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## LIBOR: The Clearinghouse and Exchange Based Solutions

Allen Kohn\*

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LIBOR: THE CLEARINGHOUSE AND EXCHANGE BASED  
SOLUTIONS

*Allen Kohn*

# LIBOR: THE CLEARINGHOUSE AND EXCHANGE BASED SOLUTION

*Allen Kohn\**

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### INTRODUCTION

The London Interbank Offered Rate (“LIBOR”) is often called the world’s “most important number,” and is the most commonly indexed interest rate in the world.<sup>1</sup> In 2008, the combined gross domestic product of the world’s economy was estimated at \$60 trillion.<sup>2</sup> Yet, due to leverage, approximately \$360 trillion in swaps and \$10 trillion in loans were indexed to LIBOR.<sup>3</sup> Currently, most of the swap market and 70% of the U.S. futures market reference LIBOR.<sup>4</sup> *The Economist*

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1. See Nick Summers, *The UBS Libor-Fraud E-mails Are a Gift for Regulators*, BLOOMBERG BUSINESSWEEK (Dec. 19, 2012), <http://www.businessweek.com/articles/2012-12-19/the-ubs-libor-fraud-emails-are-a-gift-for-regulators>.

2. See *GDP*, WORLD BANK GRP., <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD/countries?display=graph>.

3. See Simone Foxman, *How Barclays Made Money on LIBOR Manipulation*, BUS. INSIDER (July 10, 2012), <http://www.businessinsider.com/how-barclays-made-money-on-libor-manipulation-2012-7>. In swaps, the notional amount does not change hands, which allows investors exposure to a benchmark without having to tie up significant capital. See *infra* note 284.

4. See *Remarks of Chairman Gary Gensler at London City Week on Benchmark Interest Rates*, U.S. COMMODITY FUTURES TRADING COMM’N (Apr. 22, 2013),

recently estimated that approximately \$800 trillion worth of financial instruments are tied to LIBOR.<sup>5</sup>

LIBOR measures the rate it costs banks to borrow money from each other for a short period of time.<sup>6</sup> Every day numerous banks are contacted and asked how much it costs to borrow short-term funds.<sup>7</sup> The banks' answers are then averaged to calculate that day's LIBOR.<sup>8</sup>

From August 2005 until at least 2009, numerous banks and broker-dealers routinely falsified or colluded to falsify LIBOR submissions.<sup>9</sup> As of October 2013, three investment banks and one broker-dealer admitted wrongdoing, and authorities have subpoenaed eleven other banks.<sup>10</sup> One leading academic testified before Congress that the LIBOR scandal is the largest financial scam in recorded history.<sup>11</sup>

On May 20, 2008, the New York Federal Reserve ("N.Y. Fed"), under the leadership of Timothy Geithner, claimed to have heard from several Eurodollar brokers about suspicious LIBOR submissions.<sup>12</sup> Banks claimed to submit to the British Bankers' Association ("BBA") the rate at which they can borrow funds.<sup>13</sup> But according to the dealers, banks were in practice bidding on the open market an additional 25 basis points above their BBA submissions.<sup>14</sup> Geithner claims he informed the U.S. Securities and Exchange Commission ("SEC"), the U.S.

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<http://www.cftc.gov/PressRoom/SpeechesTestimony/opagensler-140> [hereinafter *CFTC, Gensler Remarks*].

5. See *The Rotten Heart of Finance*, *ECONOMIST*, July 7, 2012, <http://www.economist.com/node/21558281>.

6. See BBA, UNDERSTANDING THE CONSTRUCTION AND OPERATION OF BBA LIBOR—STRENGTHENING FOR THE FUTURE § 3.3 (2008) [hereinafter *BBA REPORT*].

7. See *infra* notes 36–55 and accompanying text.

8. See *BBA REPORT*, *supra* note 6 at 1.

9. See *infra* Part I; see also Douglas Keenan, *My Thwarted Attempt to Tell of Libor Shenanigans*, *FIN. TIMES* (July 26, 2012), <http://www.ft.com/intl/cms/s/0/dc5f49c2-d67b-11e1-ba60-00144feabdc0.html#axzz2GxizaQG1> (claiming LIBOR manipulation was known amongst bankers as early as 1991).

10. See *infra* Part I.

11. *The Annual Report of the Financial Stability Oversight Council: Hearing Before the H. Comm. on Fin. Servs.*, 112th Cong. 15 (2012) (statement of Andrew Lo, Professor, MIT) ("This LIBOR fixing scandal dwarfs by orders of magnitude any financial scam in the history of [the] markets.").

12. See SAMUEL CHEUN & MATT RASKIN, *FED. RESERVE BANK OF N.Y., RECENT CONCERNS REGARDING LIBOR'S CREDIBILITY* (2008).

13. See *id.*

14. See *id.*

Commodities and Futures Trading Commission (“CFTC”), and Bank of England of the false submissions.<sup>15</sup> Yet the manipulations continued, and the only timely result was that the BBA published a report evaluating LIBOR.<sup>16</sup>

In 2012, after various news reports surfaced claiming that banks were deliberately manipulating LIBOR rates, U.K. regulators launched an investigation into how to reform LIBOR.<sup>17</sup> The investigation concluded and published its results and recommendations in *The Wheatley Review of LIBOR: Final Report*.<sup>18</sup> Then Secretary of the Treasury, Geithner announced that U.S. regulators would not rely on U.K. regulators to solve LIBOR’s problems.<sup>19</sup> The House Financial Services Committee, however, doubted Geithner’s claim and openly questioned the appropriateness of Geithner’s previous attempts to reform LIBOR.<sup>20</sup>

Many commentators have called for LIBOR reform.<sup>21</sup> Most of these commentators have suggested that LIBOR should be based upon actual transactions.<sup>22</sup> Due to Basel III requirements, however, many banks have recently stopped lending unsecured funds to other banks.<sup>23</sup>

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15. See *The Annual Report of the Financial Stability Oversight Council: Hearing Before the H. Comm. on Fin. Servs.*, 112th Cong. 10 (2012) (statement of Timothy Geithner, Secretary of the Treasury).

16. See BBA REPORT, *supra* note 6.

17. See MARTIN WHEATLEY ET AL., *THE WHEATLEY REVIEW OF LIBOR: FINAL REPORT* (2012) [hereinafter WHEATLEY REVIEW].

18. See *id.*

19. See Richard Blackden, *US Treasury Secretary Tim Geithner Warns Libor Reform Won't Be Left 'to the British'*, THE TELEGRAPH (July 19, 2012), <http://www.telegraph.co.uk/finance/newsbysector/banksandfinance/9410557/US-Treasury-Secretary-Tim-Geithner-warns-Libor-reform-wont-be-left-to-the-British.html>; see also Press Release, CNBC, Transcript of Timothy Geithner Interview (July 19, 2012), available at <http://www.cnbc.com/id/48197285>.

20. See *The Annual Report of the Financial Stability Oversight Council: Hearing Before The H. Comm. on Fin. Servs.*, 112th Cong. 10 (2012).

21. See *infra* Part II. But see Lucy McNulty, *Barclays Rate-Fixing Scandal: Libor Alternatives Analysed*, INT'L FIN. REV. (July 10, 2012), <http://www.iflr.com/Article/3058468/Regulatory/Barclays-rate-fixing-scandal-Libor-alternatives-analysed.html> (showing the results of a pool where only 19% of respondents favored abolishing Libor.)

22. See, e.g., Rebecca Tabb & Joseph Grundfest, *Alternatives to LIBOR*, 8 CAPITAL MKTS. L.J. 229 (2013); Justin T. Wong, *Libor Left in Limb: A Call for More Reform*, 13 N.C. BANKING INST. 365, 381 (2009).

23. See CFTC, *Gensler Remarks*, *supra* note 4.

Some bankers have even suggested that they may never again lend unsecured funds to other banks for tenors longer than 30 days.<sup>24</sup>

Due to the difficulties in reforming LIBOR, U.K. regulators and many academics are debating using an alternative to LIBOR for measuring interbank loans.<sup>25</sup> Most of these commentators focus on OIS swaps, repo rates, Treasury notes, and committed quotes.<sup>26</sup> This Comment proposes a new LIBOR alternative based upon the CFTC's swap clearing house requirements.<sup>27</sup>

Under 17 C.F.R. § 50, the CFTC has promulgated that FX and fixed-to-variable rate swaps must be executed through a clearinghouse.<sup>28</sup> A similar rule can be enacted for inter-bank loans. Effectively, U.S. banks currently use the Federal Reserve System as a clearinghouse for overnight loans. It would be relatively simple to create a clearinghouse for loans with longer terms.<sup>29</sup>

Alternatively, banks can be required to lend funds through an exchange.<sup>30</sup> In a recent article, Rebecca Tabb and former SEC commissioner Joseph Grundfest suggested such an approach.<sup>31</sup> Tabb and Grundfest's proposal, however, fails to account for differences amongst banks' creditworthiness.<sup>32</sup> Unlike swaps, which are notional contracts, LIBOR loans are direct loans that reflect a bank's creditworthiness.<sup>33</sup> Forcing banks to lend on an exchange would be the equivalent of forcing banks to lend to less creditworthy peers.<sup>34</sup> Banks would then have to raise rates in order to account for the additional risk premium.<sup>35</sup> This Comment attempts to avoid the credit premium problem by proposing an inter-banking rating system where banks participating in the exchange only lend to other banks that have an open line of credit with the lending bank.

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24. *See id.*

25. *See infra* Part II.

26. *See infra* notes 269–307 and accompanying text.

27. *See infra* Part III.

28. *See* 17 C.F.R. § 50.2(a)(2) (2013).

29. *See infra* Part III.

30. *See* Tabb & Grundfest, *supra* note 22, at 255.

31. *See id.*

32. *See* LAURENCE MUTKIN & ELAINE LIN, MORGAN STANLEY RESEARCH, INTEREST RATE STRATEGY, WHAT FUTURE FOR LIBOR? (2012).

33. *See infra* notes 284–286.

34. *See* MUTKIN & LIN, *supra* note 32.

35. *See id.*

Part I of this Comment will introduce the reader to LIBOR, explain how it is calculated, and show the reader why it is important. Part I will then proceed to show the reader how banks and broker dealers manipulated LIBOR, and explain the effects of the manipulations. Part II will summarize and analyze the two main reviews of LIBOR: the BBA's 2008 review and the 2012 Wheatley Review. Part II will then examine how a fair and accurate benchmark is created. Additionally, Part II will explain some of the most commonly cited LIBOR alternatives. Finally, Part III will introduce, analyze, and discuss the viability of LIBOR alternatives not mentioned in Part II.

## I. WHAT IS LIBOR AND WHAT WENT WRONG

Part I of this Comment will introduce the reader to LIBOR and explain how it is calculated and regulated. Part I will then explain why LIBOR is important. Finally, Part I will show how the financial industry manipulated LIBOR and describe the responses of U.K. and U.S regulators.

### A. CALCULATING LIBOR

Modern day BBA<sup>36</sup> LIBOR was created in 1985<sup>37</sup> and tracks the rate at which banks can borrow short-term funds from each other in London at 11 a.m.<sup>38</sup> Prior to 2013, BBA LIBOR tracked U.S. Dollars<sup>39</sup> (USD LIBOR) and nine other currencies<sup>40</sup> in 15 tenors, or maturities.<sup>41</sup> In total, there were 150 daily LIBOR rates.<sup>42</sup>

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36. The BBA is a not-for-profit industry trade group that regularly advocated for its members, including banks on its LIBOR panels. *See* David Enrich & Max Colchester, *Before Scandal, Clash Over Control of Libor*, WALL ST. J., Sept. 11, 2012, <http://online.wsj.com/article/SB10001424127887324556304578119151811254648.htm> 1.

37. *See* BBA REPORT, *supra* note 6, § 2.3.

38. *See id.* § 3.1.

39. USD LIBOR does not track U.S. Dollars, rather, USD LIBOR tracks Eurodollars. *See id.* § 3.3. U.S. Dollar is defined as a United States Dollar in the United States. Eurodollars is defined as the United States Dollar outside of the U.S. Accordingly, because LIBOR tracks U.S. dollars in London, USD LIBOR tracks Eurodollars. *See* TIMOTHY Q. COOK & ROBERT K. LAROCHE, FED. RESERVE BANK FOR RICHMOND, INSTRUMENTS OF THE MONEY MARKET, 48–51 (7th ed. 1993).

40. The Pound Sterling (GPB), U.S. Dollar (USD), Japanese Yen (JPY), Swiss Franc (CHF), Canadian Dollar (CAD), Australian Dollar (AUD), Euro (EUR), Danish



To calculate these rates, the BBA created a “panel” of banks for each currency.<sup>43</sup> Depending on the currency, the number of banks on each panel ranged from six to 18.<sup>44</sup> Participation in panels was voluntary,<sup>45</sup> but the BBA claimed that all significant London traders participated in their respective LIBOR panels, and panel participants contributed to most of the inter-bank lending in London.<sup>46</sup>

Every day, panel banks reported to the BBA their estimate regarding what rate they could borrow funds in their panel’s currency for the 15 tenors LIBOR tracked.<sup>47</sup> The BBA then excluded the top 25% and bottom 25% of the reported rates, and averaged the remaining 50%.<sup>48</sup> This weighted average then became the LIBOR rate for the panel’s currency.<sup>49</sup> The BBA repeated this process for all of the currencies, and reported their conclusion to Thomas Reuters who published all of the rates at 11 a.m. London time.<sup>50</sup>

The rates that banks reported were not the rates at which they actually borrowed money.<sup>51</sup> Very often, amongst the 150 LIBOR rates, no actual trades took place.<sup>52</sup> Rather, the reported rates were just the banks’ estimates regarding what rate they could borrow should they desire to obtain funds.<sup>53</sup> Similarly, BBA LIBOR did not attempt to measure how much it cost banks to borrow funds in a currency’s home

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Kroner (DKK), Swedish Krona (SEK) and New Zealand Dollar (NZD). *See* BBA REPORT, *supra* note 6, § 3.4.

41. Overnight, one week (1W), two week (2W), one month (1Mo) and every month afterwards until 12 months (12Mo). *See* WHEATLEY REVIEW, *supra* note 17, at Chart 6.13.

42. *See id.*

43. *See id.* § 5.20. The USD panel includes in part the Bank of Tokyo – Mitsubishi, Barclays Bank plc, Deutsche Bank AG HBOS, HSBC, Lloyds, TSB Bank plc, Rabobank and the Royal Bank of Canada.

44. *See id.*

45. *See id.* § 3.1.

46. *See id.* § 8.3.

47. *See id.* § 12.2.

48. *See id.* § 10.1.

49. *See id.*

50. *See id.* § 3.3. The BBA notes that not every bank is willing to lend to every other bank and that these rates generally only available to other banks that have open lines of credit. *See id.* § 6.10.

51. *See id.* § 12.2.

52. *See* WHEATLEY REVIEW, *supra* note 17, at Chart 4.A.

53. *See* BBA REPORT, *supra* note 6, § 12.2.

country.<sup>54</sup> Rather, BBA LIBOR attempted to measure how much it costs banks to borrow in London.<sup>55</sup>

#### B. LIBOR'S IMPORTANCE

In 2008, almost all subprime adjustable rate mortgages in the United States<sup>56</sup> and approximately 50% of all private student loans in the United States were linked to LIBOR.<sup>57</sup> As of May 2012, almost 45% of prime adjustable rate mortgages and close to 80% of subprime adjustable rate mortgages were linked to LIBOR.<sup>58</sup> A minor difference in LIBOR, such as 0.3 percentage points, can result in a \$100 increase in the monthly payment on a \$500,000 adjustable rate mortgage.<sup>59</sup> Moreover, approximately \$9 trillion dollars in corporate debt was linked to LIBOR.<sup>60</sup> According to one estimate, Fannie Mae and Freddie Mac lost \$3 billion due to the LIBOR scandal.<sup>61</sup>

LIBOR use is not limited to the private sector; governments also used LIBOR.<sup>62</sup> The U.S. government used LIBOR when bailing out

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54. See *id.* §§ 7.1–7.6.

55. See *id.* § 3.1. The BBA acknowledges that there are banks that are not included in LIBOR panels because they do participate in the London money market. See *id.* §§ 8.3–8.4.

56. See Guhan Venkatu, *How Many U.S. Mortgages Are Linked to Libor?*, FED. RESERVE BANK OF CLEVELAND (July 10, 2012), <http://www.clevelandfed.org/research/trends/2012/0712/01banfin.cfm>.

57. Ben Levisohn & Lauren Young, *The Lowdown on Libor*, BLOOMBERG BUSINESSWEEK, May 28, 2008, available at <http://www.businessweek.com/stories/2008-05-28/the-lowdown-on-libor>.

58. See Venkatu, *supra* note 56.

59. See Sara Munez, *The Libor Investigation: How Libor Affects Rates on Loans*, WALL ST. J., July 5, 2012, at A5.

60. See Carrick Mollenkamp, Serena Ng, Laurence Norman & James R. Hagerty, *Libor's Rise May Sock Many Borrowers*, WALL ST. J., Apr. 19, 2008, <http://online.wsj.com/news/articles/SB120856108868827857>.

61. See Clea Benson, *Fannie Mae, Freddie Mac Libor Loss Tops \$3 Billion in Audit*, BLOOMBERG (Dec. 19, 2012), <http://www.bloomberg.com/news/2012-12-19/fannie-mae-freddie-mac-libor-loss-tops-3-billion-auditor-says.html>.

62. See *In re LIBOR-Based Fin. Instruments Antitrust Litig.*, 935 F. Supp. 2d 666 (S.D.N.Y. 2013); Darrell Preston, *Rigged Libor Hits States-Localities With \$6 Billion: Muni Credit*, BLOOMBERG (Oct. 9, 2012), <http://www.bloomberg.com/news/2012-10-09/rigged-libor-hits-states-localities-with-6-billion-muni-credit.html>.

AIG in its Toxic Asset Relief Program (“TARP”)<sup>63</sup> and at least five states may have used LIBOR in connection with their pension funds.<sup>64</sup> One expert estimated that approximately 75% of major cities have outstanding contracts with ties to LIBOR.<sup>65</sup>

### C. HOW LIBOR WAS MANIPULATED

Starting in the middle of 2005, Barclays, a major British bank, made numerous false LIBOR submissions to the BBA.<sup>66</sup> Barclays raised and lowered its reported LIBOR rates for two reasons. First, Barclays did not want to appear less creditworthy than its peers.<sup>67</sup> Second, Barclays wanted to generate profits for its derivate department.<sup>68</sup>

A difference of 1 basis point in LIBOR can result in several million dollars of profit for a major bank.<sup>69</sup> To capitalize on these minor differences, Barclays’s derivative department regularly dictated to the bank’s cash department what LIBOR rate the bank should report.<sup>70</sup> At

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63. See OFFICE OF THE SPECIAL INSPECTOR GENERAL FOR THE TROUBLED ASSET RELIEF PROGRAM, QUARTERLY REPORT TO CONGRESS 174–77 (2012).

64. See David McLaughlin, *Libor Manipulation Probed by Five State Legal Offices*, BLOOMBERG (July 17, 2012), <http://www.bloomberg.com/news/2012-07-16/libor-manipulation-investigated-by-new-york-connecticut.html>; Nathaniel Popper, *Banks Face Suits as States Weigh Libor Losses*, N.Y. TIMES, Sept. 4, 2012, [http://www.nytimes.com/2012/09/05/business/banks-facing-suits-as-states-weigh-their-libor-losses.html?\\_r=1&#038;ref=business](http://www.nytimes.com/2012/09/05/business/banks-facing-suits-as-states-weigh-their-libor-losses.html?_r=1&#038;ref=business).

65. See Nathaniel Popper, *Rate Scandal Stirs Scramble for Damages*, N.Y. TIMES DEALBOOK, July 10, 2012, <http://dealbook.nytimes.com/2012/07/10/libor-rate-rigging-scandal-sets-off-legal-fights-for-restitution>.

66. See CFTC, *Gensler Remarks*, *supra* note 4.

67. See EDWARD V. MURPHY, CONGRESSIONAL RESEARCH SERVICE, LIBOR: FREQUENTLY ASKED QUESTIONS 5 (2012).

68. See *id.*

69. See Philip Thomas, *Libor Lessons*, FIN. TIMES, Oct. 9, 2013, <http://www.ftadviser.com/2013/10/09/investments/economic-indicators/libor-lessons.-oVUsJze4WmgSz1L8m763SK/article-1.html>.

70. For example, traders sent emails saying “[w]e have another big fixing tom[orrow] and with the market more I was hoping we could set 1M and 3M Libors as high as possible,” or “Pls ask [submitter] to get 1m set to 82.” The submitters frequently responded with responses such as “leave it with me Sir,” or “done . . . for you big boy.” See *In re Barclays PLC*, CFTC Docket No. 12-25, 2012 WL 2500330, at \*8–9 (June 27, 2012).

this point, Barclays did not even prevent its derivative traders and rate submitters from communicating with each other.<sup>71</sup>

UBS, Royal Bank of Scotland (“RBS”), and Dutch Rabobank also manipulated LIBOR for their own profit.<sup>72</sup> In an apparent lack of oversight, UBS made its derivative traders in charge of submitting LIBOR quotes.<sup>73</sup> One senior trader at UBS then developed relationships with employees at four other banks in order to coordinate false LIBOR submissions.<sup>74</sup> In total, UBS traders made approximately 2,000 requests to manipulate LIBOR.<sup>75</sup>

To further perpetuate the fraud, UBS asked broker-dealers to disseminate false LIBOR information amongst banks.<sup>76</sup> UBS then rewarded these broker dealers by executing wash-trades, or trades that have no purpose other than to generate fees for the broker.<sup>77</sup>

#### D. EARLY WARNINGS SIGNS AND RESPONSES TO LIBOR BEING MANIPULATED

There were many potential warnings of LIBOR fraud.<sup>78</sup> Towards the end of 2007, Barclays reported to the BBA that some panel banks were submitting rates that were far below market conditions.<sup>79</sup> On May 20, 2008, the N.Y. Fed privately claimed to have heard from several Eurodollar brokers that banks were bidding for funds on the open market up to 25 basis points above the rates they submitted to the

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71. See *Timeline: Libor-Fixing Scandal*, BBC NEWS (Feb. 6, 2013), <http://www.bbc.co.uk/news/business-18671255> [hereinafter BBC, *Timeline*].

72. See CFTC, *Gensler Remarks*, *supra* note 4.

73. See *In re UBS AG*, CFTC Docket No. 13-09, 2012 WL 6642376, at \*5–6 (Dec. 19, 2012).

74. For instance, one trader asked “strange request [I] know but can we go for a high 6m fix but a low 7m fix pls.” Another trader asked “[c]an we pls go for lower Libors tonight, across all tenors (1m 3m and 6m) much appreciated.” The submitter responded “[w]ill do.” See *id.*

75. See *id.*

76. See *id.*, at \*2.

77. See *id.* at \*27–29.

78. See *infra* notes 79–84.

79. See CFTC, *Gensler Remarks*, *supra* note 4.

BBA.<sup>80</sup> A week later, the *Wall Street Journal* published an article questioning LIBOR's accuracy.<sup>81</sup>

According to Geithner, the Bank of England,<sup>82</sup> SEC, and CFTC were informed about potentially false LIBOR submission in 2008.<sup>83</sup> Soon after, numerous academic studies were published attempting to determine if banks were falsifying their submissions.<sup>84</sup> It appears, however, that only the CFTC seriously looked into allegations of false LIBOR submissions and, despite an ongoing and open investigation into UBS, the CFTC only discovered the false submissions after UBS launched its own internal investigation.<sup>85</sup>

Partially in response to media claims of LIBOR being manipulated, on June 10, 2008, the BBA published a comprehensive report analyzing LIBOR and how to create a more accurate benchmark.<sup>86</sup> The BBA added a scrutiny mechanism and other minor changes to LIBOR.<sup>87</sup> Then, on November 2, 2009, the BBA circulated guidelines for submitting LIBOR rates.<sup>88</sup> Unfortunately, approximately a month later when Barclays began to improve its own internal LIBOR controls, it ignored the BBA's guidelines.<sup>89</sup>

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80. See CHEUN & RASKIN, *supra* note 12.

81. Mollenkamp & Whitehouse, *Study Casts Doubt on Key Rate WSJ Analysis Suggests Banks May Have Reported Flawed Interest Data for Libor*, WALL ST. J., May 29, 2008, <http://online.wsj.com/news/articles/SB121200703762027135>.

82. See E-mail from Timothy Geitner to Mervyn King (June 1, 2008), *available at* [http://www.newyorkfed.org/newsevents/news/markets/2012/libor/June\\_1\\_2008\\_LIBOR\\_recommendations.pdf](http://www.newyorkfed.org/newsevents/news/markets/2012/libor/June_1_2008_LIBOR_recommendations.pdf).

83. See CFTC, *Gensler Remarks*, *supra* note 4.

84. See, e.g., Rosa M. Abrantes-Metz, Michael Kraten, Albert D. Metz & Gim S. Seow, *Libor Manipulation?*, 36 J. OF BANKING & FIN. 136 (2012)

85. See CFTC, *Gensler Remarks*, *supra* note 4.

86. See BBA REPORT, *supra* note 6. The BBA subsequently published an Understanding LIBOR paper in 2010 and 2012. See BBA, UNDERSTANDING THE CONSTRUCTION AND OPERATION OF BBA LIBOR (2010); BBA, UNDERSTANDING THE CONSTRUCTION AND OPERATION OF BBA LIBOR (2012). However, these reports were not comprehensive and did not fully analyze LIBOR.

87. See BBA REPORT, *supra* note 6, § 13.3.

88. See BBC, *Timeline*, *supra* note 71.

89. See *id.*

## E. RESULTS OF LIBOR MANIPULATIONS

On June 27, 2012, the CFTC ordered Barclays to pay a \$200 million penalty.<sup>90</sup> In addition, the Justice Department fined Barclays \$160 million, and the FSA<sup>91</sup> fined Barclays £59.5 million.<sup>92</sup> Similarly, UBS and RBS paid approximately \$1.5 billion and \$612 million, respectively, in restitution to regulators.<sup>93</sup> ICAP, the largest international broker dealer, agreed to pay approximately \$87 million in fines for helping banks coordinate false submissions.<sup>94</sup>

On July 31, 2012, Deutsche Bank admitted that some of its staff members had engaged in LIBOR rigging.<sup>95</sup> As of September 2012, 19 banks worldwide were under investigation for manipulating LIBOR rates.<sup>96</sup> Recently, in conjunction with other regulators, the U.S.

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90. See Press Release, CFTC, CFTC Orders Barclays to Pay \$200 Million Penalty for Attempted Manipulation of and False Reporting Concerning LIBOR and Euribor Benchmark Interest Rates (July 27, 2012), available at <http://www.cftc.gov/PressRoom/PressReleases/pr6289-12> [hereinafter CFTC, Barclays Penalty].

91. The Financial Service Authority (“FSA”) is an independent U.K. non-governmental body given statutory powers by the U.K. Financial Services and Markets Act of 2000, and which regulates most financial services markets, exchanges and firms in the U.K. FSA is funded by the firms it regulates and is accountable to U.K. Treasury Ministers and Parliament. Financial Services and Markets Act, 2000, c.8 (Eng.).

92. See CFTC, Barclays Penalty, *supra* note 90.

93. See Press Release, Dep’t of Justice, UBS Securities Japan Co. Ltd. to Plead Guilty to Felony Wire Fraud for Long-Running Manipulation of LIBOR Benchmark Interest Rates (Dec. 19, 2012), available at <http://www.justice.gov/opa/pr/2012/December/12-ag-1522.html>; Press Release, CFTC, CFTC Orders UBS to Pay \$700 Million Penalty to Settle Charges of Manipulation, Attempted Manipulation and False Reporting of LIBOR and Other Benchmark Interest Rates (Dec. 19, 2012), available at <http://www.cftc.gov/PressRoom/PressReleases/pr6472-12>; Press Release, Dep’t of Justice, RBS Securities Japan Limited Agrees to Plead Guilty in Connection with Long-Running Manipulation of Libor Benchmark Interest Rates (Feb. 16, 2013), available at <http://www.justice.gov/opa/pr/2013/February/13-crm-161.html>.

94. See Press Release, CFTC, CFTC Charges ICAP Europe Limited, a Subsidiary of ICAP plc, with Manipulation and Attempted Manipulation of Yen Libor (Sept. 25, 2013), available at <http://www.cftc.gov/PressRoom/PressReleases/pr6708-13>.

95. See BBC, *Timeline*, *supra* note 71.

96. See Enrich & Colchester, *supra* note 36.

Department of Justice fined Dutch Rabobank approximately \$1 billion dollars for 500 attempts to manipulating LIBOR.<sup>97</sup>

On December 12, 2012, the BBA announced that pursuant to the Wheatley Review, it was abolishing most LIBOR rates.<sup>98</sup> Starting in May 2013, instead of collecting 150 LIBOR rates, the BBA would only collect 37 rates.<sup>99</sup> Similarly, the BBA announced that it agreed to suggestion number 3 of the Wheatley Review and it would sell LIBOR.<sup>100</sup> On July 9, 2013, after an auction with the London Stock Exchange Group and Thomson Reuters, NYSE EuroNext purchased LIBOR for \$1.<sup>101</sup> It is expected that NYSE EuroNext will fully take over LIBOR in early 2014.<sup>102</sup>

## II. POSSIBLE SOLUTIONS: THE BBA REPORT, WHEATLEY REVIEW, AND LIBOR ALTERNATIVES

In 2008, after allegations of LIBOR rigging first surfaced, the BBA launched a comprehensive review of the benchmark.<sup>103</sup> Similarly, in response to the Barclays scandal, U.K. regulators launched a comprehensive investigation into LIBOR.<sup>104</sup> The investigation was headed by Martin Wheatley and eventually published as *The Wheatley*

97. See *Dutch Rabobank Fined \$1 Bbillion Over Libor Scandal*, REUTERS (Oct. 29, 2013), <http://www.reuters.com/article/2013/10/29/us-rabobank-libor-idUSBRE99SOL520131029>.

98. See BBA, STRENGTHENING LIBOR—PROPOSAL TO IMPLEMENT RECOMMENDATION NUMBER 6 OF ‘THE WHEATLEY REVIEW OF LIBOR’ (2012), available at [http://www.bba.org.uk/downloads/bba/Streamline\\_Consultation.pdf](http://www.bba.org.uk/downloads/bba/Streamline_Consultation.pdf) [hereinafter BBA, STRENGTHENING LIBOR].

99. The tenors are EUR same day 1wk and 1m, the USD, CHF, EUR, GBP,JPY in the overnight, 1wk, 1m, 2m, 3m, 6m and 12m tenors. See *id.* However, the Wheatley Review called for the abolishment of 130 LIBOR rates and the BBA announced that it plans to abolish only 108 rates. See WHEATLEY REVIEW, *supra* note 17.

100. See Press Release, BBA, BBA Statement on Wheatley Review of LIBOR (Sept. 25, 2012), available at <http://www.bbalibor.com/news-releases/bba-statement-on-wheatley-review-of-libor>.

101. Brooke Master & Philip Stafford, *Scandal-Plagued Libor Moves to NYSE*, FIN. TIMES, July 9, 2013, <http://www.ft.com/intl/cms/s/0/73332222-e87f-11e2-aead-00144feabdc0.html#axzz2iw85Hm61>.

102. See Press Release, NYSE EuroNext, NYSE EuroNext Subsidiary to Become New Administrator of LIBOR (July 9, 2013), available at <http://www.nyse.com/press/1373365567815.html>.

103. See BBA REPORT, *supra* note 6.

104. See WHEATLEY REVIEW, *supra* note 17, §1.3.

*Review of LIBOR: Final Report.*<sup>105</sup> The Wheatley investigation team considered abolishing LIBOR and using an alternative benchmark.<sup>106</sup> Ultimately, however, the Wheatley Review decided not to abandon LIBOR.<sup>107</sup> Other regulators disagreed and many other commentators are attempting to find LIBOR substitutes.<sup>108</sup>

Part II of this Comment will first explain the BBA Report and the Wheatley Review. Part II will then analyze and explain the characteristics of a fair and accurate benchmark. Finally, Part II will evaluate some of the commonly proposed alternatives to LIBOR.

#### A. THE BBA REPORT

On June 10, 2008, the BBA published a report analyzing LIBOR.<sup>109</sup> The report reviewed LIBOR and addressed claims that banks were rigging the benchmark.<sup>110</sup> The BBA's report also affirmed its commitment to several key characteristics of LIBOR.<sup>111</sup>

##### *1. How LIBOR Is Calculated*

The BBA Report affirmed its commitment to how LIBOR is calculated.<sup>112</sup> LIBOR is defined as “the rate at which an individual contributor panel bank could borrow funds, were it to do so by asking for and the accepting inter-bank offers in reasonable market size, just prior to 11.00 London time.”<sup>113</sup> The BBA rejected two possible changes, detailed below.<sup>114</sup>

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105. *See id.*

106. *See infra* notes 196–199.

107. *See id.*

108. *See* Kevin Costelloe, *Bernanke Says Alternatives to Libor Being Considered*, BLOOMBERG (Apr. 25, 2012), <http://www.bloomberg.com/news/2013-04-25/bernanke-says-alternatives-to-libor-being-considered.html>.

109. *See* BBA REPORT, *supra* note 6.

110. *See id.*

111. *See infra* notes 112–129 and accompanying text.

112. *See infra* notes 115–122 and accompanying text.

113. BBA REPORT, *supra* note 6, § 12.2.

114. *See infra* notes 115–121 and accompanying text.



## a. Prime Versus Actual Bank

Prior to 1998, banks were asked to provide the rate at which a “prime bank” would lend to another prime bank.<sup>115</sup> This definition, however, led to confusion as to which banks are defined as “prime banks.”<sup>116</sup> Therefore, in 1998, the BBA changed LIBOR to its current definition which asks panel banks to estimate their own costs of borrowing—not those of a hypothetical prime bank.<sup>117</sup> This was intended to create a more accurate LIBOR by reflecting the true cost of borrowing funds.<sup>118</sup>

## b. Reasonable Market Size

In addition, the BBA refused to define reasonable market size.<sup>119</sup> For LIBOR submissions, banks are asked to calculate rates based upon a loan of “reasonable market size.”<sup>120</sup> Since different currencies and tenors have wide ranges of liquidity, the BBA felt that no set denomination could accurately define reasonable market size amongst all 150 LIBOR rates.<sup>121</sup> Therefore, the BBA deliberately let each bank independently determine what amounts to reasonable market size.<sup>122</sup>

## 2. Transparency

Each individual bank’s rate is published alongside the overall LIBOR average.<sup>123</sup> The BBA acknowledged that if a bank publishes a rate that is higher than its peers, market participants may perceive the

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115. See BBA REPORT, *supra* note 6, § 12.2.

116. See *id.*

117. See *id.*

118. See *id.*

119. See *id.* § 12.3.

120. See *id.*

121. See *id.*

122. See *id.* Economics dictate that lending a larger sum of money is a greater risk than lending a smaller sum of money. Accordingly, the cost of borrowing also reflects the amount of funds borrowed. By not specifying the amount of funds borrowed, LIBOR fails to take this into account. See Dennis Kuo, David Skeie & James Vickery, *A Comparison of Libor to Other Measures of Bank Borrowing Costs* 8 (Fed. Reserve Bank of N.Y., Working Paper, 2012).

123. See BBA REPORT, *supra* note 6, § 11.1.

banks with the higher rate as having a shortage of funds.<sup>124</sup> As a result, to avoid this perception, banks have an incentive to misreport their costs of borrowing and exhibit “herd behavior.”<sup>125</sup>

In reality, there may be a number of valid explanations that have nothing to do with a shortage of funds and explain why a bank is willing to pay more than its peers for credit.<sup>126</sup> For example, the borrowing bank may be a foreign bank and have less natural access to the underlying currency through deposits.<sup>127</sup> This requires the bank to borrow in the inter-bank market to obtain the desired currency.<sup>128</sup>

To minimize banks incentive to misreport and appear weak, the BBA considered hiding individual banks’ submissions and only publishing the overall LIBOR rate.<sup>129</sup> Ultimately, however, the BBA rejected this proposal.<sup>130</sup> In the interests of promoting transparency, the BBA in its 2008 report decided to continue its policy of releasing individual bank data.<sup>131</sup>

### 3. Accuracy of LIBOR

The BBA recognized that not every bank can borrow funds at the posted LIBOR rate.<sup>132</sup> Banks will generally only lend to another bank if the borrowing bank has an open line of credit with the lending institution.<sup>133</sup> If a borrowing bank does not have an open line of credit with the lender, the borrowing bank may not be able to borrow funds or only be able to borrow funds at a higher rate.<sup>134</sup> This reflects the BBA’s opinion that LIBOR panels are composed of the most credit-worthy banks.<sup>135</sup>

The BBA report further noted that LIBOR reflects the rate it costs banks to borrow in an underlying currency, without any references to

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124. *See id.*

125. Banks look at other banks before submitting quotes. *See id.*

126. *See* Kuo, Skeie & Vickery, *supra*, note 122, at 7.

127. *See id.*; *see also* John C. Hull & Alan White, *LIBOR vs. OIS: The Derivatives Discounting Dilemma*, 11 J. INV. MGMT. 3, 16 (2013).

128. *Id.*

129. *See* BBA REPORT, *supra* note 6, § 11.1.

130. *Id.*

131. *See id.*

132. *See id.* § 6.10.

133. *See id.*

134. *See id.*

135. *See* BBA REPORT, at 1.

other currency.<sup>136</sup> This can lead to market distortions.<sup>137</sup> A bank can borrow U.S. dollars at the USD LIBOR rate and then convert its dollars on the Foreign Exchange (“FX”)<sup>138</sup> market to Euros.<sup>139</sup> The resulting Euros may be cheaper than the corresponding EUR LIBOR.<sup>140</sup> Conversely, banks wishing to lend out Euros and obtain U.S. dollars may have to pay more than the EUR LIBOR rate.<sup>141</sup>

#### 4. Safeguards Against Fraud

The BBA seemed to rely primarily on three mechanisms to prevent fraud: (1) separating banks’ cash from derivative departments; (2) expanding LIBOR panels; and (3) scrutiny mechanisms.<sup>142</sup> Ultimately, each of these mechanisms failed.<sup>143</sup>

##### a. Separation of Departments

To avoid fraudulent submissions, the BBA report claimed that panel banks’ quotes should come from their cash department, not their derivative department.<sup>144</sup> Furthermore, the two departments should be prevented from communicating with a “Chinese wall.”<sup>145</sup> Most likely, the intent of the proposal was to prevent derivative traders, who would benefit from manipulating LIBOR rates, from engaging in the bank’s LIBOR submission process.

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136. *See id.* §§ 7.1–7.6.

137. *See id.*

138. Foreign Exchange markets are where currencies are traded. *See* MARC LEVINSON, *THE ECONOMIST—GUIDE TO FINANCIAL MARKETS* 14–16 (4th ed. 2006).

139. *See* BBA REPORT, *supra* note 6, §§ 7.1–7.6.

140. *See id.*

141. *See id.*

142. *See infra* notes 144–153 and accompanying text.

143. *See supra* notes 66–102 and accompanying text.

144. *See* BBA REPORT, *supra* note 6, § 12.2.

145. *See id.*

## b. Expansion of Contributing Panel

The BBA stated that panel banks were good representations of the London market and no new banks wished to join the panels.<sup>146</sup> Moreover, the BBA claimed that LIBOR participants make up most of the trading in London<sup>147</sup> and all significant London traders participated in their respective LIBOR panels.<sup>148</sup> The BBA report did, however, consider adding non-contributing banks to the panel.<sup>149</sup>

## c. Scrutiny Mechanism

The BBA also developed a “scrutiny mechanism” to ensure LIBOR’s accuracy.<sup>150</sup> The BBA designed this mechanism to check banks’ daily submissions for discrepancies.<sup>151</sup> If a discrepancy is noticed, the submitting bank is given the opportunity to provide an explanation.<sup>152</sup> In the event a bank is unable to give an adequate explanation, the banks receive a warning and repeat offenders are removed from the panel.<sup>153</sup>

## 5. Limits of the BBA Report

The BBA report was well intended; however, it had some limitations.<sup>154</sup> Notably, LIBOR was still based on estimates—not real trades.<sup>155</sup> In addition, the BBA also had no legal authority to prevent frauds.<sup>156</sup>

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146. See *id.* § 13.3. At the time of the BBA report there were only 16 banks on the USD LIBOR panel. Currently, there are 18 banks on the panel. Kuo, Skeie & Vickery, *supra* note 122, at 5.

147. See BBA REPORT, *supra* note 6, § 8.4.

148. See *id.* § 3.1.

149. See *id.* § 13.3.

150. See *id.*

151. See *id.*

152. See *id.*

153. See *id.* §§ 7.1–7.6.

154. See *infra* notes 156–167 and accompanying text.

155. See Wong, *supra* note 22, at 379.

156. See MUTKIN & LIN, *supra* note 32.

## a. Basing LIBOR on Real Transactions

After the BBA report, the BBA continued to base LIBOR rates upon contributing banks' estimates, not actual borrowing rates.<sup>157</sup> Panel banks submit LIBOR rates up to the fifth decimal point.<sup>158</sup> In practice, trades are quoted and executed to the third or fourth decimal point.<sup>159</sup> By not basing submissions on actual trade data, banks can strategically misreport rates.<sup>160</sup>

Basing LIBOR on actual trades would result in a more accurate and transparent rate.<sup>161</sup> When an actual trade takes place, there is a counterparty that can verify the price paid.<sup>162</sup> The overall LIBOR can then be weighted to accommodate for different volumes of trades.<sup>163</sup>

However, there is a problem with basing LIBOR on actual transactions.<sup>164</sup> Many of the 150 LIBOR rates have low or no amounts of daily trading.<sup>165</sup> It is difficult to base submissions on real trades when very little trades are actually taking place.<sup>166</sup> This might result in banks being unable to give accurate LIBOR quotes.<sup>167</sup> Moreover, due to the very little trading, one large trade by a single market participant can significantly affect the overall LIBOR rate.<sup>168</sup>

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157. Wong, *supra* note 22, at 379.

158. See, e.g., *Historical Libor Rates*, BBA, <http://www.bbalibor.com/rates/historical> (last visited Dec. 1, 2013).

159. See, e.g., *Three Month Sterling (Short Sterling) Futures*, NYSE EURO NEXT GLOBAL DERIVATIVES, <https://globalderivatives.nyx.com/contract/content/29101/contract-specification> (last visited Dec. 1, 2013); *Six-Month Euroyen LIBOR Futures*, TOKYO FIN. EXCH. INC., <http://www.tfx.co.jp/en/products/libor.shtml> (last visited Dec. 1, 2013).

160. Wong, *supra* note 22, at 379.

161. See CFTC, *Gensler Remarks*, *supra* note 4.

162. See McNulty, *supra* note 21.

163. *Id.*

164. *Id.*

165. WHEATLEY REVIEW, *supra* note 17, §§ 4.12–4.13.

166. See *id.* § 4.11.

167. See *id.*

168. See *id.*

## b. Lack of Authority

The BBA is a non-profit organization.<sup>169</sup> If banks deliberately lie or mislead investors, the BBA has no real authority to impose sanctions or penalties.<sup>170</sup> The only way the BBA can punish banks is to publicly humiliate them.<sup>171</sup> Accordingly, banks have little to fear of being caught manipulating LIBOR.<sup>172</sup>

## B. WHEATLEY REVIEW

In September 2012, the *Wheatley Review of LIBOR: Final Report* was published.<sup>173</sup> This review represents U.K. regulators' response to the LIBOR scandal.<sup>174</sup> The review also included suggestions on how to strengthen LIBOR.<sup>175</sup> On October 17, 2012, the U.K. Parliament announced that it planned to adopt the Wheatley Review suggestions.<sup>176</sup> Similarly, the BBA announced that it accepted the Wheatley Review and plans to implement its suggestions.<sup>177</sup>

## 1. A New Institution

The BBA acts as a lobbying group for the same banks submitting LIBOR quotes.<sup>178</sup> In 2008, when the BBA CEO Angela Knight expressed hesitation over the BBA's role in monitoring LIBOR and suggested selling the benchmark, panel banks vetoed the BBA's suggestion.<sup>179</sup> Recognizing this inherent conflict of interest, the

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169. See BBA REPORT, *supra* note 6, § 1.2.

170. See *id.*

171. See *id.*

172. See *id.*

173. *Id.*

174. *Id.*

175. *Id.*

176. HM TREASURY, WRITTEN MINISTERIAL STATEMENT, WHEATLEY REVIEW OF LIBOR (Oct. 17, 2012), available at [http://webarchive.nationalarchives.gov.uk/20130129110402/http://www.hm-treasury.gov.uk/d/wms\\_fst\\_171012.pdf](http://webarchive.nationalarchives.gov.uk/20130129110402/http://www.hm-treasury.gov.uk/d/wms_fst_171012.pdf).

177. See BBA, STRENGTHENING LIBOR, *supra* note 98.

178. WHEATLEY REVIEW, *supra* note 17, § 3.2

179. Enrich & Colchester, *supra* note 36; see also Philip Stafford, *Thomson Reuters to Refocus After Libor Loss*, FIN. TIMES, Oct. 7, 2013, <http://www.ft.com/intl/cms/s/0/3c0f8ccc-2777-11e3-ae16-00144feab7de.html#axzz2iw85Hm61> (estimating that the BBA made \$1,500,000 annually from LIBOR).

Wheatley Review stated that the BBA is not the proper authority to govern LIBOR and another institution should take on the BBA's current role in governing LIBOR.<sup>180</sup>

In addition, to further protect LIBOR, the new institution should create an independent oversight committee that represents a cross-section of all users, or industry bodies that represent users, of LIBOR.<sup>181</sup> This committee, similar to the independent committees of corporate boards, would ensure the integrity of the new institution and report major infractions to the Financial Service Authority ("FSA").<sup>182</sup> The committee would also have the authority to enforce low-level infractions such as operating problems.<sup>183</sup>

## 2. Regulatory Overview of the New Institution

Currently, there is no direct regulatory scheme over LIBOR.<sup>184</sup> All government-related actions are being pursued in the context of other regulatory frameworks.<sup>185</sup> This results in insufficient oversight of LIBOR.<sup>186</sup> Accordingly, there needs to be a regulatory body overseeing LIBOR.<sup>187</sup> The review assumes that the FSA would be the appropriate regulatory body.<sup>188</sup>

The report notes that increasing regulation may increase costs on banks.<sup>189</sup> However, due to LIBOR's importance, it is appropriate that these costs be implemented.<sup>190</sup> Moreover, once LIBOR is fixed, banks will want to join because they get "prestige."<sup>191</sup> The regulatory cost is further justified by the protection these new regulations provide the public.<sup>192</sup>

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180. *Id.* §§ 3.2–3.5.

181. *Id.* § 3.36.

182. *Id.* § 3.35.

183. *Id.*

184. *Id.* § 2.4.

185. *Id.*

186. *Id.*

187. *Id.* § 2.5.

188. *See id.* §§ 2.6–2.7.

189. *See id.* § 2.20 ("Creating controlled functions for these activities may introduce a modest burden on the individuals involved, and will also involve some additional cost for the firms.").

190. *Id.*

191. *Id.* § 5.26.

192. *Id.* § 2.20.

### 3. Extension of Civil Actions

Currently, civil suits protect consumers from abusive financial instruments and products.<sup>193</sup> Such suits, however, do not protect consumers from benchmark manipulations.<sup>194</sup> Therefore, to protect consumers, the right to initiate civil suits against banks should be extended to include charges of fraudulently manipulating benchmarks.<sup>195</sup>

### 4. Abolishing Rates

Of the 150 published LIBOR rates prior to 2013, most were only thinly traded.<sup>196</sup> In some currencies, market participants preferred domestic benchmarks to LIBOR.<sup>197</sup> To ensure LIBOR's accuracy, the Wheatley Review suggested that the new institution should stop compiling data for 130 rates.<sup>198</sup>

### 5. Hiding Individual Banks' Data

Individual bank submissions are currently published alongside overall LIBOR rates.<sup>199</sup> In an effort to promote a more accurate rate, the BBA debated only publishing the overall LIBOR rates and keeping individual bank submissions secret for a length of time.<sup>200</sup> Ultimately, the BBA rejected this proposal and continued to publish individual bank rates.<sup>201</sup> This policy led to banks submitting false rates so that market

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193. *See id.* § 2.30.

194. *See id.*

195. *See id.* § 2.31.

196. *See id.* § 5.5 (namely, the USD, Pound Sterling, Swiss Franc, Japanese Yen and the Euro in the overnight, 1Mo, 3Mo, 6Mo and 12Mo tenors).

197. *Id.* § 5.6.

198. *Id.* § 5.9. According to the Wheatley Review, the following rates in the 4M, 5M, 7M, 8M, 10M and 11M tenors should be abolished: Australian Dollars, Canadian Dollars, Danish Kroner, New Zealand Dollars and Swedish Kroner. *Id.* § 5.5. Market participants can still estimate the abolished tenors by extrapolating from the published tenors. *Id.* § 5.8. For example, based on the USD LIBOR 3Mo and USD LIBOR 6Mo, a market participant can estimate 4Mo LIBOR. *See id.*

199. *Id.* § 5.14.

200. *See* BBA REPORT, *supra* note 6, § 11.1

201. *See id.*



participants would not perceive them as less creditworthy than their peers.<sup>202</sup>

According to the Wheatley Review, banks can assume that their peers' rates do not significantly change on a daily basis.<sup>203</sup> Banks can then estimate how their submission will impact the overall LIBOR rate and deliberately exclude their quote.<sup>204</sup> Therefore, the Wheatley Review recommends that individual banks keep their rates secret for three months before they are published.<sup>205</sup> This will allow banks not to worry about day-to-day trading, and discourage rate manipulations.<sup>206</sup>

### 6. Increasing the Size of the LIBOR Panel

All banks and a large number of market participants enjoy the benefits of LIBOR.<sup>207</sup> Yet, only a small number of banks actually contribute to the benchmark.<sup>208</sup> Some large banks, in particular, are notably absent from LIBOR panels.<sup>209</sup>

Increasing panel sizes will have two major effects.<sup>210</sup> First, larger panels will ensure that individual banks' submissions have less of an

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202. See *supra* notes 76–92 and accompanying text.

203. WHEATLEY REVIEW, *supra* note 17, § 5.15.

204. See *id.* § 5.15.

205. *Id.*

206. See *id.*

207. *Id.* § 5.22.

208. *Id.*

209. *Id.* The BBA, however, claimed that it was unaware of any major banks in the London market that do not currently participate in LIBOR. See BBA REPORT, *supra* note 6, § 8.3. Perhaps the Wheatley Review is referring to major banks that do not have major operations in London. The BBA currently does not require a panel bank to be located in London; rather, the bank must trade in London. If non-London trading is included in rate calculations, LIBOR has effectively changed. For example, USD LIBOR measures Eurodollars and not U.S. Dollars. By adding major U.S. banks that do not trade in London to LIBOR panels, the effective result is that LIBOR will be measuring U.S. Dollars and Eurodollars combined. See *id.* §§ 8.1–8.7.

210. WHEATLEY REVIEW, *supra* note 17, § 5.23. The BBA noted that panel banks are most likely the most credit-worthy and that, therefore, their cost of borrowing may be lower than other banks. See BBA REPORT, *supra* note 6, §§ 5.2–5.3. Essentially, the BBA held that LIBOR is not an accurate reflection of what it costs banks to borrow money in London. *Id.* Rather, it is a reflection of what it costs the most credit-worthy banks in London to borrow money. *Id.* By increasing panel sizes to include more less credit-worthy members, economics dictate, that the cost of borrowing goes up which will be reflected in LIBOR rates. See BBA REPORT, *supra* note 6, § 8.4. By increasing

effect on the overall LIBOR rate.<sup>211</sup> Second, by increasing the number of panel members, LIBOR will be more representative of banks as a whole.<sup>212</sup> The Wheatley Review concludes that international authorities should encourage participation in LIBOR panels.<sup>213</sup>

The Wheatley Review goes further to state that if banks want to leave their panels, or if panel sizes do not naturally increase, it might be necessary to compel individual banks to participate in LIBOR panels and pay the associated costs.<sup>214</sup> This can be achieved through international agreements where banks must participate in LIBOR if they want to join inter-bank money markets.<sup>215</sup> This sharply contrasts with the BBA's voluntary approach.<sup>216</sup>

### *7. Records*

Currently, panel banks do not have to keep records of their trade data.<sup>217</sup> This makes it difficult to determine if banks' quotes accurately reflect their cost of borrowing.<sup>218</sup> To ensure LIBOR's accuracy, banks should be required to keep records of their real-life trades.<sup>219</sup> By comparing post hoc the quotes submitted by banks and the rates that the banks actually paid, the new institution will be able to ensure that banks are accurately reporting their cost of borrowing.<sup>220</sup>

### *8. Separating Banks' Trading and Cash Desks*

Similar to the BBA report, the Wheatley Review states that traders should be provided with training describing what types of contacts with a LIBOR submitter are proper.<sup>221</sup> To ensure that improper contacts do

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panel sizes, market participants may assume that LIBOR is "more accurate" when in reality LIBOR is just measuring a different benchmark. *See id.* §§ 8.1–8.7.

211. WHEATLEY REVIEW, *supra* note 17, § 5.23.

212. *Id.*

213. *Id.* § 5.24. The Report, however, gives no criteria on how new banks should be selected to join LIBOR.

214. *See id.* § 5.27.

215. *See id.*

216. *See supra* notes 107–111.

217. *See* WHEATLEY REVIEW, *supra* note 17, § 4.24.

218. *See id.* §§ 4.24–4.25.

219. *Id.* § 4.25.

220. *Id.* § 4.26.

221. *Id.* § 4.20.

not take place, banks should be required to keep records of any contact between their traders and their cash desk.<sup>222</sup> Separating the two departments makes it less likely that banks will submit false rates.<sup>223</sup>

### 9. *The Effect on Existing Contracts*

The Wheatley Review briefly addressed the effects its recommendations would have on existing contracts.<sup>224</sup> Most swaps that are tied to LIBOR contain provisions in the event a fixing is unavailable.<sup>225</sup> Such provisions were inserted into contracts with the understanding that something may disrupt market operations and prevent the BBA from publishing a daily LIBOR rate.<sup>226</sup> Most of these provisions revolve around contract holders contacting a series of reference banks for inter-bank quotes and then averaging the results.<sup>227</sup> This approach, however, is unworkable.<sup>228</sup> Due to the sheer volume of contracts that reference LIBOR, it is impractical for every party in a contract to contact multiple banks.<sup>229</sup> Moreover, many of the reference banks used to determine this provision rate are the same banks that participate in LIBOR panels.<sup>230</sup> If LIBOR panel banks are submitting false rates to the BBA, it seems likely they would submit false rates to individuals who contact them and ask for sensitive trading information.<sup>231</sup>

## C. ALTERNATIVES TO LIBOR

Many commentators discuss using alternative benchmarks to LIBOR.<sup>232</sup> Unfortunately, there appears to be no obvious

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222. *Id.*

223. *See id.*; *see also CFTC, Gensler Remarks, supra* note 4 (allowing derivative traders to submit LIBOR quotes resulted in false submissions).

224. *See* WHEATLEY REVIEW, *supra* note 17, § 5.30.

225. *Id.*

226. *Id.*

227. *Id.* § 5.31.

228. *Id.* § 5.32.

229. *Id.*

230. *Id.*

231. *See id.*

232. *See infra* notes 269–307 and accompanying text.

replacement.<sup>233</sup> No single substitute can replace all of LIBOR's uses, and it appears that there is some market inertia involved with using LIBOR.<sup>234</sup> This Part will describe the characteristics of an ideal benchmark. It will then describe some of the challenges in crafting a new benchmark. Finally, this Part will briefly explore some of the more commonly cited LIBOR alternatives.

### *1. The Ideal Benchmark*

An ideal benchmark is fair, accurate, and available to market participants in non-discriminatory commercial terms.<sup>235</sup> Unfortunately, different types of benchmarks have different vulnerabilities.<sup>236</sup> Transaction based benchmarks can be manipulated by market participants in the underlying market, and survey based benchmarks are vulnerable to inaccurate submission.<sup>237</sup>

The ownership and distribution of benchmarked data can also potentially make a benchmark unfair to some market participants.<sup>238</sup> For example, if a benchmark is the intellectual property of an individual, organization, or company, the owner of the benchmark may only allow select individuals access to the information.<sup>239</sup> The benchmark's owner may also charge prohibitive fees for access to the information.<sup>240</sup>

A credible benchmark has several key characteristics.<sup>241</sup> First, the benchmark must be representative of the underlying market.<sup>242</sup> Second,

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233. See Randall Palmer, *Central Bankers Eyeing Whether Libor Needs Scrapping*, REUTERS (July 19, 2012) <http://www.reuters.com/article/2012/07/19/us-banking-libor-idUSBRE86H11V20120719> (quoting the Governor of the Bank of Canada: "If it's structurally flawed and can't be fixed—which is a possibility—there may need to be different types of approaches, and we need to think that through").

234. See MUTKIN & LIN, *supra* note 32.

235. See WHEATLEY REVIEW, *supra* note 17, § 7.13.

236. *Id.* § 7.12.

237. *Id.*

238. *Id.*

239. *Id.* § 7.13.

240. See *id.*; see also Brody Mullins, Michael Rothfeld, Tom McGinty & Jenny Strasburg, *Traders Pay for an Early Peek at Key Data*, WALL ST. J., June 12, 2013, <http://online.wsj.com/news/articles/SB10001424127887324682204578515963191421602> (investors can pay large fees to obtain access to the Michigan Consumer Sentiment Index five minutes prior to the public market).

241. WHEATLEY REVIEW, *supra* note 17, §. 7.13.

242. *Id.*

the institution administering the benchmark must publish transparent rules describing the methodology it uses to calculate the benchmark.<sup>243</sup> Third, the organization must provide the benchmark in a fair and non-discriminatory way to all market participants.<sup>244</sup> Finally, the benchmark must be subject to credible oversight that prevents manipulation.<sup>245</sup>

### 2. Domestic U.S. Dollar Benchmark

LIBOR is based on Eurodollars, not U.S. dollars.<sup>246</sup> This may be causing U.S. borrowers to pay a premium on their loans so that foreign banks have access to U.S. dollars.<sup>247</sup> If there were an accurate benchmark measuring inter-bank loans between U.S. banks, loans based upon this benchmark would, most likely, more accurately reflect the true cost of borrowing in the United States.<sup>248</sup> Accordingly, any LIBOR alternative should be based on U.S. Dollars.<sup>249</sup>

### 3. Regulation

Whatever new benchmark is proposed, it needs to be regulated to avoid manipulation by insiders and banks.<sup>250</sup> These regulations should be comprehensive and include criminal, along with civil penalties for intentional violations.<sup>251</sup> The extent of how the new benchmark should be regulated will depend on the method for calculating the new benchmark.<sup>252</sup>

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243. *Id.*

244. *Id.*

245. *Id.*

246. See VLADIMIR R. ROSSMAN & MORTON MOSKIN, COMMERCIAL CONTRACTS: STRATEGIES FOR DRAFTING AND NEGOTIATING § 16.04 (Linda I. Dole & A. Sidney Holderness, Jr. eds., 2d ed. 2013).

247. See Kuo, Skeie & Vickery, *supra* note 122, at 7 (claiming that foreign banks and U.S. bank's foreign subsidiaries may have to pay more for funds than U.S. parent banks. As a result, LIBOR and U.S. domestic lending rates are affected.).

248. *See id.*

249. *See id.*

250. WHEATLEY REVIEW, *supra* note 17, §§ 7.16–7.23.

251. *Id.*

252. *Id.*

*4. The New York Funding Rate Fiasco*

In 2008, amid public outrage surrounding possible LIBOR rate manipulation, ICAP, a competitor of BBA, launched the New York Funding Rate (“NYFR”).<sup>253</sup> As conceived, the NYFR was a new benchmark reflecting what it costs to borrow U.S. dollars in the United States.<sup>254</sup> To provide an accurate benchmark, the NYFR intended to have a large panel consisting of 35 to 50 banks, and it would include other sources of funding that are not covered by LIBOR.<sup>255</sup> Furthermore, the new benchmark would only include 1-month and 3-month tenors, and it would require a minimum of 24 participants to set a rate each day.<sup>256</sup>

In the first four months following the NYFR’s inception, the average LIBOR-NYFR spread was 1.4 basis points.<sup>257</sup> After Lehman Brothers collapsed, the LIBOR-NYFR spread widened, with the NYFR averaging 40 basis points above LIBOR.<sup>258</sup> Throughout its history, the NYFR was above LIBOR every day, except for five days.<sup>259</sup>

The NYFR’s life as a benchmark, however, was short lived.<sup>260</sup> The original requirement of 24 participants was reduced to 16, and then again to 12.<sup>261</sup> Finally, in 2012, ICAP announced it was discontinuing the NYFR due to a lack of participation.<sup>262</sup>

The lesson from the NYFR is that without widespread market acceptance, any LIBOR alternative will be difficult to implement.<sup>263</sup> Regulators cannot force market participants to use a given benchmark when drafting contracts.<sup>264</sup> In addition, market participants may be used

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253. See Cheun, *supra* note 12.

254. *Id.*

255. *Id.*

256. *Id.*

257. See Kuo, Skeie & Vickery, *supra* note 122.

258. See *id.*

259. Liz Capo McCormick, *New York Funding Rate Quells Libor Validity Concern BIS Says*, BLOOMBERG (Sept. 2, 2008), <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aA69THft0NcQ>.

260. See *ICAP Scraps Rate Fixing as Banks Reduce Participation*, REUTERS (Aug. 3, 2012), <http://www.reuters.com/article/2012/08/03/icap-nyfr-rates-idUSL2E8J33FN20120803>.

261. See *id.*

262. *Id.*

263. See MUTKIN & LIN, *supra* note 32.

264. *Id.*

to using LIBOR, and wish to continue using the benchmark even though they know it is flawed and filled with self-manipulating banks.<sup>265</sup>

### 5. Regulatory Arbitrage

While laws can be passed requiring banks to participate in a benchmark, there may be significant opposition from banks.<sup>266</sup> This might lead to banks conducting their financing needs abroad and away from U.S. regulators.<sup>267</sup> Without any financial gain, banks may not voluntarily agree to participate in any benchmark.<sup>268</sup>

### 6. Effective Federal Fund Rate

Banks are required to keep minimum reserves with the Federal Reserve.<sup>269</sup> Bank reserves are based on a 14 day average,<sup>270</sup> and banks borrow funds from each other in order maintain their minimum deposit requirements.<sup>271</sup> Two banks that engage in a transaction report their trade to the Federal Reserve, which transfers the funds from the lending bank's account to the borrowing bank's account.<sup>272</sup> At the end of the day, the Federal Reserve averages the day's trades and compiles the data into the effective federal fund rate, or the rate that banks lend each other unsecured overnight funds in the U.S.<sup>273</sup> Since the effective federal fund

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265. *Id.*

266. See Nick Cawley, *Euribor Fears Rise as Rate-Setting Panel Shrinks*, WALL ST. J., Jan. 9, 2013, <http://online.wsj.com/news/articles/SB10001424127887323442804578231842932502354?mg=reno64-wsj> (banks will leave panels if they do not perceive a benefit of being a member); Katharina Bart & Marc Jones, *UBS Departure Deals Euribor Fresh Blow*, REUTERS (Mar. 19, 2013), <http://www.reuters.com/article/2013/03/19/us-ubs-euribor-idUSBRE92I0BR20130319>.

267. See Victor Fleischer, *Regulatory Arbitrage*, 89 TEX. L. REV. 227, 244 (2010) (claiming that when the same transaction receives different regulatory treatment under different regulatory regimes, there is a likelihood of regulatory arbitrage.).

268. See Bart & Jones, *supra* note 267.

269. *Federal Funds and Interest on Reserves*, FED. RESERVE BANK OF N.Y. (Mar. 2013), <http://www.newyorkfed.org/aboutthefed/fedpoint/fed15.html>.

270. BD. OF GOVERNORS OF THE FED. RESERVE, RESERVE MAINTENANCE MANUAL 17 (2013).

271. See *Federal Funds and Interest on Reserves*, FED. RESERVE BANK OF N.Y. (Mar. 2013), <http://www.newyorkfed.org/aboutthefed/fedpoint/fed15.html>.

272. *Id.*

273. *Id.* This should not be confused with the federal funds target rate which is often reported in the news and is a number determined by the Federal Reserve where

rate is an accurate measure for unsecured overnight loans, it may be an appropriate substitute for some of LIBOR uses.<sup>274</sup>

The effective federal fund rate, however, only measures overnight rates and does not measure longer tenors.<sup>275</sup> Furthermore, the Federal Reserve's decision regarding interest payments on deposits<sup>276</sup> has had a bigger effect on the effective federal fund rate than the bankruptcy of Lehman Brothers.<sup>277</sup> The Federal Reserve has also indicated that it may manipulate for economic reasons interest payouts.<sup>278</sup> Accordingly, the effective federal fund rate is an inadequate LIBOR alternative.<sup>279</sup>

### 7. OIS Swaps

Another possible LIBOR alternative is overnight index swaps ("OIS").<sup>280</sup> These swaps are essentially long-term bets on the direction of the effective federal fund rate that contract holders pay, or get paid, based upon the difference between the effective federal fund rate and a set interest rate.<sup>281</sup> Market participants generally use these swaps to extrapolate the effective federal fund rate beyond overnight tenors,<sup>282</sup>

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the effective federal fund rate should be for policy and economic reasons. *See Effective Federal Funds Rate (DFF)*, FED. RESERVE BANK OF ST. LOUIS, <http://research.stlouisfed.org/fred2/series/DFF>.

274. WHEATLEY REVIEW, *supra* note 17, § 6.32.

275. *See id.* § 6.29.

276. *See Interest on Required Balances and Excess Balances*, BD. OF GOVERNORS OF THE FED. RESERVE SYS. (Aug. 2013), <http://www.federalreserve.gov/monetarypolicy/reqresbalances.htm>.

277. *See* MORTEN L. BECH, CARL T. BERGSTROM, RODNEY J. GARRATT & MARTIN ROSVALL, FEDERAL RESERVE BANK OF NEW YORK STAFF REPORTS, MAPPING CHANGE IN THE FEDERAL FUNDS MARKET (2011), available at [http://www.newyorkfed.org/research/staff\\_reports/sr507.pdf](http://www.newyorkfed.org/research/staff_reports/sr507.pdf).

278. *See* Sudeep Reedy, *Bernanke: Lowering Interest Rate on Excess Reserves Could Threaten Market Functioning*, WALL ST. J. (July 22, 2010), <http://blogs.wsj.com/economics/2010/07/22/bernanke-lowering-interest-rate-on-excess-reserves-could-threaten-market-functioning/>.

279. WHEATLEY REVIEW, *supra* note 17, § 6.24, 6.28.

280. *Id.* § 6.32.

281. *See* Rajdeep Sengupta & Yu Man Tam, *The LIBOR-OIS Spread As a Summary Indicator*, 25 ECON. SYNOPSES 1 (2008).

282. *Id.*



and LCH.Clearnet, a large central clearing party, started using OIS swaps as an alternative at the end of 2010.<sup>283</sup>

A disadvantage to OIS swaps is that because the notional amount, or underlying funds, does not change hands, contract holders' risks are capped at an interest rate.<sup>284</sup> In contrast, LIBOR transactions are real loans where the underlying funds trade hands.<sup>285</sup> This leads to there being less credit risk in an OIS swap than a LIBOR loan.<sup>286</sup>

Another disadvantage to using OIS swaps as a LIBOR alternative is the lack of a widely acceptable standard.<sup>287</sup> Prior to 2013, OIS swaps were over-the-counter trades with little regulation.<sup>288</sup> As of the beginning of 2013, there is no market-acceptable rate for these swaps.<sup>289</sup> Therefore, OIS swaps are ultimately not effective alternatives to all LIBOR contracts.<sup>290</sup>

### 8. Treasury Bonds

Instead of using LIBOR as a benchmark, market participants may be able to use treasury notes as a benchmark.<sup>291</sup> Treasury notes are readily traded and there is an existing market for such notes.<sup>292</sup> In theory, U.S. treasury notes are not risk free.<sup>293</sup> In practice, however, market participants treat treasury notes as secured.<sup>294</sup> This leads to investors purchasing treasury notes to avoid market risks.<sup>295</sup> During the

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283. Press Release, *LCH.Clearnet Adopts OIS Discounting for \$218 Trillion IRS Portfolio*, LCH.CLEARNET (June 17, 2010), [http://www.lchclearnet.com/media\\_centre/press\\_releases/2010-06-17.asp](http://www.lchclearnet.com/media_centre/press_releases/2010-06-17.asp).

284. WHEATLEY REVIEW, *supra* note 17, §§ 6.31–6.32.

285. *See id.*

286. *See id.*

287. *Id.* § 6.33.

288. *See* 17 C.F.R. § 50 (2013); *see also* Clearing Requirement Determination Under Section 2(h) of the CEA, 77 Fed. Reg. 74,284, 74,285–86 (Dec. 13, 2012) (to be codified at 17 C.F.R. pts. 39, 50).

289. WHEATLEY REVIEW, *supra* note 17, § 6.33.

290. *See id.* §§ 6.32–6.33.

291. *Id.* § 6.34.

292. *See U.S. Treasury Bond Futures*, CME GROUP, <http://www.cmegroup.com/trading/interest-rates/us-treasury/30-year-us-treasury-bond.html> (last visited Dec. 1, 2013).

293. WHEATLEY REVIEW, *supra* note 17, § 6.36.

294. *Id.*

295. *Id.*

2008 financial crisis, treasury bonds were even negative at one point.<sup>296</sup> Institutional investors, so fearful of depositing money in banks, were willing to pay the government to safely hold their money.<sup>297</sup> Due to this excess liquidity and safety net, treasury notes do not accurately reflect borrowing costs, and thus are not ideal substitutes for LIBOR.<sup>298</sup>

### 9. Exchange Based

When attempting to sell or buy a security, investors use exchanges to find a counterparty.<sup>299</sup> When the two parties agree on a price, the exchange acts as a clearing system and the parties give the exchange their security and payment.<sup>300</sup> The exchange then executes the trade and transfers the security and its payment to its new owners.<sup>301</sup>

Tabb and Grundfest propose creating a bank exchange where banks can exchange inter-bank loans.<sup>302</sup> Then, by recording all loans and weighing for transaction size, an effective benchmark can be created.<sup>303</sup> Furthermore, even when there is low volatility, by dividing the bid-ask spread, a rate can be obtained.<sup>304</sup>

To ensure the benchmark's accuracy, all bid and ask prices must be "committed" (i.e., banks must commit themselves to go through with such transaction).<sup>305</sup> Alternatively, banks can be required to borrow or

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296. Daniel Kruger & Cordell Eddings, *Treasury Bills Trade at Negative Rates as Haven Demand Surges*, BLOOMBERG (Dec. 9, 2008), <http://www.bloomberg.com/apps/news?sid=aOGXsWKEI6F4&pid=newsarchive>.

297. During the 2008 crisis, investors were fearful of depositing their money in investment banks and instead fled to treasury notes. The result was that institutional investors were willing to accept a negative yield in order to protect their money. See David Gaffen, *Three-Month Bill Yield Goes Negative*, WALL ST. J. MARKETBEAT (Dec. 9, 2008), <http://blogs.wsj.com/marketbeat/2008/12/09/three-month-bill-yield-goes-negative/>.

298. See WHEATLEY REVIEW, *supra* note 17, §§ 6.34–6.37.

299. See GEORGE ARNETT, *GLOBAL SECURITIES MARKETS: NAVIGATING THE WORLD'S EXCHANGES AND OTC MARKETS* (2011).

300. *See id.*

301. *See id.*

302. *See* Tabb & Grundfest, *supra* note 22.

303. *See id.* at 256.

304. *See id.*

305. *See id.*

lend at their quoted rates to a central fund.<sup>306</sup> The central fund can then use the proceeds from the bid-ask spread to pay for itself.<sup>307</sup>

### III. CLEARINGHOUSE, EXCHANGE AND HYBRID BASED SOLUTIONS

Both the BBA and the Wheatley Review attempted to reform LIBOR. The BBA was unsuccessful in its reforms, and the Wheatley Review, although a step in the right direction, is not enough. Greater reform and regulation of LIBOR is needed. Many of the alternatives discussed in Part III are viable for some of the many uses of LIBOR. Part III of this Comment will explore LIBOR alternatives that are not mentioned in Part II, but that may be appropriate for some contracts.

#### A. CLEARINGHOUSE BASED

Under 17 C.F.R. § 50, all FX and fixed-to-interest rate swaps must pass through a clearinghouse.<sup>308</sup> The intent of 17 C.F.R. § 50 is to remove these swaps from the shadow banking system and allow them to be more closely regulated.<sup>309</sup> However, the effect of 17 C.F.R. § 50 is that all long-term LIBOR based swaps pass through a clearinghouse.<sup>310</sup>

Similarly, in order for banks to maintain minimum reserve requirements, banks report overnight loans to the Federal Reserve.<sup>311</sup> The central bank then transfers funds from between the two banks' accounts and effectively acts as a clearinghouse.<sup>312</sup> A similar clearinghouse approach can also work for LIBOR.

Regulations can be adopted requiring all U.S. inter-bank loans to pass through a clearinghouse.<sup>313</sup> The clearinghouse can then calculate the average interest rate, while weighing for loan size.<sup>314</sup> The

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306. *See id.*

307. *See id.*

308. *See* 17 C.F.R. § 50 (2013).

309. *See* Clearing Requirement Determination Under Section 2(h) of the CEA, 77 Fed. Reg. 74,284, 74,284–87 (Dec. 13, 2012) (to be codified at 17 C.F.R. pts. 39, 50).

310. *See id.*

311. *See supra* notes 269–273 and accompanying text.

312. *Id.*

313. *See supra* notes 213–216 and accompanying text (regulations can be passed regarding how banks lend funds).

314. *See US Dollar Index Futures*, ICE, <https://www.theice.com/productguide/>

clearinghouse system can then effectively measure interbank loans.<sup>315</sup> This average can then be published as a LIBOR substitute.

Since any benchmark derived through this method is based on actual trades, and not theoretical trades, such a benchmark would accurately reflect banks' true costs of borrowing.<sup>316</sup> Furthermore, because such a proposal measures U.S. trading and not EuroDollar trading, it would more accurately reflect borrowing in the United States.<sup>317</sup> In addition, the USD LIBOR panel, under the BBA, is comprised of only 18 banks, many of which are non-U.S. banks.<sup>318</sup> Requiring all domestic banks to lend and borrow through a clearinghouse would produce a much larger sample size, thereby increasing the benchmark's accuracy.<sup>319</sup>

As the NYFR fiasco showed, however, without a reward, banks have little incentive to report their private data.<sup>320</sup> If banks wanting to borrow funds must report their transaction data, they might find it easier to not borrow at all, or simply borrow overseas and avoid reporting requirements.<sup>321</sup> Banks also might only offer to lend at ridiculous rates.<sup>322</sup>

## B. EXCHANGE BASED

Under Tabb and Grundfest's proposal, all banks must limit their trading to an exchange.<sup>323</sup> A major flaw with this proposal, however, is that it does not take into account a bank's credit-worthiness.<sup>324</sup> Some

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ProductSpec.shtml?specId=194 (last visited Dec. 1, 2013) (Daily U.S. Dollar future settlements are traded based upon a volume weighted average).

315. *See id.*

316. *See supra* notes 161–162 and accompanying text (a benchmark based upon actual trades is conceivably more accurate).

317. *See supra* notes 246–249 and accompanying text.

318. *See supra* notes 43–50 and accompanying text.

319. *See supra* text accompanying note 255 (according to ICAP, a larger sample of loans creates a more accurate benchmark).

320. *See supra* notes 253–265, 195 and accompanying text.

321. *See* Tabb & Grundfest, *supra* note 22, at 256.

322. *See id.*

323. *See supra* notes 302–307 and accompanying text.

324. *See supra* notes 132–135 and accompanying text (the BBA held that panel banks are the most creditworthy and thus can borrow at cheaper rates than other banks. Tabb and Grundfest's proposal, however, requires all banks to be treated equally regardless of their relative creditworthiness).

banks are more credit-worthy than others and should be able to borrow at better rates than their peers.<sup>325</sup> By forcing banks to lend on an exchange with participants who have various degrees of credit-worthiness, banks will be forced to lend only at the rate at which it would lend to the least credit-worthy institution on the exchange.<sup>326</sup> The end result is that the exchange would have few sellers and a number of strong banks overpaying for credit at the benefit of weaker banks.<sup>327</sup>

A solution to such a problem could be to allow banks to choose who they are willing to lend to on the exchange.<sup>328</sup> Similar to an open line of credit, each bank on the exchange can create its own personal “rating” for the other banks on the exchange.<sup>329</sup> This rating can be adjusted at will and is a reflection of the perceived credit risk of the borrowing bank by the lending bank.<sup>330</sup> The rating bank then makes an offer where it agrees to lend funds to any bank that is above a prescribed credit rating.<sup>331</sup> Banks below this credit rating will not receive an offer.<sup>332</sup> The end result is that banks will only lend to other banks that they trust.<sup>333</sup>

Ultimately, however, this approach may be overly burdensome on the market.<sup>334</sup> Currently, by allowing open lines of credit with some banks and not others, banks are indirectly rating each other and choosing the most credit-worthy banks.<sup>335</sup> Similarly, by choosing to lend to only some banks, or raising the cost of borrowing for other institutions, banks are further, albeit indirectly, rating each other.<sup>336</sup> However, this “rating” is done either on a bank-by-bank basis or a loan-by-loan basis and is

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325. *See id.*

326. *See id.*

327. *See id.*

328. *See, e.g., supra* note 133 and accompanying text (the BBA notes that LIBOR quotes are generally only for banks that have an open line of credit with the lending institution and are thus rated by the lending institution).

329. *See id.*

330. *See id.*

331. *See id.*

332. *See id.*

333. *See id.*

334. *See supra* note 266 (banks will leave panels if it becomes too burdensome).

335. *See supra* note 133 and accompanying text.

336. *See id.*

market-led.<sup>337</sup> To force banks to rate each other simply to create an exchange may be overly burdensome on the market.<sup>338</sup>

### C. HYBRID EXCHANGE

The better approach may be a modified exchange that has some of the features of an exchange and some of the features of a clearinghouse.<sup>339</sup> This hybrid exchange can have bids on specific tenors without any sellers.<sup>340</sup> Buyers will simply state that they are looking to borrow funds at a certain rate.<sup>341</sup> Other banks will then have the opportunity to lend to the buyer at the offered price.<sup>342</sup>

Market economics dictate that banks would be more willing to lend to their most credit-worthy peers.<sup>343</sup> The result is that less credit-worthy banks will have to offer to pay higher costs for credit that will be reflected in their bids.<sup>344</sup> Because of this premium, banks will be willing to lend to their less credit-worthy peers.<sup>345</sup> The end result is that the exchange will accurately depict U.S. interbank lending, and the trading data from the exchange can be volume weighted to create an accurate benchmark.<sup>346</sup>

Such a proposal will avoid many of the pitfalls of the previous proposals and the Wheatley Review.<sup>347</sup> Banks will receive a benefit in this system over the current system. Lenders will compete with each other to give the borrower a better price, allowing borrowers to save money. Similarly, by having more access to potential borrowers, lenders will also benefit from such a system. The end result is that borrowers get better terms for their loans and lenders have more borrowers.

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337. *See id.*

338. *See supra* note 334.

339. *See supra* notes 308–322 and accompanying text.

340. *See supra* notes 308–339 and accompanying text.

341. *See supra* notes 299–301 and accompanying text (explaining how an exchange operates).

342. *See id.*

343. *See supra* note 133 and accompanying text (the BBA notes that LIBOR quotes are generally only for banks that have an open line of credit with the lending institution and are thus rated by the lending institution).

344. *See id.*

345. *See supra* notes 339–345 and accompanying text.

346. *See id.*

347. *See supra* notes 210–280 and accompanying text.

This proposal also avoids extensive regulation by a governing body.<sup>348</sup> Similar to equity and commodity exchanges, the regulatory oversight will be limited to ensuring that the actual transactions take place and that there is no fraud in the marketplace.<sup>349</sup> Since there is a counterparty to every trade, the party with the perceived advantage in the trade will want to ensure that the trade actually takes place.<sup>350</sup> If the trade does not take place, the aggrieved party can report the violation to the appropriate regulatory body.<sup>351</sup>

### CONCLUSION

Banks manipulated LIBOR for many years to benefit themselves. Despite getting creditable reports of such allegations, no comprehensive government action was taken. In an attempt to reform LIBOR, the BBA and the Wheatley Review did a thorough job analyzing LIBOR. Ultimately, however, their recommendations are inadequate in the context of the U.S. market. Although not perfect, a better LIBOR alternative may be provided through a clearinghouse or hybrid clearinghouse and exchange type system.

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348. *See supra* notes 178–192 and accompanying text (under the Wheatley Review, the new institution will be governed by independent board and a regulatory body).

349. *See id.*

350. *See supra* note 175 and accompanying text.

351. *See id.*