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Death of a Benchmark: The Fall of LIBOR and the Rise of Alternative Rates in the United Kingdom and United States

I. INTRODUCTION

The London Interbank Offered Rate (“LIBOR”) is a seemingly obscure number, but may be one of the most influential elements of the global financial system.¹ LIBOR is a major financial benchmark, underpinning trillions of dollars in financial products from credit cards to student loans to mortgages.² In total, roughly \$350 trillion worth of financial contracts are pegged to LIBOR.³ The pervasiveness of LIBOR in the financial system, affecting everything “from mortgages in Alabama to business loans in Liverpool,” has led to the benchmark being described as “the world’s most important number.”⁴ Jerome Powell, chairman of the Federal Reserve System Board of Governors, has described LIBOR as “part of the global financial system’s critical infrastructure.”⁵

The benchmark rate has been marred by scandal, with major banks forced to pay billions of dollars in fines as a part of civil and criminal penalties.⁶ As a result, regulators in both the United States and United Kingdom, along with global financial organizations such as the

1. See Michael J. de La Merced, *Q. and A.: Understanding Libor*, N.Y. TIMES DEALBOOK (July 10, 2012, 10:38 PM) [hereinafter de la Merced, *Understanding Libor*], <http://dealbook.nytimes.com/2012/07/10/q-and-a-understanding-libor/> (explaining that since LIBOR is one of the main rates used to determine the borrowing costs for trillions of dollars in loans, it is one of the most important numbers in finance).

2. See *id.* (“Interest rates on some mortgages, student loans and credit card accounts go up or down when Libor moves.”).

3. Tortoise Invs., *Replacing LIBOR: The Countdown Begins*, FORBES (Aug. 16, 2017, 2:23 PM), <https://www.forbes.com/sites/tortoiseinvest/2017/08/16/replacing-libor-the-countdown-begins/#6b17881a4e2b>.

4. LIAM VAUGHAN & GAVIN FINCH, *THE FIX: HOW BANKERS LIED, CHEATED AND COLLUDED TO RIG THE WORLD’S MOST IMPORTANT NUMBER* ix (2017).

5. Jerome H. Powell, Governor, Fed. Reserve Bd. of Governors, *Reforming U.S. Dollar LIBOR: The Path Forward* (Sept. 4, 2014) <https://www.federalreserve.gov/newsevents/speech/powell20140904a.htm>; Binyamin Appelbaum, *Jerome Powell Is Sworn In as Federal Reserve Chairman*, N.Y. TIMES (Feb. 5, 2018), <https://www.nytimes.com/2018/02/05/us/politics/jerome-powell-federal-reserve-chairman-sworn-in.html>.

6. See generally *Tracking the Libor Scandal*, N.Y. TIMES DEALBOOK, https://www.nytimes.com/interactive/2015/04/23/business/dealbook/db-libor-timeline.html?_r=0#/#time370_10900 (last updated Mar. 23, 2016) (detailing the recent history of the benchmark).

International Organization of Securities Commissions (“IOSCO”), have published reports outlining the problems with LIBOR and beneficial principles for financial benchmarks.⁷ U.S. and U.K. regulators have determined that the reliability of LIBOR for the long term is at the very least questionable and have begun the transition to alternative rates.⁸ Further, banks are generally unwilling to continue committing to LIBOR long-term.⁹ Continued reliance on LIBOR poses a risk to the financial system due to the scale of contracts that reference the rate and the lack of fallback provisions within those contracts.¹⁰ Regulators and working groups in the United States are working to develop an alternative rate in the Secured Funding Overnight Rate (“SOFR”), while the United Kingdom is preparing to transition to the Sterling Overnight Index Average (“SONIA”).¹¹ Both the United States’ and United Kingdom’s preferred alternative reference rates are based on transactions in their own currency in a robust underlying market.¹²

A new LIBOR rate is published each business day, and the process is quite simple in theory.¹³ Each day, a group of banks that sit on the reference panel for the InterContinental Exchange (“ICE”) determine

7. See generally HM TREASURY, THE WHEATLEY REVIEW OF LIBOR: FINAL REPORT (Sept. 2012) [hereinafter THE WHEATLEY REVIEW], https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/191762/wheatley_review_libor_finalreport_280912.pdf (detailing the inadequacies with LIBOR and suggesting improvements to the rate); see generally THE INT’L ORG. OF SEC. COMM’NS, PRINCIPLES FOR FINANCIAL BENCHMARKS FINAL REPORT (July 2013), <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf> (detailing broad principles that benchmarks should meet regarding calculation and governance).

8. See Press Release, Alt. Reference Rates Comm., *The ARRC Selects a Broad Repo Rate as its Preferred Alt. Reference Rate* (June 22, 2017), <https://www.newyorkfed.org/medialibrary/microsites/arrc/files/2017/ARRC-press-release-Jun-22-2017.pdf> (reporting on the Alternative Reference Rates Committee’s decision to transition to a broad repo financing rate); see Andrew Bailey, Chief Executive, Fin. Conduct Auth., *The Future of LIBOR* (July 27, 2017), <https://www.fca.org.uk/news/speeches/the-future-of-libor> (discussing the sustainability of LIBOR as it exists today).

9. Bailey, *supra* note 8 (noting that it took a substantial amount of convincing on Bailey’s part to get banks to contribute to LIBOR until the 2021 deadline).

10. See FIN. POLICY COMM., BANK OF ENGLAND, REC. OF FPC MEETING HELD ON SEPT. 20, 2017 17–18 (2017) [hereinafter Record of FPC Meeting].

11. Alt. Reference Rates Comm., *supra* note 8; Reuters, *BoE’s Libor Alternative SONIA Backed as Benchmark by Dealers*, REUTERS (Apr. 28 2017, 3:22 AM), <https://www.reuters.com/article/us-boe-rates-regulations/boes-libor-alternative-sonia-backed-as-benchmark-by-dealers-idUSKBN17U0U2>.

12. See BANK OF ENGLAND, SONIA: KEY FEATURES AND POLICIES 3–4 (2017); see also Request for Information Relating to Production of Rates, 82 Fed. Reg. 41259 (Aug. 30, 2017).

13. ICE LIBOR, INTERCONTINENTAL EXCHANGE BENCHMARK ADMINISTRATION (IBA), <https://www.theice.com/iba/libor> (last accessed Jan. 7, 2018).

at what interest rates they would be willing to lend to other banks.¹⁴ The panel banks do this for five different currencies, with seven maturities for each ranging from overnight to twelve months, leading to a total of thirty-five rates.¹⁵ The top and bottom quartiles of these submissions are discarded, with the remaining submissions averaged, producing the LIBOR rate for each currency and maturity.¹⁶

This Note argues that the alternative rates chosen by the United Kingdom and United States are positive changes from LIBOR.¹⁷ These alternative reference rates will help keep banks more accountable because the rates are tied to transactional data and governed and reported by the central bank of each jurisdiction.¹⁸ Further, the United Kingdom and United States localizing their chosen rate to transactions based on each jurisdiction's own currency will help insulate each rate from geopolitical events.¹⁹ Finally, this Note argues that financial contracts tied to LIBOR must be renegotiated immediately.²⁰ Ultimately, market participants bear the responsibility of ensuring a smooth transition from LIBOR to an alternative rate, though an intervention on the part of Congress or Parliament may aid in such a transition.²¹

This Note proceeds in four parts. Part II of this Note details the calculation and history of LIBOR, examining the need for alternative rates, with a focus on the United States and the United Kingdom.²² Part III examines the alternatives proposed by U.S. and U.K. regulators, assessing whether the selected alternatives will be less prone to manipulation than LIBOR by analyzing the calculation, governance, and quality of the rates.²³ Finally, Part IV considers the financial contract renegotiations that will necessarily occur with the transition away from

14. *LIBOR: What Is It and Why Does It Matter?*, BBC NEWS (Aug. 3, 2015), <http://www.bbc.com/news/business-19199683>.

15. *ICE LIBOR*, *supra* note 13.

16. *LIBOR: What Is It and Why Does It Matter?*, *supra* note 14.

17. *See infra* Part III.

18. *See infra* Part III.

19. *See Brexit and U.S. Interest Rates*, SEEKING ALPHA (June 23, 2016, 11:25 AM), <https://seekingalpha.com/article/3983900-brex-it-u-s-interest-rates> (identifying that a possible risk of Brexit could be a heightened spread between LIBOR and the Federal Funds Rate).

20. *See infra* Part IV.

21. *See infra* Part IV.

22. *See infra* Part II.

23. *See infra* Part III.

LIBOR and the steps that parties should take to ensure a smooth transition.²⁴

II. HISTORY AND SCANDAL: HOW DID WE GET HERE?

A. *What's in a Number? Calculation, History, and Governance*

LIBOR is the average rate at which banks active in London are willing to lend unsecured funds to one another.²⁵ Every morning banks that sit on the reference panel submit their answer to the question: “At what rate could you borrow funds, were you to do so by asking for and then accepting interbank offers in a reasonable market size just prior to 11 a.m. London time [GMT]?”²⁶ LIBOR is the “trimmed average mean” of the panel banks’ submissions.²⁷ The highest and lowest 25% of the panel banks’ submissions are removed, with the middle 50% of responses averaged.²⁸ The benchmark is currently produced for five currencies, including the U.S. dollar and U.K. pound, with seven maturities for each.²⁹ This creates thirty-five rates published daily at approximately 11:55 a.m. GMT.³⁰

LIBOR is currently administered by the Intercontinental Exchange Benchmark Administration (“IBA”), a U.K. subsidiary of ICE, an American-owned company.³¹ For each currency that LIBOR is produced, there are between eleven and sixteen contributing banks.³² For the U.S. dollar LIBOR there are sixteen contributing banks, including Barclays, Bank of America, Citibank, Credit Suisse, and JP Morgan Chase.³³

24. *See infra* Part IV.

25. de La Merced, *Understanding Libor*, *supra* note 1.

26. *ICE LIBOR*, *supra* note 13.

27. *LIBOR: Frequently Asked Questions*, INTERCONTINENTAL EXCHANGE BENCHMARK ADMINISTRATION (IBA) (Mar. 2017), https://www.theice.com/publicdocs/IBA_LIBOR_FAQ.

28. *Id.*

29. *ICE LIBOR*, *supra* note 13.

30. *See ICE LIBOR*, *supra* note 13 (explaining that LIBOR is produced for CHF, EUR, GBP, JPY, and USD with maturities ranging from overnight to 12 months); *LIBOR: Frequently Asked Questions*, *supra* note 27.

31. James McBride, *Understanding the Libor Scandal*, COUNCIL ON FOREIGN RELATIONS (last updated Oct. 12, 2016), <https://www.cfr.org/background/understanding-libor-scandal>.

32. *ICE LIBOR*, *supra* note 13.

33. *ICE LIBOR*, *supra* note 13. Remaining banks include Lloyds Bank, Bank of Tokyo-Mitsubishi, Cooperatieve Rabobank, Royal Bank of Canada, HSBC Bank, Crédit Agricole

LIBOR traces its roots to an \$80 million syndicated loan arranged by a Greek banker from Manufacturers Hanover's, Minos Zombanakis, to the Shah of Iran in 1969.³⁴ That loan was one of the first that charged a variable rate of interest, actively influenced by changing market conditions, split amongst a group of banks.³⁵ Zombanakis' innovation helped to spur a boom in the syndicated loan market, with the majority using LIBOR to determine the interest charged.³⁶ LIBOR was then pegged to bonds, and eventually became one of the most popular rates to use as a benchmark for financial contracts.³⁷

Banks eventually began to borrow funds using LIBOR-based contracts, and thus had an incentive to underreport their funding costs.³⁸ As LIBOR became more central to the global financial markets, pressure grew to formalize the rate.³⁹ This pressure resulted in the British Bankers' Association ("BBA") taking over the rate in 1986, creating a formal governance structure.⁴⁰ However, other than removing the highest and lowest 25% of the submissions, versus the averaging of every submission, LIBOR remained consistent with Zombanakis' original calculation.⁴¹

Corporate & Investment Bank, Deutsche Bank, Société Générale, Sumitomo Mitsui Banking Corporation Europe limited, The Norinchukin Bank, the Royal Bank of Scotland, and UBS. *Id.*

34. DAVID HOU & DAVID SKEIE, FED. RESERVE BANK OF N.Y., *LIBOR: ORIGINS, ECONOMICS, CRISIS, SCANDAL, AND REFORM 1* (Mar. 2014) https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr667.pdf.

35. VAUGHAN & FINCH, *supra* note 4, at 13.

36. VAUGHAN & FINCH, *supra* note 4, at 15.

37. *See* VAUGHAN & FINCH, *supra* note 4, at 16 (explaining that Prime Minister Margaret Thatcher's "Big Bang" financial deregulation plan made the United Kingdom an extremely attractive place to do business, allowing for the markets for derivatives, bonds, and syndicated loans to explode).

38. *See* HOU & SKEIE, *supra* note 34, at 1, 6 (stating that banks allegedly underreported borrowing costs in order to "project financial strength amidst market uncertainty.").

39. VAUGHAN & FINCH, *supra* note 4, at 16.

40. *See* HOU & SKEIE, *supra* note 34, at 1 (explaining that as a result of the banks whose submissions determined the fixing of LIBOR beginning to borrow heavily using LIBOR-based contracts, the BBA formalized the data collection and governance process for the rate in 1986).

41. VAUGHAN & FINCH, *supra* note 4, at 16. Today, LIBOR is used extensively in financial contracts, including derivatives. LIBOR affects both derivatives products traded over-the-counter, such as interest rate swaps, and exchange traded derivatives, such as futures contracts. The floating leg of an interest rate swap is conventionally tied to LIBOR. Although there is no comprehensive data on the use of LIBOR in the financial system, various sources indicate that between \$30 trillion and \$230 trillion in over-the-counter derivatives are based on the rate. Additionally, it is estimated that \$150 trillion in exchange traded derivatives are tied to LIBOR. Karen Brettell, *Banks to Vote on Alternative to Libor As New Rate*

B. *Bigger Crooks: Scandal and Reforms*

LIBOR manipulation was widespread, but Barclays was the first bank to be implicated in the scandal.⁴² In early 2008, a Barclays employee admitted to a Federal Reserve Bank of New York (“New York Fed”) staff member that the rates being posted from the bank were not “an honest L[IBOR].”⁴³ In other communications with the New York Fed in October of that year, Barclays’ executives stated that LIBOR was “unrealistic” and “absolute rubbish.”⁴⁴ The Barclays employee noted that other major banks were not posting legitimate rates, explaining that Barclays simply wanted to remain competitive.⁴⁵ Pre-financial crisis, banks were able to manipulate LIBOR upward in order to amass greater profits.⁴⁶ For example, in 2007 the gain—or loss—that Barclays stood to make from small changes in LIBOR on any given day was around \$40 million.⁴⁷ During the financial crisis, however, banks manipulated LIBOR downward to shield themselves from the full force of the crisis.⁴⁸ For at least two years during the financial crisis, panel banks, including Barclays, submitted rates that may have been as much as thirty to forty basis points below their actual borrowing costs.⁴⁹

Banks, by manipulating LIBOR downward during the financial crisis, helped insulate themselves from the volatility of the markets.⁵⁰ In

Benchmark, REUTERS (June 20, 2017, 11:31 AM) <https://www.reuters.com/article/us-banks-libor-derivatives/banks-to-vote-on-alternative-to-libor-as-new-rate-benchmark-idUSKBN19B27R>.

42. *Tracking the Libor Scandal*, *supra* note 6 (showing that Barclays was the first bank to reach a settlement with regulators on June 27, 2012).

43. Jia Lynn Yang & Danielle Douglas, *N.Y. Fed Silent on Barclays’ Admission of Rigging Libor*, THE WASH. POST (Jul. 24, 2012), https://www.washingtonpost.com/business/economy/ny-fed-silent-on-barclays-admission-of-rigging-libor/2012/07/24/gJQA2eWg7W_story.html?utm_term=.0feb60856d7e.

44. Michael J. de La Merced & Ben Protess, *New York Fed Knew of False Barclays Reports on Rates*, N.Y. TIMES DEALBOOK (July 13, 2012, 12:00 PM) [hereinafter de La Merced & Protess, *New York Fed Knew of False Barclays Reports on Rates*], <https://dealbook.nytimes.com/2012/07/13/barclays-informed-new-york-fed-of-problems-with-libor-in-2007/>; Yang & Douglas, *supra* note 43.

45. *See Tracking the Libor Scandal*, *supra* note 6 (explaining that the bank wanted to “fit in with the rest of the crowd.”).

46. *The Rotten Heart of Finance*, THE ECONOMIST (July 7, 2012), <http://www.economist.com/node/21558281>.

47. *Id.*

48. *Id.*

49. *Id.*

50. McBride, *supra* note 31.

quoting a lower rate, banks appeared stronger than they actually were.⁵¹ This assured customers that the banks were healthy and made the banks appear more creditworthy to peer institutions.⁵² In a time of unprecedented disruption in the financial system, rate manipulation provided banks with a “degree of stability in an unstable time.”⁵³ Barclays, for example, appeared as if it was more stable and less desperate for cash than it was during an unstable time in financial history, cushioning itself from the full brunt of the crisis.⁵⁴ Although Barclays and other major banks manipulated LIBOR in order to insulate themselves from the severe financial instability during 2007 and onward, this is not to say that LIBOR didn’t spike during the crisis.⁵⁵ The manipulation, however, certainly had an effect on keeping the rate lower than what it probably should have been.⁵⁶

The admissions by the Barclays employee and the bank’s executives led then President of the New York Fed, Timothy Geithner, to communicate with U.K. and U.S. regulators and recommend changes to the rate setting process for LIBOR.⁵⁷ Although Geithner knew of the rate manipulation taking place, he recommended reforms only to remove incentives to misreport the rate, rather than explicitly inform U.K. regulators of specific wrongdoing.⁵⁸ Geithner’s caution may be owed to the ongoing financial crisis,⁵⁹ but he has nonetheless been forced to defend his actions.⁶⁰ Geithner testified before the House of Representatives Financial Services Committee that he had informed U.S.

51. C. Cowden W. Rayburn, *The LIBOR Scandal and Litigation: How the Manipulation of LIBOR Could Invalidate Financial Contracts*, 17 N.C. BANKING INST. 221, 226 (2013).

52. Rayburn, *supra* note 51, at 227.

53. McBride, *supra* note 31.

54. McBride, *supra* note 31.

55. See VAUGHAN & FINCH, *supra* note 4, at 53 (“In August 2007, the spread between three-month dollar Libor and the overnight indexed swap . . . jumped from 12 basis points to 73 basis points. By December it had soared to 106 basis points.”).

56. See VAUGHAN & FINCH, *supra* note 4, at 53 (“Everyone could see that Libor rates had shot up, but questions began to be asked about whether they had climbed enough to reflect the severity of the credit squeeze.”).

57. de La Merced & Protess, *New York Fed Knew of False Barclays Reports on Rates*, *supra* note 44.

58. de La Merced & Protess, *New York Fed Knew of False Barclays Reports on Rates*, *supra* note 44.

59. de La Merced & Protess, *New York Fed Knew of False Barclays Reports on Rates*, *supra* note 44.

60. Jennifer Liberto, *Geithner on Defense in Libor Scandal Questioning*, CNN (July 25, 2012, 1:02 PM), <http://money.cnn.com/2012/07/25/news/economy/geithner-libor/index.htm>.

regulators of the ongoing rate manipulation, but had raised concerns only over the LIBOR calculation process with U.K. regulators.⁶¹ In Geithner's eyes, the main responsibility of fixing LIBOR fell to regulators in the United Kingdom.⁶²

Regardless of Geithner's timidity, financial institutions would not be absolved from wrongdoing for their manipulations of LIBOR.⁶³ As the worst of the financial crisis waned, the United States Department of Justice ("DOJ") was investigating LIBOR manipulation.⁶⁴ The first settlement was reached with Barclays in June 2012.⁶⁵ As a part of the \$450 million settlement, Barclays admitted that from 2005 to 2009 some of its swaps traders requested that Barclays submit rates that would benefit the traders' positions rather than reflect more accurate rates.⁶⁶ Barclays employees also coordinated with traders at other banks to submit favorable LIBOR rates.⁶⁷

Settlements with other banks followed suit.⁶⁸ In December 2012, UBS reached a \$1.5 billion settlement with global authorities for its role in the rate manipulation.⁶⁹ The DOJ filed criminal charges against two former UBS traders and secured a guilty plea from a Japanese subsidiary of the bank.⁷⁰ In February 2013, Royal Bank of Scotland received a \$612

61. *Id.*

62. *Id.*

63. *Tracking the Libor Scandal*, *supra* note 6.

64. STATEMENT OF FACTS, U.S. DEPT. OF JUSTICE AND BARCLAYS BANK PLC, 5 (June 26, 2012), <http://www.justice.gov/iso/opa/resources/9312012710173426365941.pdf>; Ben Protess & Mark Scott, *Barclays Settles Regulators' Claims Over Manipulation of Key Rates*, N.Y. TIMES DEALBOOK (June 27, 2012, 8:11 AM) [hereinafter Protess & Scott, *Barclays Settles Regulators' Claims Over Manipulation of Key Rates*], <https://dealbook.nytimes.com/2012/06/27/barclays-said-to-settle-regulatory-claims-over-benchmark-manipulation/>.

65. Protess & Scott, *Barclays Settles Regulators' Claims Over Manipulation of Key Rates*, *supra* note 64.

66. STATEMENT OF FACTS, U.S. DEPT. OF JUSTICE AND BARCLAYS BANK PLC, *supra* note 64, at 5.

67. *See* STATEMENT OF FACTS, U.S. DEPT. OF JUSTICE AND BARCLAYS BANK PLC, *supra* note 64, at 5. (explaining that certain Barclays traders would receive requests from traders of other contributing banks to submit favorable LIBOR rates). Often, the interbank communications between traders about setting Libor was between current Barclays employees and former Barclays employees that had since joined other financial institutions. *The Rotten Heart of Finance*, *supra* note 46.

68. *Tracking the Libor Scandal*, *supra* note 6.

69. *Tracking the Libor Scandal*, *supra* note 6.

70. Mark Scott & Ben Protess, *As Unit Pleads Guilty, UBS Pays \$1.5 Billion Over Rate Rigging*, N.Y. TIMES DEALBOOK (Dec. 12, 2012, 1:45 AM) [hereinafter Scott & Protess, *As Unit Pleads Guilty, UBS Pays \$1.5 Billion Over Rate Rigging*], <https://dealbook.nytimes.com/2012/12/19/as-unit-pleads-guilty-ubs-pays-1-5-billion-in-fines-over-rate-rigging/>.

million fine.⁷¹ Rabobank reached a \$1 billion settlement in both civil and criminal penalties later that year.⁷²

Emails between traders discovered during the investigation of these cases showed the cooperative nature of the rate manipulation amongst the contributing banks.⁷³ When one trader at Rabobank expressed concern over the rate manipulation taking place, the submitter reassured him: “Don’t worry mate—there’s bigger crooks in the market than us guys.”⁷⁴ All told, close to \$10 billion in fines were dealt to banks, including JPMorgan Chase, Deutsche Bank, and Citigroup, showing the “shocking and brazen degree of unlawfulness” amongst the wide range of institutions involved in the scandal.⁷⁵

C. *Wheatley Review and Call for Transition to Alternative Rates*

As the rate manipulation scandal was made public through reports and settlements, the Chancellor of the Exchequer, the chief financial minister in the United Kingdom, commissioned the Wheatley Review.⁷⁶ Led by Martin Wheatley, managing director of the Financial Services Authority (“FSA”),⁷⁷ the review’s purpose was to identify improvements

71. *Tracking the Libor Scandal*, *supra* note 6.

72. *Tracking the Libor Scandal*, *supra* note 6.

73. Chad Bray, *Dutch Bank Settles Case Over Libor Deceptions*, N.Y. TIMES DEALBOOK (Oct. 29, 2013, 8:50 AM) <https://dealbook.nytimes.com/2013/10/29/rabobank-to-pay-more-than-1-billion-in-libor-settlement-chairman-resigns/>.

74. *Id.*

75. *Id.*; *Tracking the Libor Scandal*, *supra* note 6. Over one hundred traders or brokers were fired from these major financial institutions and since 2015, twenty-one have been criminally charged by both U.S. and U.K. authorities. Tom Hayes, a former trader for UBS and Citigroup, was the first person criminally convicted for manipulation of the LIBOR rate. Charged by the U.K.’s Serious Fraud Office, Hayes was sentenced to fourteen years in prison. While Hayes is appealing his conviction, Serious Fraud Office prosecutors have since convicted three other traders from Barclays, with each receiving prison sentences between two and six years. McBride, *supra* note 31.

76. THE WHEATLEY REVIEW, *supra* note 7; *Chancellor of the Exchequer*, GOV.UK (last visited Jan. 9, 2018), <https://www.gov.uk/government/ministers/chancellor-of-the-exchequer>. The Chancellor of the Exchequer oversees the work of the Treasury. Responsibilities include fiscal policy, monetary policy, and ministerial arrangements. *Id.*

77. THE WHEATLEY REVIEW, *supra* note 7, at 5. The FSA was a regulatory body in the U.K. from 2001 to 2013. As a result of perceived mishandling of the financial crisis, the U.K. government decided to split the FSA into two separate entities beginning in April 2013, the Financial Conduct Authority (“FCA”) of which Mr. Wheatley was the first chief executive and the Prudential Regulation Authority (“PRA”).

that could be made to the calculation and governance of LIBOR.⁷⁸ The Wheatley review noted several key weaknesses in the LIBOR rate that eroded the credibility and public trust in the benchmark.⁷⁹

One weakness was that LIBOR was structured around a segment of the market—interbank lending—that was no longer sufficiently active to support it.⁸⁰ At the time the BBA formalized LIBOR, the interbank lending market was functioning well.⁸¹ However, with the collapse of Lehman Brothers in 2008, banks were no longer willing to lend to other banks without sufficient collateral.⁸² This forced LIBOR submitters to rely more heavily on expert opinion rather than transactional data—a system that contains significant room for interpretation, allowing for increased manipulation.⁸³ The need for judgment by the submitter necessarily involves a “discretion which can be misused.”⁸⁴

As a result of the lack of transactional data, Wheatley concluded that with the room for interpretation now inherent in the system, both banks and their employees had an incentive to manipulate their submissions.⁸⁵ Contributing banks exploited their conflict of interest from being both submitters to, and users of, the rate.⁸⁶ Wheatley explained that a bank’s daily LIBOR submission did not ultimately indicate its counterparty risk, or ability to live up to its contractual obligations, but external parties often used submissions as an indication of an institution’s creditworthiness.⁸⁷ This created an outward incentive to submit a rate that made the bank appear more creditworthy, especially

78. See THE WHEATLEY REVIEW, *supra* note 7, at 6 (stating that the purposes of the review were to reform the current framework for setting and overseeing LIBOR, determine sanctions to combat LIBOR abuse, and provide additional policy recommendations for alternate price-setting mechanisms in financial markets).

79. THE WHEATLEY REVIEW, *supra* note 7, at 7–9.

80. THE WHEATLEY REVIEW, *supra* note 7, at 75.

81. See Peter Eavis & Nathaniel Popper, *Libor Scandal Shows Many Flaws in Rate-Setting*, N.Y. TIMES DEALBOOK (July 19, 2012, 7:34 PM), <https://dealbook.nytimes.com/2012/07/19/libor-scandal-shows-many-flaws-in-rate-setting/>.

82. See *id.* (explaining that “[t]he whole concept of interbank lending died after Lehman Brothers collapsed.”).

83. See *id.* (explaining that “[LIBOR] is just opinions that people can disagree with or manipulate.”); See also THE WHEATLEY REVIEW, *supra* note 7, at 75 (“The mechanism by which LIBOR is administered leaves opportunity for contributors to attempt to manipulate submissions . . .”).

84. THE WHEATLEY REVIEW, *supra* note 7, at 75.

85. THE WHEATLEY REVIEW, *supra* note 7, at 37–38.

86. THE WHEATLEY REVIEW, *supra* note 7, at 79.

87. THE WHEATLEY REVIEW, *supra* note 7, at 79.

in times of market stress.⁸⁸ There was also an inward, private incentive to manipulate LIBOR in a way that benefited the institution.⁸⁹ A bank's traders had an incentive to manipulate the rate to create favorable trading positions.⁹⁰ Banks possessed assets and liabilities that were sensitive to even small changes in LIBOR, creating an incentive for traders to collude with other institutions to submit favorable rates.⁹¹ This was compounded by the fact that many traders and bank employees move between various institutions, creating something of a web amongst all of them in terms of personal relationships.⁹²

In addition, Wheatley observed that the mechanism for LIBOR submission and administration was itself flawed.⁹³ The structure of LIBOR as a polled rate led to the risk of manipulation.⁹⁴ This was exacerbated by the lack of a standard to corroborate individual submissions, with there being little to no underlying transactional data.⁹⁵ A method of rate calculation in which we simply trust bankers to play by the rules, when there is a strong incentive to manipulate and no way to corroborate submissions in any meaningful way, is a system designed for failure.⁹⁶

The Wheatley Review proposed tying the LIBOR rate to actual transactional data to help remove the reliance on expert judgment in submissions.⁹⁷ The report also suggested a delay in the publishing of individual bank submissions for three months.⁹⁸ This was intended to help remove the incentive for submitters to manipulate the rate in order

88. THE WHEATLEY REVIEW, *supra* note 7, at 79–80.

89. THE WHEATLEY REVIEW, *supra* note 7, at 80 (explaining that contributing banks had an incentive to exploit their conflicts of interest as contributors to, and users of LIBOR).

90. *See* THE WHEATLEY REVIEW, *supra* note 7, at 75 (explaining that “Banks and individuals working for banks have an incentive to attempt to manipulate the submissions that compile the rate, either to signal their perceived creditworthiness or to support trading positions.”).

91. THE WHEATLEY REVIEW, *supra* note 7, at 80.

92. *See The Rotten Heart of Finance*, *supra* note 46 (showing that the friendly nature of collusion amongst the institutions is due in part because both parties have something to gain, but also due in part to the personal relationships that exist between traders from different institutions).

93. THE WHEATLEY REVIEW, *supra* note 7, at 75.

94. THE WHEATLEY REVIEW, *supra* note 7, at 73.

95. THE WHEATLEY REVIEW, *supra* note 7, at 82.

96. *See* THE WHEATLEY REVIEW, *supra* note 7, at 73 (pointing out that other reference rates that are set up as a “polled rate” are subject to the same risk of manipulation).

97. THE WHEATLEY REVIEW, *supra* note 7, at 27.

98. THE WHEATLEY REVIEW, *supra* note 7, at 35.

to make the bank appear more creditworthy than it actually may be.⁹⁹ Wheatley also recommended that LIBOR be administered by a private organization rather than a public authority, removing it from the BBA's jurisdiction.¹⁰⁰ This would allow for greater independence with a separation from the interests of the new governing institution and the submitting banks.¹⁰¹

Recall that following the release of the report, administration of LIBOR was transferred from BBA to a U.K. subsidiary, ICE Benchmark Administration, of the private U.S.-based company, ICE.¹⁰² Despite this new governance system, the Financial Conduct Authority ("FCA") signaled on July 27, 2017, that the regulatory goal of reforming LIBOR was no longer a viable option.¹⁰³ Andrew Bailey, head of the FCA, explained that LIBOR submissions would continue until the end of 2021, with a transition to a new benchmark taking place at that time.¹⁰⁴ This change is due in part to the difficulty of pegging LIBOR to actual transactions.¹⁰⁵ Bailey enunciated this problem in asking "[i]f an active market does not exist, how can even the best benchmark measure it?"¹⁰⁶ What should be concerning is that Bailey has spent a great deal of time convincing banks to continue submitting to LIBOR.¹⁰⁷

The uneasiness on the part of contributing banks is understandable. After billions of dollars of fines have been levied for rate manipulation, providing rates even in good faith with no transactional data to concretely validate those judgments is worrisome.¹⁰⁸ Should banks stop submitting to LIBOR abruptly, significant market disruptions

99. Christopher Hall, Comment, *Anything for You Big Boy: A Comparative Analysis of Banking Regulation in the United States and the United Kingdom in Light of the LIBOR Scandal*, 34 Nw. J. INT'L L. & BUS. 153, 167 (Fall 2013).

100. THE WHEATLEY REVIEW, *supra* note 7, at 22.

101. THE WHEATLEY REVIEW, *supra* note 7, at 22.

102. McBride, *supra* note 31.

103. See Bailey, *supra* note 8 (indicating that the FCA would focus its efforts on transitioning to alternative reference rates based firmly on available transactional data); MICHAEL FOUNDETHAKIS, BAKER MCKENZIE, LIBOR: WHERE THINGS STAND NOW (Nov. 27, 2017), <http://www.bakermckenzie.com/en/insight/publications/2017/11/libor-where-things-now-stand/>.

104. Bailey, *supra* note 8.

105. Bailey, *supra* note 8.

106. Bailey, *supra* note 8.

107. Bailey, *supra* note 8.

108. See Hall, *supra* note 99, at 166 (explaining that the Wheatley Review identified that there is both a people problem and a reality problem with the way the LIBOR system is designed).

will ensue as trillions of dollars of financial contracts are pegged to the rate and there will be no clear method to calculate interest charged.¹⁰⁹

III. ALTERNATIVES TO LIBOR

A. *The U.K. Alternative: SONIA*

The search for an alternative to LIBOR in the United Kingdom began in earnest in 2013.¹¹⁰ The Bank of England created an independent Financial Policy Committee (“FPC”) in order to identify, monitor, and take action to remove systemic risks to the U.K. financial system.¹¹¹ The committee identified three areas of action necessary to transition away from LIBOR.¹¹² First, there needed to be development of a near risk-free, transaction-based, alternative benchmark to LIBOR.¹¹³ Second, it was necessary to develop robust fallback provisions for financial contracts that reference LIBOR.¹¹⁴ Finally, the FPC stated that while an alternative rate and fallback provisions were being developed, there needed to be a plan for maintenance of LIBOR in the interim.¹¹⁵

The most popular alternative to LIBOR in the United Kingdom is SONIA.¹¹⁶ First published in 1997, SONIA is much newer compared to LIBOR.¹¹⁷ SONIA reflects banks’ and building societies’ overnight funding rates in the sterling unsecured market and is considered a “risk-free” rate.¹¹⁸ Unlike LIBOR, SONIA is fully transaction-based, underpinned by \$51.5 billion—£39.4 billion—in average daily

109. Bailey, *supra* note 8.

110. Record of FPC Meeting, *supra* note 10, at 17–18.

111. *Fin. Policy Comm.*, BANK OF ENGLAND, (last updated Dec. 4, 2017) <http://www.bankofengland.co.uk/financialstability/Pages/fpc/default.aspx>.

112. Record of FPC Meeting, *supra* note 10, at 18.

113. Record of FPC Meeting, *supra* note 10, at 18.

114. Record of FPC Meeting, *supra* note 10, at 18.

115. Record of FPC Meeting, *supra* note 10, at 18.

116. See Reuters, *BoE’s Libor Alternative SONIA Backed as Benchmark by Dealers*, REUTERS (Apr. 28 2017, 3:22 AM), <https://www.reuters.com/article/us-boe-rates-regulations/boes-libor-alternative-sonia-backed-as-benchmark-by-dealers-idUSKBN17U0U2> (explaining that a working group of major dealers voted in April 2017 to back SONIA as their preferred alternative to LIBOR).

117. *The SONIA Interest Rate Benchmark*, BANK OF ENGLAND, <http://www.bankofengland.co.uk/markets/Pages/benchmarks/sonia.aspx> (last updated Jan. 9, 2018).

118. SONIA: KEY FEATURES AND POLICIES, *supra* note 12, at 3; *BoE’s Libor Alternative SONIA Backed as Benchmark by Dealers*, *supra* note 116.

transactions.¹¹⁹ Like LIBOR, SONIA is measured in trimmed mean fashion each day.¹²⁰ Rather than estimates submitted by individual banks, however, SONIA is measured as the interest rates paid on eligible sterling denominated deposit transactions.¹²¹

Currently, derivatives contracts worth \$10.1 billion—£7.7 billion—are tied to SONIA, but for the most part these are short-term contracts extending eighteen months.¹²² On the other hand, contracts tied to LIBOR are worth around \$39 trillion—£30 trillion—and extend up to fifty years.¹²³ Preparations are already underway to account for the difference in the length of the contracts based on these rates with the clearing arm of the London Stock Exchange seeking permission from the Bank of England to clear longer-dated SONIA swaps.¹²⁴ To help bridge this gap, the London Clearing House is extending the eligibility of SONIA based swaps to fifty-one years.¹²⁵ This will help ensure that the potential switch from LIBOR to SONIA will be a relatively seamless transition instead of an abrupt cessation of LIBOR that creates significant market disruptions.¹²⁶

B. *The U.S. Alternative: SOFR*

The United States is also in the process of developing a near risk-free alternative to LIBOR.¹²⁷ The Financial Stability Oversight Council (“FSOC”) recommended in 2014 that domestic regulators, in cooperation with international regulators, develop an alternative reference rate and

119. *The Reform of SONIA: Consultation Feedback and the Design of SONIA*, BANK OF ENGLAND 6 (2017) [hereinafter *Reform of SONIA*] <https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/reform-of-sonia-consultation-and-feedback-and-design-march-2017.pdf?la=en&hash=B89ED52B9040464026300A710519D1C7DADD55BB>.

120. *Id.* at 7.

121. *Id.*

122. Huw Jones & Marc Jones, *Foundations for Post-Libor System Sliding into Place*, REUTERS (Aug. 10, 2017, 11:35 AM), <https://www.reuters.com/article/us-banks-libor-markets-exclusive/exclusive-foundations-for-post-libor-system-sliding-into-place-idUSKBN1AQ1X3>.

123. *Id.*

124. *Id.*

125. *Id.*

126. *See id.* (indicating that the actions being taken by regulators and industry officials will increase the chances for a smooth transition).

127. *Id.*

transition away from LIBOR.¹²⁸ In response to this recommendation, the Federal Reserve convened the Alternative Reference Rates Committee (“ARRC”) in November 2014 to identify a list of reference rates that are tied to a robust market.¹²⁹ In June 2017, the ARRC identified a Broad Treasuries Repurchase Agreement (“Repo”) financing rate that will reflect how much it costs to borrow cash secured against U.S. government debt.¹³⁰ A Repo is the purchase of an asset, in which one party agrees to purchase it at a set price.¹³¹ However, a Repo transaction acts as a collateralized loan.¹³² The seller agrees to repurchase the asset at a higher price, usually the next day, equating the markup to an interest rate.¹³³ The ARRC explained that the rate “represents best practice for use in certain new U.S. dollar derivatives and other financial contracts.”¹³⁴

The Federal Reserve sought public comment on three rates to be published by the New York Fed, with the Broad Treasuries Financing Rate being the broadest measure.¹³⁵ In the early stages of identifying an alternative rate the Broad Treasuries Financing Rate chosen by the ARRC was referred to as “BTFR,” but it is now being referred to as the Secured Overnight Funding Rate, or SOFR.¹³⁶ The average daily trading volume that will be pegged to SOFR is around \$660 billion, and the market is expected to remain robust.¹³⁷

The market for U.S. Treasury Repos includes a tri-party segment and a bilateral segment.¹³⁸ All tri-party Repo transactions, and some bilateral Repo transactions, are executed against a pool of general

128. About Us in *Alternative Reference Rates Committee*, FEDERAL RESERVE BANK OF NEW YORK, <https://www.newyorkfed.org/arrc/announcements.html> (last visited Jan. 9, 2018).

129. *Id.*

130. Alt. Reference Rates Comm., *supra* note 8.

131. Liz McCormick & Stephen Spratt, *The Repo Market*, BLOOMBERG QUICKTAKE, <https://www.bloomberg.com/quicktake/the-repo-market> (last updated Feb. 23, 2017, 2:52 PM).

132. *Id.*

133. *Id.*

134. Alt. Reference Rates Comm., *supra* note 8.

135. Request for Information Relating to Production of Rates, 82 Fed. Reg. 41259 (Fed. Reserve Bd. of Governors Aug. 30, 2017).

136. See *LIBOR Update: One small step for SOFR*, LSTA (Sept. 7, 2017), <http://www.lsta.org/news-and-resources/news/libor-update-one-small-step-for-sofr> (positing that this change is perhaps due to the unsavory pronunciation of the acronym BTFR).

137. *LIBOR: Why You Should Care . . . and Shouldn't Panic*, LSTA (Aug. 17, 2017), <http://www.lsta.org/news-and-resources/news/libor-why-you-should-careand-shouldnt-panic>.

138. Request for Information Relating to Production of Rates, 82 Fed. Reg. at 41259.

collateral rather than a specific security.¹³⁹ In this type of transaction, the purchaser identifies an acceptable amount of collateral, but does not specify the exact type of security to be used in the transaction.¹⁴⁰ In many bilateral Repo transactions, the parties identify the specific securities to be acquired.¹⁴¹ Often, depending on the market for the security, Repos for a specific security can be placed at much lower rates than general collateral and sometimes may even be accepted at a negative return, known as “specials.”¹⁴² Most of these specials transactions are to be excluded from SOFR.¹⁴³ The New York Fed intends to trim the data, removing the rates that fall below a certain percentile for the rate calculation each day.¹⁴⁴

C. *Benefits of U.K. and U.S. Alternative Rates*

There are two main reasons why the rates chosen by the United Kingdom and United States, SONIA and SOFR respectively, are improvements to the current system under LIBOR. The most important, and perhaps most obvious, is that being tied to transactional data reduces the incentive for submitters to manipulate the rate.¹⁴⁵ By removing the dependence on expert opinion, these alternative rates both create a check on the submissions of the banks and provide a more accurate rate than the estimations involved within the LIBOR system.¹⁴⁶

SONIA, in being tied to transactional data, resolves the weaknesses of LIBOR being based in a segment of the market that is no longer sufficiently active, as identified in the Wheatley Review.¹⁴⁷ SONIA is based on robust transaction volumes.¹⁴⁸ Being fully

139. *Id.* at 41260.

140. *Id.*

141. *Id.*

142. *Id.* at 41261.

143. *Id.*

144. Kathryn Bayeux et al., *Introducing the Revised Broad Treasuries Financing Rate*, FEDERAL RESERVE BANK OF NEW YORK: LIBERTY STREET ECONOMICS (June 19, 2017), <http://libertystreeteconomics.newyorkfed.org/2017/06/introducing-the-revised-broad-treasuries-financing-rate.html>.

145. THE WHEATLEY REVIEW, *supra* note 7, at 27.

146. THE WHEATLEY REVIEW, *supra* note 7, at 27.

147. THE WHEATLEY REVIEW, *supra* note 7, at 27.

148. Ben Moshinsky, *The Bank of England is Taking Over the Replacement for LIBOR*, BUSINESS INSIDER (Oct. 16, 2017, 3:15 AM), <http://www.businessinsider.com/sonia-timeline-alternative-to-libor-2017-10>.

transaction-based, the submissions to SONIA are tied to concrete activity in the market.¹⁴⁹ This removes the need to rely solely on the “expert opinion” and judgment of the submitters.¹⁵⁰ With submissions tied to actual transactions, bank manipulation of the rate becomes increasingly difficult.¹⁵¹ This change will help hold banks accountable and reduce opportunities for misconduct and other improprieties with regards to rate manipulation.¹⁵²

A potential issue with the switch to SONIA over LIBOR is that transactions feeding into the rate are currently published on a daily basis.¹⁵³ As a result of the recommendations of the Wheatley review, U.K. regulators delayed publishing the individual submissions to LIBOR for three months.¹⁵⁴ As a part of the SONIA transition, the Bank of England plans to publish SONIA at 9 a.m. GMT the business day following the day the rate relates to, allowing time for the Bank to process the larger volume of transactions that SONIA will cover.¹⁵⁵ LIBOR’s three month delay in publication was designed so as not to “inform prospective manipulators of the benchmark,” consistent with Wheatley’s suggestions for improvements to LIBOR.¹⁵⁶ Although Wheatley’s review was specifically for LIBOR, his recommendations should apply to financial benchmarks as a whole, as they share many of the principles recommended for financial benchmarks by the IOSCO.¹⁵⁷ SONIA may not have the publication delay that LIBOR contains, but being tied to transactional data works to remove the issues regarding publication of the

149. *See Reform of SONIA*, *supra* note 113, at 7–8 (showing the eligible transactions that qualify for contribution to SONIA as well as the daily volumes and number of trades for current and reformed SONIA).

150. *See Reform of SONIA*, *supra* note 113, at 7–8 (explaining that the administrator of the benchmark will monitor the market to determine whether it continues to be robust enough to sustain a credible benchmark).

151. *See Reform of SONIA*, *supra* note 113, at 7–8 (explaining that authorities in the United Kingdom will be monitoring the market to determine whether its robustness is sustained in order to ensure that SONIA is a credible benchmark that doesn’t rely on expert opinion).

152. Moshinsky, *supra* note 148.

153. *Reform of SONIA*, *supra* note 119, at 15.

154. THE WHEATLEY REVIEW, *supra* note 7, at 37.

155. *Reform of SONIA*, *supra* note 119, at 15.

156. *Reform of SONIA*, *supra* note 119, at 15.

157. THE WHEATLEY REVIEW, *supra* note 7, at 37. Wheatley’s recommendations embody many of the principles outlined in the International Organization of Securities Commission’s *Principles for Financial Benchmarks* published in 2013.

rate because there is a check on the submissions of the banks.¹⁵⁸ This should have the effect of eliminating the incentive for banks to manipulate the rate to make them appear more creditworthy than they are.¹⁵⁹

Similar to the United Kingdom's preferred rate, one of the main benefits of the chosen alternative of the United States, SOFR, without seeing the ARRC's final report, is that it will be tied to transactional data.¹⁶⁰ This should clear up some of the ambiguities and room for manipulation allowed for in LIBOR calculation.¹⁶¹ As the rate does not yet exist, the next step forward for the transition is somewhat murky without more specifics of the rate and a transition plan from the ARRC.¹⁶² The ARRC is planning to release a report in the near future that will detail more specifics of the rate, as well as its plan to transition to it, which market participants should watch closely.¹⁶³

SOFR will not be published until mid-2018.¹⁶⁴ To hastily transition from LIBOR to a rate that doesn't yet exist would be unwise.¹⁶⁵ This issue highlights the need for a smooth transition away from LIBOR, based on voluntary renegotiation of financial contracts.¹⁶⁶ LIBOR will continue to be reported for the next few years, or at least until 2021.¹⁶⁷ U.K. and European legislation gives the FCA the power to compel panel banks to contribute to LIBOR, and Andrew Bailey has assured that he

158. *Reform of SONIA*, *supra* note 119, at 15.

159. *See* THE WHEATLEY REVIEW, *supra* note 7, at 37 (pushing out the date of individual submissions to a benchmark removes external speculation, whether warranted or not, about the creditworthiness of each individual institution).

160. Request for Information Relating to Production of Rates, 82 Fed. Reg. at 41259.

161. *See* Bayeux et al., *supra* note 144 (explaining that from mid-2016 through April 2017, the "aggregate volume in the FICC-cleared bilateral market increased to a daily average of \$530 billion.").

162. Bayeux et al., *supra* note 144.

163. Chris Nichols, *What Banks Now Need to Know About LIBOR*, CENTER STATE CORRESPONDENT DIVISION (July 31, 2017), <https://csbcorrespondent.com/blog/what-banks-now-need-know-about-libor>.

164. Will Martin & Ben Moshinsky, *A Committee of the World's Biggest Banks Chose a New Alternative to the Scandal-Ridden LIBOR rate*, BUSINESS INSIDER (June 23, 2017, 4:14 AM), <http://www.businessinsider.com/arrc-chooses-new-rate-to-replace-libor-2017-6>.

165. *See* Nathan Leavitt & Yue Qi, *Planning for the End of LIBOR*, HOLLAND & KNIGHT LLP: AVIATION LAW BLOG (Oct. 9, 2017), <https://www.hklaw.com/aviationlawblog/planning-for-the-end-of-libor-10-09-2017/> (advising that parties should be wary of incorporating an alternative reference rate that they are not familiar with).

166. Julia Goptarenko, *Liberating the World from LIBOR: Implications for Non-Cleared Derivatives* (Aug. 11, 2017), available at <https://ssrn.com/abstract=3017639>.

167. Bailey, *supra* note 8.

will use such power if necessary to continue LIBOR publication until that point.¹⁶⁸ Once SOFR begins to be reported in mid-2018 and becomes entrenched in the financial system, contract renegotiation to SOFR will be feasible.¹⁶⁹

SOFR, while still a positive change from reliance on LIBOR in the United States, presents its own issues that will need to be closely monitored over the coming years.¹⁷⁰ SOFR is an overnight rate, while LIBOR has rates for multiple tenors.¹⁷¹ The International Swaps and Derivatives Association (“ISDA”) has proposed that the fallback rate be publicly available as a screen rate and that quotes will be based on tenors of one, three, six, and twelve months, as the LIBOR rate is currently based.¹⁷² To ensure that there is not significant value transfer to LIBOR based contracts when the fallback is activated, if LIBOR ceases to be reported abruptly, then ISDA has recommended that the fallback should consist of SOFR plus a spread.¹⁷³ That spread would be based on a “snapshot” of the LIBOR SOFR basis, or the difference between the cash and futures price, across multiple tenors on the last day that LIBOR was reported.¹⁷⁴

ISDA’s suggestion of a spread between LIBOR and SOFR will help to eliminate the risk of significant market disruptions should LIBOR cease to be reported.¹⁷⁵ Andrew Bailey, in a July 2017 speech, explained

168. Bailey, *supra* note 8.

169. See *The Transition Away from LIBOR*, GUGGENHEIM INVESTMENTS (Aug. 7, 2017), <https://www.guggenheiminvestments.com/institutional/perspectives/macroeconomic-research/the-transition-away-from-libor> (“We expect that the ARRC transition report will specify how the transition to the new repo rate will occur, both for instruments with existing documentation that contains a provision for a Libor alternative as well as for those without such provisions.”).

170. Fabien Carruzzo & Matthis Quin, *Replacing LIBOR in Derivatives Agreements*, KRAMER LEVIN: FUNDS TALK (Jan. 2, 2018), https://www.kramerlevin.com/en/perspectives-search/replacing-libor-in-derivatives-agreements.html?utm_source=Mondaq&utm_medium=syndication&utm_campaign=View-Original.

171. *Id.*

172. *Id.*

173. *Development of Fallbacks for LIBOR and Other Key IBORS*, ISDA, <https://www.isda.org/a/vKiDE/development-of-fallbacks-for-libor-and-other-key-ibors.pdf> (last visited Jan. 9, 2018).

174. Carruzzo & Quin, *supra* note 170.

175. See *Development of Fallbacks for LIBOR and Other Key IBORS*, ISDA, <https://www.isda.org/a/vKiDE/development-of-fallbacks-for-libor-and-other-key-ibors.pdf> (last visited Jan. 9, 2018) (using interest rate spreads will help to guard against dramatic shifts in value).

that he will not force banks to continue to contribute to LIBOR after 2021.¹⁷⁶ However, banks will still be able to contribute to LIBOR after 2021 if they choose.¹⁷⁷ Because Bailey had to convince banks to continue contributing to the benchmark makes it seem unlikely that LIBOR will continue to be reported for very long after Bailey's deadline.¹⁷⁸

The second benefit of the United States choosing an alternative rate that is distinct from the United Kingdom's preferred rate is that in localizing the rate to each jurisdiction, each rate will be less affected by market disruptions in other jurisdictions.¹⁷⁹ The global financial system is undoubtedly linked to events all over the globe.¹⁸⁰ With each jurisdiction choosing a rate that is pegged to transactions in its own currency, the rates should be more resilient to geopolitical events than LIBOR.¹⁸¹ It is true that due to the interconnectedness of the global markets, it would be naïve to think that a geopolitical event like Brexit would not affect U.S. rates.¹⁸² However, by choosing SOFR—tied to U.S. Treasury repo transactions—the rate should be more resilient to geopolitical events outside the United States, particularly in the United Kingdom and Europe.¹⁸³ Higher-risk loans require higher interest rates, so when an event like Brexit contributes to an increase in country risk, interest rates may reflect that country risk.¹⁸⁴

176. Bailey, *supra* note 8.

177. See Bailey, *supra* note 8 (explaining that Mr. Bailey will not force banks to continue to contribute to LIBOR after 2021, but that certainly will not stop them from continuing to contribute after that date if there is a willingness amongst contributors).

178. Bailey, *supra* note 8.

179. See *Brexit and U.S. Interest Rates*, *supra* note 19 (describing one of the risks of Brexit as a widening of the spread between the Federal Funds Rate and LIBOR).

180. See Patrick Gillespie, *How Brexit Impacts the U.S. Economy*, CNN MONEY (June 24, 2016, 12:18 PM) <http://money.cnn.com/2016/06/24/investing/brexit-impact-on-american-global-economy/index.html> (describing how Brexit in the U.K. may affect the U.S. economy).

181. See *Why Has LIBOR Been Climbing?*, PENSFORD FINANCIAL GROUP (2017), <https://pensfordfinancial.com/why-has-libor-been-climbing/> (positing that as threats to the banking system increase, so too does the LIBOR rate, and that geopolitical events such as Brexit constitute such risks).

182. See Gillespie, *supra* note 180 (quoting Fed Chairwoman Janet Yellen explaining that Brexit would negatively affect financial conditions of the U.S. economy).

183. See *Brexit and U.S. Interest Rates*, *supra* note 19 (explaining that one of the risks of Brexit as a widening of the spread between the Federal Funds Rate and LIBOR, indicating the consequences of geopolitical events in different jurisdictions).

184. See Sergey V. Popov, *How Brexit Referendum Will Impact You*, QPOL (June 28, 2016, 4:48 PM), <http://qpol.qub.ac.uk/how-brexit-referendum-will-impact-you/> (“Riskier loans require larger interest rates . . .”).

While resiliency regarding specific country risk is a positive aspect of the alternative rates chosen by the United Kingdom and United States, there is a source of concern from the use of these rates.¹⁸⁵ One potential negative impact is that, given that these rates will be based on transactional data, there is a potential for them to be more volatile than LIBOR.¹⁸⁶ LIBOR submissions require the use of “expert judgment,” which may keep the rate steadier than a rate that is tied to actual market transactions.¹⁸⁷ This ultimately shouldn’t be viewed as a negative for these alternative rates, however, because the use of SONIA and SOFR will provide a more accurate rate that is indicative of the market rather than a rate simply thought up by individuals within a financial institution.¹⁸⁸

IV. LOOKING AHEAD: CONTRACTS AND THE TRANSITION AWAY FROM LIBOR

Should LIBOR cease to be reported after 2021, there are potentially going to be millions of financial contracts that do not reference an alternative rate.¹⁸⁹ Jerome Powell identified that “[t]he big financial stability risk here is that you have contracts citing a rate that goes out of publication . . . and you don’t have a backup.”¹⁹⁰ A complete cessation of LIBOR will leave banks and clients with no clear way to calculate interest payments—a significant market disruption.¹⁹¹

Contract holders should revisit their contracts to look at their fallback provisions to see if they are sufficient to deal with a potential disruption of LIBOR.¹⁹² Most fallback provisions currently included in

185. Lucy McNulty & Samuel Agini, *Bigger Than Brexit: LIBOR Replacement Creates New Headaches*, FIN. NEWS (Nov. 8, 2017, 5:01 AM) <https://www.fn london.com/articles/bigger-than-brex-it-libor-replacement-creates-headaches-20171108>.

186. *Id.*

187. *Id.*

188. *Id.*

189. Tim Wallace, *LIBOR’s U.S. Owners to Fight UK Plan to Scrap the Interest Benchmark*, THE TELEGRAPH, (July 29, 2017, 7:19 PM) <http://www.telegraph.co.uk/business/2017/07/29/libors-us-owners-fight-uk-plan-scrap-interest-benchmark/>.

190. Robert Mackenzie Smith, *Fed’s Powell: Libor’s Death is a ‘Big Stability Risk,’* RISK.NET, (Nov. 8, 2017) <https://www.risk.net/derivatives/5354301/feds-powell-libor-death-is-big-stability-risk>.

191. Wallace, *supra* note 189.

192. Bryan Cave, *The Transition Away from LIBOR: The Sky is Not Falling, but There Are Steps That You Should Take Now to Prepare for When It Eventually Does*, JD SUPRA

contracts are designed only to resolve temporary disruptions in the reporting of LIBOR, not accounting for a permanent cessation of LIBOR.¹⁹³ Structured transaction finance documents with LIBOR language generally have a progression of fallback language.¹⁹⁴ The last resort of these provisions usually refers to the previous month's rate.¹⁹⁵ Some other financial products have no fallback language at all, creating a risk for disputes amongst parties should LIBOR cease to be reported.¹⁹⁶ In order to prevent contracts from being challenged as impossible to perform with either no or an insufficient fallback provision, parties should ensure that a fallback provision exists.¹⁹⁷ In addition, such fallback provisions should be written well enough to be able to withstand a cessation in the reporting of LIBOR.¹⁹⁸

Parties to transactions should take steps allowing for flexibility to make amendments to interest rate determination provisions in contracts.¹⁹⁹ This is especially important in the context of multi-creditor transactions like syndicated lending.²⁰⁰ Parties will want to consider whether to allow unilateral amendment by one party, or develop an agreement in which amendments can be made by a majority of the lenders.²⁰¹ Amendments to interest rate determination may prove difficult for some products, such as over-the-counter interest rate swaps.²⁰² In such instances, if the parties decide that the cessation of

(Aug. 25, 2017), <http://www.jdsupra.com/legalnews/the-transition-away-from-libor-the-sky-66221/>.

193. *Id.*

194. *With a LIBOR Phase-Out Likely After 2021, How Will Structured Finance Ratings Be Affected?*, MONDOVISIONE (Oct. 20, 2017) <http://www.mondovisione.com/media-and-resources/news/sandp-global-ratings-report-with-a-libor-phase-out-likely-after-2021-how-will-st/>.

195. *Id.*

196. *Id.*

197. Cave, *supra* note 192.

198. Cave, *supra* note 192.

199. Jeff Berman et. al., *Clifford Chance Discusses U.S. Considerations for Transition Away from Libor*, THE CLS BLUE SKY BLOG (Aug. 14, 2017), <http://clsbluesky.law.columbia.edu/2017/08/14/clifford-chance-discusses-us-considerations-for-transition-away-from-libor/>.

200. *Id.*

201. *Id.*

202. Zachary King & Rob Kenny, *The Transition Away from USD LIBOR for Swaps: A Report for U.S. Market Participants*, MOORE & VAN ALLEN (Sept. 28, 2017) <http://www.mvalaw.com/news-publications-536.html>.

LIBOR will so materially alter the swap, the parties may mutually agree to a no-fault termination.²⁰³

One of the problems associated with amending the terms of capital market instruments is that they are often held by a large number of underlying investors.²⁰⁴ Currently, in the context of structured finance transactions, negative consent provisions are being used to authorize the trustee to agree to amendments relating to the cessation of LIBOR.²⁰⁵ In order for these negative consent provisions to be valid, some require that there be notice of the proposed revisions to all bondholders and that a specific percentage of bondholders not object to the proposed amendment within a certain time frame.²⁰⁶ If these negative consent provisions are to be employed in the use of fallback provisions, these safeguards are essential to prevent unilateral amendments to finance documents that could produce potential windfalls for lenders.²⁰⁷

One issue with moving to a risk-free rate from LIBOR is accounting for the change of risk from not accounting for bank credit risk.²⁰⁸ ISDA has recognized this and, as mentioned previously, has pointed out that there will need to be spreads to apply to the risk-free rate in the event that a fallback provision is triggered.²⁰⁹ ISDA is currently working on a plan, both for the methodology of the calculation of such spreads, but also for the entity to calculate and publish those spreads.²¹⁰

A potential solution to achieve a peaceful transition away from LIBOR would be for the legislative bodies in the United Kingdom and United States to enact legislation that determines which rate to reference

203. *Id.*

204. Catriona Lloyd et. al., *What Now for LIBOR in Finance Documents*, LEXOLOGY (Dec. 13, 2017), <https://www.lexology.com/library/detail.aspx?g=1886589b-02f7-4fdf-bda1-d0d69cf4c2df>.

205. *Id.*; A negative consent provision allows for the lender to use an alternative rate for interest calculation, provided that the borrower does not object to the lender's choice of alternative rate within a set timeframe. The Banking Law Journal, *LIBOR Successor Rate Provisions in the Syndicated Loan Market*, CHAPMAN AND CUTLER LLP (Feb. 2018), https://www.chapman.com/insights-publications-LIBOR_Successor_Rate_Syndicated_Loan_Market.html (providing an example of what a negative consent provision operates in regards to the LIBOR rate).

206. Lloyd et. al., *supra* note 204.

207. *See id.* (explaining that should there be a lack of these safe guards in fallback provisions, there would be a strong incentive for lenders to choose an alternative rate that benefits them).

208. *Development of Fallbacks for LIBOR and Other Key IBORS*, *supra* note 173.

209. *Development of Fallbacks for LIBOR and Other Key IBORS*, *supra* note 173.

210. *Development of Fallbacks for LIBOR and Other Key IBORS*, *supra* note 173.

in the event of the cessation of LIBOR.²¹¹ Congress and Parliament could declare that in the event LIBOR ceases to be published, the contract in question will refer to the rate selected by each country, of course determined by the contract's current LIBOR currency reference.²¹² For example, if a contract is based upon U.S. dollar LIBOR, then the contract would then be amended to reference SOFR.²¹³ Likewise, if the contract is based upon British pound LIBOR, the contract would then reference SONIA.²¹⁴ If Congress or Parliament were to pass legislation of this nature, it should not prohibit the parties to renegotiate the contract if they wanted it to reference a different rate than the one selected by either the United States or the United Kingdom.²¹⁵

V. CONCLUSION

Both SONIA and SOFR help remedy some of the weaknesses that ail LIBOR.²¹⁶ The Wheatley report proposed tying the LIBOR rate to transactional data to help remove the nearly sole use of expert judgment in submissions, a reform that was not feasible in the current market.²¹⁷

211. Wallace, *supra* note 189.

212. See Wallace, *supra* note 189 (explaining that Stephen Rosen, a lawyer with Collyer Bristow in the United Kingdom, supports this approach from Parliament).

213. Wallace, *supra* note 189.

214. Wallace, *supra* note 189.

215. See Wallace, *supra* note 189 (stating that such a law would always allow the two parties to a contract to change it). Of course, when there is talk about government interference in private contracts, eyebrows immediately raise. This concern about government interference in contracts was strong enough that the Founders felt the need to enshrine it in the U.S. Constitution in the Contract Clause, which reads that "No State shall . . . pass any . . . Law impairing the Obligation of Contracts . . ." U.S. CONST. art. I, § 10, cl. 1. However, as the words of the clause itself indicate, the Contract Clause does not apply to acts of the National Government. Writing for the majority in *Pension Ben. Guar. Corp. v. R.A. Gray & Co.*, Justice William Brennan wrote that "[i]t could not justifiably be claimed that the Contract Clause applies, either by its own terms or convincing historical evidence, to actions of the National Government." *Pension Ben. Guar. Corp. v. R.A. Gray & Co.*, 467 U.S. 717, 732 n.9 (1984). An act of Congress that delineates an alternative reference rate should run into no challenges on the basis of a Contracts Clause claim.

216. SONIA: KEY FEATURES AND POLICIES, *supra* note 12, at 3 (detailing the reforms made to SONIA in preparation of the rate replacing LIBOR); See Alt. Reference Rates Comm., *supra* note 8 (explaining that the ARRC considered a variety of characteristics in choosing an alternative rate, most importantly the depth of the underlying market and its expected robustness over time).

217. See THE WHEATLEY REVIEW, *supra* note 7, at 7 ("[T]he Review has concluded that transaction data should be explicitly used to support LIBOR submissions."); see also Bailey, *supra* note 11 ("[T]he underlying market that LIBOR seeks to measure – the market for unsecured wholesale term lending to banks – is no longer sufficiently active.").

By pegging these rates to actual transactional data, SONIA and SOFR help remove incentives to manipulate the rate in two main ways: (1) removing the need for submitters to rely solely on expert opinion and thus reducing the risk of manipulation and (2) removing the room for interpretation inherent in the LIBOR structure.²¹⁸ An additional benefit to U.S. and U.K. regulators choosing different rates that are tied to transactions in their own currency is increased resiliency of the rates to global events.²¹⁹ Financial contracts that reference LIBOR must be renegotiated, and parties should waste no time in developing robust fallback provisions and determining how to amend interest rate determination clauses.²²⁰ Whether regulators can pull off a smooth transition that does not result in meaningful market disruptions remains to be seen. What is certain is that the move away from LIBOR is a positive change that will help to restore public faith in the global financial system.

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218. SONIA: KEY FEATURES AND POLICIES, *supra* note 12, at 3; Request for Information Relating to Production of Rates, 82 Fed. Reg. 41259 (“The U.S. Treasury securities market is the deepest and most liquid government securities market in the world.”).

219. See *Why Has LIBOR Been Climbing?*, *supra* note 181 (arguing that as threats to the banking system increase, so does the LIBOR rate and that geopolitical events present risks that would raise LIBOR).

220. See Smith, *supra* note 190 (explaining that the financial stability risk with the transition from LIBOR is that LIBOR will stop being reported and holders of financial contracts will have no fallback provisions and thus no way of calculating interest owed).

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