even though fall-back provisions in modern standard market contracts largely forestall arguments, still of concern in 1981, about the frustration of the contract. First, it is a useful reminder that the courts are very reluctant indeed to accept that a commercial agreement has been frustrated: as Leonard Hoffmann QC opined, a Court would likely make every effort to find some answer

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[35] The common law doctrine of implied terms has since been restated on several occasions, including by Lord Hoffmann—as he now is—in *Attorney-General of Belize* v *Belize Telecom Ltd* [2009] UKPC 10.

[36] The base rates published by members of The Committee of London Clearing Bankers. At that time this was deemed to be the rate which came closest to sharing those features of the MLR that made it a suitable benchmark for contracts.

[37] Contents of the Opinion have been disclosed with the kind permission of The Law Society.

so that the criterion for determining a term could be implied into the contract, "rather than accept the consequences of declaring itself defeated". Second, it suggests that a strong legal opinion—or, indeed, an early court ruling on the issue—could play a role in maintaining market confidence.

Non-contentious responses to change

6.15. The previous paragraphs have considered how benchmark transition may conceivably become contentious for some parties. However, non-contentious outcomes may still have a significant impact if they result in market participants bearing a much larger burden of costs in order to minimise contractual uncertainty and the risks that it may import.

6.16. As discussed briefly above, parties may take the view that, no matter how small the risk of contractual uncertainty, it would be prudent to renegotiate the benchmark definition in their existing contracts. Alternatively, parties may take the view that fall-back provisions in existing contracts should be strengthened and broadened. Indeed, the Wheatley Report itself proposes that contingency or fall-back arrangements in market standard form contracts should be reconsidered (and redrafted, it is implied at [5.34]), albeit exclusively for new contracts. Negotiations to amend provisions in existing standard market contracts may, however, prove difficult and time-consuming. The mechanisms by which existing market contracts may be amended wholesale (i.e. across markets for multiple participants) are discussed in the next section of this paper.

6.17. On this point regarding the renegotiation of existing terms, it is noted that, in the case of FRNs and CLOs Trustees often take a conservative approach to making any amendments in order to avoid liability (despite the fact that, in general, the documentation confers on Trustees the discretion to agree in formal, minor or technical amendments to the terms and conditions of the bond).[38] In practice, the agreement of all noteholders is likely to be required but coordinating such a meeting and reaching the requisite majority could prove difficult. In the case of LMA loan documentation, the Agent could also encounter difficulty in securing agreement to any amendments. (As discussed, the Agent may have discretion to specify another published service displaying the applicable Screen Rate under the terms of the loan but this is unlikely to be interpreted by the Agent as permitting it to make wholesale changes.)

[38] See Ashurst brief, "LIBOR is changing – how will it affect financial contracts?", October 2012, page 10.

The next section of this paper will consider the appropriate method of transitioning to a new benchmark.

7. TRANSITIONING TO A REPLACEMENT BENCHMARK

7.1. The Wheatley Report recommends that users of LIBOR should ensure that they are using the most appropriate reference rate for their purpose and, where this is not LIBOR, they should look to transition to a new reference rate where feasible (at [6.6]). In addition, it is suggested that the UK authorities work closely with the European and international communities and contribute fully to the long-term debate on the future of LIBOR and other global benchmarks.[39] It is not entirely clear whether this recommendation concerns existing standard market contracts or applies exclusively to new contracts.

7.2. The Wheatley Report questions what role the authorities should play in facilitating and encouraging any transition to an alternative benchmark (at [6.17 to 6.21]). It recommends that authorities should take forward discussion on this issue at an international level. Reference is made to several responses to the initial discussion paper, which had suggested that the choice of alternatives should be market-led (at [6.20]); however, it is not clear whether it is envisaged that transition will be led by the authorities or whether it will in fact be market-led.[40] Examples of a large scale market transition (to amend existing market standard contracts) include ISDA's Big Bang and Small Bang protocols which increased the standardisation of documentation for credit derivatives and introduced new settlement arrangements for those contracts. The FMLC takes the view that changing standard contracts by way of a protocol in this way offers the brightest hope of a smooth transition from LIBOR to an alternative benchmark. It is noted that market input of this kind was also touched upon in an address to the European Parliament by Gary Gensler, Chairman of the US Commodity Futures Trading Commission (who will also co-chair the International Organisation of

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[39] The Wheatley Report states (at [6.21]) that at an international level, authorities:

> should take forward a discussion of existing applications of inter-bank rates such as LIBOR, the merits of alternative reference rates for certain applications, and the role, if any, that the authorities should play in facilitating or encouraging transition to these reference rates. In the first instance this should be the Financial Stability Board (FSB), working in conjunction with IOSCO [i.e. the International Organisation of Securities Commission], the European and other interested regional and domestic authorities.

[40] It is however noted that conclusions and recommendations on the "Alternatives to LIBOR for the longer-term" are beyond the scope of the Wheatley Review". See the Wheatley Report (at [6.2]).

Securities Commission Task Force examining financial benchmarks).[41] If this kind of transition is planned, market participants may rely constructively on the anticipated transition and refrain from undertaking administratively burdensome and difficult renegotiations. A wide protocol also promotes uniformity across back-to-back contracts and can prevent mismatching of interest rates. By way of example, counterparties to existing contracts who hedge their loans on interest rate swaps, may be incentivised to adopt such a protocol to avoid any mismatch.

7.3. To achieve these benefits, the coordination of all relevant trade associations may be required. This could include consultation between *inter alia*, ISDA, the LMA and the Securities Industry Financial Markets Association or the Association for Financial Markets in Europe.[42]

7.4. Transition to any new benchmark could be mapped, either by the authorities or trade associations. The mapping for each of the currencies and maturities under LIBOR may be determined for the currencies and maturities of any alternative benchmark; one way in which this could be achieved is through an auction process. The categorisation and grouping of different instruments or facilities might be considered. Certain markets are enormously diverse and mapping should therefore be detailed enough to account for the different kinds of facilities which are available. If an alternative benchmark were mapped to a secured rate,[43] funding would be at a lower cost than the existing unsecured rate (LIBOR) and the addition of a constant or variable may be a desirable or necessary part of the mapping.

7.5. A detailed timeline of planned developments is desirable for the sake of predictability. Documentation which is drafted for new contracts, if this proves desirable, may need to be incorporated into existing contracts on the same day to reduce any risk of uncertainty and a mismatch of back-to-back contracts. New contracts which are drafted in the period before the alternative benchmark is introduced should also be accounted for. One way in which this might be achieved is that early in the lead-in period to the transition the identity of the proposed benchmark is announced so that it can be incorporated into new contracts.

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41 It is noted that Chairman Gensler of the Commodity Futures Trading Commission remarked that if the market were to move to a replacement benchmark "Broad market input would be necessary to establish protocols and market mechanisms for such a transition". See "Remarks of Chairman Gary Gensler, European Parliament, Economic and Monetary Affairs Committee", 24 September 2012: http://www.cftc.gov/ucm/groups/public/@newsroom/documents/speechandtestimony/opagensler-121.pdf.

42 It is noted that the LMA may also need to consult (as it has done historically) the Association of Corporate Treasurers since Borrowers to loan facilities are not included under its membership.

43 The Wheatley Report suggests that amongst other things, a transition to a secured rate might also be possible (at [6.41]).

Key reasons for a longer transition period

7.6. The FMLC welcomes the Wheatley Report's statement that international coordination is essential for any longer-term transition from LIBOR to an alternative rate. It is however noted that such a transition will need to be very carefully structured. A planned consultation process in which the terms of market contracts are changed will take time to complete. Moreover, ideally, the transition should take place outside the lifetime of as many outstanding contracts as possible. The FMLC notes that as regards the loan market Real Estate, Investment Grade Revolving Credit Facilities and Leveraged Loan Revolving Credit Facilities are generally committed for around five years (see Appendix 3).[44] Therefore, a period of around five years is arguably desirable for a transition to an alternative benchmark.[45] Other key reasons for a generous transition period include the following:

a. Obtaining the agreement of the trade associations (and potentially, international authorities) listed above is likely to take time and require significant resources. Furthermore, in reaching agreement for a market-wide protocol, trade organisations must consider anti-competition rules and cartel prohibitions, although this may not be an issue in practice.[46]

b. Contracts incorporating LMA documentation tend to be less standardised, containing more bespoke provisions, than contracts incorporating ISDA documentation. This suggests that the maturity profile of the loan markets should be considered when determining the transition period.

c. There is a risk that members of trade associations may not sign up to a protocol voluntarily since it could prove advantageous for some counterparties to rely on fall-back provisions or argue that their contracts have been frustrated. Counterparties may also be inclined to move to a new protocol at a time when it would seem most advantageous for them, rather than on any date scheduled by the trade associations.

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44 It is noted that some of these are committed for a period of two years. Although the majority of Project Finance Loans tend to be committed for fifteen to twenty-five year periods, a five year transition is thought to capture at least the majority of existing contracts.

45 Some market participants have indicated that a period of five years for transition would be too short (and perhaps, a seven year transition would be more desirable). Other market participants have indicated that a period of five years would be too long.

46 The Treaty on the Functioning of the European Union, Article 101: http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2010:083:0047:0200:en:PDF.

d. Although it may be possible to incentivise or even compel regulated entities to move to a new benchmark, it may be more difficult to do so for those peripheral, non-regulated entities.

8. CONCLUSION

8.1. LIBOR faces a reputational problem which may critically undermine market confidence in the benchmark. Reform of LIBOR has therefore been identified as a key priority by the authorities. The FMLC is strongly of the view that any reform proposals must take stock of the legacy issue which is set out in this paper.

8.2. It is clear that agreeing any market standard amendments to relevant contingency provisions in existing contracts will take time. An important consideration in assessing the degree of contractual uncertainty that may result from the withdrawal or fundamental alteration of the benchmark in the meantime is the fact that, as the FMLC has been given to understand, existing fall-back arrangements in standard contracts are unlikely to be workable on a market-wide scale, at any rate over an extended period.

8.3. If the identity of the benchmark is significantly altered as a result of reform initiatives before existing contracts can be amended it is to be expected that contractual uncertainty may result. Of greatest concern in this regard is the proposed change of sponsor in the context of loan contracts on the LMA standard terms and the sponsor-based definition of the Screen Rate that those terms incorporate. This concern may, however, be greatly mitigated, and even eliminated, if the new arrangements:

a. result in no apparent change to the value of LIBOR vis-à-vis the value derived from submissions which would otherwise be made; or

b. receive the imprimatur of the BBA, albeit under new administration: and/or

c. are approved by the LMA.

8.4. A further concern is the withdrawal of certain tenors and currencies, particularly in the context of existing derivatives contracts which refer to these LIBOR categories, as—for example—certain cross currency swaps may do. In this regard, however, the FMLC takes comfort from the fact that, as it has been given to understand, there are relatively few derivatives trades in the indices proposed for withdrawal.

8.5. The analysis above amounts to a pressing case for work to ascertain a means by which the identity of LIBOR, as it is defined in market standard contracts, can be reliably preserved in the short-term. In the longer-term, the FMLC has formed the view that the best method for achieving a smooth transition is the introduction of a market-wide protocol following consultation by the main trade associations. The period for such a transition should, from the perspective of contractual continuity, exceed the life of as many outstanding contracts as possible.

APPENDIX 1

It is not for the FMLC to suggest which reference rate should replace LIBOR for certain markets; however, a list of existing benchmarks which commentators and market participants have suggested as viable alternatives to LIBOR is provided in this Appendix.

1. UNSECURED OVERNIGHT INDEX SWAPS

1.1. Overnight Index Swaps ("OIS") are interest rate swaps between a fixed rate and the overnight cash lending rate (e.g. Sterling Overnight Index Average ("SONIA") or Euro Overnight Indexed Average ("EONIA")), for a specific maturity. Overnight unsecured lending is the representation of the central bank policy rate. In the UK, this is measured by the SONIA, which is comprised of the weighted average of all overnight Sterling trades, reported by the Wholesale Markets Brokers' Association ("the WMBA"). Transactions in the swap market can then be used to generate a maturity curve for overnight interest rates. OIS as a benchmark would be heavily dependent on the robustness of the overnight cash rate.[47]

SONIA

1.2. SONIA tracks actual Sterling overnight funding rates experienced by market participants. The development of SONIA led to product developments which reduce risk and increase transparency. SONIA is the weighted average rate to four decimal places of all unsecured Sterling overnight cash transactions brokered in London by the Wholesale Markets Brokers' Association ("WMBA") member firms between midnight and 4.15pm with all counterparties in a minimum deal size of £25 million[48].

EONIA

1.3. EONIA is the effective overnight reference rate for the Euro. It is computed as a weighted average of all overnight unsecured lending transactions undertaken in the interbank market, initiated within the Euro area by the contributing banks. EONIA is computed with the help of the European Central Bank and the banks contributing to this benchmark are the same as those contributing to EURIBOR.[49]

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47 See The Wheatley Review: initial discussion paper (at [4.14]).

48 See BBA webpage: http://www.bba.org.uk/policy/article/sterling-overnight-index-average-sonia-a-guide/benchmarks/.

49 See European Banking Federation page: http://www.euribor-ebf.eu/euribor-eonia-org/about-eonia.html.

2. SECURED RATES (REPURCHASE AGREEMENTS)

2.1. Repurchase ("Repo") agreements are a form of short-term secured borrowing whereby a bank sells debt securities (often government securities) to another institution on the basis that it will agree to repurchase them on a set date and price in the future. The duration of these transactions typically ranges from overnight to 30 days. Some commentators have argued that repo markets are not always transparent. The Collateral Requirements Directive aims to curtail the circumstance in which one bank is repo-ing with a "friend", i.e. the bank takes another institution's collateral if the institution takes the bank's collateral.[50]

Repo Overnight Index Average

2.2. RONIA is a new repo-based rate for the UK interbank market. RONIA is the weighted average rate to four decimal places of all secured Sterling overnight cash transactions brokered in London by contributing WMBA member firms between midnight and 4.15pm with all counterparties with no minimum deal size. RONIA eligible transactions are Delivered by Value and this is a mechanism whereby a CREST member who has borrowed money against overnight gilt collateral may have gilts on its account to the required value delivered automatically by the system to the CREST account of the money lender. This index tracks actual market overnight funding rates.[51]

General Collateral Financial Index

2.3. The General Collateral Financial index is a short-term interest rate benchmark based on an index of rates at which actual, fully collateralised and centrally cleared financing transactions (repurchase agreements) are executed.

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50 See Financial News article, "Bowles will oppose Libor repo market replacement", 13 August 2012: http://www.efinancialnews.com/story/2012-08-13/bowles-will-oppose-libor-replacement.

51 See WMBA page: http://www.wmba.org.uk/pages/index.cfm?page_id=33.

APPENDIX 2

Instruments linked to LIBOR include interest rate swaps, cross currency swaps and other derivatives, FRNs, CLOs, a wide variety of loans including mortgages and bilateral and syndicated loans and other diverse contracts such as securitisation and as a performance benchmark for hedge funds.

- Interest rate swaps are agreements to exchange interest rate cash flows, calculated on a notional principle amount, at specified payment dates during the life of the agreement. Each party's payment obligation is computed using a different interest rate. In an interest rate swap, the notional principle is never exchanged. Although there are no standardised swaps, a plain vanilla swap typically refers to a generic interest rate swap in which one party pays a fixed rate and one party pays a floating rate (usually LIBOR).[52] Interest rate swaps allow for the management of interest rate risk. Over-the-counter interest rate swaps comprised almost $400 trillion in notional value in June 2012.[53]

- Cross currency swaps are agreements between two parties to swap interest payments denominated in two different currencies for a specified term. During the life of a swap, each party pays interest to the other in the currency of the principle received. At the swap's maturity, the parties make one last exchange of the initial principle amounts.[54]

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52 See ISDA "Product Descriptions": http://www.isda.org/educat/faqs.html#24.

53 The Bank for International Settlements Quarterly Review, December 2012: http://www.bis.org/statistics/otcder/dt1920a.pdf.

54 See ISDA "Product Descriptions", *ibid*.

- Bilateral and syndicated loans are frequently linked to LIBOR, as are some mortgages. The size of lending by UK banks to UK residents and businesses as of September 2012 is valued to be approximately £2.5 trillion, including commercial and retail mortgages.[55] A large proportion of these loans are thought to be based on LMA standard terms.[56]

- FRNs are medium to long-term debt obligations with variable interest rates that are adjusted periodically (typically every one, three or six months). The interest rate is usually fixed at a specific spread over a specified rate. LIBOR is one of the most common benchmarks linked to FRNs.[57] The value of FRN contracts pegged to the LIBOR benchmark globally, is estimated to be $1.5 trillion.[58]

- MTN programmes are created by agreeing a set of issue documentation in advance in order to create a platform from which issuers may issue a range of notes or bonds (whether bearing a fixed or a floating rate of interest) at very short notice, simply by selecting from a menu of pre-agreed terms and conditions.

- A CLO is a type of debt security where payments from corporate loans are pooled together and passed on to different classes of owners in tranches.

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55 For the purposes of comparison, the FMLC has been given understand that residential mortgage loans using one year US Dollar LIBOR as a reference comprise of around $1 trillion, and that there are also large values of Student Loans in the US which use one month US Dollar LIBOR as a reference rate. It is noted that US mortgage loans may have greater variation in their terms than other classes of instruments. The terms of the Freddie Mac form of LIBOR-based residential mortgage loans define LIBOR as "the average of the interbank offered rates for [six-month] US dollar-denominated deposits in the London market as published in The Wall Street Journal". In practice, the rates published in the Wall Street Journal are those taken from the Reuters Screen LIBOR01 Page. The Freddie Mac form includes a fall-back arrangement which provides that if LIBOR as published by The Wall Street Journal "is no longer available", the holder of the mortgage note "will choose a new index which is based upon comparable information".

56 See "Monetary financial institutions consolidated balance sheet – further sectoral breakdown", Bank of England, at Table B2.1.1: http://www.bankofengland.co.uk/statistics/Pages/bankstats/2012/Sep12/default.aspx.

57 Organisation for Economic Co-operation and Development, "Glossary of Statistical Terms", 2008, page 208.

58 See "Response submission from the International Capital Market Association (ICMA) Re: initial discussion paper – "The Wheatley Review of LIBOR" ", 7 September, page 2.

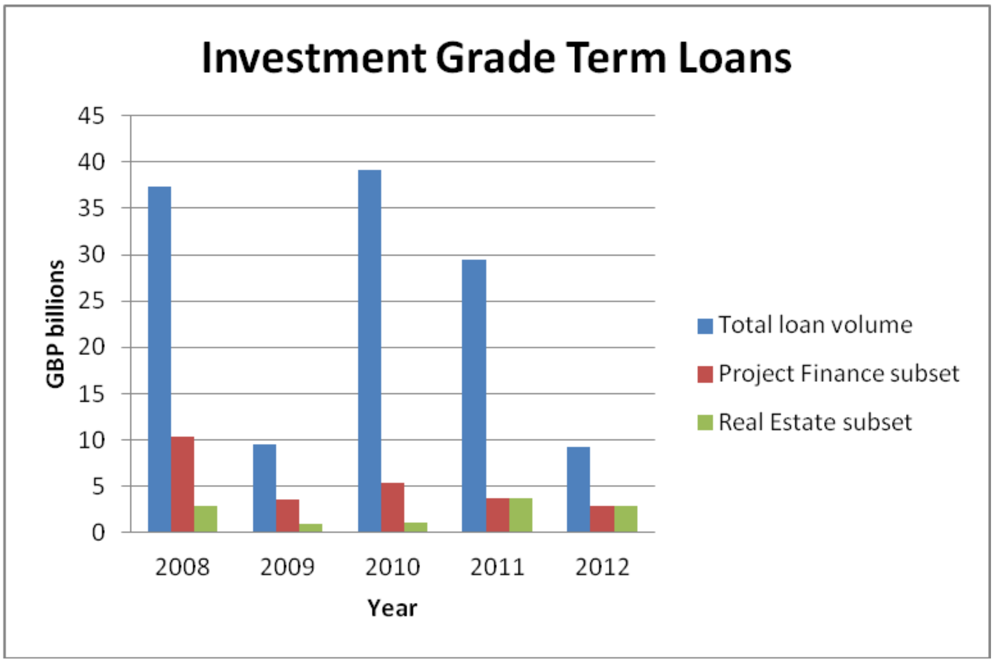
APPENDIX 3

In view of the fact that the FMLC has been asked to consider the period within which a transition to a new benchmark may be implemented and the impact of transition on existing loans, a loan maturity profile is provided below.[59]

Debt Maturity Profile

Virtually all loans falling under the categories listed below are floating rate and use LIBOR as the interest rate benchmark.

Investment Grade Term Loans



Year	**Total Loan Volume (GBP billions)**	**Project Finance Subset (GBP billions)**	**Real Estate Subset (GBP billions)**
2012	9.2	2.9	0.8
2011	29.5	3.7	1.4
2010	39.2	5.4	1.1
2009	9.6	3.6	1.0
2008	37.4	10.3	2.9

59 Facility data was extracted from Dealogic. Dealogic data was provided in EUR so the GBP equivalent is derived by using an exchange of 1.1.

Project Finance

- The FMLC understands that virtually all syndicated Term Loans are floating rate and, in the UK market, use LIBOR as the interest rate benchmark.

- The Project Finance Loans tend to be committed for long periods, typically between ten and thirty years. The majority fall into the fifteen to twenty-five year period. The amounts vary from tens to hundreds of millions Sterling.

- For many Project Finance Facilities, the Borrower is required to hedge into a fixed rate interest rate swap.

- Other Term Loans tend to be for periods of up to five years.

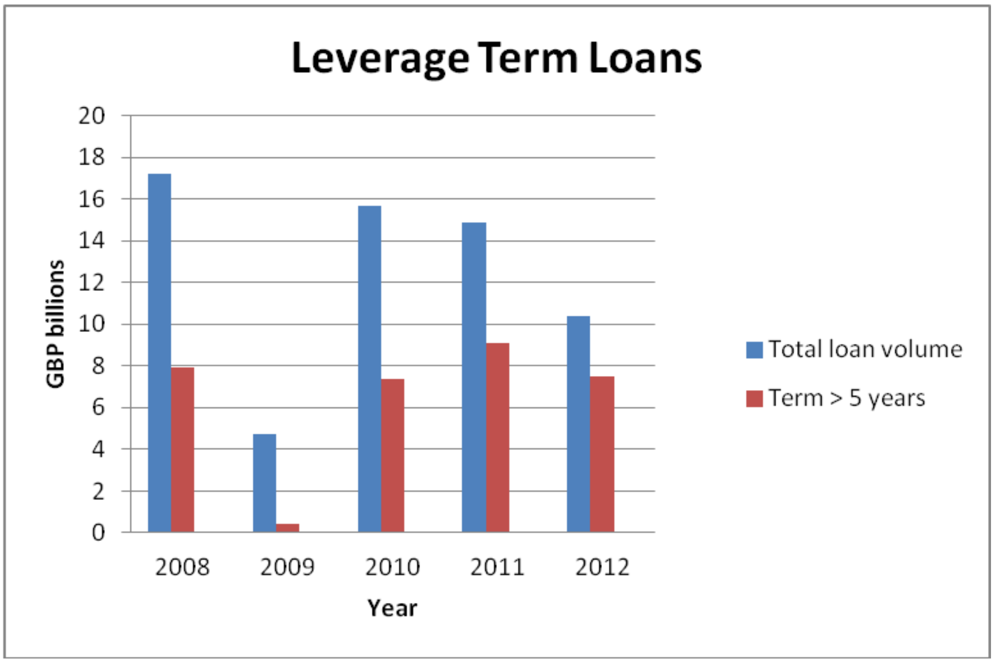
Real Estate

- Virtually all syndicated Real Estate Finance Term Loans are floating rate loans and, in the UK market, use LIBOR as the interest rate benchmark.

- Real Estate Finance Term Loans are typically committed for periods of up to five years. The amounts vary from tens to hundreds of millions Sterling.

- For many Real Estate Finance Facilities, the Borrower is required to hedge into a fixed rate interest rate swap. Other hedge products, such as caps, are occasionally used.

Leverage Term Loans



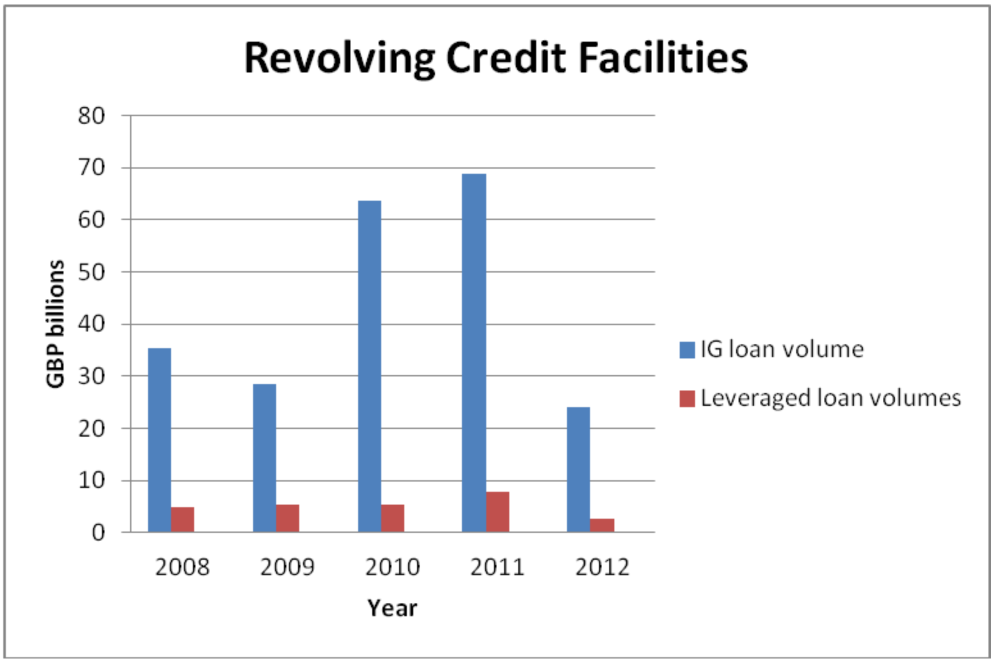
Year	Total Loan Volume (GBP billions)	Term > 5 yrs (GBP billions)
2008	17.2	7.9
2009	4.7	0.4
2010	15.7	7.4
2011	14.9	9.1
2012	10.4	7.5

- Virtually all syndicated Leveraged Term Loans are floating rate loans and, in the UK market, use LIBOR as the interest rate benchmark.

- During 2008/2009, original Term Loan maturities were between six and ten years but in recent years, new Term Loan maturities have been shorter.

- Many of the facilities are refinancings of earlier deals.

Revolving Credit Facilities



Year	IG Loan Volume (GBP billions)	Leveraged loan volumes (GBP billions)
2008	35.3	4.8
2009	28.4	5.3
2010	63.7	5.3
2011	68.8	7.8
2012	24.2	2.8

- The FMLC understands that, in the UK market, virtually all syndicated Revolving Credit Facilities use LIBOR as the interest rate benchmark.

- Investment Grade Revolving Credit Facilities are generally committed for two to five year periods. Average drawings of around 20 to 25% are typically estimated.

- Leveraged Loan Revolving Credit Facilities are generally committed for two to five year periods. Average drawings of around 30% are typically estimated.

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