NOTE

STRENGTH IN TRANSPARENCY: MITIGATING SYSTEMIC RISK THROUGH HARMONIZATION OF REPORTING REQUIREMENTS FOR OTC DERIVATIVES

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> "If we're right, people lose homes. People lose jobs. People lose retirement savings, people lose pensions. You know what I hate about . . . banking? It reduces people to numbers. Here's a number—every one percent unemployment goes up, forty thousand people die, did you know that?"
>
> Ben Rickert[1]

INTRODUCTION

On September 15, 2008, the fourth largest investment bank in the United States, Lehman Brothers Holdings Inc. (Lehman Brothers),[2] filed for Chapter 11 bankruptcy.[3] One of the largest

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1. THE BIG SHORT (Plan B Entertainment & Regency Enterprises 2015). Though not entirely substantiated, the statistics cited in this quote appear to be based on a 2012 study conducted primarily by researchers at the University of Cambridge and Stanford University. The study correlated every one percent rise in unemployment with a roughly one percent rise in suicide rates when comparing data from the U.S. Centers for Disease Control and Prevention and The Bureau of Labor Statistics. *See* Benedict Carey, *Increase Seen in U.S. Suicide Rate Since Recession*, N.Y. TIMES (Nov. 4, 2012), http://www.nytimes.com/2012/11/05/health/us-suicide-rate-rose-during-recession-study-finds.html [https://perma.cc/9A6B-U7EU]; *see also* Lizzie Parry, *Unemployment is Linked to 45,000 Suicides a Year*, DAILY MAIL (Feb. 10, 2015), http://www.dailymail.co.uk/health/article-2947700/Unemployment-linked-45-000-suicides-year-study-finds.html (discussing another study correlating unemployment with suicide) [https://perma.cc/8VTQ-2AUL].

2. Investopedia Staff, *Case Study: The Collapse of Lehman Brothers*, INVESTOPEDIA (Feb. 16, 2017, 6:00 AM), http://www.investopedia.com/articles/economics/09/lehman-brothers-collapse.asp [https://perma.cc/3KRT-8RJR].

3. Michael J. Fleming & Asani Sarkar, *The Failure Resolution of Lehman Brothers*, 20 FRBNY ECON. POL'Y REV. 175, 175 (2014). Chapter 11 bankruptcy, sometimes called "rehabilitation bankruptcy," is the legal process an entity undertakes to attempt to reorganize its debt obligations and "re-emerge as a healthy organization." *See* Investopedia Staff, *What Are the Differences Between Chapter 7 and Chapter 11 Bankruptcy?*, INVESTOPEDIA, http://www.investopedia.com/ask/answers/190.asp (last visited July 23, 2017) [https://perma.cc/C5TJ-2MPZ]. Chapter 11 bankruptcy typically involves a partnership or corporation and allows the entity to pay its creditors over time. *Chapter 11 – Bankruptcy Basics*, U.S.

and most complex U.S. bankruptcies on record, the wind up and subsequent debt reorganization resulted in nearly "[US]$1.2 trillion [worth of] claims" against the estate and the attempted settlement of over 900,000 derivatives contracts.[4] Due to the complexity of Lehman Brothers' corporate structure (the firm had 209 registered subsidiaries in twenty-one countries at the time),[5] some of the claims have yet to be fully settled and/or distributed.[6] The failure of Lehman Brothers was not an isolated incident, but instead a single event in an ongoing cascade of financial failures, which culminated in the 2007–2008 Financial Crisis (Financial Crisis) that sent devastating ripples throughout the U.S. and global economies.[7] Prior to recovery, the acute repercussions of the Financial Crisis included the loss of 5.5 million U.S. jobs, an overall loss of US$7.4 trillion in stock value, and the foreclosure of a half-million homes.[8]

When the dust settled, financial regulators determined that the derivatives market, specifically for over-the-counter (OTC) derivatives,[9] played a role in exacerbating the financial instability of Lehman Brothers and the worldwide economy as a whole.[10] Previously thought to be safe and resilient, the OTC market was almost completely unregulated up until the Financial Crisis.[11] However, as

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Courts, http://www.uscourts.gov/services-forms/bankruptcy/bankruptcy-basics/chapter-11-bankruptcy-basics (last visited July 23, 2017) [https://perma.cc/WK7T-C5AM].

4. Fleming & Sarkar, *supra* note 3, at 175. For an explanation of the basics of derivatives, see *infra* Section I.A.

5. Fleming & Sarkar, *supra* note 3, at 175.

6. *Lehman Brothers Holdings Inc., Distribution and Claims Information*, Epiq Systems, LLC., http://dm.epiq11.com/LBH/Project (last visited July 23, 2017) (hosting webpage responsible for consolidating and coordinating all pertinent information regarding Lehman Brothers Holdings Inc.'s (Lehman Brothers) bankruptcy) [https://perma.cc/EDH5-FKLP].

7. The 2007–2008 Financial Crisis is the economic collapse that resulted in a steep drop in value of global stock markets and assets of financial institutions. Such crises are often associated with investor panic and runs on banks to protect savings. *See Financial Crisis*, Investopedia, http://www.investopedia.com/terms/f/financial-crisis.asp (last visited July 23, 2017) [https://perma.cc/63EV-VBKB]; *see generally* Phillip Swagel, Pew Econ. Policy Grp. Fin. Reform Project, Briefing Paper No. 18, The Cost of the Financial Crisis: The Impact of the September 2008 Economic Collapse (2009) (discussing the costs and impacts of the Financial Crisis).

8. *See* Swagel, *supra* note 7, at 11, 14, 17.

9. For an explanation of over-the-counter (OTC) derivatives and the derivatives markets, see *infra* Section I.A.

10. *See* Darrell Duffie et al., Fed. Reserve Bank of N.Y., Staff Report No. 424, Policy Perspectives on OTC Derivatives Market Infrastructure 1 (2010).

11. *See* Steve Denning, *Lest We Forget: Why We Had a Financial Crisis*, Forbes (Nov. 22, 2011, 11:28 AM), http://www.forbes.com/sites/stevedenning/2011/11/22/5086/#71f0f0605b56 [https://perma.cc/2ZKE-SNVE]; *see also* Ron Hera, *Forget about Housing, the*

regulators began investigating what went wrong, they found the market to be "complex, opaque, and prone to abuse" by irresponsible participants, who, in the time leading up to the crisis, used it to take on disproportionate amounts of risk and leverage.[12]

Recognizing that action was necessary to safeguard the global economy from another meltdown, the world's top twenty economies, collectively known as the Group of 20 (G20),[13] have since held numerous conferences to discuss international economic policy at the highest levels to remedy the faults exposed by the Financial Crisis.[14] At the 2009 G20 Summit in Pittsburgh, the member states collectively issued a resolution known as a "Leaders' Statement" that reiterated the need for "improve[ment]" and regulation of the OTC derivatives market.[15] Despite this resolution, its progeny,[16] and the passage of legislation consistent with those resolutions,[17] implementation has been slow[18] and there are still "criti-

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Real Cause of the Crisis Was OTC Derivatives, BUS. INSIDER (May 11, 2010, 2:50 PM), http://www.businessinsider.com/bubble-derivatives-otc-2010-5 (discussing OTC derivatives in depth) [https://perma.cc/K5CT-4TDP].

12. DUFFIE ET AL., *supra* note 10, at 1. *See also* FIN. STABILITY OVERSIGHT COUNCIL, U.S. DEP'T OF THE TREASURY, 2015 ANNUAL REPORT 11 (2015) [hereinafter FSOC REPORT] ("[O]paque and highly interconnected derivatives markets played a significant role in exacerbating financial instability.").

13. *See* Jamil Mustafa, *What is the G20 and How Does it Work?*, TELEGRAPH (Sept. 3, 2016), http://www.telegraph.co.uk/business/0/what-is-the-g20-and-how-does-it-work/ [https://perma.cc/ZM34-VMBL].

14. *See id.*

15. *See* G20, 2009 PITTSBURGH SUMMIT, LEADERS' STATEMENT (2009) [hereinafter PITT LEADERS' STATEMENT].

16. *See Our History*, FIN. STABILITY BOARD, http://www.fsb.org/about/history (last visited July 23, 2017) (discussing history of the Financial Stability Board (FSB), G20's prior summits, and leaders' statements) [https://perma.cc/C5HZ-VBT4].

17. *See Wall Street Reform: The Dodd-Frank Act*, THE WHITE HOUSE, https://obamawhitehouse.archives.gov/economy/middle-class/dodd-frank-wall-street-reform (last visited July 23, 2016) (discussing the passage of the United States' Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank) in response to the Financial Crisis) [https://perma.cc/XH2B-5GH5]; *Derivatives/EMIR*, EUROPEAN COMM'N., http://ec.europa.eu/finance/financial-markets/derivatives/index_en.htm (last visited July 23, 2017) (discussing the passage of the European Union's European Market Infrastructure Regulation (EMIR) in response to the Financial Crisis and to "deliver the G20 commitments on OTC Derivatives agreed [upon at the summit]") [https://perma.cc/FJ3N-6L42].

18. *Compare Implementing the Dodd-Frank Wall Street Reform and Consumer Protection Act*, U.S. SEC. & EXCH. COMM'N., https://www.sec.gov/spotlight/dodd-frank.shtml (last modified Nov. 14, 2016) (noting finalization of sixty-seven rules by the U.S. Securities and Exchange Commission (SEC) pursuant to Dodd-Frank) [https://perma.cc/ES83-KHUM], *and Implementing Dodd-Frank Wall Street Reform and Consumer Protection Act*, U.S. SEC. & EXCH. COMM'N., https://www.sec.gov/spotlight/dodd-frank.shtml (last visited July 23, 2017) (explaining SEC is required to finalize over ninety rules) [https://perma.cc/KHQ8-FWPC, *with* DAVIS POLK & WARDWELL LLP, DODD-FRANK PROGRESS REPORT, FOURTH QUARTER 2015,

cal" issues within the regulatory structure.[19] Specifically, issues regarding cross-border trade reporting requirements and "multiple, duplicative, and potentially inconsistent rules" across jurisdictions have yet to be resolved.[20] These issues create massive systemic risk[21] due to the resulting lack of transparency, despite the expressed desire for transparency as a key goal at the 2009 G20 Summit[22] and later by the U.S. Financial Stability Oversight Committee (FSOC).[23] To aid in the advancement of the G20's resolutions, the Financial Stability Board (FSB) was established with the mandate to promote international financial stability through coordination of national and international regulatory standard-setters.[24] Though useful in directing policy, the FSB has no legally binding authority,[25] a fundamental challenge for international law[26] that leaves room for a better solution.

This Note proposes two specific initiatives to solve the problem of non-harmonized OTC derivative trade reporting requirements. The first initiative recommends that the G20, through the FSB, designate the International Swaps and Derivatives Association (ISDA) as the official regulatory organization for the global OTC derivatives markets, allowing ISDA the latitude to move for the repeal of laws that directly prevent the success of these initiatives. Under this regime, ISDA would also be able to require any eligible market

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at 5 (2015) (noting the U.S. Commodity Futures Trading Commission (CFTC) finalized fifty-one out of fifty-nine required rules pursuant to Dodd-Frank).

19. FSOC Report, *supra* note 12, at 7 ("Although regulators now collect significantly more data on financial markets and institutions, critical gaps remain in the scope and quality of available data. For example, regulators and market participants lack comprehensive data on repo and securities lending markets.").

20. Scott O'Malia, *Dodd-Frank: The Five-Year Appraisal*, ISDA derivatiViews (July 22, 2015), http://isda.derivativiews.org/2015/07/22/dodd-frank-the-five-year-appraisal [https://perma.cc/X73C-FKV6].

21. For an explanation of systemic risk, see *infra* Section I.B.

22. ISDA, Improving Regulatory Transparency of Global Derivatives Markets: Key Principles 1 (2015) [hereinafter Improving Transparency].

23. *See* FSOC Report, *supra* note 12, at 7 ("Promoting transparency in the [OTC] derivatives markets is a major priority for the Council and international regulators, given the market's role in the Financial Crisis, its decentralized nature, and evolving infrastructure.").

24. *See About the FSB,* Fin. Stability Bd., http://www.fsb.org/about/ (discussing FSB Mandate) [https://perma.cc/WST3-DPPU]. For further information regarding the FSB and its role, see *infra* Section I.C.2.

25. *See About the FSB, supra* note 24 (discussing the FSB's authority).

26. Anu Bradford & Omri Ben-Shahar, *Efficient Enforcement in International Law*, 12 Chi. J. Int'l L. 375, 375 (2012) ("Enforcement is a fundamental challenge for international law.").

participant[27] to become an ISDA member so the organization may institute new policies and levy sanctions for violations of current ones. The second initiative recommends that the ISDA Master Agreement (Master Agreement) be required when conducting OTC derivatives transactions. Further, the Master Agreement would be amended to create a universal document with the "lowest common denominator" of current trade reporting requirements (specifically identifiers and trade terms), to fill in the regulatory gaps that have not been delineated as of yet and to promote harmonization consistent with initiatives already put forward by ISDA and the Bank for International Settlements (BIS).[28]

Part I discusses the relevant background information required for this proposal, including the basics of the derivatives markets, their part in the Financial Crisis, the current regulatory scheme, and background on ISDA and its Master Agreement. Part II puts forth the specific proposal advocated by this Note, describes how its initiatives solve the current regulatory deficits, and presents counterarguments to the proposal. The Note's conclusion reiterates the sources of continuing systemic risk in the global OTC derivatives market, what is currently being done about the risk, and how this proposal would improve upon the current scheme.

For the reader's convenience, an Appendix is included at the end of this Note as a reference glossary to the inevitable "alphabet soup" of different organizations, statutes, regulations, and definitions used throughout.

I. Background

Part I introduces the requisite background to understand this proposal. Specifically, it ensures a basic understanding of: derivatives and their part in the Financial Crisis; the current regulatory scheme for the global derivatives market with regards to trade reporting requirements, and its fundamental issues; and ISDA and the Master Agreement.

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27. For the purposes of this Note, "eligible market participant" refers to any organization which trades in OTC derivatives on a regular and large enough basis to make use of the International Swaps and Derivatives Association (ISDA) Master Agreement (Master Agreement) practical. For more on this term, see *infra* Sections I.D.2–3.

28. For further information regarding the Bank for International Settlements (BIS) and its role, see *infra* Section I.C.2.

A. *Basics of Derivatives and the Derivatives Markets*

A derivative is a financial contract between two or more parties whose value is based upon a certain underlying asset or assets.[29] More specifically, the value of that contract is dependent upon fluctuations in the value of the underlying asset.[30] The most common underlying assets include, but are not limited to, stocks, commodities, currencies, and interest rates.[31] In practical terms, derivatives are primarily used either to hedge risk[32] or to profit through speculation of the future price of the underlying asset.[33] Derivatives can be bought, sold, or traded in two distinct ways, either on an exchange (exchange-traded) or over-the-counter (OTC).[34] Although derivatives may fall into either category, futures and options are the most popular exchange-traded variations, while swaps are traded almost exclusively OTC.[35] Exchange-traded derivatives are derivatives that trade on established and regulated public exchanges,[36] such as the Chicago Mercantile Exchange (CME)[37] and the EUREX.[38] Derivatives traded on

29. *Derivative*, Investopedia, http://www.investopedia.com/terms/d/derivative.asp (last visited July 23, 2017) [https://perma.cc/7PJX-T6GR].

30. *Id.*

31. *Id.*

32. Hedging, or to hedge risk, is analogous to taking out an insurance policy. Derivatives are investments that "reduce the risk of adverse price movements" of an underlying asset. Normally this includes taking an offsetting position against the asset the investor may take a loss on. For example, if a business knows it needs to sell a new car each month for the next twelve months for at least US$100 each to break even, but is worried the market price of a car will drop below this figure, it can "hedge" its investment by buying a derivative that gives it the ability to lock in a minimum price with another party who seeks to buy a car in the future. The tradeoff is that derivatives contracts require capital to enter into them. *See Hedge*, Investopedia, http://www.investopedia.com/terms/h/hedge.asp (last visited July 23, 2017) [https://perma.cc/AEN8-KHQB].

33. Investopedia, *Derivative*, *supra* note 29 (discussing speculation).

34. Richard Heckinger & David Mengle, Fed. Reserve Bank of Chi., Understanding Derivatives: Markets and Infrastructure 2–3 (2013); Kristina Zucchi, *Derivatives 101*, Investopedia, http://www.investopedia.com/articles/optioninvestor/10/derivatives-101.asp (last visited July 23, 2017) [https://perma.cc/ZS5Q-UEW9].

35. *Exchange Traded Derivative*, Investopedia, http://www.investopedia.com/terms/e/exchange-traded-derivative.asp (last visited July 23, 2017) [https://perma.cc/N6K6-M7GK]; *Swap*, Investopedia, http://www.investopedia.com/terms/s/swap.asp (last visited July 23, 2017) [https://perma.cc/P3X7-SU32].

36. Investopedia, *Exchange Traded Derivative*, *supra* note 35; *see also Exchange*, Investopedia, http://www.investopedia.com/terms/e/exchange.asp (last visited July 23, 2017) (explaining the basics of exchanges) [https://perma.cc/838A-DA4T].

37. *Chicago Mercantile Exchange*, Investopedia, http://www.investopedia.com/terms/c/cme.asp (last visited July 23, 2017) [https://perma.cc/L52F-9J5M].

38. *EUREX*, Investopedia, http://www.investopedia.com/terms/e/eurex.asp (last visited July 23, 2017) [https://perma.cc/KJ54-SSTV].

exchanges are highly standardized and centrally cleared, which facilitates liquidity[39] and greatly reduces counterparty credit risk.[40]

OTC derivatives, on the other hand, are customized derivatives contracts that are negotiated and executed between two parties, without the use of an intermediate counterparty.[41] Unlike the required standardization of exchange-traded derivatives, OTC contracts can be written to contain any custom terms the parties see fit.[42] This makes them highly valuable for large financial institutions who can tailor OTC contracts to hedge risk for very large and complex transactions that would otherwise be impractical to execute using exchange-traded contracts—which require smaller contract sizes and therefore notional[43] values for standardization purposes.[44] Should any term in a contract not meet the requirements of the exchange that the parties wish to trade on, the contract cannot be listed.[45]

The lack of an intermediary central counterparty to act as buyer and seller for both sides of the transaction creates two important distinctions that characterize OTC derivatives. First, OTC derivatives are subject to significant counterparty credit risk due to direct exposure—financial parlance for dealing with another party directly as opposed to through an intermediary.[46] This means that should one of the parties fail to pay out—whether due to insolvency or maliciousness—the other party has little recourse except to take the loss; if an intermediary is utilized, the intermediary would take the loss.[47] Second, pre-Financial Crisis legislation regarding derivatives left the market largely unregulated,[48]

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39. Liquidity, in reference to the stock market, "refers to the extent to which a market . . . allows assets to be bought and sold at stable prices." As an example, cash is the most liquid asset, but the market for rare art is illiquid as it cannot easily or readily be bought and sold. *Liquidity*, INVESTOPEDIA, http://www.investopedia.com/terms/l/liquidity.asp (last visited July 23, 2017) [https://perma.cc/XL4C-Z4NC].

40. Counterparty credit risk is the risk that one party to the agreement will not live up to the obligations it agreed to pay. *Counterparty Risk*, INVESTOPEDIA, http://www.investopedia.com/terms/c/counterpartyrisk.asp (last visited July 23, 2017) [https://perma.cc/JNB7-NR47]. For an extended discussion regarding exchange-traded derivatives, *see* HECKINGER & MENGLE, *supra* note 34, at 2.

41. *See* HECKINGER & MENGLE, *supra* note 34, at 3.

42. *See* ISDA, TREASURY'S PROPOSAL MANDATING CLEARING OF "STANDARDIZED" SWAPS 2–3 (2009) [hereinafter TREASURY PROPOSAL].

43. For an explanation of notional value, see *infra* note 60.

44. *See* INVESTOPEDIA, *Exchange Traded Derivative*, *supra* note 35.

45. *See* TREASURY PROPOSAL, *supra* note 42, at 1–2.

46. *See* HECKINGER & MENGLE, *supra* note 34, at 3.

47. *See id.*

48. *See* Denning, *supra* note 11 (discussing lack of regulation of OTC derivatives markets prior to the Financial Crisis); Hera, *supra* note 11 (same).

allowing derivatives to be traded without the requirement to report the contract to regulators, which central counterparties are required to do.[49] Regardless of the presence of an intermediary, OTC derivatives originally had no explicit reporting requirement, in some cases being prohibited by law.[50] These distinctions add to the overall systemic risk within the financial markets by perpetuating issues of reporting and liquidity that certain exchange-traded features mitigate.[51]

To consider the concept of OTC derivatives more readily, consider the following example of a swap, one of the most common types of financial derivatives, and the most relevant for the purposes of this Note.[52] In addition to different types of derivatives,[53] OTC derivatives can be broken down into five separate classes: commodity, credit, equity, foreign exchange (FX), and interest rate derivatives.[54] A swap involves two parties exchanging, or swapping, financial instruments, typically those involving cash flows.[55] The following simple example illustrates how swaps work.

Suppose that Adam owns a bond that will pay him US$5 each month for the next year, and Marissa owns a bond which will pay her anywhere from US$1 to US$10 each month for the next year, depending on the change in a specific interest rate.[56] If the interest rate goes up for the month, Marissa could receive up to US$10, but if it goes down, Marissa could receive only US$1. Adam is not too worried about consistency in cash flows, has a hunch that the interest rate will only increase each month, and is looking for a way to profit from that hunch. On the other hand, Marissa is very worried about consistency; she needs to pay off her student loans and

49. *See* Basel Committee on Banking Supervision, Bank for International Settlements, Margin Requirements For Non-Centrally Cleared Derivatives 2 (2015) (discussing reporting requirements); *see Derivatives*, U.S. Sec. & Exch. Comm'n., https://www.sec.gov/spotlight/dodd-frank/derivatives.shtml (last visited July 23, 2017) [https://perma.cc/AMX3-VG3K].

50. *See id.*

51. Heckinger & Mengle, *supra* note 34, at 2. For further discussion regarding current regulation of OTC derivative markets, *see infra* Subsections I.C.1–3.

52. *See* Investopedia, *Derivative*, *supra* note 29 (discussing swaps). *See also infra* Section I.B for discussion on swaps and the Financial Crisis.

53. *See* Investopedia, *Derivative*, *supra* note 29 (discussing other types of derivatives including options, forwards, and futures).

54. *See* Fin. Stability Bd., Ninth Progress Report on Implementation of OTC Derivatives Market Reforms 6 tbl.3 (2015) [hereinafter Ninth Progress].

55. Investopedia, *Swap*, *supra* note 35.

56. Typically, floating rate bonds are tied to metrics such as the London Interbank Offered Rates (LIBOR) and the U.S. Treasury Bill rate. *See Floating-Rate Note – FRN,* Investopedia, http://www.investopedia.com/terms/f/frn.asp (last visited July 23, 2017) [https://perma.cc/28B6-UMMT].

has a bad feeling about the stock market for the next few months. To solve both of their issues, Adam and Marissa would enter into a swap wherein they would trade their cash flows for the next year until their respective bonds expire.

Adam is happy because he thinks that he will be rolling in Hamiltons[57] in a year, and Marissa is happy because she no longer worries about how she will pay off her loans. The value of this swap is readily calculable and dependent on who gets more income at a given time.[58] Specifically, if the stock market goes up each month, Adam should receive more income, giving his side of the swap a positive value; however, if the stock market goes down each month, Marissa should receive more income, giving her side of the swap a positive value. Since Adam and Marissa entered into their swap contract directly, it would be classified as an OTC derivative. These types of OTC, interest rate, derivatives transactions occur thousands of times each day,[59] and as of 2013, the notional[60] average daily turnover was US$2.3 trillion.[61] With a foundation of derivatives established, the next Section demonstrates how they factored into the Financial Crisis and thus required regulation.

B. *The Role of Derivatives in the Financial Crisis*

"Systemic risk" is a phrase that has become nearly synonymous with the Financial Crisis. It has been mentioned in myriad legislation, regulations, reports, and news articles, as well as by world

57. "Hamiltons" is a colloquial reference to Alexander Hamilton, the First U.S. Secretary of the Treasury prominently featured on the US$10 Bill. *Currency Notes*, U.S. BUREAU OF ENGRAVING AND PRINTING, http://www.bep.gov/images/Currency_notes_508.pdf (last visited July 23, 2017) [https://perma.cc/93HM-2X75].

58. *See How to Value Interest Rate Swaps*, INVESTOPEDIA, http://www.investopedia.com/articles/active-trading/111414/how-value-interest-rate-swaps.asp (last visited July 23, 2017) [https://perma.cc/5Q3S-5CAS].

59. *See* MICHAEL FLEMING ET AL., FED. RESERVE BANK OF N.Y., STAFF REPORT NO. 557, AN ANALYSIS OF OTC INTEREST RATE DERIVATIVES TRANSACTIONS: IMPLICATIONS FOR PUBLIC REPORTING 3–7 tbl.1 (2012).

60. The notional value is the total value of the underlying asset upon which the derivative is based, not the value of what is actually being exchanged, which is typically much less. Considering the example of Adam and Marissa, the notional amount would be the price of the bonds and the market value would be based on the amount actually changing hands. *See* Steven Nickolas, *What Is the Difference Between Notional Value and Market Value?*, INVESTOPEDIA (May 6, 2015, 12:11 PM), http://www.investopedia.com/ask/answers/050615/what-difference-between-notional-value-and-market-value.asp [https://perma.cc/YJ5F-K2BY]; *Notional Principal Amount*, INVESTOPEDIA, http://www.investopedia.com/terms/n/notionalprincipalamount.asp (last visited July 23, 2017) [https://perma.cc/GV9V-U48Z].

61. *See* BIS, TRIENNIAL OTC DERIVATIVES STATISTICS TBL. D12.1, SINGLE CURRENCY INTEREST RATE DERIVATIVES [TURNOVER] APRIL 2013 (2015).

leaders.[62] Understanding what this phrase means is paramount to comprehending why the Financial Crisis occurred, how OTC derivatives were implicated, and the aims of this Note's proposal. A report by the BIS defines systemic risk as follows:

> "Systemic risk" was defined by the [Group of 10 (G10)] in 2001 as "the risk that an event will trigger a loss of economic value or confidence in, and attendant increases in uncertainty about, a substantial portion of the financial system that is serious enough to quite probably have significant adverse effects on the real economy." In other words, it is a risk that may impair financial stability.[63]

The OTC derivatives market meets many of the stipulations as put forth by the G10. Further, international public authorities, such as the G20,[64] and independent authors published by the International Monetary Fund (IMF)[65] have issued reports that stand by the BIS' characterization, as well as calling for action to mitigate that systemic risk. Despite the current recognition of the dangers of a complex and opaque OTC derivatives market, those dangers were not always so apparent, as evidenced by previous calls to keep the OTC derivatives market deregulated.[66]

The push to regulate the OTC derivatives markets came about on the heels of the Financial Crisis when it was determined that

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62. *See, e.g.,* Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010) (legislation); Commission Regulation 648/2012 of July 4, 2012, Regulations on OTC Derivatives, Central Counterparties and Trade Repositories, 2012 O.J. (L201/1) (regulation); Comm. on Payment and Settlement Sys., Bank for Int'l Settlements, Pub. d100, Report on OTC Derivatives Data Reporting and Aggregation Requirements 1 (2012) [hereinafter BIS Pub. d100] (report); Pitt Leaders' Statement, *supra* note 15 (world leaders' statement); Ninth Progress, *supra* note 54 (report); Denning, *supra* note 11 (news article); Howard Schneider, Fed's Powell Says Current U.S. Housing Finance System 'Unsustainable', CNBC (Jul. 6, 2017), http://www.cnbc.com/2017/07/06/reuters-america-feds-powell-says-current-u-s-housing-finance-system-unsustainable.html [https://perma.cc/9CF5-MJ4Y].

63. BIS Pub. d100, *supra* note 62, at 8 § 3.1.1.1. Note that the Group of 10 (G10) is a separate organization from the G20, though with similar mandate and makeup. *Group of Ten*, Investopedia, http://www.investopedia.com/terms/g/groupoften.asp (last visited July 23, 2017) [https://perma.cc/D8PZ-BK93].

64. *See* Pitt Leaders' Statement, *supra* note 15, at 9.

65. "Created in 1945 . . . the International Monetary Fund (IMF) is an organization of 189 countries, working to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty around the world." *About the IMF*, IMF, https://www.imf.org/external/about.htm (last visited July 23, 2017) [https://perma.cc/C7XQ-Y2HF]; *see* Sheri M. Markose, *Systemic Risk from Global Financial Derivatives: A Network Analysis of Contagion and Its Mitigation with Super-Spreader Tax,* IMF WP/12/282, 4 (2012) (discussing correlation between OTC derivative concentration and systemic risk).

66. *See* Denning, *supra* note 11 (discussing lack of regulation of OTC derivatives markets prior to the Financial Crisis); Hera, *supra* note 11 (same).

derivatives were to "receive[ ] a significant share of blame."[67] Just as derivatives are financial products that rely on an underlying asset,[68] it was the underlying bubble in the U.S. housing market that implicated derivatives when it burst.[69] Derivatives became a part of the equation when financial institutions used derivatives to speculate on the housing market and then attempted to multiply the institutions' profits—quite successfully for a time—by repackaging those investments and increasing the institutions' leverage.[70] More specifically, the banks used financial derivatives such as collateralized debt obligations (CDOs)[71] based on risky and unsellable

67. *See* Sean J. Griffith, *Substituted Compliance and Systemic Risk: How to Make a Global Market in Derivatives Regulation*, 98 MINN. L. REV. 1291, 1304 (2014); Hera, *supra* note 11 (discussing lack of regulation of OTC derivatives markets prior to the Financial Crisis); *Over-the-Counter Derivatives*, FED. RESERVE BANK OF N.Y., https://www.newyorkfed.org/financial-services-and-infrastructure/financial-market-infrastructure-and-reform/over-the-counter-derivatives/index.html (last visited July 23, 2017) [hereinafter OTC FED. N.Y.] [https://perma.cc/VM4H-PJ92].

68. *See* INVESTOPEDIA, *Derivative*, *supra* note 29 (discussing basics of derivatives).

69. *See* Griffith, *supra* note 67, at 1304; THE FINANCIAL CRISIS INQUIRY REPORT, FIN. CRISIS INQUIRY COMM'N, Page xxv (2011), http://fcic-static.law.stanford.edu/cdn_media/fcic-reports/fcic_final_report_full.pdf [hereinafter FCIC REPORT] [https://perma.cc/D8R2-2Y7A]. In an abridged and simplified explanation, the U.S. housing bubble developed through a combination of continually slashed interest rates (leading to cheaper, easier credit) and the growth of subprime mortgage lending. This led to a supply of easy money and incentives for people to purchase homes they could not afford. *See* FCIC REPORT at 83–88. A subprime loan is a loan that is offered at a higher interest rate to individuals who would be turned away from a typical lender because of bad credit history or lack of assets. *See Subprime Mortgage*, INVESTOPEDIA, http://www.investopedia.com/terms/s/subprime_mortgage.asp (last visited July 23, 2017) [https://perma.cc/PBG7-3VUL].

70. "Leverage is the use of various financial instruments . . . to increase the potential return of an investment." *Leverage*, INVESTOPEDIA, http://www.investopedia.com/terms/l/leverage.asp (last visited July 23, 2017) [https://perma.cc/BS7W-U3KK]. Utilizing leverage allowed certain investment banks (e.g., Goldman Sachs and Lehman Brothers) to multiply their bets, and therefore their profits, on these investments. *See* Griffith, *supra* note 67, at 1304–06; Manoj Singh, *The 2007-2008 Financial Crisis In Review*, INVESTOPEDIA (Feb. 05, 2016), http://www.investopedia.com/articles/economics/09/financial-crisis-review.asp [https://perma.cc/GBD4-ER45].

71. A collateralized debt obligation (CDO) is a financial product that "pools together cash flow-generating assets and repackages this asset pool into discrete tranches that can be sold to investors." *Collateralized Debt Obligation*, INVESTOPEDIA, http://www.investopedia.com/terms/c/cdo.asp (last visited July 23, 2017) [https://perma.cc/9WJH-D6X5]. Put more simply, a CDO is analogous to a landlord with rental income from six different tenants, who pools all of the rights to collect the rent from those tenants into one package and divides it into two smaller packages—one with three tenants who will most likely pay their rent, and the other with the remaining tenants who may or may not pay their rent. The landlord would then sell those two small packages to his friends for a price that depends on how much money the landlord was likely to collect over the terms of the leases, plus or minus an amount based on how likely the tenants would be to pay. A tranche is a piece of a larger unit such as an asset pool or investment. *Tranche*, MERRIAM-WEBSTER.COM, http://www.merriam-webster.com/dictionary/tranche (last visited July 23,

mortgage-backed securities (MBSs),[72] and credit default swaps (CDSs)[73] based on those CDOs.[74] Knowing the high demand of MBSs, mortgage lenders and originators had an incentive to issue any mortgages they could—many subprime[75]—because the investment banks and securitization firms routinely bought risky loans,[76] absolving the lender of responsibility should the loan fail.[77]

To make matters worse, many MBSs were awarded triple-A ratings by credit rating agencies, most notably Moody's and S&P, indicating they were of the highest quality and safety.[78] Once the banks obtained the mortgages, securitized them into MBSs, and sold them to investors, they would collateralize what they could not sell—typically the lower-rated, non-triple-A MBSs—into CDOs, separate them into tranches, and sell them.[79] These newly packaged

2017) [https://perma.cc/7MUN-PF9M]. In relation to the Financial Crisis, the assets pooled together would be mortgage-backed securities (MBSs). *See* FCIC Report, *supra* note 69, at 8.

72. A MBS is a security whose value is based on that of a specific asset, in this case a mortgage. Put more simply, it is a financial product in which the periodic payments that a mortgager would normally pay to the mortgage issuer would instead go to the owner of the MBS, who purchased the MBS from the original mortgage lender. Instead of just one mortgage, however, MBSs are made up of thousands of mortgages the bank wishes to get off of its books, repackaged and sold together in a single bond. *Mortgage-Backed Security*, Investopedia, http://www.investopedia.com/terms/m/mbs.asp (last visited July 23, 2017) [https://perma.cc/PYM6-5EQY].

73. A credit default swap (CDS) is a swap "designed to transfer the credit exposure of fixed income products between two or more parties . . . . [I]n the event the debt issuer defaults or experiences another credit event, the seller will pay the buyer the security's premium as well as all interest payments that would have been paid . . . ." Put more simply, these are deals where a mortgage lender would pay an insurance company a premium every month and in the event that the borrower of the mortgage stopped paying, i.e., defaulted, the insurance company would pay the mortgage lender the balance of what they would have received on the mortgage. *Credit Default Swap*, Investopedia, http://www.investopedia.com/terms/c/creditdefaultswap.asp (last visited July 23, 2017) [https://perma.cc/U6VZ-VSM5].

74. *See* Griffith, *supra* note 67, at 1304–06; FCIC Report, *supra* note 69, at 8, 127–29 (discussing the use of MBSs, CDOs, CDSs, and the use of poorly rated and difficult to sell MBSs in CDOs).

75. Prior to the Financial Crisis "NINJA" loans—subprime loans to borrowers who had "No Income, No Job, and No Assets"—became popular. *NINJA Loan*, Investopedia, http://www.investopedia.com/terms/n/ninja-loan.asp (last visited July 23, 2017) [https://perma.cc/E5G9-DTGB]; *see* Singh, *supra* note 70 (discussing NINJA loans and how they were used by banks to prey on borrowers who wanted to own a home).

76. *See* FCIC Report, *supra* note 69, at 117.

77. *See id.* at xxiii-xxiv.

78. *See id.* at 8; *AAA*, Investopedia, http://www.investopedia.com/terms/a/aaa.asp (last visited July 23, 2017) [https://perma.cc/GRW3-ZB4Z]. The MBSs received triple-A ratings though various mathematical algorithms were later determined to be flawed. *See generally* FCIC Report, *supra* note 69, at 118-22.

79. *See* Griffith, *supra* note 67, at 1304–07; Hera, *supra* note 11; Singh, *supra* note 70; FCIC Report, *supra* note 69, at 127–29.

CDOs could achieve a triple-A quality rating because the firms selling them were able to convince the ratings agencies that if they pooled enough lower-rated bonds together, their diversity would ensure quality and payment from borrowers.[80] Lastly, to protect against losses, or in response to speculation that the housing market would decline,[81] companies such as insurance giant AIG began to issue CDSs based off of the CDOs to investors, ensuring that should the underlying asset—the CDO and by extension the MBS and mortgage—fail to pay out, the insurance company would cover the loss.[82]

Ultimately, these subprime mortgages were the basis of various levels of financial derivative products which, due to the increasing levels of buyers and sellers, became opaque and rendered nearly all participants—rating agencies, banks, insurance companies, investors, and so forth—unable to determine the appropriate amount of risk associated with the derivatives.[83] Even the credit rating agencies responsible for vetting the "quality and safety" of the financial products would give these subprime-based products a "coveted" triple-A rating.[84]

In the time leading up to the crisis, Lehman Brothers issued more MBSs than any other firm, resulting in an US$85 billion portfolio, which equated to about "four times its shareholders' equity."[85] When the mortgages failed to pay, it was Lehman Brothers who took a huge hit and began to fail,[86] also leading to a "[sixty-six percent] spike in [CDSs] on the company's debt."[87] In the end, the financial burden became too much for Lehman Brothers to handle, resulting in the bank's failure.[88] The bank's failure not

80. *See* FCIC REPORT, *supra* note 69, at 127–29.

81. *See id.* at 50; *see generally* THE BIG SHORT (Plan B Entertainment & Regency Enterprises 2015), *supra* note 1 (movie plot where investment bankers speculated on the housing market by purchasing CDOs).

82. *See* Griffith, *supra* note 67, at 1307; FCIC REPORT, *supra* note 69, at 139–142.

83. *See* Griffith, *supra* note 67, at 1304–07; FCIC REPORT, *supra* note 69, at 267; OTC FED. N.Y., *supra* note 67.

84. FCIC REPORT, *supra* note 69, at 8.

85. *Case Study: The Collapse of Lehman Brothers*, INVESTOPEDIA, http://www.investopedia.com/articles/economics/09/lehman-brothers-collapse.asp (last visited July 23, 2017) [hereinafter LEHMAN COLLAPSE INVEST] [https://perma.cc/GL53-ZM8Z]. Shareholders' equity represents the amount by which a company is financed through investments in a company and what the company accumulates as savings as it operates. *Shareholders' Equity*, INVESTOPEDIA, http://www.investopedia.com/terms/s/shareholderse-quity.asp (last visited July 23, 2017) [https://perma.cc/JC43-9JY8].

86. LEHMAN COLLAPSE INVEST, *supra* note 85.

87. *Id.*

88. *See id.*

only affected all of the counterparties to its OTC derivatives transactions[89] but also ultimately caused the Financial Crisis to reach "cataclysmic proportions."[90]

C. *The Post-Financial Crisis Regulatory Scheme*

This Section discusses the regulatory scheme that developed in the aftermath of the Financial Crisis. Specifically, it discusses the international community's attempt at a unified front in response to the Financial Crisis, the FSB, the BIS, and the current regulatory scheme.

1. International Camaraderie

As the Financial Crisis was in full swing, the world's leading economic powers met the challenge of regulatory reform with vigor.[91] Beginning in April of 2009, the heads of governments of the G20,[92] with their top financial ministers or central bank governors, convened in London to discuss a "global solution" for the crisis, which was then only barely starting to abate.[93] At the London summit,

89. *Id.*

90. FCIC Report, *supra* note 69, at 343.

91. For a discussion on the regulatory action taken by world economic powers, see *infra* Section I.C.

92. *See* Colin Bradford & Johannes Linn, *The April 2009 London G-20 Summit in Retrospect*, Brookings Institution (Apr. 5, 2010), https://www.brookings.edu/opinions/the-april-2009-london-g-20-summit-in-retrospect/ [https://perma.cc/GTJ2-HE39]; *see also* Mustafa, *supra* note 13 (providing a full list of G20 countries, which includes Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the United Kingdom, the United States, and the European Union).

93. *10 Year Chart of S&P 500*, Yahoo Fin., http://finance.yahoo.com/echarts?s=%5EGSPC+Interactive#{"range":"10y","allowChartStacking":true} (last visited July 23, 2017) (ten-year graph of S&P 500 showing market closes of 735.09 on February 1, 2009, and 919.14 on April 30, 2009, a gradual increase from the February marker) [https://perma.cc/2492-V3SZ]; *10 Year Chart of FTSE 100*, Yahoo Fin., http://finance.yahoo.com/echarts?s=%5EFTSE+Interactive#{"range":"10y","allowChartStacking":true} (last visited July 23, 2017) (ten-year graph of the FTSE 100, one of London's major stock exchanges, showing market closes of 3830.10 on February 1, 2009, and 4417.90 on April 30, 2009, a gradual increase from the February marker) [https://perma.cc/S5TN-VNVJ]; *10 Year Chart of Nikkei 225*, Yahoo Fin., https://finance.yahoo.com/echarts?s=%5EN225+Interactive#{"range":"10y","allowChartStacking":true} (last visited Mar. 19, 2016) (ten-year graph of the Nikkei 225, Japan's stock market index for the Tokyo stock exchange, showing market closes of 7568.42 on February 1, 2009, and 9522.50 on May 1, 2009, a gradual increase from the February marker) [https://perma.cc/8FPU-B3UV]; G20, 2009 London Summit, Leaders' Statement (2009) [hereinafter London Statement] (showing timeline of G20 summits, specifically that the first meeting of the G20 during the Financial Crisis was in Washington, D.C., in November 2008; however, focused coordination in attacking financial issues began to start substantively at the April 2009 summit); Telegraph Staff, *supra* note 92 (noting that the first summit of the G20 was actually in

the G20 issued a declaration and all parties resolved that they would work towards strengthening financial regulation and supervision.[94] The most crucial action was to establish the new FSB as a successor to the Financial Stability Forum.[95] The summit's participants also laid out broad policy initiatives to ensure strong domestic regulation, consistency, and cooperation between economies; promotion of transparency; and protection against systemic risk.[96] In September of that same year, the G20 reconvened in Pittsburgh for another summit, this time laying out specific policy initiatives sourced from the broader goals of the London summit.[97] The pertinent policy initiatives resolved by the group were related to the improvement of the OTC derivatives market, specifically laid out at the summit's conclusion as follows:

> *Improving over-the-counter derivatives markets*: All standardized OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end- 2012 at the latest. *OTC derivative contracts should be reported to trade repositories.* Non-centrally cleared contracts should be subject to higher capital requirements. *We ask the FSB and its relevant members to assess regularly implementation and whether it is sufficient to improve transparency in the derivatives markets, mitigate systemic risk*, and protect against market abuse.[98]

Additionally, the Pittsburgh summit's statement endorsed the FSB's objectives, mandate, and structure.[99]

2. The Financial Stability Board and Bank for International Settlements

As envisioned and established by the G20, the FSB's mandate is to promote international financial stability through coordination of "national financial authorities and international standard-setting bodies" in developing strong, coherent regulatory frameworks.[100] The FSB accomplishes that mandate by the actions of three standing committees that identify systemic risk in the financial markets,

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Berlin in December 1999, although at that time the group was still called the Financial Stability Forum).

94. *See* London Statement, *supra* note 93 §§ 13–16.
95. *See* FSB, *Our History*, *supra* note 16 (discussing origins of the FSB).
96. *See* London Statement, *supra* note 93 §§ 13–16.
97. Pitt Leaders' Statement, *supra* note 15.
98. *Id.* at 9 (emphasis added).
99. *See* FSB, *Our History*, *supra* note 16.
100. FSB, *About the FSB*, *supra* note 24.

frame policy to address those risks, and oversee the implementation of those policies, respectively.[101]

The BIS is the world's oldest financial institution and currently hosts the FSB.[102] The BIS's mission is to "serve central banks in their pursuit of monetary and financial stability, to foster international cooperation in those areas and to act as a bank for central banks."[103] Sixty central banks make up BIS's membership, including the Board of Governors of the Federal Reserve System,[104] the European Central Bank, and the central banks of any FSB member jurisdiction.[105] Together, the Bank's member institutions account for about ninety-five percent of world GDP.[106] All FSB members are required to pursue the maintenance of financial stability, maintain transparency within their financial sectors, implement the international financial standards as put forth by the FSB, and submit to periodic peer review.[107] In promoting consistency with international financial standards, the FSB hopes to foster what it describes as "a race to the top,"[108] a relatively idealistic concept that would eliminate regulatory arbitrage[109] in the markets by focusing not on attracting market participants, but instead on higher standards of regulation. Should one member falter in its resolve to uphold the FSB's mandate, however, the concern becomes that

101. *See id.* (the three committees are the Standing Committee on Assessment of Vulnerabilities, the Standing Committee on Supervisory and Regulatory Cooperation, and the Standing Committee on Standards Implementation).

102. *About BIS*, BIS, http://www.bis.org/about/index.htm (last visited July 23, 2017) (stating the BIS was established on May 17, 1930) [https://perma.cc/F3LK-VALK]; *BIS-hosted Organizations*, BIS, http://www.bis.org/about/comsecr.htm (last visited July 23, 2017) (explaining that the BIS hosts the FSB) [https://perma.cc/C49F-MW8U].

103. BIS, *About BIS*, *supra* note 102 (organization's mission).

104. *BIS Member Central Banks*, BIS, http://www.bis.org/about/member_cb.htm (last visited July 23, 2017) [https://perma.cc/JY59-KZ7Z]; *About the Fed*, Bd. of Governors of The Fed. Reserve Sys., https://www.federalreserve.gov/aboutthefed.htm (last updated May 5, 2017) (noting the Federal Reserve System is the central bank for the United States) [https://perma.cc/UD3V-PZ6L].

105. Notable members of BIS include the U.S. Federal Reserve System and the Banks of Canada, England, Greece, Israel, Italy, Japan, Korea, and the People's Bank of China, Deutsche Bundesbank, and the Central Bank of the Russian Federation, to name a few. BIS, *BIS Member Central Banks*, *supra* note 104.

106. BIS, *About BIS*, *supra* note 102.

107. *See* FSB, *About the FSB*, *supra* note 24 (stating FSB member responsibilities).

108. *What We Do*, FSB, http://www.fsb.org/what-we-do/ (last visited July 23, 2017) [https://perma.cc/V4TV-ZBQH].

109. "Regulatory arbitrage occurs when competitors locate their activities in those jurisdictions that offer the most attractive set of regulations." Christian Johnson, *Regulatory Arbitrage, Extraterritorial Jurisdiction, and Dodd-Frank: The Implications of US Global OTC Derivative Regulation*, 14 Nev. L.J. 542, 562 (2014) (quoting Jonathan R. Macey, *Regulatory Globalization as a Response to Regulatory Competition*, 51 Emory L.J. 1353, 1362 (2003)).

participants in the OTC derivatives market will stop transacting in a jurisdiction in which they face stiffer regulatory requirements in favor of transacting in a less regulated and less arduous environment.[110]

Despite the strong rhetoric put forth by the sovereign leaders of the economic world via the FSB's mandates and policies, the organization's decisions are not legally binding on its members.[111] Instead, the board utilizes "moral suasion and peer pressure" to elicit compliance.[112] Though this strategy appeals to the desire for sovereigns to "lead by example," the lack of bite that the organization has in enforcing its will is a fundamental, yet typical, challenge for most international law,[113] and has already caused issues within the regulatory scheme.[114]

3. Regulatory Action to Date

Though the OTC derivatives markets span at least the nineteen FSB member jurisdictions,[115] they are primarily concentrated in New York and London.[116] It is thus fitting that the most important regulatory reforms were undertaken in those jurisdictions.[117] The United States passed the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank)[118] in 2010, and the European Union passed the European Market Infrastructure Regulation (EMIR)[119] in 2012. Both pieces of legislation directly address the OTC markets—Dodd-Frank in Title VII, appropriately titled "Wall Street Transparency and Accountability," and EMIR as a whole.[120]

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110. *See id.* at 565.

111. *See* FSB, *About the FSB*, *supra* note 24.

112. *Id.*

113. *See* Bradford & Shahar, *supra* note 26, at 375.

114. For a discussion on current issues in the regulatory scheme, *see infra* Subsection I.C.3.

115. *See* NINTH PROGRESS, *supra* note 54, at 3 tbl.1.

116. Colleen M. Baker, *Regulating the Invisible: The Case of Over-the-Counter Derivatives,* 85 NOTRE DAME L. REV. 1287, 1301 (2010).

117. Although the United Kingdom is considered its own FSB jurisdiction, see *id.*, it is also within the realm of the European Union's market regulation which has a wider effect and provides a more global analysis. For the purposes of this Note, the regulatory schemes discussed are the United States' and European Union's. *Countries in the EU and EEA*, GOV.UK, https://www.gov.uk/eu-eea (last visited July 23, 2017) (showing list of E.U. members) [https://perma.cc/F5VA-DT2K]; *FSB Members*, FIN. STABILITY BD., http://www.fsb.org/about/fsb-members/ (last visited July 23, 2017) [https://perma.cc/4MZX-MTGT].

118. THE WHITE HOUSE, supra note 17 (discussing Dodd-Frank).

119. EUROPEAN COMM'N., *Derivatives/EMIR*, *supra* note 17 (discussing EMIR).

120. *See* Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 727, 124 Stat. 1376 (2010). Although EMIR is only one piece of legislation, it is

More specifically, the regulations set out requirements for their respective federal regulators to promulgate rules regarding the reporting of OTC derivative trades to trade repositories (TRs), including what must be reported.[121] In the United States, the federal regulators charged with oversight and administration of the OTC derivatives markets are the U.S. Securities and Exchange Commission (SEC) and the U.S. Commodity Futures Trading Commission (CFTC),[122] jointly under Dodd-Frank; and in the European Union, it is the European Securities and Markets Authority (ESMA) under EMIR.[123]

Central to much of the legislation after the Financial Crisis,[124] TRs were, and still are, viewed as a vital tool to reducing global systemic risk posed by OTC derivatives.[125] A TR[126] is an entity that maintains a centralized electronic database for OTC derivatives transactions.[127] The lack of transparency and high convolution in the OTC markets led to an inadequate flow of trade information and allowed massive systemic risk to perpetuate in those markets

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in actuality a piece of a larger slate of E.U. financial reforms that address numerous issues, including: hedge funds and private equity (Alternative Investment Fund Managers Directive–AIFMD); prudential requirements (Capital Requirements Directive–CRD IV/CRR); securities markets frameworks (Markets in Financial Instruments Directive/Reform–MIFID/R); market abuse prevention (Market Abuse Directive/Reform–MAD/R); and bank resolution (i.e., bankruptcy), (Bank Recovery and Resolution Directive–BRRD). *Progress of Financial Reforms*, European Comm'n (Mar. 8, 2016), https://ec.europa.eu/info/business-economy-euro/banking-and-finance/financial-reforms-and-their-progress/progress-financial-reforms_en [https://perma.cc/P6DA-WHQE].

121. *See* Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 727, 124 Stat. 1376 (2010) (codification of requirement to report OTC data); Commission Regulation 648/2012 of July 4, 2012, Regulations on OTC Derivatives, Central Counterparties and Trade Repositories, 2012 O.J. (L201/1) 9, 81 (articles stipulating Reporting Obligations and Transparency & Data Availability, respectively).

122. *See Derivatives: Background*, U.S. Sec. & Exch. Comm'n. (May 4, 2015), https://www.sec.gov/spotlight/dodd-frank/derivatives.shtml (discussing the split of regulatory authority for swaps between the SEC and CFTC) [https://perma.cc/XCB6-RVMC].

123. European Comm'n., *Derivatives/EMIR*, *supra* note 17 (discussing European Securities and Markets Authority (ESMA) as financial regulator under EMIR).

124. *See Data Repositories*, U.S. Commodity Trading Futures Comm'n., http://www.cftc.gov/IndustryOversight/DataRepositories/index.htm (last visited July 23, 2017) [https://perma.cc/X4T5-DQS5]; European Comm'n., *Derivatives/EMIR*, *supra* note 17 (discussing EMIR).

125. *See* BIS Pub. d100, *supra* note 62, at 2 ("Executive Summary").

126. A trade repository (TR) is also known as a swap data repository (SDR) under Dodd-Frank. A SDR is generally understood to serve the same function as a normal TR, and for the purposes of this Note, these are indistinguishable and used interchangeably. *See id.* § 727 (discussing requirement to report swaps); *Trade Repository Regulation and Framework*, Glob. Mkt. Sols., http://www.globms.com/wp/wp-content/uploads/2015/03/TradeRepository_Clearing_GMSpaper.pdf (last visited May 5, 2017) ("A trade repository [is] sometimes referred to as a Swap Data Repository.") [https://perma.cc/Q869-VE73].

127. BIS Pub. d100, *supra* note 62, at 2 ("Executive Summary").

prior to the Financial Crisis.[128] Additionally, that opacity is widely seen as exacerbating the financial stress that was applied to certain financial institutions, causing behemoths such as Bear Sterns and AIG to falter, and Lehman Brothers to collapse.[129]

TRs combat market opacity by enabling the pertinent global regulatory authorities to access an adequate amount of accurate information concerning OTC derivatives transactions in any relevant jurisdiction, from inception and throughout the contract's life, via "the collection, storage, and dissemination of data" from their jurisdictions.[130] This flow of information is a necessity to allow those regulators to develop a full picture of derivatives concentration and risk in the markets and, during times of enhanced financial stress, to develop appropriate policy responses to address that risk.[131]

As of July 2015, there are four authorized and operating TRs for and in the United States,[132] with three capable of reporting on all five classes of OTC derivatives; there are six authorized and operating TRs for and in the European Union,[133] all of which are capable of reporting in all five classes of OTC derivatives.[134] The estimated regulatory coverage of these reporting requirements and of the TRs within the United States and the European Union, measured as a percentage of all new transactions required to be reported by April 2015, is eighty to 100 percent in all asset classes for both jurisdictions—except for credit derivatives in the United States, which only have sixty to eighty percent coverage.[135]

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128. *See id.* §2.1, at 4, §3, at 7.

129. *See id.* §2.1, at 4. Although Bear Sterns did not fully collapse, it functionally did since it was only able to continue after being bought out by JPMorgan Chase for a fraction of its pre-Financial Crisis market price. Andrew Ross Sorkin, *JP Morgan Pays $2 a Share for Bear Sterns*, N.Y. Times (Mar. 17, 2008), http://www.nytimes.com/2008/03/17/business/17bear.html?_r=0 [https://perma.cc/G4BJ-QJB8]. In contrast, Lehman Brothers ceased its functions entirely by declaring Chapter 11 bankruptcy. *See supra* Introduction.

130. *See* BIS Pub. d100, *supra* note 62, at 2.

131. *See id.* §3, at 7.

132. The United States is distinguishable because every TR authorized and operating in its jurisdiction is actually located in the United States, whereas other jurisdictions have TRs in locations outside the jurisdiction that are nonetheless authorized and operating in the jurisdiction. Ninth Progress, *supra* note 54, at 59 tbl.11.

133. These TRs are divided across E.U. member countries with four in the United Kingdom, one in Poland, and one in Luxembourg. *Id.*

134. *Id.* at 6 tbl.3, 59 tbl.11.

135. *Id.* at 8 tbl.4.

Despite the high percentage of regulatory implementation for trade reporting requirements within each jurisdiction,[136] various authorities have voiced their concern over the many challenges that still face these requirements to achieve efficacy.[137] The FSB and ISDA have both communicated issues regarding cross-border trade reporting requirements that have stymied progress to reduce risk and increase transparency in the global OTC markets.[138] Former CFTC Commissioner Scott D. O'Malia, who was in office when Dodd-Frank was passed in 2010 and now serves as the CEO of ISDA,[139] summed up these problems succinctly in a 2015 memo as follows:

> Cross-border issues also crop up in trade reporting. While regulators now have access to a huge amount of transaction data in their own jurisdictions, they are unable to gain a clear picture of global risk exposures and possible concentrations [of derivative positions] because of differences in reporting obligations within and across borders.[140]

The FSB mirrored these concerns as well, zeroing in on data quality and accuracy, primarily associated with the absence of standard terms, and on the need for sufficient cross-border coordination of requirements.[141] The current differences in trade data requirements include who must report a transaction, whether one or both counterparties must report, what types of data must be reported, and to what level; the differences in trade data terms include a lack of standardized identifiers for pertinent information, such as entity, transaction, and product identifiers.[142]

Lastly, many regulatory organizations, market participants, and qualified persons have called for the removal of legal barriers to the reporting of complete data to TRs, specifically of the Swap Data Repository (SDR) indemnification provisions of Dodd-Frank.[143]

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136. *See id.* at 5 tbl.2 (showing fourteen FSB member jurisdictions with legislative framework or another authority in force with respect to ninety percent of derivatives transactions).

137. *See id.* at 21 §3.2 (discussing trade reporting-related issue).

138. *See* Ninth Progress, *supra* note 54, §§3.1–3.2, at 21.

139. *Board of Directors*, Int'l Swaps and Derivatives Ass'n, Inc., https://www2.isda.org/about-isda/board-of-directors (last visited July 23, 2017) (Scott O'Malia as current CEO of ISDA) [https://perma.cc/Y8GG-NPUY].

140. O'Malia, *supra* note 20.

141. *See* Ninth Progress, *supra* note 54, §§3.1–3.2, at 21.

142. *See* Improving Transparency, *supra* note 22, at 3 ("Key Principles 1"); BIS Pub. d100, *supra* note 62, §5.1.1, at 37 ("Annex 2").

143. *See e.g.*, O'Malia, *supra* note 20 (discussing regulatory organization); Theresa Pagliocca, *Continued Regulatory Support for Removing Dodd-Frank Indemnification Provisions*, Depository Tr. & Clearing Corp., http://www.dtcc.com/news/2015/april/21/continued-regulatory-support-for-removing-dodd-frank-indemnification-provisions (last visited July 23,

Consisting of two provisions in the Act,[144] the requirement necessitates that any "[U.S.] based SDRs to receive a written indemnification agreement from non-U.S. regulators confirm[ ] that they 1) [w]ill abide by confidentiality requirements; and 2) [w]ill indemnify the SDR and the regulating U.S. Commission(s) for any expenses arising from litigation relating to the information."[145] The provisions were originally meant to protect the confidentiality and safety of data reported to SDRs; however, the unintended consequences of SDR indemnifications have done the most damage.[146] Many regulators across jurisdictions do not recognize the concept of indemnification, as it is a product of U.S. tort law, and their governments may be unwilling or unable to provide indemnification.[147] Without a signed, compliant agreement, SDRs registered in the United States may be legally precluded from providing market data to nonsignatory regulators, even if those data are relevant to their jurisdiction.[148] Other foreign regulators have also resolved to respond by encouraging the establishment of local repositories that may not be transparent to U.S. regulators.[149] Not only does this stem the flow of vital data from the markets to regulatory authorities, but it goes against the principles set out by the G20 with regards to increased cooperation and trust between nations.[150]

2017) (showing those in favor of removing provision to include Depository Trust & Clearing Corporation (DTCC), BIS, CFTC Chairman Timothy Massad, CFTC Commissioner J. Christopher Giancarlo, and SEC Commissioner Michael Piwowar) [https://perma.cc/2TFP-2XMT]. DTCC "is a holding company consisting of [five] clearing corporations and [one] depository, making it the world's largest financial services corporation dealing in post trade transactions." *DTCC*, INVESTOPEDIA, http://www.investopedia.com/terms/d/dtcc.asp (last visited July 23, 2017) [https://perma.cc/WUP3-QSF7]. Additionally, DTCC has taken a position as a TR for the OTC derivatives market with four TRs across four jurisdictions, including Japan, Singapore, the United Kingdom, and the United States. *See* NINTH PROGRESS, *supra* note 54, at 59 tbl.11.

144. *See* Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, §§ 728, 763 (Dodd-Frank SDR provisions).

145. DTCC, *supra* note 143.

146. *Id.*

147. *Dodd-Frank Indemnification Briefing Paper*, DEPOSITORY TR. & CLEARING CORP., http://www.dtcc.com/~/media/Files/Downloads/About/government-relations/11349-Indemnification-Briefing-4PagerNov-2015.pdf?la=EN (last visited July 23, 2017) [https://perma.cc/BTY5-4EUV].

148. *See* DTCC, *supra* note 143.

149. *See Testimony Concerning Indemnification of Security-Based Swap Data Repositories: Hearing Before the H. Subcomm. On Capital Mkts. And Gov't Sponsored Enters.*, U.S. SEC. & EXCH. COMM. (Mar. 21, 2012), https://www.sec.gov/News/Testimony/Detail/Testimony/1365171489346 (statement of Ethiopis Tafara, Director of the Office of International Affairs, SEC) [https://perma.cc/SVH6-BTTJ].

150. *See supra* Section I.C.1.

There has been significant effort towards investigation and research of these issues by the FSB[151] and the BIS's Committee on Payments and Market Infrastructures, in conjunction with the International Organization of Securities Commission's (IOSCO) working group for harmonization of key OTC derivatives data elements.[152] The reports, however, are only developed with the mandate to "develop reporting and aggregation standards," guidance consistent with recommendations of the FSB, and none offer timelines of implementation for these solutions.[153] As mentioned above, international law such as this is fundamentally flawed in its inability to execute its goals due to the lack of an effective enforcement mechanism.[154]

D. *ISDA and the Master Agreement*

This Section provides the foundation to understand the vehicle of regulatory reform this Note advocates. Specifically, the Section discusses the history of ISDA, details of the Master Agreement, and how protocols to the Master Agreement operate.

1. History of ISDA

The ISDA was established in 1985[155] and has become the "de facto trade association of the global OTC derivatives industry"[156]

151. *See generally* Ninth Progress, *supra* note 54 (showing efforts of research and investigation).

152. *See* BIS Pub. d100, *supra* note 62, §1.1, at 1 ("Foreword").

153. Committee on Payments and Market Infrastructures, Bank for Int'l Settlements, Pub. d131, Consultative Report – Harmonization of Unique Transaction Identifier 1 (2015) [hereinafter BIS Pub. d131] ("Executive Summary"); Committee on Payments and Market Infrastructures, Bank for Int'l Settlements, Pub. d132, Consultative Report – Harmonization of Key OTC Derivatives Data Elements 1 (2015) [hereinafter BIS Pub. d132] ("Executive Summary"); Committee on Payments and Market Infrastructures, Bank for Int'l Settlements, Pub. d141, Consultative Report – Harmonization of Unique Product Identifier 1 (2015) [hereinafter BIS Pub. d141] ("Executive Summary").

154. *See* Bradford & Shahar, *supra* note 26, at 375.

155. *About ISDA*, Int'l Swaps and Derivatives Ass'n. Inc., http://www2.isda.org/about-isda (last visited July 23, 2017) [https://perma.cc/88QR-WXLY].

156. Although it does not describe itself as a trade association, ISDA is frequently referred to as one. *See* Dan Awrey, *Limits of Private Ordering Within Modern Financial Markets*, 34 Rev. Banking & Fin. L. 184, 205 (2014); Gabriel V. Rauterberg & Andrew Verstein, *Assessing Transnational Private Regulation of the OTC Derivatives Market: ISDA, the BBA, and the Future of Financial Reform*, 54 Va. J. Int'l L. 9, 13 (2013). ISDA fits the dictionary definition of "trade association" as well: "an association of people or companies in a particular business or trade, organized to promote their common interests." *Trade Association*, Dictionary.com, http://dictionary.reference.com/browse/trade-association (last visited July 23, 2017) [https://perma.cc/PKT7-ZFCN].

via its extensive membership, which includes over 850 institutions from sixty-eight countries,[157] 211 of which are "primary members."[158] Other levels of membership include "associate" and "subscriber" members—institutions active in the "privately negotiated derivatives business" and that "use privately negotiated derivatives to better manage financial risk," respectively.[159] According to a 2010 ISDA research note, eighty-two percent of the total notional amount outstanding in the global derivatives market is controlled by a mere fourteen dealers.[160] Six of those dealers are located in the United States, three in the United Kingdom, two in France, two in Switzerland, and one in Germany.[161] The local markets are even more concentrated. For example, only four major U.S. banking institutions comprise ninety-two percent of the total U.S. notional amount outstanding.[162] All of these behemoth international and local firms are primary ISDA members.[163] This, at the very least, solidifies the organization's position as the de facto trade organization and legitimizes its positions and contributions to the market.

2. The ISDA Master Agreement

ISDA's goal is to facilitate secure, stable, and resilient financial markets supported by a strong regulatory framework—a goal it achieves through work in three critical areas: counterparty credit risk reduction,[164] increased transparency, and improved operational infrastructure for the industry.[165] ISDA has been successful

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157. *See Join ISDA*, Int'l Swaps and Derivatives Ass'n. Inc., http://www2.isda.org/membership (last visited July 23, 2017) [https://perma.cc/J6RD-JB6B].

158. *ISDA Members*, Int'l Swaps and Derivatives Ass'n. Inc., http://www2.isda.org/membership/members-list/ (last visited July 23, 2017) [https://perma.cc/AAY4-7A3K]. A primary [ISDA] member is "an investment, merchant, or commercial bank or other corporation, partnership or other business organization that deals in derivatives as part of its business." *Member Types*, Int'l Swaps and Derivatives Ass'n. Inc., http://www2.isda.org/membership/member-types (last visited July 23, 2017) [https://perma.cc/BYM9-N4AZ].

159. *Member Types*, *supra* note 158.

160. *See* David Mengle, Concentration of OTC Derivatives Among Major Dealers, ISDA Research Notes, Issue 4, 2 (2010). The fourteen dealers include Bank of America, Barclays, BNP Paribas, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, HSBC, JPMorgan Chase, Morgan Stanley, Royal Bank of Scotland, Société Générale, UBS, and Wells Fargo. *Id.* at 2 n.2.

161. *See* Johnson, *supra* note 109, at 583.

162. *See* FSOC Report, *supra* note 12, at 82; Off. of the Comptroller of Currency, Rep. dq315 Quarterly Report on Bank Trading and Derivatives Activities Third Quarter 2015 tbl.3 (2015) (listing the top four banks in regards to derivatives concentration as JPMorgan Chase, Citibank, Goldman Sachs, and Bank of America).

163. *See ISDA Members*, *supra* note 158.

164. For a definition of counterparty credit risk, see *supra* note 40.

165. *About ISDA*, *supra* note 155.

in many of these aspects, most notably through the structure and standardization created by the Master Agreement and through its public policy agenda.[166] "Used in more than ninety percent of OTC derivative transactions,"[167] the Master Agreement has become the "gold standard" for contracts executed in the OTC derivatives market.[168] Originally developed in tandem with the organization in 1985, the Master Agreement began as the "Swaps Code," an abbreviated form of the Code of Standard Wording, Assumption and Provisions for Swaps.[169]

The Master Agreement was ISDA's first attempt at developing a standard form for swaps in the OTC market that delineated terms of the contract including those that govern compounding, default procedures, and tax matters.[170] Over the past thirty years it has evolved, through many minor and two major iterations,[171] into a document that includes all types of derivatives transactions,[172] can be customized per the specific participant's requirements, and sets out the standard terms for the transaction.[173] Though customized for each specific transaction, the document itself is an umbrella document that eliminates the need to conduct potentially laborious negotiations each time the participants enter into a contract.[174] To this end, the Master Agreement is broken up into three main

166. *See ISDA Master Agreement*, Investopedia, http://www.investopedia.com/terms/i/isda-master-agreement.asp (last visited July 23, 2017) [https://perma.cc/Z5EB-ZUR4]; *see generally Public Policy*, Int'l Swaps and Derivatives Ass'n. Inc., http://www2.isda.org/functional-areas/public-policy/ (last visited July 23, 2017) (ISDA's public policy work in various areas of the world) [https://perma.cc/8KKE-KZXC].

167. Awrey, *supra* note 156, at 207 n.125 (quoting Rauterberg & Verstein, *supra* note 156, at 21).

168. *See id.* at 207.

169. *See* Rauterberg & Verstein, *supra* note 156, at 20–21.

170. *See ISDA Bookstore, ISDA Master Agreements and User Guides*, Int'l Swaps and Derivatives Ass'n. Inc., http://www.isda.org/publications/isdamasteragrmnt.aspx#ma (last visited July 23, 2017) [https://perma.cc/5MKJ-T48J].

171. The two major iterations consist of the 1992 and 2002 versions. Additionally, note that documents go from specific to general through the years in the minor iterations. *See id.*; *Derivatives Documentation the Role of the ISDA Master Agreement*, TreasuryToday (June 2004) http://treasurytoday.com/2004/06/derivatives-documentation-the-role-of-the-isda-master-agreement [https://perma.cc/4N78-PDHZ].

172. These include OTC equity, commodity, and credit derivatives. *See* Awrey, *supra* note 156, at 206.

173. *See* Investopedia, *ISDA Master Agreement*, *supra* note 166.

174. *See Scope of the ISDA Master Agreement and Schedule—Overview,* LexisPSL Banking & Fin., https://www.lexisnexis.com/uk/lexispsl/bankingandfinance/document/391289/57X4-8841-F185-X2H3-00000-00/
The§cope+of™he+ISDA+Master+Agreement+and+Schedule%E2%80%94overview (last visited July 23, 2017) [hereinafter Lexis ISDA Agreement] [https://perma.cc/T8X3-TGGX]; Investopedia, *ISDA Master Agreement*, *supra* note 166.

components: the actual agreement with all of the standard terms; the Schedule, which tailors the agreement to each participants needs; and the Confirmation, which lays out the specific terms of the instant transaction.[175]

These attributes make the Agreement an invaluable tool for large market participants who enter into thousands of OTC derivatives contracts with each other daily; however, it can be cumbersome, overly comprehensive, and/or unnecessary for retail investors individually.[176] This lack of retail investor use is offset by two pertinent facts. First, the Master Agreement is only used for the OTC derivatives markets, which are dominated by institutional investors.[177] And second, those institutional investors do not exclusively trade with each other, but trade with smaller, regional participants as well.[178] Considering the larger scale when evaluating entire OTC derivative markets, exclusion of retail investors should still produce accurate information regarding regulatory deficits because the institutional investors make up an overwhelming majority of the market.[179]

3. Master Agreement Protocols

ISDA uses the Master Agreement, in conjunction with the Schedule, as a vehicle to promote compliance with new regulatory requirements in different jurisdictions and to promote policies which ISDA believes are concurrent with its mission.[180] To achieve these goals, ISDA utilizes "protocols," or "multilateral contractual amendment[s]" that, when adhered to by all parties to the Master

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175. *See* Rauterberg & Verstein, *supra* note 156, at 21. There are also ancillary components dealing with collateral, definitions of extraneous terms, and other credit support documents; however, these are not pertinent for the purposes of this Note. *See id.*; LEXIS ISDA AGREEMENT, *supra* note 174.

176. OPERATIONS COMM., INT'L SWAPS AND DERIVATIVES ASS'N. INC., A NOTE ON THE WHOLESALE NATURE OF DERIVATIVES 1 (2002). A retail, small, or individual investor buys or sells financial products only for its own accounts. Retail investors also typically purchase in smaller quantities. *Retail Investor*, INVESTOPEDIA, http://www.investopedia.com/terms/r/retailinvestor.asp (last visited July 23, 2017) [https://perma.cc/QX93-EKYW].

177. *See* INVESTOPEDIA, *Exchange Traded Derivative*, *supra* note 35 (explaining both how exchange-traded derivatives are built for retail investors and the dichotomy between retail and institutional investors in derivatives markets); *see also supra* Section I.D.1 (providing statistics regarding market participants in the OTC market).

178. *See* Mengle, *supra* note 160, at 5.

179. *See* OPERATIONS COMM., INT'L SWAPS AND DERIVATIVES ASS'N. INC., A NOTE ON THE WHOLESALE NATURE OF DERIVATIVES 1 (2002).

180. Put more simply, ISDA can use the agreement to ensure each participant is on the same page and compliant with local laws, and institute policies they believe would be beneficial. *See infra* Section II.D.3.

Agreement, alter that specific agreement for all future transactions those parties enter into pursuant to the Master Agreement.[181] This allows the parties to avoid potential "costly and time-consuming bilateral negotiations" each time a new regulatory structure is instituted by a jurisdiction in which the parties transact their business.[182]

Examples of protocols that promote compliance with local U.S. and European regulatory requirements include the Dodd-Frank Protocol, which facilitates implementation of various CFTC rulemakings, and the EMIR Protocol, which, inter alia, does the same for new portfolio reconciliation, dispute resolution, and disclosure protocols. Additionally, ISDA's Working Group on Margin Requirements (WGMR) issued a final protocol creating a policy framework for margin requirements for non-cleared OTC derivatives that official regulators in individual jurisdictions use as a model for their own markets—a prime example of ISDA promoting its own policies successfully.[183]

Protocols issued by ISDA are optional and only go into effect when both parties to the Master Agreement "adhere" to it.[184] More than just a buzzword, adherence to ISDA protocols by members is a specific process that must be performed via the association's website and involves the transmittance of firm-specific information.[185]

II. Analysis

Since the Financial Crisis, there has been active and targeted regulatory reform of the OTC derivatives market throughout the major economies of the world.[186] Despite these advancements, systemic risk is still prevalent and permeates the global OTC markets.[187] Without the harmonization of rules with respect to the

181. A protocol is a "multilateral contractual amendment," which ISDA members use to alter the Master Agreements they have with the counterparties to their transactions. *About ISDA Protocols*, Int'l Swaps and Derivatives Ass'n. Inc., http://www2.isda.org/functional-areas/protocol-management/about-isda-protocols (last visited July 23, 2017) [https://perma.cc/539Z-4GYR].

182. *See* Awrey, *supra* note 156, at 207; ISDA, *About ISDA Protocols*, *supra* note 181.

183. *See ISDA WGMR Implementation Initiative*, Int'l Swaps and Derivatives Ass'n. Inc., http://www2.isda.org/functional-areas/wgmr-implementation/ (last visited July 23, 2017) [https://perma.cc/E6L6-ABHG].

184. *See About ISDA Protocols*, *supra* note 181 (discussing benefits to parties that adhere to protocols).

185. *See generally ISDA Protocol – How to Adhere*, Int'l Swaps and Derivatives Ass'n. Inc., http://assets.isda.org/media/f253b540-13/b8b80f16-pdf (last visited July 23, 2017) (ISDA Guide on how to adhere to specific protocols) [https://perma.cc/JQL3-QKUD].

186. *See supra* Section I.C.3.

187. *See supra* Section I.C.3.

reporting of OTC derivatives trades across international jurisdictions, both public and private analysts are prevented from developing a full and clear picture of interconnection, concentration, and overall risk.[188] This Part argues that ISDA, as an international regulatory body, would be in the best position to remedy the current regulatory issues and mismatches with global rules on OTC derivative trade reporting. This Part then describes how ISDA would effectuate that goal. More specifically, the following Sections propose use of the Master Agreement as a vehicle to institute binding regulatory reform for the harmonization of OTC derivative trade reporting requirements (as laid out by the FSB, BIS, and ISDA), and discuss how ISDA would ensure compliance with those harmonized requirements, as well as the counterarguments to this proposal.

A. *The Proposed Regulatory Scheme*

This Note proposes two initiatives: the first would grant ISDA regulatory oversight over the global OTC derivatives market as the official self-regulatory body and require ISDA membership for market participants meeting specific criteria. The second would institute the new regulatory scheme by amending the Master Agreement and requiring its use.

1. The First Initiative: Granting Regulatory Oversight

The source of the current issues within the regulatory regime is relatively simple—different jurisdictions, with different regulators, produce different rules for trade reporting requirements.[189] Therefore, for this reform to be effective, the market participants must have a single regulatory body to look to for guidance. Although the FSB, and by association the G20, seem to already serve the function of a single regulatory body, they have no way to exert binding authority on their members.[190] As acknowledged by the FSB itself, the board uses "moral suasion and peer pressure" on their members as a means to implement cohesive policy, which, intentionally or not, has led to the current fractured regulatory regime.[191] Utilizing ISDA would be an effective method for circumventing toothless international law by going after the market participants themselves, instead of the sovereigns. With ISDA as

188. *See supra* Section I.C.3.
189. *See supra* Section I.C.3.
190. *See supra* Section I.C.2.
191. *See supra* Sections I.C.2–3; *About the FSB, supra* note 24 (discussing FSB Mandate).

the international self-regulator with binding authority over its members, the organization could require membership for all major market participants, have the power to sanction these members for violating their policies, and institute new procedures for entering into OTC derivatives contracts—an important last step to effectuate the second initiative. That the FSB, a voice of the governments that regulate ISDA's members, already uses and references the organization's Master Agreement and supporting documentation (albeit not directly) when drafting recommendations and analyses bolsters the proposal to put ISDA in a position of regulatory authority.[192]

With a majority of the market already under ISDA's purview as primary members, this initiative would solidify those members' commitment to the organization and subservience to its rulings.[193] Additionally, although retail investors and smaller OTC derivatives users are not included in the category of major market participants, because large investors would still be required to adhere to ISDA's policies when they conduct transactions with smaller, regional parties, compliance would apply de facto to those smaller parties.[194]

Due to the effect of local legislation that prevents information sharing, such as Dodd-Frank's SDR indemnification provision,[195] it would be beneficial to give ISDA the authority to repeal local laws that directly conflict with the goal of regulatory harmonization. However, to prevent ISDA from overstepping its boundaries, the process to repeal these laws would require backing from the FSB as well as local provision regulators, just as SEC and CFTC commissioners have supported the removal of the indemnification provision.[196] As an additional layer of security for both sovereigns and market participants, ISDA would be required to submit to oversight by the FSB.[197] This would ensure that ISDA does not overstep its

192. BIS Pub. d100, *supra* note 62, § 1.2, at 2 ("The Task Force found that certain information, such as that contained in master agreements and credit support annexes, will be helpful for assessing systemic risk and financial stability but that at present such information is not supported by TRs.").

193. *See supra* Section I.D.1.

194. *See* Mengle, *supra* note 160, at 5.

195. The FSB already has mandated this requirement for its member jurisdictions but has not been able to ensure compliance, leading to provisions like the Dodd-Frank SDR indemnification rules remaining effective. *See supra* Section I.C.3.

196. *See supra* Section I.C.3.

197. Although the SEC serves to enforce the securities laws, the Financial Industry Regulatory Authority (FINRA) creates and enforces rules over the members in the securities markets, refers cases to the SEC, and is essentially overseen by the SEC. This recommenda-

boundaries and that ISDA continues to promote the goals that the FSB and G20 have sought to achieve—a concern some have raised when markets regulate themselves.[198] By instituting these protections, the initiative ensures that the sovereignty of the local jurisdictions is partially preserved, as the regulatory power over them would not be entirely affected.

2. The Second Initiative: Building the Regulatory Scheme

The second initiative involves two parts: first, it would require any major market participant to utilize the Master Agreement when entering into OTC derivatives contracts, and second, it would amend the Master Agreement via protocols to create a universal document with the "lowest common denominator" of trade reporting requirements for all jurisdictions. Utilizing a universal document allows for the benefit of filling the reporting gaps where regulators have not been explicit enough in their promulgated rules.

Since the Master Agreement is already used in nearly ninety percent of OTC derivatives contracts,[199] a mandate that requires its use would be relatively easy to enact upon the remaining major market participants who may not utilize it for specific transactions.[200] Through the Master Agreement, ISDA, in its position of regulatory authority, would then require all of its members to adhere to the new protocols enacting the required regulatory changes.

In regards to specific alterations to the reporting requirements, the main challenge is that there is no uniform place to look for the definition of terms that each jurisdiction requires.[201] As an example, the CFTC requires populating forty different fields when reporting an OTC derivatives trade; however, there are insufficient instructions on how to provide the appropriate data to the agency.[202] On an international scale, there are mismatches in what a particular field asks for and how specific or vague responses can

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tion would be similar to the current situation where FINRA is a self-regulatory organization for the U.S. securities markets but is still answerable to the SEC. *See* Investopedia Staff, *How Does FINRA Differ From the SEC*, INVESTOPEDIA (Sept. 20, 2014, 6:00 AM), http://www.investopedia.com/ask/answers/112.asp [https://perma.cc/F356-BJNU].

198. *See infra* Section II.B.

199. *See supra* Section I.D.2.

200. The task seems even less herculean with at most only a ten percent gap to bridge.

201. *See* IMPROVING TRANSPARENCY, *supra* note 22, at 3 ("Key Principle 1").

202. *See id.*

be.[203] To remedy this, ISDA would issue a universal document with a dictionary of terms—the lowest common denominator of trade reporting requirements—that specifies exactly what must populate each field of a reporting form and how to do so. The document would be added to the Master Agreement as a fourth section.[204]

ISDA would look towards the BIS's Committee on Payment and Settlement Systems' working group on the harmonization of key OTC derivative data elements to create this dictionary of terms. That working group, in conjunction with various other BIS committees, has released multiple recommendations and reports on potential fields that could be valuable for OTC derivatives transactions.[205] Examples of these terms include Unique Product Identifiers (UPIs),[206] which give specific codes to identify a specific type of derivatives contract; Unique Transaction Identifiers (UTIs),[207] which give specific codes to identify a specific derivatives contract between parties; and Legal Entity Identifiers (LEIs),[208] which give specific codes to identify specific firms entering into transactions, as well as the transaction's economic, counterparty, and operational data.[209] Where there are different requirements on who or what must be reported and they cannot be reconciled, ISDA would require all of the information to be included in the contract.

Though conformity with this new document would undoubtedly create more regulatory burden on the parties entering into these OTC contracts, that burden is outweighed by the necessity to ensure uniform reporting to regulators so that they can adequately obtain a full picture of the regulatory risk in the economy. Adding this universal document to the Master Agreement would have multiple positive externalities to counter the problems in the current system. First, the document would ensure that each jurisdiction

203. *See id.*

204. The other three pieces of the Master Agreement consist of the actual agreement, the Schedule, and the Confirmation. *See supra* Section I.D.2.

205. *See* BIS Pub. d100, *supra* note 62, at 50 ("Annex 2"); BIS Pub. d131, *supra* note 153, § 1.4, at 4; BIS Pub. d132, *supra* note 153, § 1.4, at 3; BIS Pub. d141, *supra* note 153, § 1.3, at 3.

206. *See generally* BIS Pub. d141, *supra* note 153, § 1.3, at 3; Improving Transparency, *supra* note 22 (discussing potential valuable fields to be included in the Master Agreement).

207. *See generally* BIS Pub. d131, *supra* note 153, § 1.4, at 4; Improving Transparency, *supra* note 22 (discussing potential valuable fields to be included in the Master Agreement).

208. *See generally* BIS Pub. d100, *supra* note 62, at 50 ("Annex 2"); Improving Transparency, *supra* note 22 (discussing potential valuable fields to be included in the Master Agreement).

209. BIS Pub. d100, *supra* note 62, § 1.2, at 2 ("Minimum Data Requirements").

receives the information that its regulators require for a proper risk analysis. Second, it would allow for immediate implementation considering that the Master Agreement protocols alter all current and future OTC contracts. Finally, and most importantly, the document does not require any jurisdiction to alter its current legislation to enact the new rule.

The crux of the issue presented in this Note is the lack of harmonization of OTC derivative trade reporting rules, and when combined, the above initiatives solve that problem. Instituting binding reform on market participants instead of local regulators, combined with a lowest common denominator approach in those reforms, would create a regulatory scheme where sovereigns keep their power, regulators receive uniform information—albeit with the possibility of overinclusion—and members can be kept in line by those who know most about what occurs in the markets: the members themselves. Overall, this international law scheme has the capacity to enforce change, when many schemes do not,[210] and can reduce systemic risk perpetuated by opacity in the markets.

B. *Counterarguments*

The main criticism of this proposal is the potential danger of conflicts of interest inherent with self-regulation.[211] Dan Awrey, a professor of finance and law at Oxford University, argues that there is a limit on the desirability of self-regulation due to market distortions that stem from, among other things, "pronounced power imbalances" between the core market participants and everyone else.[212] Specifically, he argues that when a core group of market participants is responsible for writing, interpreting, and enforcing the "rules of the game," they may be able to exploit this position of power when determining issues in which they have an important and potentially undisclosed stake, without turning off the other, smaller, market participants.[213] Additionally, he states that opacity in the markets exacerbates this exploitation, making the threat of market sanctions or contractual enforcement unlikely.[214] Professor Awrey equates this issue to referees who place bets on sporting events that they officiate[215]: if a limited num-

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210. *See* Bradford & Shahar, *supra* note 26, at 375.
211. *See generally* Awrey, *supra* note 156 (discussing potential issues of self-regulation in the financial market context).
212. *See id.* at 186–87.
213. *See id.* at 187.
214. *See id.*
215. *See id.* at 184.

ber of qualified referees are the individuals responsible for coordinating the promulgation of the rules they must follow, this structure is likely to undermine confidence in the integrity of the game.[216]

The OTC derivatives market is no exception to this analysis. Professor Awrey even uses an ISDA committee responsible for adjudicating contractual disputes based on ISDA credit default swap documentation as a case study for his position.[217] With regards to the ISDA committee case study, Professor Awrey states that there are conflicts of interests which arise when a self-regulatory agency governs the contracts of its own high-profile members.[218] He blames the relative opacity of the OTC markets, and lack of governance or public oversight safeguards, as the reasons why this system is inadequate.[219]

This Note's proposal addresses Professor Awrey's major concerns. Putting ISDA in an official self-regulatory position would require its oversight by the FSB, which eliminates concerns regarding the lack of constraints on opportunistic behavior typically found in these regimes.[220] Additionally, the ultimate goal of the proposed regime is to eliminate the opacity in the markets that Professor Awrey argues exacerbates the lack of public (via regulators) and private (via contractual remedies) oversight.[221] In the terms of Professor Awrey's sports-betting analogy, the referees in this proposed regulatory regime still make the rules; however, all of their actions are transparent to all players—and to an extent the public—and the entire regime operates under the shadow of the FSB as public regulator.[222]

Additionally, one might ask why this simple proposal has not yet been implemented.[223] Indeed, regulatory reform has already taken place to an extent[224] and nearly all of the pieces of this proposal have been established, from the broad goals set forth by the FSB to the dictionary recommendations by the BIS and ISDA's promulgation of the Master Agreement.[225] This proposal is distin-

216. *See id.*
217. *See id.* at 187–88.
218. *See id.*
219. *See id.*
220. *See id.*
221. *See id.* at 186–87.
222. For a further discussion of Professor Awrey's arguments, see generally Awrey, *supra* note 156.
223. *See* Ninth Progress, *supra* note 54, § 3, at 21.
224. *See supra* Section I.C.
225. *See supra* Sections I.C–D.

guishable from prior solutions because it utilizes the existing pieces in a novel way, making them effective as a unit while simultaneously ensuring respect for the sovereignty of the involved nations. The G20, via the FSB, has already mandated that there be harmonization in the requirements for OTC derivatives trade reporting[226] and along with the BIS and ISDA, published numerous recommendations and guidelines on how to deal with specific aspects of that harmonization, including minimum data that should be utilized and where the largest regulatory deficits exist.[227] Those resources, combined with the structure that ISDA already has in place—specifically their membership base and the Master Agreement[228]—provide an ideal platform for novel, but not drastic, regulatory reform in the member countries.[229]

Conclusion

In the nine years since the Financial Crisis, a great debate has raged between governments, regulators, and bankers on how to best address the global systemic risk posed by the OTC derivatives markets.[230] At its core, a lack of transparency that results from inconsistent regulatory reform across the major OTC markets is a primary factor preventing both public and private analysts alike from developing a full and clear picture of concentration and risk within those markets.[231] To safeguard the global economy from another collapse and to effectively regulate a market that crosses jurisdictions, regulation across jurisdictions must be harmonized.[232]

Despite their common goals of a more transparent and safer OTC derivatives market, sovereigns work independently of each other when they draft applicable legislation and rules to address the regulatory deficiencies that they determined to have caused the Financial Crisis in the first place.[233] However, with these current, localized pieces of the regulatory regime now in place, there must be an international solution to remedy those causal deficiencies.[234]

226. *See supra* Section I.C.2.
227. *See supra* Section I.C. *See* Ninth Progress, *supra* note 54, § 3, at 21; BIS Pub. d100, *supra* note 62, § 3, at 7, § 5, at 37, 50.
228. *See supra* Section I.D.
229. *See supra* Section II.A.
230. *See supra* Sections I.C.1, 3.
231. *See supra* Section I.C.2–3.
232. *See supra* Section II.A.
233. *See supra* Section I.C.
234. *See supra* Section II.A.

As the de facto trade organization for the global derivatives markets, ISDA has a framework in place to develop a cohesive and effective regulatory scheme.[235] Permitting ISDA to act as the official self-regulatory body for the OTC markets and mandating membership for major market participants would give ISDA the necessary authority to implement the reforms international organizations such as the FSB have resolved to accomplish.[236] Additionally, mandating that the Master Agreement be used in all applicable OTC transactions (with all relevant protocols instituted), and amending the Master Agreement to contain a universal document with the lowest common denominator of OTC trade data to be reported and an official dictionary that fills the gaps left by local jurisdictions on what and how to report would achieve the goals set by the international economic community.[237] Above all, this proposal ensures a cohesive and workable scheme that allows for a transparent global OTC market.[238]

235. *See supra* Section I.D.
236. *See supra* Section II.A.
237. *See supra* Section II.A.
238. *See supra* Section II.A.

Appendix: Acronyms and Terms

BIS:	Bank for International Settlements
CDO:	Collateralized Debt Obligation
CDS:	Credit Default Swap
CFTC:	U.S. Commodity Futures Trading Commission
CME:	Chicago Mercantile Exchange
Dodd-Frank:	The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010
DTCC:	Depository Trust & Clearing Corporation
EMIR:	The European Market Infrastructure Regulation
ESMA:	European Securities and Markets Authority
FCIC:	Financial Crisis Inquiry Commission
FINRA:	Financial Industry Regulatory Authority
FSOC:	Financial Stability Oversight Council
FSB:	Financial Stability Board
FX:	Foreign Exchange
G20:	Group of 20
IMF:	International Monetary Fund
IOSCO:	International Organization of Securities Commissions
ISDA:	International Swaps and Derivatives Association
MBS:	Mortgage Backed Security
OTC:	Over-the-counter
SDR:	Swap Data Repository
SEC:	U.S. Securities and Exchange Commission
TR:	Trade Repository
WGMR:	Working Group on Margin Requirements