THE LIBOR MANIPULATION SCANDAL & THE WHEATLEY REVIEW:

A BAND-AID ON A KNIFE WOUND

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I. INTRODUCTION

Take out a pencil and a piece of paper. Now write down the number five and put fourteen zeros after it. Now, going from right to left, place a comma after every three zeros. Finally, put a dollar sign in front of the number. Now, look at the number.

\$500,000,000,000,000.

Five Hundred Trillion Dollars. To the majority of the public, that amount of money is the equivalent of "a million bajillion" dollars. It is more than thirty-three times the 2011 Gross Domestic Product of the United States¹ and, if stacked in \$100 dollar bills, would be taller than (and consume) the Empire State Building.² However, five hundred trillion dollars is the amount of money that was left in the hands of greedy investment bankers looking to make a quick buck. How? Since its institution, the London Interbank Offered Rate ("LIBOR") has been left unregulated. As a result, a few greedy individuals manipulated the rate for their own financial advantage at the expense of every individual who has ever taken out a loan. And how much money does LIBOR affect? Five Hundred Trillion Dollars.

LIBOR is a benchmark interest rate that reflects the cost of borrowing for banks and has been used to set an estimated \$500 trillion worth of financial instruments.³ A number of banks have been accused

^{1.} See GDP (current US\$), THE WORLD BANK, available at http://data.worldbank.org/indicator/NY.GDP.MKTP.CD (last visited Oct. 9, 2013).

^{2.} See generally US Debt Ceiling Visualized in \$100 Bills, DEMONOCRACY INFO, available at http://demonocracy.info/infographics/usa/us_debt/us_debt.html (last visited Oct. 9, 2013).

^{3.} See Heidi N. Moore, LIBOR for Mortals: An Easy Explainer, MARKETPLACE (July 3, 2012, 3:40 PM), available at http://www.marketplace.org/topics/world/easy-street/libormortals-easy-explainer (last visited Oct. 9, 2013).

of attempting to manipulate LIBOR from 2005 through 2009.⁴ The manipulation stemmed from two sources: (1) derivative traders, colluding with counterparts at other banks in attempting to manipulate LIBOR submissions to boost individual trading profits; and (2) executive level focused 'decisions' or collaborations to falsely lower LIBOR submissions in order to give an artificial impression of sounder financial strength.⁵

Out of the potential twenty banks believed to be involved, to date, only UBS and Barclays have admitted rate manipulation and false reporting. Subsequently, Barclays negotiated a \$450 million settlement which was divided amongst the U.S. Commodity Futures Trading Commission, the U.S. Department of Justice, and the Financial Services Authority. To date, the U.K. and the U.S. criminal investigations have been led by the Serious Fraud Office and the Department of Justice, respectively. Substitute 1.

While much of the focus thus far has been on the actions taken by governments and regulators, this Note will focus on the institution and history of LIBOR, the manipulation of LIBOR from 2005 through 2009, and the evidence supporting collusion between banks to manipulate LIBOR. Furthermore, this Note will examine a regulation proposal and recommendations to the LIBOR system by Martin Wheatley, a top U.K. regulator, and how his proposal fails to address the culture of the banking system. Finally, this Note will propose the creation of a "whistle blowing" incentive system to be instituted along with a

^{4.} See James O'Toole, Explaining the Libor Interest Rate Mess, CNNMONEY (July 10, 2012, 12:07 PM), available at http://money.cnn.com/2012/07/03/investing/libor-interest-rate-faq/index.htm (last visited Oct. 9, 2013).

^{5.} See Halah Touryalai, Regulators Instructed Barclays to Lower Libor: Del Missier Testifies, Forbes (July 16, 2012, 1:42 PM), available at http://www.forbes.com/sites/halahtouryalai/2012/07/16/regulators-instructed-barclays-to-lower-libor-del-missier-testifies/ (last visited Sept. 20, 2013); see also James O'Toole, Winners and Losers in Libor Mess, CNNMoney (July 12, 2012, 5:10 AM), available at http://money.cnn.com/2012/07/12/investing/libor-consumers/index.htm (last visited Sept. 20, 2013).

^{6.} See UBS Fined \$1.5B over Libor Manipulation, FOXBUSINESS (Dec. 19, 2012), available at http://www.foxbusiness.com/industries/2012/12/19/ubs-fined-15b-over-libor-manipulation/ (last visited Oct. 9, 2013).

^{7.} See Barclays Will Pay \$450M for Manipulation Interest Rates, USA TODAY (July 27, 2012) available at http://usatoday30.usatoday.com/money/industries/banking/story/2012-06-27/barclayspenalty/55854212/1 (last visited Oct. 9, 2013).

^{8.} See id.; see also Jill Treanor, Serious Fraud Office to Investigate Libor Manipulation, GUARDIAN (London) (July 6, 2012), available at http://www.guardian.co.uk/business/2012/jul/06/serious-fraud-office-libor-investigation (last visited Sept. 20, 2013).

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regulatory overhaul of the LIBOR system.

Part II of this Note will provide background information on LIBOR, specifically how LIBOR is calculated and how it affects any person who takes out a loan. Part III of this Note will present an overview of the LIBOR manipulation through investigation into Barclays Bank, specifically through violations found by regulatory authorities and the settlement between Barclays and the Commodity Futures Trading Commission ("CFTC"). Part IV of this Note will display evidence suggesting that LIBOR submitting banks colluded to manipulate LIBOR during the 2007 and 2008 financial crisis. Part V of this Note will discuss Martin Wheatley's proposed reforms to the LIBOR system and the reaction it received from the public. Part VI of this Note will discuss the problems within Wheatley's regulation scheme, specifically its failure to account for the banking culture among LIBOR submitting banks. Finally, Part VII of this Note will recommend reform for LIBOR and the institution of "whistle blowing" incentives for LIBOR submitting banks.

II. LIBOR

This section provides background information on LIBOR. Part A defines LIBOR and how it is calculated, while Part B discusses what information is taken from LIBOR and how it affects any common person that takes out a loan.

A. What is LIBOR?

LIBOR is an interest rate set in London through submissions of lending rates by eighteen major banks. The submission by each bank is a calculation of how much interest each bank would have to pay to borrow from one of the other banks. Bankers' Association ("BBA"), with assistance from the Foreign Exchange and Money Markets Committee, selects the specific banks that will submit rates for the calculation of LIBOR based on the bank's market volume,

^{9.} Moore, *supra* note 3. The complete list of all 18 banks that contributed to fixing LIBOR are as follows: (1) Bank of America, (2) Bank of Tokyo-Mitsubishi UFJ Ltd, (3) Barclays Bank PLC, (4) BNP Paribas, (5) Citibank NA, (6) Credit Agricole CIB, (7) Credit Suisse, (8) Deutsche Bank AG, (9) HSBC, (10) JP Morgan Chase, (11) Lloyds Banking Group, (12) Rabobank, (13) Royal Bank of Canada, (14) Société Générale, (15) Sumitomo Mitsui Banking Corporation, (16) The Norinchukin Bank, (17) The Royal Bank of Scotland Group, and (18) UBS AG. *US Dollar Panel*, BBALIBOR (May 2012), *available at* http://www.bbalibor.com/panels/usd (last visited Sept. 20, 2013).

^{10.} Moore, supra note 3.

reputation, and assumed knowledge of the currency concerned.¹¹ The selection of banks occur each year, but rarely result in any change.¹² Many well-known banks such as Bank of America, Barclays, JPMorgan Chase, Deutsche Bank, and HSBC are among the banks selected by the BBA.¹³

The use of LIBOR can be traced back to the late 1960's, when the rate that banks used to borrow money was set and governed by a "small group of like-minded bankers" based in London. Minos A. Zombanakis, a former banker at Manufacturers Hanover, recalls the first LIBOR loan, an \$80 million loan extended by a group of banks to Iran. He explained, "we had to fix a rate, so I called up all the banks and asked them to send to me by 11 a.m. their cost of money. We got the rates, I made an average of them all and I named it the London interbank offered rate." For the next fifteen years, the banks set the rate at which banks could lend to each other roughly as Zombanakis described. Although this may be shocking in today's financial world, there was a trust amongst bankers that they would truthfully submit their rates without looking out for their own interests.

In 1986, the banks asked the BBA to bring a measure of uniformity into the market and to devise a benchmark to act as a reference for new financial instruments, such as Forward Rate Agreements, that were actively trading in the market. Rather than negotiating the underlying rate or forming rates by taking averages of ad-hoc panels, banks could now use a standard rate. This facilitated the operation of markets and made benchmarking more transparent and objective. The standard rate are underlying rate of the standard rate.

^{11.} LIBOR, Information About the London InterBank Offered Rate, GLOBAL-RATES, available at http://www.global-rates.com/interest-rates/libor/libor-information.aspx (last visited Sept. 20, 2013) [hereinafter LIBOR, global-rates].

^{12.} *Id*.

^{13.} Moore, supra note 3.

^{14.} *Id.*; Landon Thomas, Jr., *Trade Group for Bankers Regulates a Key Rate*, N.Y. TIMES (July 5, 2012), *available at* http://nytimes.com/2012/07/06/business/global/thegentlemens-club-that-sets-libor-is-called-into-question.html?pagewatned=all&_r=0 (last visited Oct. 8, 2013).

^{15.} Thomas, Jr., supra note 14.

^{16.} Moore, *supra* note 3; Thomas, Jr., *supra* note 14.

^{17.} Moore, supra note 3.

^{18.} Historical Libor Rates, BBALIBOR, available at http://www.bbalibor.com/explained/historical-perspective (last visited Oct. 9, 2013) [hereinafter BBALIBOR]; Timeline: How the Libor scandal unfolded, TELEGRAPH (London) (Dec. 19, 2012), available at http://www.telegraph.co.uk/finance/libor-scandal/9754981/Timeline-How-the-Libor-scandal-unfolded.html (last visited Oct. 8, 2013).

^{19.} BBALIBOR, supra note 18.

^{20.} Id.

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At first, LIBOR was a benchmark for only a few currencies, which included the American dollar, the British pound sterling, and the Japanese yen.²¹ Over the years, LIBOR expanded to include sixteen currencies, but is presently a benchmark for only ten currencies.²² To date, regulators estimate that LIBOR supports more than \$500 trillion worth of financial instruments, ranging from simple mortgages to risky derivative transactions, worldwide.²³

Currently, LIBOR is calculated in a similar way that Zombanakis described. Each bank that is selected by the BBA answers the specific question "at what rate could you borrow funds, were you to do so by asking for and then accepting inter-bank offers in a reasonable market size just prior to 11 a.m.?"²⁴ The bank then looks at its own financials. looks at how much interest it would have to pay to borrow from another bank, and submits a rate.²⁵ The BBA compiles all of the submissions from the banks and presents the information to Thomson Reuters, a global provider of business information.²⁶ Once Thomson Reuters collects all of the rates from the panel banks, the highest and lowest twenty-five percent of the submissions are eliminated.²⁷ Thompson Reuters takes an average of the remaining rates to produce the official LIBOR rate.²⁸ As this process suggests, LIBOR must rely on accurate and truthful submissions from each of the banks or LIBOR will be skewed in one direction and the system will fail.

So why does it matter if LIBOR is skewed in one direction? Well, LIBOR is the primary way to measure the health of the banking system worldwide.²⁹ Many banks will rely on this rate to determine the risk involved with lending and "whether the other banks they do business

^{21.} LIBOR, global-rates, supra note 11.

^{22.} *Id.* The ten currencies are as follows: (1) American dollar, (2) Australian dollar, (3) British pound sterling, (4) Canadian dollar, (5) Danish krone, (6) European euro, (7) Japanese yen, (8) New Zealand dollar, (9) Swedish krona, and (10) Swiss franc. *Id.*

^{23.} See Yuval Rosenberg, Libor-gate Explained: Why Barclays' Scandal Matters, FISCAL TIMES (July 6, 2012), available at http://www.thefiscatimes.com/Articles/2012/07/06/Libor-gate-Explained-Why-Barclays-Scandel-Matters.aspx#page1 (last visited Sept. 20, 2013).

^{24.} BBALIBOR, supra note 18; see also Rosenberg, supra note 23.

^{25.} Moore, supra note 3; see also Rosenberg, supra note 23.

^{26.} Moore, supra note 3.

^{27.} *Id.*; see also Matthew Jensen, *The Uses of LIBOR and the Victims of its Manipulation: A Primer*, AMERICAN (Aug. 23, 2012), available at http://www.american.com/archive/2012/august/the-uses-of-libor-and-the-victims-of-its-manipulation-a-primer (last visited Oct. 8, 2013).

^{28.} Moore, supra note 3.

^{29.} Id.

with are good for the money."³⁰ In simple terms, if LIBOR is high, it means that banks do not believe the other banks are in good financial health and are less likely to pay back loans that they will receive.³¹ If LIBOR is low, it makes the banking system look healthy and creditworthy.³² However, this correlation between LIBOR and financial health may incentivize banks to submit lower rates. If a bank continues to submit higher rates than its peers, which will be publicly available, it may tip off the market that the bank is more risky or desperate for cash. Once the market or investors obtain this information, they may invest with other banks and cause banks submitting higher rates to lose business. Therefore, if the majority of panel banks consistently submitted low LIBOR rates, the remaining banks may underestimate their true lending rate to refrain from reporting higher rates.

B. Who is Affected by LIBOR?

To many people, LIBOR may seem like financial jargon thrown around by bankers at a cocktail party. However, LIBOR affects virtually every common person who obtains a loan.³³ In the U.S., banks have used LIBOR to set the borrowing rate for student loans, adjustable-rate mortgages, and car loans.³⁴ In the U.K., many of the same products rely on LIBOR.³⁵

For example, if a person has an adjustable-rate mortgage, it will usually be tied to LIBOR.³⁶ With an adjustable-rate mortgage, a borrower will lock in an interest rate, typically a low one, for a fixed period.³⁷ Once that period ends, usually in three, five, or twelve months, the mortgage rate resets to the current interest rate of the index.³⁸ If LIBOR is lower when the mortgage rate resets, a borrower's monthly payment will be lower; however, if LIBOR is higher, a

^{30.} Id.

^{31.} Id.

^{32.} Id.

^{33.} Moore, supra note 3; see also Jensen, supra note 27.

^{34.} Moore, supra note 3; see also Jensen, supra note 27.

^{35.} See BBALIBOR, supra note 18.

^{36.} Donna Fuscaldo, *Libor: What It Means for US Consumer Loans*, BANKRATE (Aug. 3, 2013), *available at* http://www.bankrate.com/finance/banking/libor-what-it-means-for-us-consumer-loans.aspx (last visited Oct. 13, 2013); *see also* Kirsten Grind, *What Libor Means for You*, WALL St. J. (Aug. 3, 2012), *available at* http://online.wsj.com/article/SB10000872396390443545504577565120728037852.html (last visited Oct. 13, 2013).

^{37.} Fuscaldo, supra note 36; see also Grind, supra note 36.

^{38.} Fuscaldo, supra note 36; see also Grind, supra note 36.

borrower's premium will rise.³⁹

The process is very similar for a person with student loans tied to LIBOR. It is common for students to take out loans with a rate that is LIBOR plus 2% or LIBOR plus 7%. ⁴⁰ If a student signs a loan when LIBOR is high, the loan repayment will be more expensive than if LIBOR is low. In both cases, the loan rate rests on the foundation that banks will submit honest and accurate LIBOR rates and will not consider their own interests when making submissions.

Although inaccurate or dishonest submissions will affect LIBOR, the change of LIBOR impacts an individual's finances differently. If an individual has the financial security to handle increases in mortgage or student loan premiums, an increase in LIBOR may not have a substantial effect on the individual. However, for people who are simply making mortgage or student loan payments and do not have the financial wherewithal to deal with an increase in LIBOR, the effects could be devastating. Therefore, a bank that is manipulating LIBOR, either higher or lower, to stay aligned with the market or to affect derivative positions, will drastically effect individuals who rely on banks for trustworthy and well-founded financial instruments.

III. BARCLAYS BANK LIBOR MANIPULATION

This section provides an overview of the LIBOR manipulation scandal presented through the recent investigations into Barclays Bank. Part A describes Barclays's attempts to manipulate LIBOR. Part B describes the violations found by the Commodity Futures Trading Commission ("CFTC") under the Commodities Exchange Act and provides a discussion of the settlement between Barclays and CFTC.

A. Evidence of Manipulation

In the midst of the 2007 financial crisis, the credit markets began to freeze up as banks began to suffer losses on their American subprime mortgages. As a result, banks were reluctant to lend to one another, which led to shortages of the funding system worldwide. As described earlier, when banks are reluctant to lend to one another, a bank's LIBOR submission will be higher and it will look less credit worthy to

^{39.} Fuscaldo, supra note 36; see also Grind, supra note 36.

^{40.} Fuscaldo, supra note 36; see also Grind, supra note 36.

^{41.} The Libor Scandal: The Rotten Heart of Finance, ECONOMIST (July 7, 2012), available at http://www.economist.com/node/21558281 (last visited Oct. 13, 2013) [hereinafter Rotten Heart of Finance].

^{42.} Id.

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the market.

At the time of the financial crisis, Barclays claimed it was submitting "honest rates" and other banks were submitting suppressed rates, this caused investors to question the financial health of Barclays. However, the CFTC responded by instituting its own investigation into Barclays and uncovered emails between Barclays' traders and traders in other banks asking each other to artificially manipulate LIBOR. Upon the release of this information, Barclays admitted to manipulating its LIBOR submissions so they were more aligned with the rates of rival banks. Barclays instructed its LIBOR submitters to submit numbers that were high enough to be in the "top four" and thus discarded from the calculation, but not so high as to draw attention to the bank. In its defense, Barclays claimed that it informed the regulators and the Bank of England that banks were submitting lower rates than they could actually lend at, and Paul Tucker, the deputy governor of the Bank of England, authorized Barclays' suppressed submissions.

As the investigations continued, the CFTC found additional evidence of Barclays manipulating LIBOR to not only keep its submission in line with other panel banks, but also to benefit its derivative positions in swaps and futures that were tied to LIBOR. From January 2005 through May 2009, at least 173 requests for altered LIBOR submissions were made to Barclays' submitters. Depending on the trader's derivative position, the requests asked for a higher or lower LIBOR submission. To put the manipulation in perspective, if Barclays traders were able to affect the rate in their favor by only one

^{43.} Id.

^{44.} Id.

^{45.} *Id.*; see also Joe Nocera, *Libor's Dirty Laundry*, N.Y. TIMES (July 6, 2012), available at http://www.nytimes.com/2012/07/07/opinion/libors-dirty-laundry.html (last visited Oct. 13, 2013).

^{46.} Rotten Heart of Finance, supra note 41; see also Nocera, supra note 45.

^{47.} Barclays Reveals Bank of England Libor Phone Call Details, BBC NEWS (July 3, 2012), available at http://www.bbc.co.uk/news/business-18695181 (last visited Oct. 13, 2013) [hereinafter Barclays Phone Call Details].

^{48.} Id.

^{49.} Lindsay Fortado & Silla Brush, *Barclays Fined by U.K., U.S. for Falsifying Libor Rates*, Bloomberg Businessweek (June 27, 2012), *available at* http://www.businessweek.com/news/2012-06-27/barclays-said-to-be-nearing-libor-settlement-with-fsa-cftc (last visited Oct. 13, 2013); *see also* Dan Jones, '*Done . . . for You Big Boy': The Barclays LIBOR Messages*, InvestmentWeek (June 27, 2012), *available at* http://www.investmentweek.co.uk/investment-week/news/2187554/-done-for-boy-barclays-libor-messages (last visited Oct. 13, 2013).

^{50.} See Simone Foxman, How Barclays Made Money on LIBOR Manipulation, BUS. INSIDER (July 10, 2012), available at http://www.businessinsider.com/how-barclays-made-money-on-libor-manipulation-2012-7 (last visited Oct. 13, 2013).

basis point, or .01%, it would likely make the traders more than \$2 million.⁵¹ This amount of money created large incentives for traders to manipulate the rate with untruthful and inaccurate submissions. Additionally, many of these requests were personal favors between traders; replies from LIBOR submitters included phrases such as "for you, anything" and "done . . . for you big boy."⁵² In another instance, a trader thanked a Barclays LIBOR submitter by saying, "Dude. I owe you big time! Come over one day after work and I'm opening a bottle of Bollinger [champagne]^{53,54}

In essence, traders were helping each other make money at the cost of ordinary borrowers of loans benchmarked on LIBOR. They asked each other for favors, so it seemed personal. In the financial industry, traders cut deals with each other all the time, 55 as maintaining relationships with other banks is sometimes just as important as making money. However, when traders negotiate with financial instruments such as LIBOR submissions, an official benchmark and a prime indicator for market health, they can drastically affect the lending market and investors that rely on honest rates.

B. Barclays Violations of the Commodities Exchange Act

After the CFTC completed its investigation, the CFTC sanctioned Barclays for three major violations. This section will explain each violation and will conclude by discussing the Barclays settlement and how it spawned additional investigations into other rival banks for manipulating LIBOR.

C. Sanctions against Barclays

First, the CFTC alleged that Barclays made false, misleading, or knowingly inaccurate reports of LIBOR. Section 9(a)(2) of the Commodities Exchange Act ("CEA") makes it unlawful for any person "knowingly to deliver or cause to be delivered for transmission through the mails or interstate commerce by telegraph, telephone, wireless, or other means of communication false or misleading or knowingly inaccurate reports concerning crop or market information or conditions that affect or tend to affect the price of any commodity in interstate

^{51.} Id.

^{52.} Fortado & Brush, supra note 49; Jones, supra note 49.

^{53.} See Champagne Bollinger, available at http://www.champagnebollinger.com/en_UK/welcome (last visited Oct. 13, 2013).

^{54.} Fortado & Brush, supra note 49; Jones, supra note 49.

^{55.} Moore, supra note 3.

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commerce."⁵⁶ Here, the CFTC found that Barclays, through the transmission of an electronic spreadsheet to Thompson Reuters, knowingly delivered American dollar, Japanese yen, and British pound sterling LIBOR submissions through the mail or interstate commerce that contained market information concerning costs of borrowing, liquidity conditions, and stress in the money markets.⁵⁷ Additionally, Barclays's submissions were false, misleading, or knowingly inaccurate because they were not based on costs of borrowing unsecured funds in the pertinent markets, but rather were based on impermissible factors such as: (1) the management directive to lower Barclays' submitted rates to manage market and media perceptions of Barclays; and (2) the derivatives positions of swaps traders.⁵⁸

Second, CFTC alleged that Barclays attempted to manipulate LIBOR. Under section 9(a)(2) of the CEA, it is unlawful for "any person, directly or indirectly, to manipulate or attempt to manipulate the price of any swap, or of any commodity in interstate commerce, or for future delivery on or subject to the rules of any registered entity." Two elements are required to prove an attempted manipulation: (1) an intent to affect the market price; and (2) an overt act in furtherance of that intent. Here, the CFTC found that Barclays traders specifically intended to affect the price at which the daily rights would be fixed. The fixings, accomplished by calling Barclays submitters and asking for higher or lower submissions, were done in order to benefit the derivative positions or to benefit the derivatives trading positions of traders at other banks, with whom they actively coordinated.

Third, the CFTC alleged that the Barclays traders aided and abetted traders at other banks to manipulate LIBOR. The CFTC alleged that the Barclays swap traders and the traders at the other panel banks discussed LIBOR submissions that would benefit each banks' respective derivative trading positions. ⁶³ The traders at other panel banks asked

^{56. 7} U.S.C. § 13 (2006).

^{57.} Order Instituting Proceedings Pursuant to Sections 6(c) and 6(d) of the Commodity Exchange Act, As Amended, Making Findings and Imposing Remedial Sanctions, In the Matter of: Barclays PLC, Barclays Bank PLC and Barclays Capital Inc., (CFTC 2012) No. 12-25, at 26, available at http://www.eftc.gov/yem/grayus/gublic/@lkmfgrecomentations/documents/legalploading/gn

http://www.cftc.gov/ucm/groups/public/@lrenforcementactions/documents/legalpleading/enfoarclaysorder062712.pdf (last visited Mar. 5, 2014) [hereinafter CFTC Order].

^{58.} Id

^{59. 7} U.S.C. § 9 (2006).

^{60.} CFTC Order, supra note 57, at 26.

^{61.} Id.

^{62.} Id.

^{63.} Id. at 28.

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the Barclays swap traders to instruct the Barclays LIBOR submitters to submit a certain rate, or submit a rate in a direction higher or lower, that would benefit the derivatives' positions of the traders at other panel banks.⁶⁴

D. Barclays Settlement and the Spawn of Global Investigations into other Panel Banks

Almost immediately after the CFTC published its allegations, Barclays paid over \$450 million to three regulators in the U.S. and the U.K., and its chairman, Marcus Agius, resigned. Additionally, Barclays Chief Executive Officer, Bob Diamond, and Chief Operating Officer, Jerry Del Misser, stepped away from their positions without taking 2012 bonuses. However, after the CFTC report was published, the evidence that Barclays' traders aided and abetted traders at other banks to manipulate LIBOR spawned criminal investigations into other banks' executives and the individuals that contributed to submitting false interest rate data for setting the benchmark. As noted by Gary Gensler, the chairman of the CFTC, the Barclays LIBOR settlement initiated global investigation into rate-rigging at more than a dozen big banks that contributed to setting LIBOR during the period of manipulation.

Additionally, the CFTC report initiated private lawsuits and class actions against the panel banks that made submissions to set LIBOR. Collusion among banks to fix LIBOR, either higher or lower, can have an enormous effect on a number of sectors, so there is a vast pool of potential victims who can seek compensation. As stated by Steve Berman, managing partner for Hagens Berman, "[w]hile the settlement with the CFTC does punish Barclays and other banks, it does little to address the losses of perhaps thousands of investors who were

⁶⁴ Id

^{65.} Moore, *supra* note 3; *see also* Sara Schaefer Muñoz & Max Colchester, *Top Officials at Barclays Resign Over Rate Scandal*, WALL ST. J. (July 3, 2012), *available at* http://online.wsj.com/article/SB10001424052702304299704577503974000425002.html (last visited Oct. 8, 2013).

^{66.} Muñoz & Colchester, supra note 65.

^{67.} Peter J. Henning, What the Barclays Settlement Means for Other Banks, DEALBOOK (July 3, 2012), available at http://dealbook.nytimes.com/2012/07/03/whatsnext-after-the-barclays-settlement/ (last visited Oct. 8, 2013).

^{68.} Ben Protess, *Libor Case Energies a Wall Street Watchdog*, DEALBOOK (Aug. 12, 2012, 8:57 PM), *available at* http://dealbook.nytimes.com/2012/08/12/libor-case-energizes-gensler-and-the-c-f-t-c/ (last visited Oct. 8, 2013).

^{69.} Id.

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financially harmed by the conspiracy."⁷⁰ Therefore, investigations into other panel banks and private lawsuits will continue into the foreseeable future.

IV. EVIDENCE OF MANIPULATION AMONG LIBOR SUBMITTING BANKS

This section discusses the evidence suggesting that panel banks colluded to manipulate LIBOR during the 2007 and 2008 financial crisis. As stated earlier, the Barclays settlement initiated an overwhelming number of private lawsuits and class actions. Many of these actions will rely on the following allegations to build their cases. Part A will discuss evidence supporting that panel banks artificially suppressed LIBOR. Part B will describe the discrepancy between LIBOR and Eurodollar deposit rates. Part C will provide evidence that LIBOR quotes "bunched" around the fourth lowest quote.

A. Evidence Supporting that Panel Banks Artificially Suppressed LIBOR

As previously discussed, LIBOR is a calculation of how much interest each bank would have to pay to borrow from another bank or a bank's borrowing costs. However, LIBOR is not the only method of calculating a bank's borrowing costs. Certain statistics, such as the probability of default, calculate the degree of likelihood that the borrower of a loan or debt will not be able to make the necessary scheduled repayments. These calculations are estimated on a daily basis by analyzing each banks equity and bond prices, accounting information, and general economic conditions (i.e. interest rates, unemployment rates, and inflation rates). These factors are essentially the same factors used when determining LIBOR submissions. Therefore, one would assume that the two statistics, LIBOR and probability of default, which account for the same economic factors and measure a bank's lending rate, would have a positive coefficient. However, during the financial crisis, these rates were in opposition. As

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^{70.} Press Release, Hagens Berman Sobol Shapiro LLP, Hagens Berman Files Class Action Against Barclays Bank, Others Over Euribor Rate Fixing (July 6, 2012), *available at* http://www.prnewswire.com/news-releases/hagens-berman-files-class-action-against-barclays-bank-others-over-euribor-rate-fixing-161635455.html (last visited Feb. 8, 2014).

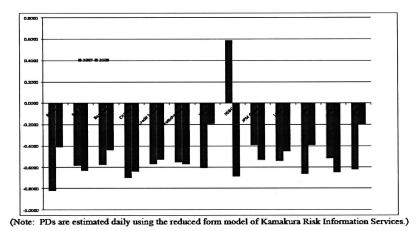
^{71.} Default Probability, INVESTOPEDIA, (2013), available at http://www.investopedia.com/terms/d/defaultprobability.asp#axzz2B1I8WVXm (last visited on Oct. 8, 2013).

^{72.} See generally Jens Hilscher et al., Measuring the Risk: A Modern Approach, 90 RMA J. 60 (2008).

seen from the figures below, which list all panel banks that submitted LIBOR rates in 2007 and 2008, the correlation coefficients were negative.

To put these coefficients in perspective, if one variable is increasing and the other is also increasing then the correlation is "positive." However, if the variables diverge in opposite directions, then the correlation "negative." Finding a negative coefficient between a bank's daily LIBOR quotes and the daily probabilities of default suggests that as the probability of default increases, the LIBOR quotes decreases. However, that would violate fundamental finance theory because both LIBOR and probability of default are based on the same economic factors. If both rates are based on the same economic factors, then both statistics should move in the same direction and display a positive coefficient. However, as displayed by the graphs below, the probability of default and LIBOR quotes throughout the financial crisis display a negative coefficient. This was true for every LIBOR submitting bank, except HSBC, in both 2007 and 2008. Additionally, the same negative coefficient resurfaces regardless of whether the data is spread over a one-month, a three-month, or a twelve-month term. This disregards any possibility of coincidence between the two statistics. Therefore, this would suggest that banks are suppressing LIBOR quotes to avoid revealing the higher rates that reflect the true (higher) probabilities of default.

FIGURE 1 Graph 1: Correlation Coefficients Between Each Bank's Daily LIBOR Bid and Probability of Default (PD), One-Month Term

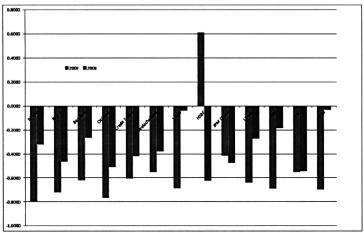


^{73.} A.K. SHARMA, TEXT BOOK OF CORRELATIONS AND REGRESSION 5 (2005).

^{74.} Id.

FIGURE 2

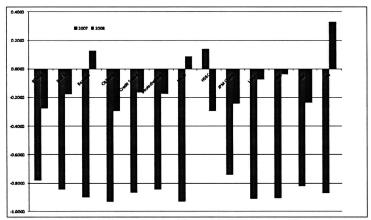
Graph 2: Correlation Coefficients Between Each Bank's Daily LIBOR Bid and Probability of Default (PD), Three-Month Term



(Note: PDs are estimated daily using the reduced form model of Kamakura Risk Information Services.)

FIGURE 3

<u>Graph 4: Correlation Coefficients Between Each Bank's Daily LIBOR Bid and Probability</u> of Default (PD), Twelve-Month Term



(Note: PDs are estimated daily using the reduced form model of Kamakura Risk Information Services.)

B. Evidence Supporting a Discrepancy Between LIBOR and Eurodollar Deposit Rates

The Eurodollar deposit rates are analogous to LIBOR because they

reflect the rates at which banks in the London Eurodollar money market lend American dollars to one another, just as LIBOR is intended to reflect rates at which panel banks in the London interbank market lend American dollars to one another. Economic and statistical analysis strongly supports the Federal Reserve Eurodollar Deposit rate as an accurate benchmark for measuring the validity of LIBOR as reported by the panel banks. Furthermore, because LIBOR and Eurodollar Deposit Rates measure the lending cost to banks of Eurodollar deposits, consider important market and financial fundamentals (i.e. monetary policy, market risk, and interest rates), and incorporate risk factors, absent manipulation, the spread between the rates should always be zero or close to zero. However, that was not the case.

As seen in Figures 4 and 5, from January 5, 2000, to about August 7, 2007, the spread remained positive and very close to zero. However, from August 8, 2007, through May 17, 2010, which is the time period of alleged manipulation, the spread became negative and reached levels of negative 35 basis points. Additionally, during the two-week period following the bankruptcy of Lehman Brothers, the spread reached levels as high as 153 basis points. Therefore, this evidence demonstrates that the panel banks were suppressing their LIBOR quotes and colluding to suppress LIBOR.

^{75.} Amended Complaint and Demand for Jury Trial at ¶ 68, In Re Libor-Based Financial Instruments Antitrust Litigation, (S.D.N.Y. Aug. 30, 2012) MDR No. 2262, available at http://www.hausfeldllp.com/content_documents/9/Stamped-LIBOR-OTC-Plaintiffs-FINAL.pdf (last visited Oct. 13, 2013).

^{76.} Id. at ¶71.

^{77.} Id.

FIGURE 5

Bank Name	Average Spread between September 16, 2008 and September 30, 2008	Average Spread between August 8, 2007 and May 17, 2010
1.Bank of Tokyo-Mitsb.	-120 basis points	-25 basis points
2. Bank of America	-144 basis points	-30 basis points
3. Bardays	-87 basis points	-25 basis points
4. Citi	-142 basis points	-32 basis points
5. CS	-122 basis points	-27 basis points
6. Deutsche Bank	-129 basis points	-31 basis points
7. HBOS	-110 basis points	-29 basis points
8. HSBC	-141 basis points	-32 basis points
9. JP Morgan Chase	-153 basis points	-35 basis points
10. Lloyds	-146 basis points	-30 basis points
11. Norin Bank	-126 basis points	-25 basis points
12. Rabo Bank	-143 basis points	-32 basis points
13. Royal Bank of Canada	-140 basis points	-28 basis points
14. Royal Bank of Scotland	-140 basis points	-26 basis points
15. UBS	-141 basis points	-29 basis points
16. West	-138 basis points	-35 basis points

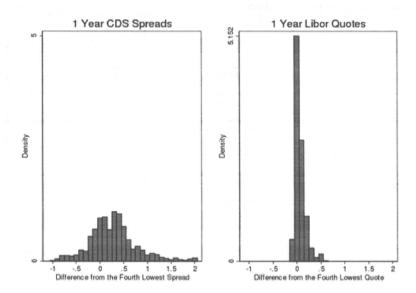
C. LIBOR Quotes "Bunched" Around the Fourth Lowest Quote Supports Manipulation

Because of the way LIBOR is calculated, by discarding the four highest and lowest reported rates and averaging the remainder, if a number of banks sought to act in concert to depress LIBOR, evidence would display a strong concentration around the fourth-lowest rate.⁷⁸ During the time period when LIBOR was allegedly suppressed, evidence demonstrates that the banks, specifically Citigroup, Bank of

^{78.} Id. at 55.

America, and JP Morgan Chase, submitted rates that displayed suspicious "bunching" around the fourth lowest quote. 79 This can be seen from Figure 6 below. After compiling all the banks LIBOR submissions, quotes tend to "bunch" around the fourth-lowest spread. However, when comparing this data against 1-year CDS spreads, which is also an indicator of a bank's financial health, the CDS spreads do not "bunch" around the fourth-lowest rate and are more evenly distributed. It is well established that "if banks were truthfully quoting their costs, we would expect these distributions to be similar,"80 which is not the case here. Following the same reasoning described with LIBOR and probabilities of default stated earlier, if two statistics are based on the same economic factors, their results should be similar. If not, the results would disprove basic economic theory. Therefore, the LIBOR rates suspicious "bunching" around the fourth-lowest rate, while CDS spreads are evenly distributed, suggest manipulation between submitting banks.

FIGURE 6



V. REFORM OF LIBOR: THE WHEATLEY REVIEW Martin Wheatley, a top U.K. regulator for the Financial Service

^{79.} Id.

^{80.} Connan Andrew Snider & Thomas Youle, *Does the Libor Reflect Banks' Borrowing Costs?*, Soc. Sci. Res. Network (Apr. 2, 2010), *available at* http://www.econ.umn.edu/~youle001/libor 4 01 10.pdf (last visited Oct. 5, 2013).

Authority ("FSA"), conducted an investigation of possible reforms to the LIBOR calculation method in order to prevent another manipulation scandal. Part A of this section will begin by presenting Wheatley's findings, and then Part B will introduce his recommendations for reform. Finally, Part C will share immediate reactions to Wheatley's report. If Wheatley's proposal is adopted, it will be included in the financial services reform bill.⁸¹ This bill is before parliament and is scheduled to receive royal assent next year. ⁸²

A. Initial Findings From the Wheatley Report

Wheatley's preliminary recommendation is to reform the current LIBOR system rather than implement a full replacement benchmark rate.83 In order to replace the benchmark entirely, one must prove that: (1) LIBOR is beyond repair; (2) LIBOR is subject to a better alternative that existed in this moment in time; and, critically, (3) an immediate and smooth transition to that alternative could be made.⁸⁴ Wheatley concluded that none of these conditions were met and found that a reform would be a more realistic solution than a full overhaul.⁸⁵ Due to the overwhelming number of financial instruments benchmarked on the current LIBOR system, a move to replace LIBOR would "pose an unacceptably high risk of significant financial instability" and cause large-scale litigation between parties holding contracts that reference LIBOR. 86 Additionally, throughout the current manipulation scandal, "there has been no noticeable decline in the use of LIBOR by market participants."87 This signals that the market has not lost complete confidence in the current benchmark rate and that a wholesale replacement of LIBOR would be an overreaction to the current situation.

^{81.} See Brooke Masters, Libor to be Regulated 'Without Delay', FIN. TIMES (Oct. 17, 2012, 4:31 PM), available at http://www.ft.com/intl/cms/s/0/6d20d018-1865-11e2-80e9-00144feabdc0.html (last visited Oct. 5, 2013).

^{82.} Id.

^{83.} Martin Wheatley, Managing Director, *Pushing the Reset Button on LIBOR*, FSA (Sept. 28, 2012), *available at* http://www.fsa.gov.uk/library/communication/speeches/2012/0928-mw.shtml (last visited Oct. 5, 2013) [hereinafter Wheatley, *Pushing the Reset Button*].

^{84.} Id.

^{85.} Id.

^{86.} Martin Wheatley, *The Wheatley Review of Libor: Final Report* 7, GOV.UK (2012), *available at* https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/191762/wheatley_review_libor_finalreport_280912.pdf (last visited Oct. 4, 2013) [hereinafter Wheately, *Final Report*].

^{87.} Id.

B. Wheatley's Recommendations for LIBOR Reform

After Wheatley decided to maintain the current LIBOR system, he proposed three major changes to regain trust in the benchmark rate and prevent another large-scale manipulation. 88

First, Wheatley suggested that the British Bankers' Association ("BBA") hand over the authority to regulate LIBOR to the FSA. ⁸⁹ The current manipulation scandal, occurring over a lengthy period of time, provides evidence that the BBA failed to properly oversee the LIBOR-setting process and should take no further role in the administration and governance of LIBOR. ⁹⁰ Once authority is transferred, the FSA should institute an independent committee headed by the FSA's approved persons. ⁹¹ The committee's obligation would include: surveillance and scrutiny of submissions; publication of a statistical digest of rate submissions; and periodic reviews addressing the issue of whether LIBOR continues to meet market needs effectively and credibly. ⁹²

Second, Wheatley suggested that the FSA's independent committee institute a clear, consistent, and effective regulatory regime that underpins all activity. This would include the authority to write and implement rules in relation to the LIBOR process, supervise the conduct of the firms and individuals involved in the process. . .and "take regulatory action for misconduct." The independent committee would require increased transparency from banks by mandating LIBOR submissions be explicitly supported by transactional data that properly identifies the bank's current lending rate. Additionally, if banks continue to manipulate LIBOR, the FSA's independent committee would be able to impose public censure or financial penalty.

Third, Wheatley suggested that the government should amend current legislation to allow the FSA to "prosecute manipulation or attempted manipulation." This would enable the FSA to use criminal powers for the worst cases of attempted manipulation. 98 Currently, the FSA only has statutory powers to investigate various offenses under the

^{88.} Wheatley, Pushing the Reset Button, supra note 83.

^{89.} Id.

^{90.} Id.

^{91.} Id.

^{92.} Wheatley, Final Report, supra note 86, at 12.

^{93.} Wheatley, Pushing the Reset Button, supra note 83.

^{94.} Wheatley, Final Report, supra note 86, at 16.

^{95.} Id. at 27.

^{96.} Id. at 12.

^{97.} Wheatley, Pushing the Reset Button, supra note 83.

^{98.} Id.

Financial Services Market Act 2000 and insider dealing under the Criminal Justice Act 1993. Therefore, the FSA is not in a position to investigate and prosecute LIBOR manipulation. Although Wheatley noted that introducing criminal sanctions for LIBOR submissions might create overlap with existing fraud offenses, create financial uncertainty, and unintentionally criminalize unrelated activities, the civil sanctions may not be sufficient to deter the large financial benefits that might be obtained from manipulating LIBOR. 101

C. Immediate Reaction to the Wheatley Review

In his review, Wheatley stated, "in relation to the question of whether administering LIBOR should become a regulated activity, most of the responses addressing this issue were in favor of regulation."102 Following the report, banking trade bodies, politicians, lawyers, and buy-side representatives confirmed his opinion and were in favor of regulation. 103 Andrew Tyrie, who is leading the government-mandated probe into banking standards in the U.K., stated that "[t]he Wheatley Review is a welcome initial step . . . it has rightly stripped the BBA of responsibility for LIBOR ... brings LIBOR within the scope of regulatory oversight and criminal law . . . and ensure[s] that LIBOR can't be rigged again." ¹⁰⁴ Additionally, Simon Lewis, Chief Executive of the Global Financial Markets Association, said, "the Wheatley Review is timely and outlines clear recommendations for change . . . [GFMA] believes that all systemically important financial benchmarks should be subject to regulatory oversight." Furthermore, the BBA released a statement saying, "the BBA has strongly stated the need for greater regulatory oversight of LIBOR and tougher sanctions for those who try to manipulate it."105

^{99.} Wheatley, Final Report, supra note 86, at 18.

^{100.} Id.

^{101.} See id.

^{102.} Id. at 12.

^{103.} Wheatley Review: Reaction from the City, Fin. News (Sept. 28, 2012), available at http://www.efinancialnews.com/story/2012-09-28/martin-wheatley-libor-report-city-of-london-reaction (last visited Oct. 9, 2013) [hereinafter Reaction From City].

^{104.} Id.

^{105.} Press Release, British Bankers' Association, BBA Statement on Conclusions of Wheatley Review into LIBOR (Sept. 28, 2012), available at http://www.bbalibor.com/news-releases/bba-statement-on-conclusions-of-wheatley-review-into-libor (last visited Oct. 7, 2013).

PROBLEMS WITH WHEATLEY'S REGULATION VI. **SCHEME**

This section discusses why Wheatley's proposed regulation scheme fails to account for the current financial structures among banks. Wheatley's proposed scheme is another increased transparency and regulation scheme that is instituted only after the damage occurred. Evidence will show that Wheatley's regulation scheme fails to address the collusion problem between the banks. Without addressing these problems, banks will continue to act in their best interest regardless of the sanctions or regulatory systems imposed.

A. Failure to Address Vague Definitions

After the 2008 financial crisis, there has been a trend in favor of increased financial regulation. 106 However, to this day, four years after the biggest financial crisis since the Great Depression, many of these regulation schemes still have not been implemented. Additionally, in the view of many scholars, many of the recent financial regulation schemes have been far from successful. 107 The prominent explanation for this delay is that in many of these regulations the wording and definitions are too vague and, if left alone, would lead to expansive regulation. 108 To solve this problem, regulating bodies continue to work together to interpret the legislations' intent which has only pushed back the date which regulation will take effect.

Wheatley's proposal runs into many of the same problems. For example, Wheatley proposes that "the new regulated activities should be defined in such a way as to cover the production of the submissions, the calculation of the benchmark, . . . systems and controls regarding . . .

^{106.} Letter from KPMG, FINANCIAL SERVICES REGULATORY PRACTICE LETTER (2010), available at http://kpmg.com/US/en/IssuesAndInsights/ArticlesPublications/regulatorypractice-letters/Documents/rpl-1013-otc-derivatives.pdf (last visited Oct. 7, 2013); Mike Colodny, Federal Reserve Board: Testimony of J. Nellie Liang, Director of Financial Stability Policy and Research, on the Financial Oversight Council, given on April 14, 2011, 2011), http://government.lawyers.com/blogs/archives/13638-Federal-Reserve-Board-Testimony-of-J.-Nellie-Liang,-Director-of-Financial-Stability-Policy-and-Research,-on-the-Financial-Oversight-Council,-given-on-April-14,-2011.html (last visited Oct. 7, 2013) (providing evidence through the Dodd-Frank Act, EMIR, and Volcker Rule that the response of the 2008 financial crisis was increased financial regulation).

^{107.} See Mercatus Scholars on the Dodd-Frank Financial Reform Bill, MERCATUS CENTER, available at http://mercatus.org/features/mercatus-scholars-comment-dodd-frankfinancial-reform-bill (last visited Sept. 20, 2013).

^{108.} Troy S. Brown, Legal Political Moral Hazard: Does the Dodd-Frank Act End Too Big to Fail?, 3 ALA. C.R. & C.L.L. REV. 1, 27 (2012).

the processes for identifying and querying suspicious submissions." ¹⁰⁹ However, Wheatley fails to give any guidance on how to actually define these tasks. He does not include any factors that should be considered when producing submissions or calculating the benchmark; rather, he states that calculations should be "market led" to adapt to current market conditions. ¹¹⁰

Furthermore, to increase transparency, Wheatley suggests that LIBOR submissions should be explicitly and transparently supported by transactional data. 111 Unlike his definition requirement discussed above, Wheatley gives "LIBOR submissions guidelines" which set out the specific transactional data that contributing firms should use to determine their assessment of their interbank lending. 112 However, to provide flexibility for submitters when transactional data is unavailable, Wheatley asks submitters to "use their experience of the inter-bank deposit market and its relationships with other markets," and allows adjustment based on "interpolation or extrapolation from available data."113 In other words, if the bank is actually carrying out unsecured inter-bank deposit transactions then it should use that transactional data to support its submissions. If not, which commonly occurs, banks are still able to use their judgment based on "experience," "relationships," and "research" of market data. 114 In essence, Wheatley trusts traders with discretionary power to make honest and accurate submissions when trading data is unavailable to support submissions. These are the same factors that created the opportunity for manipulation in the first place.

Therefore, Wheatley fails to give specific intentions for definitions within the regulation scheme, which will lead to overregulation and delay implementation. Further, where Wheatley attempts to provide definitions, opportunities for continued manipulation remain blatantly

^{109.} Wheatley, Final Report, supra note 86, at 13 (emphasis added).

^{110.} Id.

^{111.} Id. at 27.

^{112.} Id. at 28.

^{113.} Matt Levine, *It's the Beginning of the End for Danish Kroner Libor*, DEALBREAKER (Sept. 28, 2012), *available at* http://dealbreaker.com/2012/09/its-the-beginning-of-the-end-for-danish-kroner-

libor/?utmsource=feedburner&utmmedium=feed&utm_campaign=Feed%3A+dealbreaker+dealbreaker+%28Dealbreaker%29&utm_content=Google+Reader (last visited Sept. 20, 2013).

^{114.} See id.; see also Richard E. Farley, The Future of LIBOR—The Final Report from the Wheatley Review, Paul Hastings LLP 1,2 (2012), available at http://www.paulhastings.com/Resources/Upload/Publications/2260.pdf (last visited Oct. 7, 2013).

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evident.

B. Failure to Address Banking Culture

As stated earlier, evidence suggesting banks were colluding to manipulate LIBOR spawned Wheatley's investigation. Collusion is an agreement amongst competitors to suppress rivalry that relies on interfirm communication or transfers. The suppression of interfirm rivalry leads to firms earning monopoly profits. Here, evidence suggested that banks, which usually compete within the industry, colluded with each other to suppress rivalry and enhance profits. Wheatley's solution to this problem is to "increase transparency" and "impose criminal sanctions."

However, Wheatley overlooks the fact that a culture was created amongst banks to collude with each other to maximize profits. Only increasing transparency and instituting criminal sanctions fails to properly address this problem. One should consider the following.

First, although other benchmark rates exist that could substitute LIBOR, in the wake of the biggest manipulation scandal to date, there was no noticeable decline in the use of LIBOR. This suggests that these colluding banks experience no threat of substitutes to other benchmark rates and will still control the vast amount of financial instruments within the market through LIBOR. In essence, they have a monopoly among investors within the LIBOR market.

Second, as stated earlier, Wheatley's submission platform leaves opportunity for LIBOR submitters to make submissions based on their own judgment from "experience," "relationships," and "research" of market data. This is the same situation for LIBOR submitters when they were completely unregulated before the Wheatley report. Therefore, as long as potential profits outweigh the potential sanction or fines, Wheatley's suggestions will not change the colluding nature around LIBOR because major threats to the benchmark rate are absent and opportunities for manipulation are still available.

Now, what would be the immediate response to such an argument? Make sure Wheatley's sanctions or criminal penalties are high enough to deter banks from colluding to manipulate LIBOR. However, if

^{115.} See Robert C. Marshall & Leslie M. Marx, The Economics of Collusion: Cartells and Bidding Rings viii (2012).

^{116.} Id. at 5.

^{117.} See Foxman, supra note 50.

^{118.} Wheatley, Final Report, supra note 86, at 18.

^{119.} See id. at 7.

opportunities arise, which they will, where LIBOR rates are based on trader's "experience," "relationships," and "research" of market data, then it will be very difficult for regulatory bodies to impose criminal sanctions without a bank admitting its wrongdoing like Barclays. However, the current regulatory structure and the profitable business relationship between banks makes such a situation very unlikely.

First, the regulatory structure makes an admission of manipulation unlikely. The ability of the bank to maximize personal benefit is based on the ability to predict what the other side will do in response to either abiding by the regulations or manipulating LIBOR. Given that in almost all cases the regulatory body has less funds, personnel, resources, and expertise than its bank counterparts, there is little to be gained in the long run by cooperating, and much to be gained by maximizing its own benefit. Therefore, if the regulatory body does not have the means to properly overlook every submission of banks, submissions may continue to be manipulated to maximize personal gain.

Second, the relationship between banks makes an admission of manipulation unlikely. The banks involved in submitting LIBOR rates are amongst the biggest and most respected banks in the world. ¹²² In addition, LIBOR submitting banks participate in a vast amount of financial transactions with each other. If one bank was to report manipulation of another bank, it may jeopardize a working business relationship. Sacrificing a business relationship, especially a profitable one, would likely outweigh the choice to come forward to comply with Wheatley's regulation scheme.

Therefore, Wheatley's proposed criminal sanctions will not affect the banking culture and incentives to collude in the long run.

VII. PROPOSAL FOR LIBOR REFORM

This section provides insight on a possible solution to shortcomings within the LIBOR system and Wheatley's proposal. Part A will characterize the present regulator-regulatee system that is currently in place and explain why only regulation will not be sufficient. Afterwards, Part B will explain a possible solution to alter the

^{120.} DAVID RUBENS ASSOC., THE REGULATORY SYSTEM – WHY IS IT FAILING? 1, 7 (2012), available at http://www.davidrubens-associates.com/PDFS/DRA_The%20Regulatory%20System%20-associates.com/PDFS/DRA_The%20System%20-associates.com/PDFS/DRA_The%20Sys

^{%20}Why%20Is%20It%20Failing_Aug2012.pdf (last visited Feb. 8, 2014). 121. *Id.*

^{122.} Top 10 Investment Banks, BANKS AROUND THE WORLD, available at http://www.relbanks.com/worlds-top-banks/top-investment-banks (last visited Oct. 8, 2013).

regulatory structure.

A. LIBOR Regulation and Modern Day Game Theory

As explained earlier, Wheatley proposed a regulatory structure that would place all LIBOR submitting banks under the governance of the FSA. However, the supervisory role of the regulatory bodies, with threat of punitive action, only creates a modern day game theory and makes collusion among banks the optimal solution.

Game theory attempts to look at the relationships between participants in a particular model and predict their optimal decisions. The most well-known example is the prisoner's dilemma. For example, imagine that two prisoners are offered the opportunity to either deny a charge or give evidence against the other one. It both Prisoner A and Prisoner B stay silent, they each receive one month imprisonment. It have both provide evidence against the other, they each receive three months imprisonment. However, if one prisoner rats on the other, who in turn stays silent, then the prisoner who gives the evidence goes free, and the prisoner who was betrayed receives one year imprisonment.

It is well recognized that the optimal strategy in the above situation is to give evidence against the other person. Although both sides would attain a lower sentence if they stayed silent, the prisoners have no control over each other's actions and will give up each other. However, the optimal strategy changes if the prisoners can adjust their strategy based on previous experience. This is a more practical view for comparison with the financial regulatory structure. In such a situation, commonly identified as 'tit for tat,' the optimal strategy would be to repeat what the other party did on the first occasion. If the first choice was to cooperate, then continue to cooperate. If the first choice was to

^{123.} Game Theory, INVESTOPEDIA, available at http://www.investopedia.com/terms/g/gametheory.asp (last visited Oct. 8, 2013).

^{124.} See Prisoner's Dilemma, Annenberg Learner, available at http://www.learner.org/courses/mathilluminated/units/9/textbook/04.php (last visited Sept. 20, 2013); DAVID RUBENS ASSOC., supra note 120, at 6.

^{125.} Annenberg Learner, supra note 124.

^{126.} Id.

^{127.} Id.

^{128.} Id.

^{129.} See Annenberg Learner, supra note 124; David Rubens Assoc., supra note 120, at 7.

^{130.} See Annenberg Learner, supra note 124; David Rubens Assoc., supra note 120, at 7.

betray, then continue to betray. 131

Here, strong evidence supports the conclusion that LIBOR submitting banks have been "cooperating" for an extended period of time. As seen in the 'tit for tat' theory, it is mutually beneficial for all parties involved to continue to "cooperate." However, unlike the prisoners in the example who seek less jail time, "mutually beneficial" for LIBOR submitting banks equals extraordinary financial gains. Additionally, the incentive to "cooperate" only increases if one includes the fact that most regulators are less funded and resource intensive than the majority of LIBOR submitting banks. If regulators cannot provide funds for proper supervision or banks realize they are more likely to get away with manipulation than face punitive damages, then banks will only continue to "cooperate." Therefore, a regulatory structure must be instituted that creates a situation that makes LIBOR submitting banks "betray" each other rather than "cooperate."

B. Creation of a "Whistle Blowing" Incentive System

As stated above, if banks are not deterred from cooperating then financial regulations will be ineffective. However, a "whistle blowing" incentive system incorporated within Wheatley's proposed regulatory scheme could turn the LIBOR submitting banks against each other.

A similar program was instituted within the Dodd-Frank Wall Street Reform Act, which rewards 10 to 30 percent of monetary sanctions for whistleblowers who report to the Securities and Exchange Commission ("SEC") original information leading to securities law enforcement actions that recover more than \$1 million. ¹³² As a result, the SEC reported that the "whistle blowing" program received 3,001 formal written whistleblower "tips" seeking consideration for an award in 2012 (excluding tips that reported alleged violations that were received from persons who were ineligible to receive a bounty). ¹³³

Here, if a similar "whistle blower" program was instituted, the

^{131.} See Annenberg Learner, supra note 124; David Rubens Assoc., supra note 120, at 7.

^{132.} Ben Kerschberg, *The Dodd-Frank Act's Robust Whistleblowing Incentives*, FORBES (Apr. 14, 2011), *available at* http://www.forbes.com/sites/benkerschberg/2011/04/14/the-dodd-frank-acts-robust-whistleblowing-incentives/ (last visited Oct. 7, 2013).

^{133.} Scott J. Wenner, *United States: SEC Report Confirms Substantial Dodd-Frank Whistle-Blowing Activity, Illustrating Need for Employers To Be Proactive – And Careful,* MONDAQ (Nov. 29, 2012), *available at* http://www.mondaq.com/unitedstates/x/208852/Whistleblowing/SEC+Report+Confirms+Substantial+DoddFrank+WhistleBlowing+Activity+Illustrating+Need+For+Employers+To+Be+Proactive+And+Careful (last visited Oct. 7, 2013).

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dynamic between the regulator and a LIBOR submitting bank would be altered. Banks would no longer be subjected to possible punitive damages from the regulators, but they also could be subjected to "whistle blowing" claims made by other banks or players in the industry. Additionally, if "whistle blowing" incentives are comparable to the gains made by manipulating LIBOR, banks would be more likely to "blow the whistle." LIBOR submitting banks would be able to make similar short term profits by tipping regulators of misconduct, but would do so without apprehension of their own misconduct. Such a program would incentivize LIBOR submitting banks to betray each other and "blow the whistle" rather than "cooperate."

VIII. CONCLUSION

The LIBOR manipulation scandal is considered one of the biggest scandals the financial world has seen to date. While in 1960, when LIBOR was instituted, an unregulated system to set the world's largest benchmark for lending may have been acceptable, it is clear that structural changes are needed. The evidence presented in this Note points not only to a couple greedy individuals looking to make a quick buck (or million), but an industry wide manipulation, that included some of the most powerful corporations within the financial industry. Additionally, as this Note has illustrated, the manipulation did not just affect the financial markets, but had devastating effects to almost every person that went to the bank and took out a loan.

Wheatley's proposal is a much-needed step. LIBOR needs to be heavily regulated to prevent a scandal like this from ever happening again. However, Wheatley's proposal does not fix the problem and contains multiple shortcomings. First, a banking culture was created amongst banks to collude with each other to maximize profits. If this culture is not altered, banks will just look to other ways to make money to compensate for any sanction a regulatory body will impose. Additionally, most, if not all, of these banks engage in a vast amount of financial transactions together and reporting partner banks' attempted manipulation may jeopardize these relationships. Second, Wheatley leaves room for submitters to use their own "experience" and "relationships" to set LIBOR. In effect, Wheatley gives LIBOR submitters large discretion for setting the rate, which is exactly what created the opportunity for manipulation.

To solve these problems, this Note has discussed an incentive program to change the structure between financial regulators and the LIBOR submitting banks. If a system is implemented that makes it more or equally profitable to "blow the whistle" than collude, future 2013]

manipulation will be prevented.