Joint Economic Committee
Republicans
Representative Kevin Brady
Vice Chairman

REPUBLICAN STAFF BRIEF

# The LIBOR Scandal

## *What We Know, What We Don't, and What to Expect*

*8/2/2012*

### Key Points

- LIBOR is important because it is referenced by nearly $800 trillion in global financial instruments, including corporate debt, mortgages, student loans, interest rate swaps, and other derivatives.
- Although Barclays is the only bank to have been singled out for manipulating LIBOR so far, more than a dozen other large domestic and foreign banks are being investigated by regulators.
- The net effect of Barclays' manipulations of LIBOR is yet unclear—the bank's counterparties likely benefitted in some instances and likely suffered harm in others, while individual consumers might have benefitted on the whole. Years of litigation will determine the full extent of the damages.
- Were *Glass-Steagall* still law, none of its provisions would have applied in this case.
- Rather than enact new laws or implement new regulations, the federal government should efficiently and effectively enforce the existing antitrust and securities laws that already made Barclays' and its employees' actions illegal.
- Combining proper enforcement of existing laws with smart reforms to internal and external LIBOR reporting processes will prevent further manipulation of this important benchmark interest rate.

### Introduction

On June 27, 2012, representatives of the British bank Barclays agreed to pay a $453 million fine to U.S. and U.K. regulators to settle allegations that Barclays manipulated the London Interbank Offered Rate (LIBOR). LIBOR is a set of indices that represent the prevailing interest rates in London money markets. More importantly, LIBOR interest rates impact the settlement of nearly $800 trillion in financial instruments globally—including corporate debt, mortgages, student loans, interest rate and currency swaps, and other derivatives.

***On June 27, 2012, representatives of the British bank Barclays agreed to pay a $453 million fine to U.S. and U.K. regulators to settle allegations that Barclays manipulated the London Interbank Offered Rate (LIBOR).***

The Barclays settlement spans mid-2005 through mid-2009. On several occasions during the relevant time period, Barclays' employees intentionally submitted false information about the bank's cost of funds

to Thomson Reuters, the publisher of LIBOR, in order to manipulate the published LIBOR rates. These misrepresentations occurred for different reasons at different times. In some cases, Barclays' LIBOR submitters under-reported the bank's cost of funds, while at other times the LIBOR submitters over-reported or held constant the bank's cost of funds.

***Details in the statement of facts released by the Department of Justice suggest that Barclays was not the only bank manipulating this key interest rate.***

Details in the statement of facts released by the Department of Justice (DOJ) suggest that Barclays was not the only bank manipulating LIBOR. In fact, certain employees at Barclays communicated with employees at other LIBOR contributing banks to request intentionally misleading LIBOR submissions. Although Barclays is the only bank to have been singled out thus far, more than a dozen major banks are now being investigated related to the LIBOR scandal, including domestic banks Citigroup and JPMorgan Chase and several foreign banks.

This brief presents background on LIBOR—its formulation and use—as well as the information we know about the intentional manipulation of LIBOR, outstanding questions that have yet to be answered about this developing scandal, and what to expect going forward.

## A Primer on LIBOR: What is it and how is it calculated?

***LIBOR has grown to become one of the single most important global benchmark interest rates, with nearly $800 trillion in global financial instruments referencing LIBOR in some way.***

The London Interbank Offered Rate is a set of indices that represent the prevailing interest rates in London money markets denominated in various currencies and for various durations.[1] In essence, LIBOR represents the cost of funds for major banks lending to each other. But, in the years since it was first created in 1986, LIBOR has become much more than a simple indicator of interbank lending in the local London market. Instead, LIBOR has grown to become one of the single most important global benchmark interest rates, with nearly $800 trillion in global financial instruments referencing LIBOR in some way.

***When a bank submits a rate for a given currency and borrowing period, that bank is essentially answering the question: if you had to borrow money in X currency for Y days, what would it cost you?***

LIBOR is constructed by the private British Bankers' Association (BBA) and published each business day by Thomson Reuters. LIBOR rates are reported in 10 difference currencies (e.g., U.S. dollar, Yen) and for 15 different borrowing periods (e.g., overnight, 30-day,) ranging up to one year (see table on next page). As a result, there are 150 different LIBOR rates reported each day. When a bank submits a rate for a given currency and borrowing period, that bank is essentially answering the question: if you had to borrow money in X currency for Y days, what would it cost you? The number of banks that contribute to each LIBOR rate varies depending on the currency; however, most rates include submissions from between 12 and 18 contributing banks.

| LIBOR Currencies and Maturities | |
|---|---|
| Types of Currency | Length of Maturity |
| AUD (Australian Dollar) | Overnight |
| CAD (Canadian Dollar) | 1 week |
| CHF (Swiss Franc) | 2 weeks |
| DKK (Danish Krone) | 1 month |
| EUR ( Euro) | 2 months |
| GBP (Sterling) | 3 months |
| JPY (Japanese Yen) | 4 months |
| NZD (New Zealand Dollar) | 5 months |
| SEK (Swedish Krona) | 6 months |
| USD (US Dollar) | 7 months |
| | 8 months |
| | 9 months |
| | 10 months |
| | 11 months |
| | 12 months |

Each LIBOR rate is calculated using the "trimmed mean" of the contributing banks' submissions. In this case, a trimmed mean is calculated by discarding the top 25% and bottom 25% of the submitted interest rates and then taking an average of the remaining middle 50% (for example, if 18 banks submit rates for the 30-day U.S. dollar LIBOR rate, the top 4 and bottom 4 submissions are discarded before an average is taken of the middle 10 submissions). This calculation reduces the impact that any single contributing bank can have on the final officially published rate.

**Why is LIBOR so important?**

LIBOR is one of the most widely followed interest rates in the world. Nearly $800 trillion in financial instruments—including corporate debt, mortgages, student loans, interest rate and currency swaps, and other derivatives—reference LIBOR in some form or fashion.[2] LIBOR is often used as the base for variable-rate loans. For example, an adjustable rate mortgage might require a borrower to pay an interest rate equal to the 90-day U.S. dollar LIBOR rate plus three percentage points. In the last decade alone, more than 12 million LIBOR-indexed adjustable-rate mortgages, worth over $3.5 trillion, were issued in the United States.[3] LIBOR rates are also used in many derivatives transactions. For example, the vast majority of interest rate swaps, in which one party

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agrees to exchange a fixed-rate payment for the other party's floating-rate payment, reference LIBOR to determine the floating portion of each transaction.[4]

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LIBOR's influence extends beyond the realm of financial transactions. LIBOR has become the shorthand measure of stress in global money markets. Increases in LIBOR mean that banks are becoming more wary of lending to each other, indicating that financial market stresses are rising. Conversely, reductions in LIBOR indicate that financial market participants are relatively more stable. For example, one commonly referenced stress indicator that utilizes LIBOR is known as the "TED spread." The TED spread is equal to the difference between the rate on 90-day U.S. Treasures (T), which market participants view as risk free, and the 90-day Eurodollar LIBOR rate (ED), which factors in market risk. Many market observers closely followed the TED spread as it spiked to historic highs during the financial crisis of 2008.

**How and why did Barclays manipulate LIBOR?**

***Barclays is the only bank that has admitted to manipulating LIBOR.***

Although more than a dozen banks are currently under investigation, Barclays is the only bank that has admitted to manipulating LIBOR so far.[5] In the United States, Barclays signed settlement agreements with the Commodities Futures Trading Commission (CFTC) and the DOJ. The contents of both settlement agreements provide us with many details about the timing and manner of Barclays' LIBOR manipulation.[6]

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According to the statement of facts supplied by the DOJ, Barclays employees attempted and succeed in manipulating published LIBOR rates during the mid-2005 to mid-2009 time period. To manipulate the published rate, the employees responsible for submitting Barclays' cost of funds ("submitters") to Thomson Reuters intentionally misrepresented the rate at which Barclays could borrow money from other banks in the London interbank market. In some cases, Barclays' LIBOR submitters intentionally under-reported or over-reported the bank's cost of funds. In other cases, the LIBOR submitters held constant the bank's cost of funds when it actually either increased or decreased.

The LIBOR reporting system is vulnerable to manipulation because each contributing bank's submissions are self-reported and not necessarily based upon actual market transactions. In fact, banks are allowed to report hypothetical borrowing costs. This is one reason why Ben Bernanke, the Chairman of the Board of Governors of the Federal Reserve System, has called the LIBOR system "structurally flawed."[7] However, because the published LIBOR rates are calculated using a

trimmed mean, the amount of deviation a single bad actor can cause is likely relatively small. This isn't to say that a single bank cannot have an effect on the published LIBOR rates—it can—or that collusion among banks could lead to significant deviations in the published rate.

The motive for these misrepresentations varied over time. In the DOJ's Statement of Facts, Barclays admitted to three different types of manipulations. From mid-2005 through 2007, and from time-to-time thereafter through 2009, several of Barclays' swaps traders requested that certain Barclays LIBOR submitters intentionally submit misleading information to Thomson Reuters in order to manipulate the published LIBOR rate for the benefit of specific derivatives trades.[8] Second, from August 2008 through at least approximately January 2009, senior managers in Barclays' treasury requested the bank's LIBOR submitters to submit intentionally low LIBOR rates in order to avoid the stigma of appearing weak relative to other banks during the financial crisis.[9] Although most market observers focus their attention on headline LIBOR rates, Thomson Reuters also publishes the underlying data each bank contributes to the indices. During the financial crisis, banks were often compared against one another based upon their individual LIBOR submissions and this comparison is what Barclays management sought to influence in its second form of LIBOR manipulation. Finally, from August 2005 through approximately May 2008, Barclays swaps traders communicated with swaps traders at other unidentified LIBOR contributing banks to request LIBOR submissions that would be benefit specific derivatives trades of Barclays' traders and/or their counterparts at other banks.[10] If this final form of manipulation was widespread, which is yet to be determined, it would likely have a much greater impact on the published LIBOR rates than would Barclays manipulating its own rate submissions in isolation (see table on next page).

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## What has Barclays admitting to doing?

| Admission | Time Period | Manipulation |
|---|---|---|
| Barclays swaps traders requested that the bank's LIBOR submitters submit misleading information to manipulate the published LIBOR rate for the benefit of specific derivatives trades. | Mid-2005 through 2008, occasionally thereafter through 2009 | Under-report, over-report, hold constant |
| Senior managers in Barclays' treasury requested that the bank's LIBOR submitters submit misleading information to manipulate the published LIBOR rate in order to avoid the stigma of appearing weak relative to other banks during the financial crisis. | August 2008 through at least approximately January 2009 | Under-report |
| Barclays swaps traders communicated with swaps traders at other LIBOR contributing banks to request LIBOR submissions that would be favorable to the specific derivatives trades of Barclays traders and/or their counterparts at other banks. | August 2005 through approximately May 2008 | Under-report, over-report, hold constant |

**What did U.S. and U.K. regulators know about the manipulation of LIBOR at the time it was occurring, and what has their response entailed?**

***In recent weeks, it has been discovered that U.S. and U.K. regulators knew about the possible manipulation of LIBOR as early as mid-2007***.

In recent weeks, it has been discovered that U.S. and U.K. regulators knew about the possible manipulation of LIBOR as early as mid-2007. In response to a request by Chairman Randy Neugebauer of the Subcommittee on Oversight and Investigations of the House Committee on Financial Services, the Federal Reserve Bank of New York released several documents detailing the level and extent of knowledge U.S. regulators had about the possible manipulation of LIBOR.[11] Additionally, Fed Chairman Bernanke's testimony before Congress during the week of July 16th further describes what Fed employees knew about the manipulation of LIBOR and the response that the Fed took once it was discovered that LIBOR rates were likely being misreported.[12]

According to these sources, the Federal Reserve Bank of New York first received indications—anecdotal evidence—of inaccurate LIBOR rates in the fall of 2007 as a part of its normal market intelligence gathering process. The Fed first received concrete information that LIBOR rates were being intentionally misreported on April 11, 2008 during a call with a Barclays employee, who explained that Barclays was under-reporting its rate to "avoid the stigma associated with being an outlier with respect to its LIBOR submissions, relative to other participating banks."[13] That day, a briefing note was circulated to senior officials at the Federal Reserve and the U.S. Treasury that discussed the possibility that LIBOR contributing banks were under-reporting their cost of funds to avoid the stigma of appearing weak. U.S. regulators were not yet aware that Barclays, or any other bank, were possibly manipulating LIBOR rates for the benefit of derivatives trades.

On May 1, 2008 Federal Reserve Bank of New York President Timothy Geithner raised the subject of LIBOR manipulation at a meeting of the President's Working Group on Financial Markets, which is comprised of the heads of the principal U.S. regulatory agencies. Throughout April and May of 2008, Federal Reserve employees briefed other regulatory agencies and continued to analyze weaknesses in LIBOR and its rate-setting process.

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The Fed's two-month inquiry culminated in an emailed report from President Geithner to Bank of England Governor Mervyn King entitled "Recommendations for Enhancing the Credibility of LIBOR." Governor King forwarded these recommendations to the British Bankers' Association, which constructs LIBOR. Thereafter, Fed officials continued to monitor for problems related to LIBOR.

Neither the Bank of England nor the British Bankers Association implemented the recommendations in President Geithner's letter. The manipulation of LIBOR continued through at least mid-2009, not just for the sake of avoiding the stigma associated with appearing weak during the financial crisis, but also for the then unknown motive of benefitting individual derivatives trades.

After the Federal Reserve's initial actions, the CFTC (in mid-2008), the SEC (in 2009) and the DOJ (in 2010) opened investigations into the manipulation of LIBOR. The initial results of these investigations were the impetus for the international attention on LIBOR in recent weeks.

**Who might have benefitted from and who might have been hurt by the manipulation of LIBOR?**

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There were two categories of LIBOR manipulation—trading-based manipulation and reputation-based manipulation—with each type benefitting and harming different parties. The immediate beneficiary of trading-based manipulations was specific Barclays traders that made derivatives trades affected by a specific LIBOR rate on a specific day.

Some commentators have noted that Barclays bank (and any other bank that engaged in similar behavior) might also have benefitted from trading-based manipulations of LIBOR. It is not clear whether this statement is true or not. Instances of trading-based manipulation were made at the behest of individual traders who were concerned about their discrete trading positions. At that time, trader compensation was highly influenced by individual trading performance. Therefore, the decision to under-report, over-report, or hold constant the Bank's reported cost of funds was influenced by each individual trader's positions, not the aggregate position of the Bank. As financial clearinghouses, all major banks, including Barclays, take numerous derivatives positions—some of which might benefit from and some of which might be harmed by increases or decreases in LIBOR. As a result, Barclays the institution might have benefited on some days and it might have been harmed on others. The net effect is not yet known.

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Depending on its direction, any given trading-based manipulation might have harmed or benefitted Barclays' counterparties, which range from other banks and financial institutions, to institutional investors, hedge funds, and state and local municipalities, among others. For example, the City of Baltimore has filed suit against several banks for damages it incurred due to the manipulation of LIBOR. That city, like many others, utilized interest rate swaps to smooth the trajectory of its revenues and expenses to make budget forecasting simpler. The extent of any damages similarly positioned counterparties might have suffered will be the subject of litigation for many years to come.

Finally, trading-based manipulations might have affected numerous other financial contracts that referenced the rate of LIBOR, such as adjustable-rate mortgages. Of course, in instances where LIBOR was under-reported, many of the parties on such contracts would have benefitted from lower interest rates. Conversely, the over-reporting of LIBOR would have had the effect of increasing interest rates. The net effect of these different manipulations is not yet known.

During the financial crisis, Barclays and other banks intentionally under-reported LIBOR rates in order to avoid the stigma of appearing weak. The immediate and intended beneficiary of this category of manipulation was each individual bank, which enjoyed an aura of strength during the crisis and the ensuing reputational benefits. These banks would have also enjoyed improved financing terms.

Many consumers might actually have had net benefits from the systematic under-reporting of LIBOR during the crisis. For instance, under-reporting LIBOR would have the effect of depressing consumer interest rates on adjustable financial contracts.

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Any harm or benefit Barclays' counterparties or other investors might have received would have to be determined on a case-by-case basis.

**What fallout might we expect from the LIBOR scandal?**

According to Chairman Bernanke, the LIBOR scandal has had the immediate effect of undermining public confidence in financial markets.[14] Beyond this general harm, specific banks that manipulated LIBOR rates will of course experience significant reputational damage.

***The LIBOR scandal has had the immediate effect of undermining public confidence in financial markets.***

Additionally, Barclays bank has had to pay nearly $453 million dollars in penalties to U.S. and U.K. regulators. Barclays received an estimated 30 percent discount on its penalties in exchange for cooperating fully with the authorities' ongoing investigation; therefore, it is likely that any additional banks that are found to have manipulated LIBOR will pay at least as much, if not more.[15]

Beyond reputational harm and government penalties, it is quite likely that the banks involved in the LIBOR scandal will be embroiled in litigation for several years to come. Because LIBOR is such a widely referenced benchmark rate, the scope of such litigation is nearly impossible to determine with much accuracy. For example, a Morgan Stanley research note predicted that LIBOR-setting banks could face a combined litigation bill of up to $6 billion (approximately $400 million each). But these estimates include many caveats and a wide range of possible outcomes, including significantly lower liability depending on whether or not claimants are able to prove actual damages.[16]

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LIBOR-related lawsuits will most likely claim damages under federal antitrust laws, including the *Sherman Antitrust Act of 1890*, and federal securities laws embodied in the *Securities Exchange Act of 1934* and *Commodities Exchange Act of 1936*, among others.

**What reforms might need to occur in order to ensure LIBOR is more reliable going forward?**

The primary "structural problem" of LIBOR, according to Chairman Bernanke, is that it is constructed from self-reported borrowing rates that are at many times hypothetical. Additionally, there is very little independent oversight of the reporting process and, if Barclays is representative, very little internal process security to ensure that individuals cannot unduly influence each bank's reported cost of funds. These flaws dovetailed to create both the opportunity to manipulate LIBOR and the appearance that it was possible to do so with impunity.

***Under its CFTC settlement agreement, Barclays adopted several reforms to ensure that individual employees cannot manipulate LIBOR in the future.***

Hindsight provides the clarity to recommend simple reforms to avoid future LIBOR manipulation. Indeed, under its CFTC settlement agreement, Barclays adopted several reforms to ensure that individual employees cannot manipulate LIBOR in the future.[17] Among these reforms, Barclays is required to: (1) identify, construct, and promote effective methodologies and processes for setting benchmark interest rates with integrity, honesty, and without the influence of internal or external conflicts of interest; (2) prioritize actual transactions (first, those made by Barclays and, second, those made by third parties) and offered transactions in the determination of LIBOR submissions each day; and (3) implement stringent internal and third-party audits of LIBOR submissions, verify the qualifications of individual LIBOR submitters, and create firewalls to ensure that no improper communication will influence the decision-making of the bank's LIBOR submitters. These agreed-upon reforms might serve as a template for other banks to adopt to ensure the integrity of LIBOR going forward.

The Federal Reserve—both through New York Fed's letter to Mervyn King and in Chairman Bernanke's recent testimony—has suggested similar reforms to improve the integrity of LIBOR. Most notably, the Fed suggested that BBA work with LIBOR contributing banks to establish best practices for calculating and reporting rates, and that the BBA could require banks to implement internal and external audits to enforce these best practices. The Fed also suggested several possible reforms to the construction of LIBOR itself, including reducing the number of LIBOR maturities reported, increasing the number of contributing banks, and specifying a required transaction size.[18]

Some commentators have noted that the LIBOR scandal highlight the need for additional financial regulation, including even a reinstitution of the so-called *Glass Steagall* law. However, *Glass Steagall* would not have applied to a bank replying to a privately conducted interest rate survey such as LIBOR. Rather, and more importantly, the manipulation of LIBOR, and similar intentional misrepresentations, were already illegal under several different securities laws, including the *Securities Exchange Act* and the *Commodities Exchange Act*.

Instead of creating additional regulation, it appears that the LIBOR scandal illustrates the need for effective and efficient enforcement of existing laws and regulations, and the need for smart reforms to internal and external reporting processes.

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[1] For a more detailed background and discussion on LIBOR and its construction, *see* BBALIBOR explained, *British Bankers' Association*, *available at*: http://www.bbalibor.com/bbalibor-explained.

[2] *See* The Rotten Heart of Finance: A Scandal Over Key Interest Rates is About to Go Global, *The Economist* (July, 7, 2012).

[3] *See* Morgenson, Gretchen, "Changed by Wall Street, for Wall Street," *The New York Times* (July 28, 2012), *available at*: http://www.nytimes.com/2012/07/29/business/libor-mortgage-rates-and-wall-street-fair-game.html?_r=1.

[4] For a primer on interest rate swaps, *see* Investment Basics: What are Interest Rate Swaps and How do They Work?, *PIMCO* (January 2008), *available at*: http://www.pimco.com/EN/Education/Pages/InterestRateSwapsBasics1-08.aspx.

[5] The Barclays settlement also encompasses manipulations of the Euro Interbank Offered Rate (EURIBOR), a similar, but less widely referenced, interest rate index. This briefer only discusses the manipulation of LIBOR, which has received the overwhelming bulk of international news coverage and has more widespread consequences for the global economy.

[6] *See* Press Release, "CFTC Orders Barclays to pay $200 Million Penalty for Attempted Manipulation of and False Reporting concerning LIBOR and Euribor Benchmark Interest Rates" (June 27, 2012), *available at* http://www.cftc.gov/PressRoom/PressReleases/pr6289-12; *see also* Press Release, "Barclays Bank PLC Admits Misconduct Related to Submissions for the London Interbank Offered Rate and the Euro Interbank Offered Rate and Agrees to Pay $160 Million Penalty" (June 27, 2012), *available at*: http://www.justice.gov/opa/pr/2012/June/12-crm-815.html.

[7] BBC, "Libor Scandal: Bernanke says system flawed," (July 17, 2012), *available at*: http://www.bbc.co.uk/news/business-18873944.

[8] *See* Statement of Facts, pp. 5-10, *available at*: http://www.justice.gov/iso/opa/resources/9312012710173426365941.pdf.

[9] *See* ibid., pp. 15-22.

[10] *See* ibid., pp. 10-15.

[11] *See* Press Release, "New York Fed Responds to Congressional Request for Information on Barclays- LIBOR Matter" (July 13, 2012), *available at*: http://www.newyorkfed.org/newsevents/news/markets/2012/Barclays_LIBOR_Matter.html.

[12] *See* Testimony of The Honorable Ben Bernanke, Chairman, Board of Governors of the Federal Reserve System, "Monetary Policy Report to the Congress" (July 17, 2012), *available at*:

http://banking.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_ID=5316678d-2b51-4270-8f4d-8c7c7525cafd.

[13] Explanatory Note, New York Fed Responds to Congressional Request for Information on Barclays – Libor Matters (July 13, 2012), *available at*: http://www.newyorkfed.org/newsevents/news/markets/2012/libor/explanatory_note.pdf.

[14] Ibid.

[15] Bart, Katharina and Bartz, Diane, "Exclusive: Banks in Libor probe consider group settlement-sources," *Reuters* (July 20, 2012), *available at:* http://www.reuters.com/article/2012/07/20/us-banking-libor-settlment-idUSBRE86J00H20120720.

[16] *See* Khalique, Farah, "Bank Analysts at Odds Over Libor Litigation Bill," *The Wall Street Journal* (July 13, 2012), *available at:* http://online.wsj.com/article/SB10001424052702303740704577524144196458040.html.

[17] *See* In the matter of Barclays PLC, Barclays Bank PLC, and Barclays Capital Inc., Respondents, before the Commodity Futures Trading Commission, CFTC Docket No. 12-25, pp. 31-42 (June 27, 2012).

[18] *See* Letter from Timothy Geithner to Mervyn King, "LIBOR recommendations" (June 01, 2008), *available at*: http://www.newyorkfed.org/newsevents/news/markets/2012/libor/June_1_2008_LIBOR_recommendations.pdf.