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Article

Substituted Compliance and Systemic Risk: How to Make a Global Market in Derivatives Regulation

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INTRODUCTION

The conventional wisdom is that the global financial crisis of 2007–2008 revealed faults in the ability of international financial regulation to contain the problem of systemic risk.¹ Further conventional wisdom suggests that the failure to regulate complex financial instruments, especially derivatives, contributed significantly to the crisis.² As a result, an international consensus quickly formed around tightening global financial regulation generally and derivatives regulation in particular. Moreover, the preferred approach to containing systemic risk in the context of derivatives quickly converged on mandatory central counterparty clearing.³

1. See, e.g., Philip Stephens, *Why Global Capitalism Needs Global Rules*, FIN. TIMES, Sept. 18, 2008, at 13 (noting that a key message of the financial crisis “speak[s] to a growing tension between global integration and a shortage of credible international governance. Governments have been left with responsibility without power.”).

2. See, e.g., Gretchen Morgenson, *It’s Time for Swaps to Lose Their Swagger*, N.Y. TIMES, Feb. 28, 2010, at BU1 (“Derivatives are responsible for much of the interconnectedness between banks and other institutions that made the financial collapse accelerate in the way that it did, costing taxpayers hundreds of billions in bailouts.”). *But see* Schuyler K. Henderson, *Unintended Consequences of Misconceived Reforms, Part III*, 28 BUTTERWORTHS J. INT’L BANK. & FIN. L. 480, 480 (2013) [hereinafter Henderson, *Unintended Consequences III*] (arguing that OTC derivatives were not a cause of the 2008 financial crisis and do not contribute significantly to systemic risk).

3. See *infra* Part II.A (describing the movement towards a mandatory clearing regulatory approach).

An obstacle to implementing the consensus solution, however, is the absence of a system of global financial regulation. While there are international organizations through which national actors can meet to deliberate, discuss, and even decide on financial regulatory policy, ultimately any such decisions must be implemented by national actors with potentially divergent incentives. This creates the prospect of “regulatory arbitrage”—that is, the risk that jurisdictions will reduce regulation to win business from regulated entities, leading to a race to the bottom among regulatory authorities and the ultimate failure to achieve the regulatory goal.⁴ In the context of derivatives, if U.S. authorities impose a harsh clearing regime, banks may shift their derivatives operations to London or, if European and American regulation converge, to Hong Kong or Singapore or some less highly regulated jurisdiction. The result of this process, many argue, is the degradation of regulatory standards and the concomitant failure to reduce systemic risk.

Alert to the possibility of regulatory arbitrage, policymakers have sought to impose regulatory uniformity through either multilateral efforts at harmonization or unilateral assertions of extraterritorial jurisdiction.⁵ In a harmonized regulatory regime, national actors work together to arrive at a shared regulatory goal, such as, in this context, mandatory clearing of over-the-counter (OTC) derivatives transactions.⁶ In an assertion of extraterritorial jurisdiction, national actors seek to impose their regulatory requirements on entities and transactions outside of their borders. Either way of achieving regulatory uniformity, however, may compromise the ultimate goal of containing systemic risk.

Regulatory uniformity, in general, is a highly suspect means of addressing systemic risk. Uniformity, by definition, means all jurisdictions regulate in the same way, but if financial market crises have taught us anything, it is that regulators often do not anticipate the next crisis. Thus, if all jurisdictions regulate in the same way, and if, as has often been the case in the past, their chosen regulatory approach fails to account for an emergent crisis, then world financial markets will be more

4. See *infra* Part III.A (refining the concept of “regulatory arbitrage” and distinguishing it from “regulatory competition”).

5. See *infra* Part III.B (discussing policymakers’ efforts to implement regulatory uniformity).

6. See *infra* notes 254–61 and accompanying text (referring to scholarly commentary on the problem of making and enforcing law to address problems that cross jurisdictional boundaries).

exposed to systemic risk than they might have been had some jurisdictions regulated differently. More specifically, recent scholarship shows that mandatory clearing is no panacea for systemic risk, and once it is imposed on a globally uniform basis, its flaws will be unchecked, rendering the global financial system uniformly vulnerable.⁷

This Article argues that a better approach to derivatives regulation would be to adopt a more supple regulatory superstructure that encourages a diversity of approaches to achieve the objective of minimizing systemic risk. Encouraging a diversity of regulatory approaches, all aimed at containing systemic risk, provides a number of benefits. These include the promotion of innovation and the adoption of efficient regulatory structures as well as the production of information about successful and unsuccessful approaches to the problem. Perhaps most importantly, however, regulatory diversity creates fire-breaks in the event of contagion so that the failure of one regulatory regime will not necessarily lead to the failure of the world financial system. This Article advocates the adoption of a regime of regulatory diversity in the context of derivatives regulation, providing several proposals for achieving such a regime at both the national and international levels.

From this introduction, the Article proceeds as follows: Part I provides background on derivatives and the problem of systemic risk, reviewing the ways in which derivatives were and were not implicated in the global financial crisis of 2007–2008. Part II describes the global regulatory response to the systemic risk of derivatives transactions, examining both the international regulatory agenda and differences between different national actors in implementing it. Part III introduces the problem of regulatory arbitrage and highlights attempts to combat it by achieving regulatory uniformity, either through harmonization or exercises of extraterritorial jurisdiction. Part IV critiques regulatory uniformity, detailing both general objections to uniformity as a means of containing systemic risk and specific problems with the clearing mandate in the context of derivatives regulation. Part V offers a regulatory alternative, aimed at reducing systemic risk by encouraging the proliferation of regulatory alternatives rather than imposing a uniform approach. Part V provides a package of reforms that could be implemented at either or both the national and international

7. See *infra* Part IV.B (describing the risks of mandatory clearing imposed on a uniform basis).

levels. The Article closes, finally, with a brief summary and conclusion.

I. DERIVATIVES AND SYSTEMIC RISK

Derivatives are all about risk. They are, at their core, nothing more than a contractual means by which parties allocate the risk of a fluctuation in price of an underlying reference asset.⁸ The reference asset can be infinitely many things—an interest rate or exchange rate, an index of bonds or mortgage-backed securities (MBS), commodity prices, or the weather.⁹ In the contract, the two sides, or “counterparties,” commit to one or several payments at some time in the future, the amount of which will depend upon the value of the underlying reference asset at that time.¹⁰ This exchange of payments thus allows the counterparties to reallocate risk, allowing for risk mitigation—i.e., hedging¹¹—as well as speculation.¹²

In providing a means for this transfer of risk, however, derivatives create a second risk—the risk of default on the con-

8. See SCHUYLER K. HENDERSON, HENDERSON ON DERIVATIVES 5 (2d ed. 2010) (“A derivative is, simply, a financial arrangement the value of which is ‘derived’ from another financial instrument, index or measure of economic value.”).

9. See ROBERT W. KOLB & JAMES A. OVERDAHL, FINANCIAL DERIVATIVES: PRICING AND RISK MANAGEMENT 16–18 (2010) (explaining how structured products—like securities that result from the securitization process and have been successfully created with portfolios of mortgage, automobile, and boat loans as well as credit derivatives—relate to derivatives contracts); Norman Menachem Feder, *Deconstructing Over-the-Counter Derivatives*, 2002 COLUM. BUS. L. REV. 677, 687 n.16 (discussing various instruments, such as weather derivatives and environmental derivatives).

10. See KOLB & OVERDAHL, *supra* note 9, at 16–19.

11. See *id.* at 575–82 (discussing the use of derivatives to manage risks associated with interest rate fluctuations).

12. Both hedging and speculation are vital features of a working financial system—hedging because it enables parties to eliminate unwanted risk, and speculation because it speeds price discovery and, therefore, market efficiency. See generally KOLB & OVERDAHL, *supra* note 9, at 57 (describing price discovery as the process by which trading incorporates new information and changing expectations into asset prices); see also Roberto Blanco et al., *An Empirical Analysis of the Dynamic Relation Between Investment-Grade Bonds and Credit Default Swaps*, 60 J. FIN. 2255 (2005) (providing an empirical study showing that the credit-default-swap market makes bond pricing more efficient); Arturo Bris et al., *Efficiency and the Bear: Short Sales and Markets Around the World*, 62 J. FIN. 1029 (2007) (providing a cross-sectional time-series analysis strongly supporting the view that short selling facilitates efficient price discovery).

tract.¹³ This second risk—counterparty credit risk—is inherent in derivatives transactions, and is the basic way in which derivatives contribute to systemic risk.¹⁴

Systemic risk refers to the linkages and interdependencies between participants in the financial market, such that a significant loss initially touching only a small number of participants can spread and threaten to engulf the entire system, ultimately causing a contraction in the real economy.¹⁵ Systemic risk is an appropriate target for regulatory attention because private actors lack adequate incentives to control it.¹⁶ This Part analyzes the systemic risk created by derivatives transactions, first reviewing the basics of how derivatives work. Then, this Part examines derivatives' role in the global financial crisis of 2007–2008, for which they received a significant share of the blame and as a result of which they became a focus of regulatory attention.

13. See ANTULIO N. BOMFIM, UNDERSTANDING CREDIT DERIVATIVES AND RELATED INSTRUMENTS 267 (2005) (“In the context of the credit derivatives market, counterparty credit risk refers mainly to the chance that a protection seller will fail to make good on its promise to make previously agreed-upon payments in the event of qualified defaults by reference entities.”).

14. See generally HENDERSON, *supra* note 8, at 402–04.

15. This basic theme is captured with greater formality as follows:

[T]he risk that (i) an economic shock such as market or institutional failure triggers (through a panic or otherwise) either (X) the failure of a chain of markets or institutions or (Y) a chain of significant losses to financial institutions, (ii) resulting in increases in the cost of capital or decreases in its availability, often evidenced by substantial financial-market price volatility.

Steven L. Schwarcz, *Systemic Risk*, 97 GEO. L.J. 193, 204 (2008). On the ability of systemic risk to cause losses in the “real economy” as opposed merely to the “financial economy,” see *Hurting the Real Economy: The Impact of the Financial Crisis on Some of the Most Basic Industries*, THE ECONOMIST (Oct. 15, 2008), <http://www.economist.com/node/12414753>.

16. See generally ROBERT O. KEOHANE, AFTER HEGEMONY: COOPERATION AND DISCORD IN THE WORLD POLITICAL ECONOMY 67–69 (1984) (discussing failure of coordination as a justification for regulation); accord Mark J. Roe, *Clearinghouse Overconfidence*, 101 CALIF. L. REV. 1641, 1691 (2013) (noting that “when guarding against their own failure, [financial institutions] do not account for the costs that their failure will inflict on the rest of the economy” and providing a numerical example); Roberta Romano, *For Diversity in the International Regulation of Financial Institutions: Critiquing and Recalibrating the Basel Architecture* (Yale Law Sch., Nat'l Bureau of Econ. Research, & Eur. Corp. Governance Inst., Working Paper No. 452, 2013), available at <http://ssrn.com/abstract=2127749>.

A. DERIVATIVES PRIMER

A sensible first step in understanding how these financial instruments contribute to systemic risk is to divide the world of derivatives into two broad categories—exchange-traded versus over-the-counter derivatives. As the names suggest, the distinction depends primarily upon the way in which the business is transacted.¹⁷ Highly standardized derivatives, such as futures and many forms of options, may be traded on exchanges, such as the Chicago Board of Trade or the London International Financial Futures and Options Exchange.¹⁸ As a result of their standardization, exchange-traded derivatives offer buyers fewer choices of, for example, underlying assets, settlement amounts, maturity dates, and strike prices.¹⁹ And, as a result of trading on an exchange, these instruments have an intermediary (the exchange or a related clearinghouse) to provide credit-support and monitor various trading practices, typically under the supervision of a national regulator.²⁰

17. Unlike traditional securities trading, where sellers must either own or be able to buy or borrow securities in order to sell them, the sell side of derivatives transactions effectively creates the instrument by agreeing to one position or the other on the risk. See Darrell Duffie, *The Failure Mechanics of Dealer Banks*, 24 J. ECON. PERSP. 5151, 5155–58 (2010) [hereinafter Duffie, *Failure Mechanics*] (describing the mechanics of trading in over-the-counter (OTC) derivatives).

18. See KOLB & OVERDAHL, *supra* note 9, at 21 (explaining that exchanges trade standardized-derivatives contracts through a centralized structure that is organized to promote liquidity and to mutualize credit risk).

19. See Dan Awrey, *The Dynamics of OTC Derivatives Regulation: Bridging the Public-Private Divide*, 11 EUR. BUS. ORG. L. REV. 155, 161 (2010) [hereinafter Awrey, *Dynamics*] (“End-users of exchange-traded derivatives are presented with a limited menu of underlying and must accept the terms set by the relevant exchange, respecting, for instance, settlement amounts, maturity dates and strike prices.” (citation omitted)).

20. Summarizing the arrangement, Professor Awrey writes:

Derivatives exchanges typically provide credit support to end-users by absorbing counterparty credit and settlement risk via the utilisation of centralised clearinghouse and margin mechanisms. Derivatives exchanges also typically perform a broader self-regulatory role through the promulgation, monitoring and enforcement of rules regarding, *inter alia*, dealer membership; trading qualifications; order execution, clearing, settlement and other trading practices, and the approval of new derivative products. Derivatives exchanges generally discharge this role under the supervision of national securities regulators such as the US Securities and Exchange Commission (SEC) and UK Financial Services Authority (FSA) or specialist regulatory agencies such as the US Commodity Futures Trading Commission (CFTC).

Id. (citations omitted).

The rest of the derivatives world, by contrast, is transacted over-the-counter—that is, in the form of privately negotiated bilateral contracts without an exchange intermediary.²¹ Because “OTC derivatives” are essentially individually negotiated contracts, their terms—including the underlying asset, settlement amounts, maturity dates, and other features—are infinitely variable.²² This allows the sellers of OTC derivatives—typically major financial institutions acting as “dealers”—and their buyers—other dealers or “end users,” including commercial parties and hedge funds—to manage or speculate on risk in an infinite variety of ways.²³ The absence of an exchange intermediary, however, means that these instruments will often be illiquid and that parties will not necessarily have access to credit support or third-party monitoring of their positions.²⁴

Although there are several distinct forms that OTC derivatives may take,²⁵ the principal focus of regulatory attention since the crisis has been the “swap.”²⁶ In a typical swap contract, counterparties agree to exchange payments based on the value of an underlying asset over time. For example, in an interest rate swap, one party pays the other if interest rates rise

21. See Duffie, *Failure Mechanics*, *supra* note 17, at 56–58.

22. Awrey, *Dynamics*, *supra* note 19, at 162 (“OTC derivatives bestow dealers and end-users with virtually unlimited flexibility to structure individualised terms respecting, *inter alia*, underlying, price, settlement amounts, maturity dates and other more exotic features.”).

23. End users are those taking a final position on the underlying risk either for purposes of hedging or speculation. Randall Dodd, *The Structure of OTC Derivatives Markets*, 9 *FINANCIER* 41, 41–44 (2002).

24. Awrey, *Dynamics*, *supra* note 19, at 162 (“The primary drawbacks of OTC derivatives relative to their exchange-traded counterparts stem from a potential lack of secondary market liquidity and the absence of a third-party clearing house to absorb counterparty credit and settlement risk.”).

25. Henderson defines three basic OTC derivatives structures—the swap, the forward, and the option—the distinction between which depends, primarily, on the timing and number of payments. HENDERSON, *supra* note 8, at 39 (noting that the “fundamental structures underlying OTC derivatives technology . . . are the swap, the forward, and the option”). Swaps contemplate a series of payments over time. *Id.* at 41–59. Forwards contemplate a single payment in the future. *Id.* at 41–59. In option structures—such as caps, collars, floors, and swaptions—one party fully performs on the effective date, while the other party bears a payment obligation depending upon the value of the underlying reference asset. *Id.* at 41–59.

26. *Id.* at 41; see also CFTC, 17 C.F.R. pt. 1 (2013); SEC, 17 C.F.R. pts. 230, 240, 241 (2013) (providing the Commissions’ joint formal definitions of “swap” and related terms).

and receives payments from the other if interest rates fall.²⁷ In this way, a commercial party with interest rate exposure, either through borrowing or lending, can effectively cancel out this risk by taking the opposite position in a swap, or an investor who has a view about the likely direction of interest rates in the future can use the swap to bet on their prediction.²⁸ In each case, the swap effectively transfers the risk of fluctuation in interest rates from one party to the other.

Similarly, a credit default swap, the derivative instrument most implicated in the recent financial crisis,²⁹ is an agreement that transfers credit risk from one party—the “protection buyer”—to another—the protection seller.³⁰ The protection buyer pays a fee, or “spread,”³¹ to the protection seller in exchange for the seller’s commitment to offset any losses, real or hypothetical, suffered by the protection buyer in the event of a default or other credit event of another party, the “reference entity.”³² In this way, credit default swaps allow parties to hedge or speculate based on the default risk of an underlying entity or index.³³

27. In a fixed-for-floating interest rate swap, a firm that is concerned about its exposure to interest rate fluctuations, due perhaps to an obligation to *make* payments based on a floating interest rate, might contract with a swap dealer to pay a fixed rate of interest in exchange for being paid the floating rate. See ROBERT E. WHALEY, *DERIVATIVES* 652–54 (2006). In this way, the firm effectively eliminates its interest rate risk, essentially exchanging a floating for a fixed rate. *Id.* As the counterparty to the swap, the dealer takes on the risk of fluctuations in interest rates but generally not for long, because the dealer will typically seek to enter into a second swap, often concurrently with the original swap, with a counterparty having risk preferences that are the exact opposite of those of the initial firm. *Id.*

28. See generally KOLB & OVERDAHL, *supra* note 9, at 575–86 (providing examples of various instruments that limit risk to buyers with interest rate exposure, including an interest rate option that allows the buyer to profit from a favorable move in the underlying interest rate while giving protection against an adverse move in the underlying interest rate).

29. See Jessica Holzer, *SEC Proposes New Swaps Rules*, WALL ST. J., June 30, 2011, at C3 (describing recent proposed rules “aimed at protecting investors in some of the complex financial instruments blamed for exacerbating the financial crisis,” including credit default swaps).

30. WHALEY, *supra* note 27, at 679.

31. See *id.* at 674 (outlining the mechanics of a credit default swap as a protection seller who agrees, for an upfront or a continuing premium, to compensate the protection buyer upon a defined credit event).

32. See *id.* at 684 n.6.

33. In a typical credit default swap transaction, a fund may hold a large number of bonds of a particular debtor, thus exposing it to loss should the debtor default on its obligations. To hedge this risk, the fund may enter into a credit default swap whereby the risk of default is transferred to the protection seller in exchange for a fixed stream of payments. If the debtor defaults, the

Returning to the idea that derivatives are all about risk, we can now see that all swap transactions (indeed, all derivatives transactions) involve two basic risks: one that is the subject of the transaction and the other that is inherent in the transaction itself. The first is the fluctuation in value of the underlying reference asset, the result of which will be to obligate one party or the other to the contract to make payments. It is this risk, of course, that is the subject of the derivatives contract in the sense that it is what the parties seek to exchange, again either for purposes of hedging or speculation.³⁴

The second risk involved in derivatives transactions, however, is not the subject of the transaction, but rather is itself created by the transaction.³⁵ This is the risk of non-performance under the contract—that is, the risk that an insolvent counterparty will be unable to perform its contractual obligations, leaving the other counterparty to bear a risk that it had sought to transfer.³⁶ Because this risk arises principally in connection with the insolvency of a counterparty, it is referred to as “counterparty credit risk”—that is, the possibility that the party with whom you have contracted is, essentially, out of business and therefore unable to make payments under the contract.³⁷ De-

protection seller must make the protection buyer whole, typically by paying the difference between the par value of the bond and the post-default value. If the debtor does not default, the protection seller enjoys the stream of payments with no payment obligation of its own. As with other forms of derivatives, neither party need hold the reference asset in order to receive payment on a credit default swap. Similarly, the protection buyer need not suffer any actual loss in order to be entitled to payment under a credit default swap. The payment obligation is triggered with regard to the reference entity alone and is calculated on the basis of the difference between the current-versus-par value of the reference entity’s debt without regard to losses suffered (or not suffered) by the protection buyer. See James C. duPont, Comment, *A Second Chance at Legal Certainty: AIG Collapse Provides Impetus to Regulate Credit Default Swaps*, 61 ADMIN. L. REV. 843, 846–47 (2009) (describing a typical CDS transaction where the occurrence of a predefined credit event, such as bankruptcy or default on an obligation, allows the protection buyer to trigger the contract and affect settlement).

34. See generally Timothy E. Lynch, *Derivatives: A Twenty-First Century Understanding*, 43 LOY. U. CHI. L.J. 1, 19 (2011) (“If a counterparty hedges a pre-existing risk with the use of a derivatives contract, he obtains insurance value from the derivative.”).

35. See Schuyler K. Henderson, *Unintended Consequences of Misconceived Reforms, Part II*, 28 BUTTERWORTHS J. INT’L BANK & FIN. L. 439, 441 (2013) (describing the transformation as “derivatives . . . convert . . . market risks into credit risk”).

36. See Feder, *supra* note 9, at 689.

37. See BOMFIM, *supra* note 13, at 15.

rivatives transactions, because of the potentially long time between execution of the contract and settlement, create significant counterparty credit risk.³⁸

Counterparty credit risk is especially dangerous in the context of credit default swaps. If a protection seller defaults, the buyer remains exposed to the risk of default of the underlying reference entity.³⁹ If the underlying reference entity is not in default at the same time as the protection seller, the protection buyer may be able to replace the protection by entering into another credit default swap with another counterparty, which imposes additional transaction costs but does not otherwise alter the analysis.⁴⁰ If, however, the reference entity is in default at the same time as the protection seller, then the protection buyer is confronted with a dangerous scenario, the “double default,” in which protection is unavailable precisely when it is most needed.⁴¹ When declines in the credit quality of the underlying reference entity and the counterparty are correlated, as may be the case in financial crises, protection may thus be illusory.⁴² The protection buyer therefore loses both the value of its

38. Robert R. Bliss & Robert S. Steigerwald, *Derivatives Clearing and Settlement: A Comparison of Central Counterparties and Alternative Structures*, FED. RES. BANK CHI. ECON. PERSP. 23 (2006) (noting that “[w]ith derivatives . . . the length of time between the execution of a transaction and settlement is essential to the contract” and therefore that “the parties to a derivatives contract are principally dependent upon each other’s creditworthiness to assure future performance”).

39. Note here that the counterparty risk for the protection seller is not parallel because a default of the protection buyer means merely that the protection seller is not receiving its fixed stream of payments. Its long position in the credit of the reference entity is likely unaffected, although it may have to unwind its hedge (offsetting short position) if it hedged that risk, but again, this is just a transaction cost, not a double default. See BOMFIM, *supra* note 13, at 267 n.1 (noting that, although a protection seller is technically subject to the risk that the buyer will fail to make the agreed-upon premium payments, the seller’s potential exposure is essentially limited to the marked-to-market value of the contract, a function of the difference between the premium written into the contract and the one prevailing in the marketplace at the time of default by the protection buyer).

40. See *id.* at 268 (noting that the analysis of portfolio credit risk is impacted upon default by the reference entity if that entity either happens to default at around the same time as the protection seller or defaults after a default by the seller, and the original contract is not replaced).

41. See *id.* at 10 (defining a protection buyer’s greatest loss as occurring when both the protection seller and the reference entity default at the same time).

42. In the words of one commentator, “protection sellers are least likely to pay out at the very moment they’re obligated to: upon someone else’s default.” Charles Davi, *How to Understand the Derivatives Market*, THE ATLANTIC, July

derivative contract as well as the value of its investment in the underlying reference entity.

Counterparty credit risk, by its very nature, is difficult to hedge.⁴³ Instead, market participants protect themselves principally through netting and by taking collateral.⁴⁴ Netting refers to the process by which counterparties offset positive positions against negative positions in order to determine residual exposure.⁴⁵ Netting proceeds bilaterally, according to the agreement of the counterparties.⁴⁶ Once all open positions are compressed through bilateral netting, parties' residual exposures to each other are reduced substantially, and it is against this reduced exposure that parties typically post collateral.⁴⁷ Posting collateral is expensive, however, and therefore the amounts pledged typically cover less than the total net exposure between counterparties.⁴⁸ To account for this gap, market participants call for additional collateral after their marked-to-market exposure to a particular counterparty has risen beyond a previously agreed upon threshold level.⁴⁹ Parties holding inadequate collateral can be exposed to significant loss from the default of an important counterparty.

16, 2009, <http://www.theatlantic.com/business/archive/2009/07/how-to-understand-the-derivatives-market/21426>.

43. It is difficult to eliminate by hedging since the most obvious means to hedge against a weak counterparty is to enter into an offsetting trade with another counterparty which of course results in taking on the risk of that counterparty. Alternatively, a party could simply short its counterparty's bonds so that it will have gains to offset its losses as the counterparty's credit quality declines, but this may be excessively costly and difficult to manage and therefore unfeasible for many, if not most, derivatives transactions. Moreover, diversification among counterparties would not seem to be an option for minimizing counterparty credit risk since there are, at the dealer level, a very small number of potential counterparties whose riskiness is deeply interconnected.

44. See BOMFIM, *supra* note 13, at 27.

45. JOHN B. CAOUILLE ET AL., *MANAGING CREDIT RISK: THE GREAT CHALLENGE FOR GLOBAL FINANCIAL MARKETS* 75 (2d ed. 2008).

46. This agreement is a customary part of swap transactions and typically follows the form of the ISDA Master Agreement. See HENDERSON, *supra* note 8, at 480–82 (providing contractual overview); *id.* at 990–98 (tracing evolution of contractual terms).

47. For example, where Bank A and Bank B have a large number of CDSs between them such that Bank A's exposure amounts to \$100 million and Bank B's exposure amounts to \$90 million, netting allows for the exposure of Bank A to Bank B to be limited to only \$10 million, against which considerable collateral might reasonably be taken.

48. BOMFIM, *supra* note 13, at 27.

49. *Id.*

Losses from counterparty credit risk are especially likely in periods of financial distress, when financial institutions, rendered unstable either by wild swings in the value of the underlying reference asset or by losses elsewhere in their portfolio, fail.⁵⁰ The failure of a large counterparty spreads loss throughout the financial system because other institutions find themselves holding unhedged positions precisely when they most need protection. In such a situation, the failure of a major counterparty may spread loss throughout the financial system, leading to a contraction in the real economy.⁵¹ This, of course, is systemic risk, and counterparty credit risk, especially in the context of the double default, is the core way in which derivatives contribute to systemic risk.

Derivatives may contribute to systemic risk in other ways as well.⁵² First, the use of OTC derivatives, especially credit default swaps (CDS), may be vital to banks' lending practices, enabling them to offload portfolio risk and thereby expand their lending activities, such that any event that sharply limited the availability of CDS—such as, for example, an economic shock or, indeed, overregulation—would also likely curtail lending activity or increase the cost of funding, potentially causing a contraction in the real economy.⁵³ Second, substantial shocks in financial markets might lead to correlated increases in CDS values, thereby forcing all CDS writers to post additional collateral.⁵⁴ The sudden need to provide this capital—most standardized contracts require it within twenty-four hours—in the form of treasuries or similar assets would likely force CDS writers to liquidate other assets in order to post collateral, but such coordinated selling, of course, would further reduce asset

50. See Manmohan Singh & James Aitken, *Counterparty Risk, Impact on Collateral Flows, and Role for Central Counterparties* 4 (Int'l Monetary Fund, Working Paper No. 09/173, 2009), available at <http://www.imf.org/external/pubs/ft/wp/2009/wp09173.pdf> (“Counterparty risk largely stems from the creditworthiness of an institution. In the context of a financial system . . . counterparty risk will be the aggregate loss to the financial system from a counterparty that fails to deliver on its OTC derivative obligation.”).

51. Darrell Duffie et al., *Policy Perspectives on OTC Derivatives Market Infrastructure* 5 (Stan. Graduate Sch. of Bus., Research Paper No. 2046, 2010), available at <https://gsbapps.stanford.edu/researchpapers/library/RP2046.pdf>.

52. I am grateful to Prof. Charles Whitehead for suggesting these additional ways in which derivatives contribute to systemic risk.

53. See Charles K. Whitehead, *The Volcker Rule and Evolving Financial Markets*, 1 HARV. BUS. L. REV. 39, 65–67 (2011).

54. Charles K. Whitehead, *Destructive Coordination*, 96 CORNELL L. REV. 323, 353–56 (2001).

values on banks' balance sheets, thus triggering a vicious cycle leading to further collateral calls, further loss in asset value, and so on.⁵⁵

Notwithstanding these additional concerns, counterparty credit risk is typically seen as the core way in which derivatives contribute to systemic risk.⁵⁶ Systemic risk may thus be seen as a negative externality of the OTC derivatives trade.⁵⁷ Because private actors do not have an incentive to internalize costs that are borne by the system as a whole, regulators are justified in making derivatives a focus of their attention.⁵⁸

B. DERIVATIVES AND THE GLOBAL FINANCIAL CRISIS

The urge to regulate derivatives, however, did not arise spontaneously as a result of sober reflection on the nature of counterparty credit risk. It arose, instead, as part of the urgent response to the global financial crisis of 2007-2008 for which derivatives received a significant share of blame.⁵⁹ That crisis began when the bursting of the bubble in the U.S. housing market revealed the overexposure of major financial institutions to housing, principally through securitized products such as mortgage-backed securities and collateralized debt obligations (CDOs).⁶⁰ The collapse of several such institutions and the severe weakening of many others reduced the availability of

55. *See id.*; *see also infra* Part IV.B (discussing this possibility as a significant defect of clearing).

56. Duffie et al., *supra* note 51, at 4-5 ("Counterparty credit risk rises to the level of systemic risk when the failure of a market participant with an extremely large derivatives portfolio could trigger large unexpected losses on its derivatives trades, which could seriously impair the financial condition of one or more of its counterparties.").

57. *Id.* at 13 ("[T]he systemic risk associated with uncleared derivatives represents a 'negative externality' that may be appropriately treated with regulatory pressure or incentives.").

58. *See supra* note 16 and accompanying text.

59. Some, notably former CFTC Chair Brooksley Born, had advocated the idea of regulating derivatives. The political will, however, was lacking until the crisis. *See generally Frontline: The Warning* (PBS television broadcast Oct. 20, 2009), available at <http://www.pbs.org/wgbh/pages/frontline/warning/view/> (describing Born's thwarted efforts to regulate OTC derivatives).

60. *See* Andrea J. Boyack, *Laudable Goals and Unintended Consequences: The Role and Control of Fannie Mae and Freddie Mac*, 60 AM. U. L. REV. 1489, 1502-09 (2011) (describing these instruments as the principal means by which housing risk spread throughout the economy); *see also* Darrell Duffie, *Innovations in Credit Risk Transfer: Implications for Financial Stability* 12-13 (Bank for Int'l Settlements, Working Paper No. 255, 2008), available at <http://www.bis.org/publ/work255.pdf> (describing MBSs, CDOs, and securitization generally).

credit and led to a sharp contraction in the real economy.⁶¹ Derivatives were implicated in the crisis in several ways.⁶²

First, derivatives expanded the ability of investors to speculate on the direction of the U.S. housing market through the creation of “synthetic” CDOs—that is, a swap where the underlying asset was a pool of CDOs or an index of MBS.⁶³ Moreover, because derivatives enable parties to take on risk without actually owning the underlying asset, these instruments allowed “investors to take more exposure to subprime mortgages than there were such mortgages.”⁶⁴ This fueled the credit boom and

61. See generally THE FIN. CRISIS INQUIRY COMM’N, THE FINANCIAL CRISIS INQUIRY REPORT: FINAL REPORT OF THE NATIONAL COMMISSION ON THE CAUSES OF THE FINANCIAL AND ECONOMIC CRISIS IN THE UNITED STATES (2011) (attributing the crisis to failures in regulation, excessive risk-taking, and failures of governance and ethics). On the distinction between the “real economy” and the “financial economy,” see *supra* note 15 and accompanying text.

62. See René M. Stulz, *Credit Default Swaps and the Credit Crisis* 3–4 (Nat’l Bureau of Econ. Research, Working Paper No. 15384, 2009), available at <http://www.nber.org/papers/w15384> (noting observers’ arguments that derivatives contributed to the financial crisis by (1) enabling the “credit boom”; (2) allowing financial institutions to take on massive risk; and (3) providing a total lack of transparency regarding risk exposures and the resulting strength of financial institutions with large positions).

63. A synthetic CDO is essentially a credit default swap written on a reference index of CDOs combined with a pool of high-credit, quality bonds where the CDS spread plus the coupon payments from the high-quality bonds make the interest payment on the SPV securities. See Gary Gorton, *The Subprime Panic*, 15 EUR. FIN. MGMT. 10, 27 (2009). The resulting CDO is “synthetic” because it mimics the return of a CDO written on a pool of MBSs (or whatever the reference index is) but does not actually hold collateralized debt obligations. *Id.* Likewise, in 2006, asset-backed-swap (ABX) indices were introduced, representing a basket of CDS contracts on securitized subprime mortgages for a prior period (typically the past six months). *Id.* at 28–29. These indices behaved like bond indices, falling when default risk rose and rising when default risk fell, and enabled investors to take positions on the underlying market without any ownership interest, direct or indirect, in MBSs. See *id.* at 36–37.

64. Stulz, *supra* note 62, at 11; see also Gorton, *supra* note 63, at 36–37 (commenting that investors were subject to greater exposure because of the complexity of synthetic CDOs and indexed credit default swaps preventing the valuation of the underlying mortgages). The ABX.HE index is a synthetic index that tracks the price of a single CDS on each of twenty individual subprime mortgage-backed securities. See Richard Stanton & Nancy Wallace, *The Bear’s Lair: Index Credit Default and the Subprime Mortgage Crisis*, 24 REV. FIN. STUD. 3250, 3250–51 (2011). This tool allows market participants to trade the credit risk of a portfolio of pools using a single security without having to own or borrow the underlying reference assets. See *id.* at 3251. As a result of this structure, the net notional amount of ABX.HE indexed CDSs may significantly exceed the underlying principle balances. See *id.* at 3251–52.

the further expansion of risk-taking in these markets.⁶⁵

Second, derivatives allowed financial institutions to take massive but almost entirely opaque positions resulting not only in very large losses, but also in the inability of outsiders to assess their financial strength.⁶⁶ This prompted worried investors to withdraw liquidity from institutions dependent on short-term financing, thereby creating the conditions for a bank run.⁶⁷ By some estimates, the credit default swap market grew tenfold in the years leading up to the crisis, swelling from about \$5 trillion in total notional CDS in 2004 to over \$57 trillion in June 2008.⁶⁸ Estimates vary,⁶⁹ and notional amounts, because they fail to take offsetting positions into account, can be misleading.⁷⁰ Nevertheless, there is little dispute over the fact that

65. Derivatives, in other words, significantly expanded the availability of the risk asset—in this case subprime mortgages—allowing investors to vastly increase their exposures and providing another means by which the exposure could spread. This alone, however, does not render derivatives responsible for the financial crisis because this is the risk of the underlying reference asset and can be hedged. If the risk of the underlying asset is to be blamed for the financial crisis, then the fault lies not with derivatives but with the traders who made foolish choices or the institutions that failed to hedge. On this point, consider the account of AIG offered below.

66. See Stulz, *supra* note 62.

67. See Colleen M. Baker, *Regulating the Invisible: The Case of Over-the-Counter Derivatives*, 85 NOTRE DAME L. REV. 1287, 1306–07 (2010) (discussing how the opaqueness of the market prevented market participants from knowing exactly what the exposures of their counterparties were to these entities, such as Bear Stearns, Lehman Brothers, and AIG, which resulted in quick “drying up of liquidity”).

68. Compare MONETARY & ECON. DEPT., BANK FOR INT’L SETTLEMENTS, OTC DERIVATIVES MARKET ACTIVITY IN THE FIRST HALF OF 2005, at 9 tbl.4 (2005), available at http://www.bis.org/publ/otc_hy0511.pdf, with MONETARY & ECON. DEPT., BANK FOR INT’L SETTLEMENTS, OTC DERIVATIVES MARKET ACTIVITY IN THE SECOND HALF OF 2008, at 7 tbl.1 (2009), available at http://www.bis.org/publ/otc_hy0905.pdf.

69. Compare Press Release, Depository Trust & Clearing Corp., DTCC Values Additional CDS Contracts in Trade Information Warehouse at \$5.7 Trillion (Aug. 3, 2009), available at <http://www.reuters.com/article/2009/08/03/idUS193323+03-Aug-2009+BW20090803> (reporting a smaller \$26.5 trillion notional value of 2.2 million electronically confirmed CDS contracts in the warehouse’s registry in July 2009), with Press Release, Int’l Swaps & Derivatives Ass’n, Inc., ISDA Mid-Year 2009 Market Survey Shows Credit Derivatives at \$31.2 Trillion (Sept. 15, 2009), available at <http://www.isda.org/press/press091509.html> (finding a total notional value of \$31.2 trillion).

70. See Memorandum from J.P. MORGAN, J.P. MORGAN’S RESPONSE TO FASB STATEMENT NO. 161 (FAS 161), Disclosures About Derivative Instruments and Hedging Activities (ASC Topic 815) 5 (2011) (“The information on notional amounts could be misleading because the gross presentation does not appropriately reflect the effect of some common strategies.”).

the CDS market grew considerably in the years leading to the crisis and that much of that exposure was housed in financial institutions.⁷¹ Moreover, the opacity of the OTC derivatives market prevented outsiders from assessing these exposures, and the resulting fear of a bank run has been cited as a chief reason for the government bailout of financial institutions.⁷²

The role derivatives played in the global financial crisis is often illustrated by the example of AIG.⁷³ When the massive insurer failed as a result of portfolio losses stemming from speculation on subprime mortgages,⁷⁴ the government moved to bail it out, citing as its principal reason AIG's role as a large CDS counterparty.⁷⁵ Commentators have questioned whether it was necessary to bail out AIG for this reason,⁷⁶ considering that

71. See Stulz, *supra* note 62, at 27; see also duPont, *supra* note 33, at 854–58 (discussing the development of credit default swaps). That it is difficult to say how much exposure they in fact bore only demonstrates the difficulty in quantifying the exposure of financial institutions during the crisis, which is often cited as a significant part of the problem. See, e.g., Stulz *supra* note 62, at 24.

72. Holman W. Jenkins, Jr., *The Never-Ending Goldman-AIG Saga*, WALL ST. J., Jan. 27, 2010, <http://online.wsj.com/news/articles/SB10001424052748703906204575027320028402644> (stating that one of the chief reasons for the bailout of AIG was fear of a “wholesale run on the nation’s banking system”).

73. See Craig Pirrong, *The Inefficiency of Clearing Mandates*, CATO INST.: POLY ANALYSIS 2 (2010), available at <http://www.cato.org/sites/cato.org/files/pubs/pdf/PA665.pdf> (noting that AIG has been “routinely trotted out to demonstrate the need for clearing”); OFFICE OF THE SPECIAL INSPECTOR GEN. FOR THE TROUBLED ASSET RELIEF PROGRAM, SIGTARP-10-003, FACTORS AFFECTING EFFORTS TO LIMIT PAYMENTS TO AIG COUNTERPARTIES (2009), available at <http://online.wsj.com/public/resources/documents/aig111609.pdf> (explaining the government’s version of the AIG collapse). See generally duPont, *supra* note 33 (discussing AIG collapse in an argument for increased regulation of CDS); William K. Sjostrom, Jr., *The AIG Bailout*, 66 WASH. & LEE L. REV. 943, 980–81 (2009).

74. Richard Squire, *Shareholder Opportunism in a World of Risky Debt*, 123 HARV. L. REV. 1151, 1184 (2010) (noting that “the liabilities on AIG’s derivative contracts were not big enough in themselves to break the company”); see also Henderson, *supra* note 2, at 480 (“If AIG FP had not agreed to market-to-market collateralization, its CDS exposure would have been troublesome for a while but not life-threatening.”).

75. Press Release, Bd. of Governors of the Fed. Reserve Sys. (Sept. 16, 2008), available at <http://www.federalreserve.gov/newsevents/press/other/20080916a.htm> (announcing the bailout and explaining that “disorderly failure of AIG could add to already significant levels of financial market fragility and lead to substantially higher borrowing costs, reduced household wealth, and materially weaker economic performance”).

76. Commentators have also suggested that there may have been other reasons. See, e.g., Edmund L. Andrews, *Fed in an \$85 Billion Rescue of an Insurer Near Failure*, N.Y. TIMES, Sept. 17, 2008, at A1 (“If A.I.G. had collapsed—and been unable to pay all of its insurance claims—institutional in-

AIG's swaps counterparties had in fact taken significant collateral⁷⁷ and that the traditional system of collateral and netting worked fairly well when it was allowed to function during the crisis.⁷⁸ Nevertheless, it seems clear that financial policymakers were not sufficiently confident in that system to allow the failure of a large, unhedged, undercollateralized derivatives counterparty at a time when other financial institutions were highly vulnerable.⁷⁹ As a result, they focused their attention on regu-

vestors around the world would have been instantly forced to reappraise the value of those securities, and that in turn would have reduced their own capital and the value of their own debt."); Eric Dash & Andrew Ross Sorkin, *Throwing a Lifeline to a Troubled Giant*, N.Y. TIMES, Sept. 18, 2008, at C1 ("A.I.G. was one of the 10 most widely held stocks in 401(k) retirement plans, and . . . its collapse could potentially cause an enormous run on mutual funds."); Stulz, *supra* note 62, at 26–27 ("A collapse of AIG would not have been a benign event for the markets . . . AIG would also have defaulted on its debt and its commercial paper at a time when there already was a run on money markets.").

77. HENDERSON, *supra* note 8, at 633 (noting that AIG's counterparties had taken \$35 billion in collateral by the time of AIG's ultimate bailout in December 2008).

78. Stulz, *supra* note 62, at 21; see also *Clearing up the Credit Swaps Fog—Letting Opaque Markets Grow Unchecked Was Inexcusable*, FIN. TIMES (London), Oct. 16, 2008, at 10 ("The Depository Trust and Clearing Corporation, where most CDS trades are registered, now estimates that only about \$6bn need physically change hands next week when Lehman CDS are settled. The vast majority is netted out, and systemic risk appears marginal."); Stefano Giglio, *Credit Default Swap Spreads and Systemic Financial Risk 3* (Jan. 2011) (unpublished manuscript), available at http://www.faculty.chicagobooth.edu/workshops/finance/past/pdf/giglio_jmp.pdf (performing an analysis of CDS spreads and bond prices to find that spikes in CDS spreads in the month before Bear Stearns' collapse and after Lehman's default do not correspond to spikes in systemic risk but instead with idiosyncratic default risk of one or a small number of banks); Press Release, Int'l Swaps & Derivatives Ass'n, Inc., ISDA CEO Notes Success of Lehman Settlement, Addresses CDS Misperceptions (Oct. 21, 2008), available at <http://www.isda.org/press/press102108.html> (commenting on the success of the CDS settlement system during the Lehman default and the continued liquidity of CDS contracts as opposed to their cash equivalents); Press Release, LCH.Clearnet, LCH.Clearnet Successfully Manages Lehman Default (Sept. 23, 2008), available at http://www.lchclearnet.com/media_centre/press_releases/2008-09-23.asp (commenting on the successful management of Lehman's default resulting in a 90% decrease in risk exposure).

79. See generally Roberta Romano, *Regulating in the Dark*, in REGULATORY BREAKDOWN: THE CRISIS OF CONFIDENCE IN U.S. REGULATION 86 (Cary Coglianese ed., 2012) (describing how policymakers feel compelled to react to crises). In her words:

Human nature in this context is that legislators will find it impossible to not respond to a financial crisis by "doing something," that is, by ratcheting up regulation, instead of waiting until a consensus understanding of what has occurred can be secured and a targeted solution then crafted, despite the considerable informational advantage from

lation of the OTC derivatives market.⁸⁰ A regulatory push for mandatory central counterparty clearing started in the United States, with the President's Working Group on Financial Markets, and as described in the next Part, soon went global.⁸¹

II. THE GLOBAL REGULATORY RESPONSE

As the 2007–2008 crisis overran international borders, financial policymakers worldwide sought to coordinate their regulatory response through the G-20, the institutional structure through which the finance ministers of many of the world's richest economies meet.⁸² In the wake of the crisis, the G-20 Summits became a focal point for financial reform, with significant meetings taking place in Washington, D.C. in 2008 and in London and in Pittsburgh in 2009.⁸³

the latter approach, which would, no doubt, improve the quality of decision making.

Id. at 87.

80. See generally Roe, *supra* note 16, at 1647–51 (describing this environment).

81. The President's Working Group on Financial Markets, consisting of the Secretary of the Treasury, the Chairs of the Fed, the SEC, and the CFTC, was formed by executive order in the wake of the October 1987 stock market crash to enhance the efficiency of financial markets and maintain investor confidence. See Exec. Order No. 12631, 3 C.F.R. 559 (1988). The Group's initial post-crisis reports did not feature mandatory central counterparty clearing among its core recommendations. See, e.g., PRESIDENT'S WORKING GRP. ON FIN. MKTS., POLICY STATEMENT ON FINANCIAL MARKET DEVELOPMENTS (2008), available at <http://www.law.du.edu/images/uploads/presidents-working-group.pdf>; PRESIDENT'S WORKING GRP. ON FIN. MKTS., PROGRESS UPDATE ON MARCH POLICY STATEMENT ON FINANCIAL MARKET DEVELOPMENTS (2008), available at <http://www.treasury.gov/resource-center/fin-mkts/Documents/q4progress%20update.pdf>. By the end of 2008, however, mandatory central counterparty clearing had become a core policy objective. See PRESIDENT'S WORKING GRP. ON FIN. MKTS., POLICY OBJECTIVES FOR THE OTC DERIVATIVES MARKET (2008), available at <http://www.treasury.gov/resource-center/fin-mkts/Documents/policyobjectives.pdf>. It is important to note that this policy determination preceded the G-20's Washington, London, and Pittsburgh Summits, described below, during which the organization decided upon the same policy objective. See *infra* Part II.

82. See Alex M. Brill & James K. Glassman, *Who Should the Twenty Be? A New Membership System to Boost the Legitimacy of the G20 at a Critical Time for the Global Economy*, NATIONAL TAXPAYERS UNION (June 14, 2012), <http://www.ntu.org/news-and-issues/economy/who-should-the-twenty-be.html>. The G-20, whose ancestors include the G-33, G-22, G-7, and G-8, is a group of finance ministers and central bankers representing 19 countries plus the European Union. The membership criteria and representativeness of the group have recently come under criticism. See, e.g., *id.*

83. See *infra* notes 85, 88.

At the Washington meeting, in the midst of a still-unfolding crisis, the participants succeeded in agreeing only that the crisis was one of financial markets, not of capital flows or exchange rates, and that they would focus their next meeting on regulating financial markets.⁸⁴ At the next meeting, in London in April 2009, participants agreed to “take action to build a stronger, more globally consistent, supervisory and regulatory framework for the future financial sector.”⁸⁵ Summit participants further undertook “to establish the much greater consistency and systematic cooperation between countries” and exhorted regulatory authorities to “reduce the scope for regulatory arbitrage.”⁸⁶ The content of these heightened regulatory standards was sketched in an Action Plan wherein finance ministers agreed, among other things, to: “extend regulation and oversight to all systemically important financial institutions, instruments and markets.”⁸⁷ The detailed work, however, was left to the next meeting, in November 2009, in Pittsburgh.

At the Pittsburgh Summit, the G-20 leaders targeted the OTC derivative markets and established the clearing mandate. The specific G-20 undertaking was that: “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.”⁸⁸ The Financial Stability Board was tasked with

84. At the Washington meeting, U.S. representatives resisted the suggestion that the crisis called for a “new Bretton Woods” agreement focusing on international capital and rates of exchange, emphasizing that the regulation of financial markets, not the exchange rate system, was the area in which reforms were needed. See Robert Fauver, *The View from Washington*, in ANALYSIS: THE G20 LEADERS SUMMIT ON FINANCIAL MARKETS AND THE WORLD ECONOMY (John Kirton ed., 2008), available at <http://www.g8.utoronto.ca/g20/g20leadersbook/fauver.html> (arguing the financial crisis “is not a problem brought about due to capital movements or capital flows” and that “[t]he exchange rate system had nothing to do with the crisis”).

85. G20, LONDON SUMMIT-LEADERS’ STATEMENT (2009), available at <https://www.g20.utoronto.ca/2009/2009communiqu0402.pdf>.

86. *Id.*

87. *Id.* Relatedly, the ministers agreed “to establish a new Financial Stability Board (FSB) with a strengthened mandate, as a successor to the Financial Stability Forum (FSF), including all G20 countries, FSF members, Spain, and the European Commission.” *Id.*

88. G20, G20 LEADERS STATEMENT: THE PITTSBURGH SUMMIT (2009), available at <http://www.g20.utoronto.ca/2009/2009communiqu0925.html>.

These undertakings largely restate the policy objectives of the President’s

regularly assessing implementation of these measures and with evaluating whether the reforms “improve transparency in the derivatives markets, mitigate systemic risk, and protect against market abuse.”⁸⁹

In this way, having become a focal point of the G-20’s agenda for financial reform, central counterparty clearing became the globally mandated means of addressing the systemic risk of derivatives transactions.⁹⁰ The sections that follow describe central counterparty clearing in greater detail, focusing in particular on its potential to mitigate systemic risk, then discussing steps taken in jurisdictions around the world to implement it.

A. CENTRAL COUNTERPARTY CLEARING

Policymakers and regulators worldwide have focused on central counterparty clearing as the solution to the problem of systemic risk inherent in derivatives transactions for two basic reasons. First, central counterparty clearing promises to enhance transparency and regulatory oversight of the marketplace by creating a central institution charged with the monitoring and reporting of derivatives transactions.⁹¹ Second, central counterparty clearing seems to promise an effective

Working Group on Financial Markets from November 2008. *See supra* note 81. Interestingly, the policy prescriptions of the G-20 with regard to derivatives were not without dissent. *See* FIN. SERVS. AUTH., REPORT TO HM TREASURY ON THE IMPLEMENTATION OF THE RECOMMENDATIONS OF THE RIGHTS ISSUE REVIEW GROUP 27, 29 (2010), available at http://www.fsa.gov.uk/pubs/ukla/hmt_rirg.pdf.

89. G20, G20 LEADERS STATEMENT: THE PITTSBURGH SUMMIT (2009), available at <http://www.g20.utoronto.ca/2009/2009communique0925.html>.

These goals are parroted almost verbatim in the Dodd-Frank Act. *See infra* note 126.

90. The details regarding clearinghouse operation provided in the sections that follow are based on regulatory releases made public as of the date of this writing (late summer 2013). The relevant rules are at various stages of completeness, with some final and some still in draft form. *See, e.g., infra* Parts II.B., III.B.

91. For cleared and exchange-traded swaps, data will be compiled by the relevant clearing organization or exchange. For uncleared swaps, all parties must report their trades to a registered swap data repository or, if no such repository exists for the relevant transaction, directly to the Commodity Futures Trading Commission (CFTC) or Securities and Exchange Commission (SEC), as applicable. 7 U.S.C. § 6r(a)(1) (2012) (requiring that each security-based swap not accepted for clearing by a clearing agency or derivatives clearing organization (DCO) be reported to a swap data repository, or if none exists, to the SEC); 15 U.S.C. § 78c-3(e) (2012) (stating same).

means of mitigating counterparty credit risk, primarily by increasing the power of netting and collateralization.⁹²

Clearing is a common feature of financial transactions, from securities trades to derivatives transactions, referring generally to post-trade operations such as trade-matching and confirmation, features often dismissed as the “plumbing” of the financial system.⁹³ Derivatives transactions, however, because of the lag in time between execution and settlement of the contract and the concomitant counterparty credit risk, create special risk-management challenges, requiring ongoing monitoring of counterparty creditworthiness and the taking of collateral.⁹⁴ The parties can undertake these functions themselves, in the case of “bilateral clearing,” or these functions can be centralized by means of a “central counterparty” that effectively positions itself, through contractual novation, between market participants taking opposite positions on a risk—that is, between buyer and seller.⁹⁵ All transactions are thus run through the clearinghouse which comes to function as “the buyer to every seller and the seller to every buyer.”⁹⁶ The hitherto disorganized world of bilateral derivatives trading comes to resemble an orderly hub-and-spoke arrangement with the clearinghouse at the center of every trade.⁹⁷

The first thing to notice is that the creation of a central counterparty creates an obvious nexus for collecting infor-

92. Richard Squire, *Clearinghouses and the Rapid Resolution of Bankrupt Financial Firms*, CORNELL L. REV. (forthcoming) (point up problems, however, with the idea that netting may mitigate counterparty losses). Richard Squire has identified a third potential benefit of a clearinghouse: facilitating “faster payouts to creditors when a trading firm fails.” *Id.*

93. Michael H. Moskow, *Public Policy and Central Counterparty Clearing*, 30 ECON. PERSPS., no. 4, 2006, at 46. In securities transactions, clearinghouses, such as the Depository Trust & Clearing Corporation, manage counterparty risk between institutions by “clearing” and “settling” transactions. See HAL S. SCOTT & PHILIP A. WELLONS, INTERNATIONAL FINANCE: TRANSACTIONS, POLICY, AND REGULATION 904–06 (9th ed. 2002).

94. See Bliss & Steigerwald, *supra* note 38 and accompanying text; see also Viral V. Acharya et al., *Regulating OTC Derivatives*, in REGULATING WALL STREET: THE DODD-FRANK ACT AND THE NEW ARCHITECTURE OF GLOBAL FINANCE 367, 399 (Viral V. Acharya et al. eds., 2011).

95. See Elizabeth Schubert & Antony Bryceson, *Mechanics of Derivatives Clearing*, PRAC. L., <http://us.practicallaw.com/9-505-9203> (providing a chart that models the relationship between the end user, counterparty, and clearinghouse).

96. See COMM. ON PAYMENT AND SETTLEMENT SYSS. & TECHNICAL COMM. OF THE INT’L ORG. OF SECS. COMM’NS, BANK FOR INT’L SETTLEMENTS, RECOMMENDATIONS FOR CENTRAL COUNTERPARTIES 1 (2004).

97. See Duffie et al., *supra* note 51, at 5–6 fig.1.

mation about the derivatives market. Clearinghouses centralize the collection of information and can facilitate making trade and pricing information public.⁹⁸ They also create a central monitoring station to evaluate counterparty creditor-worthiness that may be able to do so more efficiently than diffuse counterparties individually seeking to assess each other's solvency.⁹⁹ Finally, central counterparties may provide an easy point of entry for regulators seeking either to gain information in order to determine whether and how to intervene in the market.¹⁰⁰

More fundamentally, the rearrangement of the derivatives market into a hub-and-spoke arrangement has the effect of redistributing the risk inherent in derivatives transactions. To see this, recall the two basic forms of risk in derivatives: the risk of the underlying and counterparty credit risk. First, with regard to the underlying, the clearinghouse remains perfectly neutral, taking on no risk at all. Instead, it runs a perfectly balanced book, offsetting whatever long position it takes from the original seller by a corresponding short position with the original buyer and so on with every cleared trade. The clearinghouse is thus left with zero exposure to the underlying, the risk of which is borne entirely by the original transacting parties.

The situation is reversed with respect to counterparty credit risk. By becoming the seller to every buyer and the buyer to every seller,¹⁰¹ the clearinghouse effectively undertakes all counterparty credit risk while the transacting parties have zero exposure to their original counterparties and, as long as the clearinghouse remains solvent, no exposure to counterparty credit risk. Or, to say the same thing in a slightly different way, the clearinghouse steps in to guarantee the performance of eve-

98. Roe, *supra* note 16, at 1657–58, 1678 (but also noting the counterpoint that clearinghouses could lead to “worsening opacity” rather than transparency); see also Craig Pirrong, *The Economics of Clearing in Derivatives Markets: Netting, Asymmetric Information, and the Sharing of Default Risks Through a Central Counterparty* 62 (Jan. 8, 2009) (unpublished) available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1340660 (noting that while it is reasonable to think clearinghouses improve information access, this goal could be achieved without them).

99. Roe, *supra* note 16, at 1658.

100. *Id.* at 1659, 1703 (noting also the counterpoint that establishing clearinghouses will divert regulators’ “scarce political and professional resources” when better methods of avoiding systemic risk exist); see also Pirrong, *supra* note 98, at 62.

101. See *supra* text accompanying note 96.

ry cleared trade.¹⁰² Whether clearinghouses will be able to contain counterparty credit risk thus becomes the all-important question. Fundamentally, they have the same basic tools as private parties to manage these risks—that is, netting and collateralization—but the clearinghouse context promises to increase the power of each of these fundamental tools.

Netting reduces total exposure by offsetting losing trades against winning ones.¹⁰³ Netting is possible bilaterally, but netting works better with centralization because it allows winning and losing positions to be traded off among a larger number of parties—that is, all members of the clearinghouse.¹⁰⁴ With central counterparty clearing, netting moves from being a fundamentally bilateral system to becoming a multilateral system for offsetting gains and losses.¹⁰⁵ The increased power of netting is at its greatest effect if all trades are cleared via a single clearinghouse so that all positions of a dealer—that is, different types of swaps, different asset classes, different trading partners—can be netted over the same platform.¹⁰⁶ As we shall see, the power of central counterparty clearing is reduced as soon as the one clearinghouse condition is no longer met.¹⁰⁷

The second basic tool that parties to derivatives transactions use to manage risk is collateralization. Here too, clearinghouses offer advantages.¹⁰⁸ Clearinghouses take collateral, referred to as margin, from their members in two forms: initial margin and variation margin.¹⁰⁹ Initial margin is the amount of collateral that a member must post to the clearinghouse to

102. See James T. Moser & David Reiffen, *Clearing and Settlement*, in KOLB & OVERDAHL, *supra* note 9, at 263; see also CAOUILLE ET AL., *supra* note 45, at 72–75.

103. See *supra* text accompanying note 45.

104. Roe, *supra* note 16, at 1660–62; see also, Craig Pirrong, *The Clearinghouse Cure*, 31 REG. 44, 47 (Winter 2008–2009); Pirrong, *supra* note 73, at 8, 23.

105. Roe, *supra* note 16, at 1657–58.

106. See Pirrong, *supra* note 73, at 3–4; Manmohan Singh, *Collateral, Netting and Systemic Risk in the OTC Derivatives Market* 5–9 (Int'l Monetary Fund, Working Paper No. 10/99, 2010), available at <http://www.imf.org/external/pubs/ft/wp/2010/wp1099.pdf>.

107. See *infra* Part IV.B.

108. But see Craig Pirrong, *Clearing and Collateral Mandates: A New Liquidity Trap?*, 24 J. APPLIED CORP. FIN. 67, 70 (2012) (describing the “more mechanical nature of [clearinghouse] margining methodologies” and how its “variation margining process is substantially more rigid than is typical in bilateral transactions”); Pirrong, *supra* note 73, at 17.

109. See DAVID LOADER, CLEARING AND SETTLEMENT OF DERIVATIVES 35, 125–29 (2005).

clear a trade.¹¹⁰ Variation margin is exchanged daily between the clearinghouse and the trader to reflect changes in value of the trader's position over time.¹¹¹ The amount of initial margin will be based upon the risk posed to the clearinghouse from the cleared trade—the expected cost to the clearinghouse of settling the trade in the event that the defaulting member fails to make a required variation payment.¹¹² The initial margin calculation thus depends upon the volatility and liquidity of the underlying instrument as well as the size of the trade.¹¹³ Variation margin, as the name suggests, changes depending upon fluctuations in the value of the trade. For relatively liquid instruments, such as interest rate swaps, the value of the trade can be marked to market and the variation margin easily determined by reference to the current market value.¹¹⁴ For less liquid instruments without a readily ascertainable market value, however, clearinghouses will be forced to mark to model,¹¹⁵ thus introducing the possibility of error inherent in such models.¹¹⁶ Variation

110. See ANDREW M. CHISHOLM, AN INTRODUCTION TO CAPITAL MARKETS: PRODUCTS, STRATEGIES, PARTICIPANTS 252–56 (2009).

111. *Id.*

112. See Duffie et al., *supra* note 51, at 7. Should a trader default on a required variation payment, the clearinghouse would liquidate the instrument to settle the trade with the holder of the opposite position. *Id.* Because there will be some time lag between the calculation of and default on the variation payment, on the one hand, and the liquidation of the instrument, on the other, the clearinghouse must set initial margin at an amount equal to potential changes in market value during this time lag. See *id.* (“The initial margin should exceed, in most extreme scenarios, the change in market value of the derivatives position over this time window.”).

113. See *id.* (“For example, the initial margin for a credit default swap is generally greater than that for an interest rate swap of the same notional size because of the potential of sudden changes in the credit quality of borrowers referenced in most credit default swaps.”). Liquidity is a consideration because “the difference between the bid and offer prices for some types of derivatives could suddenly increase during a period of financial stress.” *Id.*

114. See Aline van Duyn & Gregory Meyer, *Exchange Template for Derivatives Criticised*, FIN. TIMES, Sept. 15, 2010, <http://www.ft.com/cms/s/0/c222f2ae-c0dc-11df-94f9-00144feab49a.html#axzz1kt6kO3VU> (citing a major dealer's estimate that “the most liquid derivative was the 10-year US dollar interest rate swap, with just over 500 trades a day” and that “[t]he most liquid credit default swaps, used to place bets or hedge against defaults on debt, were contracts on General Electric, and those traded just 15 times per day”).

115. See STEVEN ALLEN, FINANCIAL RISK MANAGEMENT 110–20 (2003).

116. On the failure of quantitative models and their consequences, see Felix Salmon, *A Formula for Disaster*, WIRED, Mar. 2009, at 74 (detailing the success and ultimate failure of David Li's Gaussian copula formula, a model described as “instrumental in causing the unfathomable losses that brought the world financial system to its knees”). Another famous example would be the failure of the quantitatively driven investment fund Long-Term Capital

margins can result in the transfer of funds either way—from the trader to the clearinghouse or from the clearinghouse to the trader—depending upon fluctuations in the value of the instrument, but again, the clearinghouse is always net zero in variation margin because the gains of one trader triggering a clearinghouse margin payment will be exactly offset by the losses of another trader triggering a transfer to the margin account of the clearinghouse. Clearinghouses offer efficiencies to the bilateral trading system by providing for a central place to monitor and manage margin accounts. Additionally, the margin taken by central counterparties necessary to protect against dealer default may be less than the amount of aggregate margin taken by bilateral counterparties due to the increased power of central counterparty netting to reduce aggregate exposures.¹¹⁷

In addition to netting and collateralization, central counterparty clearing allows clearinghouse members to mitigate counterparty credit risk through loss mutualization.¹¹⁸ Most often clearinghouse loss mutualization is performed via a guaranty fund—that is, a reserve account against member default.¹¹⁹ Each member, upon joining the clearinghouse, makes a contribution to the guaranty fund, separate from and in addition to the establishment of a margin account.¹²⁰ The guaranty fund is then held by the clearinghouse to settle losses from dealer default in excess of margin.¹²¹ Central counterparty clearing provides a mechanism by which dealers can thus create pooled reserves and establish orderly default-management procedures.¹²²

Management. See generally ROGER LOWENSTEIN, WHEN GENIUS FAILED: THE RISE AND FALL OF LONG-TERM CAPITAL MANAGEMENT (2000).

117. Again, however, this power depends upon there being one central clearinghouse. See *infra* Part IV.B.

118. See STEVEN ALLEN, FINANCIAL RISK MANAGEMENT 507–08 (2d ed. 2013).

119. See Duffie et al., *supra* note 51, at 7 (defining a clearinghouse’s guaranty fund as an “additional layer of defense, after initial margin,” for the purpose of covering losses arising out of the failure of members to perform on a cleared derivative).

120. *Id.*

121. *Id.* at 7, 25.

122. Clearinghouses may provide for loss mutualization beyond the guaranty fund in the form of further member commitments to cover clearinghouse losses, but these additional protections create additional complications that may make them rare in practice. Duffie et al., *supra* note 51, at 19–24.

Central counterparty clearing has long been available for exchange-traded derivatives and, in general, seems to have been an effective means of mitigating counterparty credit risk.¹²³ It is therefore not surprising that policymakers and regulators have seized upon it as a means of mitigating risk in the OTC derivatives market. While it is true that many specialized OTC contracts may lack the necessary liquidity to be centrally cleared,¹²⁴ the conventional expectation is that “as markets for particular contracts mature and as standardized forms of transacting and standardized contract terms are adopted (as has happened in interest rate swaps, for instance), [central counterparty] clearing of OTC derivatives [will] become more and more feasible.”¹²⁵ In focusing on central counterparty clearing as the solution to the problem of systemic risk, policymakers and regulators have thus sought to adapt a mechanism of the exchange-traded market to the OTC market.

B. INTERNATIONAL IMPLEMENTATION

The U.S. and Europe have both followed highly particularized rule-based approaches to the implementation of the central clearing mandate. Other jurisdictions have offered a more flexible standards-based approach. Still others have been slow to take any effort to regulate derivatives trading.

Mere months after the Pittsburgh G-20 Summit, the U.S. Congress enacted the Dodd-Frank Wall Street Reform and Consumer Protection Act (“Dodd-Frank Act”).¹²⁶ Title VII of the

123. See Bliss & Steigerwald, *supra* note 38, at 23–24 (“[M]ost exchange-traded derivatives and some OTC derivatives are cleared and settled through a CCP.”).

124. *Id.* at 26 (“Many OTC derivatives contracts are too specialized to develop the necessary volume to make central clearing feasible.”).

125. *Id.*; see also DAVID SKEEL, *THE NEW FINANCIAL DEAL* 70 (2011) (offering the view that “a large majority of derivatives will find their way to clearinghouses and exchanges within a few years” and citing Professor Duffie’s prediction that “60 percent would be cleared within a year, [and] 80 percent within four years”).

126. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010) (codified as amended in scattered sections of 7, 12, and 15 U.S.C.). The speed with which Dodd-Frank was enacted again reflects the fact that, at least with regard to OTC derivatives, U.S. regulatory objectives were fixed well in advance of the ultimate formation of international consensus. See *supra* notes 81, 88. This suggests at least that U.S. policymakers at the G-20 pushed for the mandatory clearing of OTC derivatives, a position U.K. regulators may have initially resisted. See *supra* note 88. Because G-20 proceedings are not public, none of this can be known with certainty, but

Dodd-Frank Act focuses on OTC derivatives reform, the centerpiece of which is the clearing mandate.¹²⁷ The Dodd-Frank Act is often explicit in designing the architecture of mandatory clearing, expressly carving out commercial hedging transactions¹²⁸ and granting the Treasury department the power to exempt foreign exchange swaps and forwards from clearing.¹²⁹ However, much of the detail work in designing mandatory clearing was left to the rule-making of the Commodity Futures Trading Commission (CFTC) and the Securities and Exchange Commission (SEC, collectively, the “Commissions”).¹³⁰ For example, the Commissions are left to decide such critical issues as which categories of swaps must ultimately be cleared¹³¹ as well as the setting of margin and collateral requirements for cleared and uncleared swaps.¹³²

U.S. law-makers certainly did have a fully-formed statute in hand soon after international consensus was reached.

127. Title VII does more than require mandatory clearing. Among other things, it mandates that “swaps entities” register with the SEC or CFTC, as appropriate, and enacts rules relating to trading facilities and the reporting of derivatives transactions. *See* Wall Street Transparency and Accountability Act of 2010, Pub. L. No. 111-203, 124 Stat. 1641 (codified at 15 U.S.C. § 8301 (2012)). However, because this Article is focused on the containment of systemic risk and the clearinghouse is the central tool to obtain that end, it will focus principally on clearing.

128. Commodities Exchange Act § 2(h)(7), 7 U.S.C. § 2 (2012); Securities Exchange Act § 3C(g), 15 U.S.C. § 78c-3(g) (2012).

129. Dodd-Frank Act § 721(a)(21), 7 U.S.C. § 1a(47)(E)(i) (2012). The exemption is only for clearing. Foreign exchange swaps will still have to comply with trade reporting and business conduct standards.

130. The Dodd-Frank Act gives the CFTC authority to regulate “swaps” and the SEC authority to regulate “security-based swaps.” Dodd-Frank Act § 721(a)(21), 7 U.S.C. § 1a (amending CEA section defining swaps); Dodd-Frank Act § 761(a)(6), 15 U.S.C. § 78c(a) (2012) (amending the Securities Exchange Act section defining “securities”).

131. Dodd-Frank Act § 723(a)(3) and § 763(a) provide for both “top-down” determinations whereby the CFTC and the SEC mandate clearing for a particular swap and for “bottom-up” determinations whereby the CFTC and SEC accept for clearing swaps proposed for clearing by clearinghouses. In either case, the determinations of the CFTC and the SEC are to be guided by considerations including: (1) notional exposures, trading liquidity, and adequate pricing data, (2) available capacity, operational expertise, credit support and clearinghouse resources, (3) the effect on the mitigation of systemic risk considering the size of the market for the swap, (4) the effect on competition, and (5) reasonable legal certainty concerning how collateral and other funds would be distributed in the event of clearinghouse or member default. Commodities Exchange Act § 2(h)(2)(D), 7 U.S.C. § 2 (2012); Securities Exchange Act § 3C(b)(4), 15 U.S.C. § 78c-3(b)(4) (2012).

132. Commodities Exchange Act § 4s(e)(2)(C), 7 U.S.C. § 19 (2012); Securities Exchange Act § 15F(e)(2)(C), 15 U.S.C. § 78o-10 (2012).

The Commissions have engaged in extensive rule-making on all issues within their regulatory purview, crafting a highly particularized set of rules and obligations to govern the derivatives marketplace. For example, with regard to margin and collateral, the Commissions generally require clearinghouses to take sufficient collateral to withstand the default of its one or two largest members, depending on a set of factors.¹³³ Margin requirements are to be determined by “risk-based models,” the details of which are left to the clearinghouses themselves,¹³⁴ but regulations require that funds posted as collateral be segregated, a rule that insulates swaps participants from “fellow customer risk” at the likely cost of higher margin requirements generally.¹³⁵ Finally, for uncleared swaps, the regulations require significant posting of initial and variation margin and limit margin collateral to cash and a very small subset of safe

133. The CFTC requires sufficient collateral to withstand the default of the single largest member unless the clearinghouse is “systemically important,” in which case it must be able to withstand the default of its two largest members. *See* Derivatives Clearing Organization General Provisions and Core Principles, 76 Fed. Reg. 69,334, 69,334–45 (Nov. 8, 2011) (codified at 17 C.F.R. pts. 1, 21, 39, 140). On the factors for deeming an institution to be “systemically important,” see 12 U.S.C. § 5468 (2012). The SEC requires clearinghouses to “maintain sufficient financial resources to withstand, at a minimum, a default by the two participants to which it has the largest exposures in extreme but plausible market conditions” unless the clearinghouse does not clear CDS, in which case it need withstand the default only of its single largest member. *See* Clearing Agency Standards for Operation and Governance, Exchange Act Release No. 64,017, 76 Fed. Reg. 14,472, 14,479 (proposed Mar. 16, 2011) (to be codified at 17 C.F.R. pt. 240).

134. Clearing Agency Standards for Operation and Governance, 76 Fed. Reg. at 14,479; *see also* Derivatives Clearing Organization General Provisions and Core Principles, 76 Fed. Reg. 69,334, 69,365 (Nov. 8, 2011) (codified at 17 C.F.R. pts. 1, 21, 39, 140). The CFTC offers a bit more detail, requiring that the clearinghouses “appropriately address jump-to-default risk” but leaving all details up to the discretion of the clearinghouses themselves. Risk Management Requirements for Derivatives Clearing Organizations, 76 Fed. Reg. 3698, 3704 (proposed Jan. 20, 2011) (to be codified at 17 C.F.R. pt. 39). Jump-to-default risk is “the risk that the sudden onset of a credit event will cause an abrupt change in a firm’s CDS exposure.” U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-09-397T, SYSTEMIC RISK: REGULATORY OVERSIGHT AND RECENT INITIATIVES TO ADDRESS RISK POSED BY CREDIT DEFAULT SWAPS 3 (2009).

135. CFTC, Protection of Cleared Swaps Customer Contracts and Collateral; Conforming Amendments to the Commodity Broker Bankruptcy Provisions, 17 C.F.R. pts. 22, 190 (Feb. 7, 2012). Rule-making providing for the segregation of customer accounts was required by the Dodd-Frank Act. § 724(a), 7 U.S.C. § 6d (amending the CEA by requiring clearinghouses and members to segregate customer collateral and not use the collateral of one customer to cover the obligations of another).

securities to be independently held and subject to reinvestment restrictions.¹³⁶

The clearinghouse mandate in the U.S. has thus taken the form of a highly detailed, largely prescriptive set of requirements. The implementing regulations are rules as opposed to standards. Moreover, in some cases, the rewriting of derivatives regulation has been used to advance policy agendas that depart from or are otherwise tangential to the minimization of systemic risk, such as domestic energy policy,¹³⁷ general marketplace fairness,¹³⁸ and other structural issues concerning the derivatives market.¹³⁹

The European Union, like the U.S., has adopted a highly particularized, rule-based approach to derivative regulation. The principal legislation aimed at reforming the OTC derivative market—the European Market Infrastructure Regulation (EMIR)—was adopted by the European Parliament in March 2012¹⁴⁰ and will be effective in all member states once implementing regulations are adopted, a process projected to be complete before the end of 2013.¹⁴¹ Consistent with the pre-

136. Margin Requirements for Uncleared Swaps for Swap Dealers and Major Swap Participants, 76 Fed. Reg. 23,732 (proposed Apr. 28, 2011) (to be codified at 17 C.F.R. pt. 23) (such safe securities include U.S. Treasuries and, for initial margin only, government agency securities).

137. See Aggregation, Position Limits for Futures and Swaps, 77 Fed. Reg. 31,767 (proposed May 30, 2012) (to be codified at 17 C.F.R. pt. 151) (empowering the CFTC to impose position limits on certain physically-settled derivatives contracts, including gasoline and oil, to prevent speculative activity from raising prices in U.S. markets); see also Brief for Senator Levin et al. as Amici Curiae Supporting Defendant in *ISDA v. CFTC*, No. 12-5362, 2013 WL 1739657 (explaining position limits rule as motivated to prevent speculation from driving up oil prices).

138. For example, the “real time clearing” rule. See CFTC, FACTSHEET: CUSTOMER CLEARING DOCUMENTATION, TIMING OF ACCEPTANCE FOR CLEARING, AND CLEARING MEMBER RISK MANAGEMENT, available at http://www.cftc.gov/ucm/groups/public/@newsroom/documents/file/ccd_tac_cmrm_factsheet_final.pdf.

139. An example of the last of these is DCM Core Principle No. 9, which generally requires futures and options transactions to be executed in an open and competitive fashion. However, industry participants have complained that the rule’s requirement that 85% of a product’s trading volume take place on the centralized market within one year’s time stifles innovation and has the perverse effect of pushing products off of exchanges into the more opaque world of bilateral trading. Anonymous Industry Interview (June 22, 2012).

140. Position of the European Parliament of 29 March 2012, EUR. PARL. DOC. (COD/2010/0250) (2012).

141. Other proposed European regulations touching on derivatives market reforms include MiFID (Dec 2010), Revised MiFID (October 2011), and MiFIR

scriptive rule-based approach of U.S. regulation, EMIR imposes minimum capital requirements for clearinghouses¹⁴² and provides for margin requirements and other prudential standards to be further specified in implementing regulations.¹⁴³ A segregation rule is contemplated by the European legislation, but it does not appear to be fully aligned with the segregation rule recently adopted in the U.S. by the CFTC.¹⁴⁴ Finally, as in the U.S., the European legislation allows the technical regulators—there, the European Securities and Markets Authority (ESMA)—to decide the scope of what ultimately must be cleared.¹⁴⁵ Thus, although there are some differences between the two regulatory regimes and the potential for greater regulatory divergence going forward, currently the U.S. and European approaches are closely aligned, both in substance and in form as highly prescriptive, rule-oriented regimes.¹⁴⁶

Apart from the U.S. and Europe, only Japan has adopted a robust regulatory structure for OTC derivatives, having amended the Financial Instruments and Exchange Act (FIEA) in 2010 to grant the Japanese Financial Services Agency in-

(Oct 2011). EMIR, however, is the focus of this discussion because it is principally focused on clearing as opposed to exchanges and trading.

142. 2012 O.J. (17), available at <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:201:0001:0059:EN:PDF>. But unlike U.S. rules, the European regulations do not exempt foreign exchange swaps and have a significantly more narrow exemption for noncommercial hedging. *Id.*

143. *Id.*

144. See *U.S. and EU OTC Derivatives Regulation —A Comparison of the Regimes*, SIDLEY AUSTIN LLP, Apr. 23, 2012, <http://www.sidley.com/US-and-EU-OTC-Derivatives-Regulation--a-Comparison-of-the-Regimes-04-23-2012/> (last visited Mar. 11, 2014).

145. *EMIR FAQ*, EUROPEAN COMMISSION, Dec. 18, 2013, http://ec.europa.eu/internal_market/financial-markets/docs/derivatives/emir-faqs_en.pdf (specifying both a top-down and bottom-up means for inclusion similar to U.S. requirements).

146. For example, while both regimes envision registration and conduct of business rules for dealers, the U.S. regime also extends registration, conduct of business and margin/capital rules to major swap participants. The EU regime only imposes limited rules (including margin/capital requirements) on non-financial counterparties subject to the clearing obligation. Both regimes allocate considerable discretion to regulators and would thus diverge should the regulators exercise that discretion differently. For example, it is at least possible that regulators in one regime will be more aggressive in defining the scope of covered swaps than regulators in the other regime, the result of which would be to create large de facto differences between the functioning of the two regimes. Significant differences in enforcement may also arise.

creased authority to regulate OTC derivatives.¹⁴⁷ FIEA calls for mandatory clearing of high-volume OTC derivatives as well as for other OTC derivatives where the reduction of risk through central clearing is deemed necessary for stability of the Japanese market, with decisions regarding specific instruments to be left to cabinet officials.¹⁴⁸ Capital requirements for Japanese derivatives dealers are based on Basel II, which Japan has implemented.¹⁴⁹ In spite of being at an earlier stage of development than U.S. and European regulatory efforts, Japan appears to be on track in implementing a broadly similar regulatory architecture.

The same cannot be said for most other countries. Although several countries have formed commissions to study the issue, none are as far along in implementing a framework for regulating OTC derivatives as the United States, Europe, and Japan.¹⁵⁰ In their efforts, countries seem to range from generally amenable but not particularly interested,¹⁵¹ to vaguely disin-

147. See FIN. SERV. AGENCY, OUTLINE FOR THE BILL FOR AMENDMENT OF THE FINANCIAL INSTRUMENTS AND EXCHANGE ACT, *available at* <http://www.fsa.go.jp/en/refer/diet/174/01.pdf> (last visited Mar. 11, 2014).

148. FIN. STABILITY BD., OTC DERIVATIVES MARKET REFORMS (2011).

149. U.S. SEC. & EXCH. COMM. & COMMODITY FUTURES TRADING COMM., JOINT REPORT ON INTERNATIONAL SWAP REGULATION 74 (2012) [hereinafter JOINT REPORT].

150. Hong Kong may be closest, proposing an OTC regulatory regime in October 2011; however, many aspects of this regime have yet to be worked out. H.K. MONETARY AUTH., CONSULTATION PAPER ON THE PROPOSED REGULATORY REGIME FOR THE OVER-THE-COUNTER DERIVATIVES MARKET IN HONG KONG (2011), *available at* <https://www.sfc.hk/sfcConsultation/EN/sfcConsultFileServlet?name=otcreg&type=1&docno=1>. Singapore would seem to be next, having issued a consultation report proposing a regulatory framework for OTC derivatives in May 2012 with plans to introduce legislation by the end of 2012. MONETARY AUTH. OF SING., CONSULTATION PAPER I ON PROPOSED AMENDMENTS TO THE SECURITIES AND FUTURES ACT ON REGULATION OF OTC DERIVATIVES (2012).

151. Australia may belong in this category, a country that does not currently regulate OTC derivatives transactions but that released a discussion paper suggesting that it would likely harmonize its regulation to comport with that of other major jurisdictions. TREASURY OF AUSTL., HANDLING AND USE OF CLIENT MONEY IN RELATION TO OVER-THE-COUNTER DERIVATIVES TRANSACTIONS 16–18 (2011), *available at* http://archive.treasury.gov.au/documents/2231/PDF/DP_Client_Monies_OTC.pdf; see also TREASURY OF AUSTL., COUNCIL OF FIN. REGULATORS, OTC DERIVATIVES MARKET REFORM CONSIDERATIONS 31 (2012), *available at* <http://www.treasury.gov.au/~media/Treasury/Publications%20and%20Media/Publications/2012/CFR%20report%20on%20over%20the%20counter%20derivatives/Downloads/PDF/CFR%20Report.ashx>.

clined,¹⁵² to an apparent lack of interest in any form of OTC derivatives regulation.¹⁵³ As long as important jurisdictions offer no significant regulation of OTC derivatives and those that do differ widely in regulatory detail or resources available for enforcement, there is significant scope for departures from the regulatory regime outlined by the G-20.¹⁵⁴

Alert to this prospect, the G-20 at its meeting in Mexico City in June 2012, stressed the importance of collective action to implement financial stability, focusing special attention on the regulation of OTC derivatives.¹⁵⁵ Several reports released in connection with the Mexico City meetings stressed the need for international conformity in derivatives regulation, lauding the progress made by leading jurisdictions but cautioning that “considerable further work is needed in many jurisdictions to fully meet the G20 objectives” and that “[c]lose cooperation across major markets will be needed to address overlapping regulations.”¹⁵⁶ Ultimately, the organization reaffirmed its commitment to “multilateralism” and underscored the role of the FSB in persuading members to live up to their commitments.¹⁵⁷ The underlying concern here—that incomplete cross-

152. This may include China, which has indicated only that it is considering whether mandatory clearing is suitable for its markets. FIN. STABILITY BD., *supra* note 148, at tbls.2 & 6.

153. Brazil, which requires mandatory clearing only for exchange traded derivatives and has no plans to mandate clearing of OTC derivatives, would be in this category. See JOINT REPORT, *supra* note 149, at 57–60.

154. A robust rule structure that is unenforced, of course, is little better than no rule structure at all. See *generally* JOINT REPORT, *supra* note 149, at 99.

155. See G20, TOWARD LASTING STABILITY AND GROWTH: UMBRELLA REPORT FOR G-20 MUTUAL ASSESSMENT PROCESS (2012).

156. FIN. STABILITY BD., PROGRESS IN IMPLEMENTING THE G20 RECOMMENDATIONS ON FINANCIAL REGULATORY REFORM: STATUS REPORT BY THE FSB SECRETARIAT 5 (2012); see also OICU-IOSCO, THE CREDIT DEFAULT SWAP MARKET (2012); FIN. STABILITY BD., OTC DERIVATIVE MARKET REFORMS: THIRD PROGRESS REPORT ON IMPLEMENTATION (2012); FIN. STABILITY BD., OVERVIEW OF PROGRESS IN THE IMPLEMENTATION OF THE G20 RECOMMENDATIONS FOR STRENGTHENING FINANCIAL STABILITY (2012); FSB-IMF, IDENTIFYING THE EFFECTS OF REGULATORY REFORMS ON EMERGING MARKET AND DEVELOPING ECONOMIES: A REVIEW OF POTENTIAL UNINTENDED CONSEQUENCES (2012).

157. *G20 Leaders Declaration*, THE WHITE HOUSE (June 19, 2012), <http://www.whitehouse.gov/the-press-office/2012/06/19/g20-leaders-declaration> (last visited Mar. 11, 2014) (“[W]e have agreed that multilateralism is of even greater importance in the current climate, and remains our best asset to resolve the global economy’s difficulties.”).

border harmonization will lead to regulatory failure—is addressed in the next Part.

III. REGULATORY ARBITRAGE AND UNIFORM REGULATION

The global nature of finance in general and of derivatives in particular makes it theoretically possible for transacting parties to avoid regulation by shifting the locus of their transactions from a highly regulated jurisdiction to a less regulated one. In the context of derivatives regulation, if a jurisdiction, Country A, were to impose mandatory clearing on derivatives transactions within its borders, the locus of such transactions could easily shift to another jurisdiction, Country B. Moreover, were this to occur, the financial system of Country A would be no safer from systemic risk notwithstanding its regulatory zeal since financial institutions operating within its borders would remain exposed to risk as a result of their transactions elsewhere. This ability to evade regulation by taking business to other jurisdictions is what is commonly referred to as regulatory arbitrage.¹⁵⁸

Regulators in the U.S. have been attuned to the possibility of regulatory arbitrage from the beginning of the regulatory process. In public statements, leading policymakers and regulators have reaffirmed this message. For example, U.S. Treasury Secretary Timothy Geithner has emphasized the need to “protect against cross-border gamesmanship” in financial regulation.¹⁵⁹ Likewise, U.S. Under-Secretary of the Treasury for International Affairs, Lael Brainard, testified before Congress that regulatory arbitrage “means a ‘race to the bottom’ for standards and protections. . . . And it may increase the possibility of future financial instability, if riskier activities migrate to

158. See, e.g., Anupam Chander & Randall Costa, *Clearing Credit Default Swaps: A Case Study in Global Legal Convergence*, 10 CHI. J. INT'L L. 639, 640 (2010) (“Because of the possibility of regulatory arbitrage, there is a case not just for CCP clearing but also for regulatory convergence or harmonization.”); Christian A. Johnson, *Regulatory Arbitrage, Extraterritorial Jurisdiction and Dodd-Frank: The Implications of US Global OTC Derivative Regulation* (Oct. 30, 2012) (unpublished), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2169401 (discussing the regulatory arbitrage problem created by the Dodd-Frank Act and the extraterritorial authority given to the CFTC to address these problems).

159. See Press Release, U.S. Dep't Treasury, Treasury Sec'y Timothy F. Geithner Written Testimony House Fin. Serv. Comm. Fin. Regulatory Reform (Sept. 23, 2009), available at <http://www.treasury.gov/press-center/press-releases/Pages/tg296.aspx>.

areas with less transparency, looser regulation, and laxer supervision.”¹⁶⁰ And CFTC Chairman, Gary Gensler, stated in a speech before the European Parliament that: “Effective reform cannot be accomplished by one nation alone. It will require a comprehensive, international response. The response to the global financial crisis lies in efforts by governments to bring about a harmonious global regime of financial regulations.”¹⁶¹

The standard response to the possibility of regulatory arbitrage is the adoption of a unified regulatory regime—that is, the adoption of uniform rules and standards by all relevant regimes.¹⁶² This can be accomplished by fiat—when there is a top level policymaker with authority to impose rules downward in a hierarchical arrangement—a role, for example, that is often played by the federal government in the United States when divergent policies among the states are deemed undesirable.¹⁶³ In the context of global financial regulation, however, there is no body with sufficient authority to transcend national sovereigns. As a result, regulatory unity must be achieved through other means.

In the context of OTC derivative regulation, U.S. regulators have pursued regulatory uniformity through harmonization, on the one hand, in which they have worked across national borders to urge their foreign counterparts to adopt a similar approach to derivative regulation. Failing that, U.S. regulators have shown a willingness, on the other hand, to fall back on a regulatory mode closer to imposition of rule by fiat—that is, extraterritorial application of U.S. law. This Part explores the issues raised by the prospect of regulatory arbitrage in derivatives regulation and describes efforts in the U.S. to respond to those issues through regulatory harmonization and extraterritorial application of U.S. law.

160. See *Financial Regulatory Reform: The International Context: Hearing Before the H. Comm. on Fin. Servs.*, 112th Cong. 12 (2011) (statement of Lael Brainard, Under Sec’y for Int’l Affairs).

161. See Gary Gensler, Chairman, Commodity Futures Trading Comm., Remarks Before the European Parliament (Mar. 22, 2011), available at <http://www.cftc.gov/PressRoom/SpeechesTestimony/opagensler-75>.

162. See, e.g., William L. Cary, *Federalism and Corporate Law: Reflections Upon Delaware*, 83 YALE L.J. 663 (1974) (arguing in favor of harmonization through the imposition of federal corporate law in response to supposed “race to the bottom” among states in the design of their corporate law). But see ROBERTA ROMANO, *THE GENIUS OF AMERICAN CORPORATE LAW* (1993) (making the opposite point that regulatory competition drives states to adopt efficient corporate law).

163. See Cary, *supra* note 162.

A. ARBITRAGE OPPORTUNITIES

Before proceeding to solve the “problem” of regulatory arbitrage, however, it is worth pausing to consider what a charge of regulatory arbitrage really implies. The core narrative, abstracted from any particular issue, seems to be:

A regulated entity’s movement of business from Jurisdiction A, which has adopted Regulatory Strategy X addressing Problem Y, to Jurisdiction B, which has not adopted Regulatory Strategy X and in which it is therefore less costly to conduct business.

This definition, however, does not clearly establish regulatory arbitrage as a problem to be solved. First, there is no *prima facie* reason to believe that Jurisdiction B does not have another, potentially superior means of addressing Problem Y or that Jurisdiction A efficiently targets Problem Y such that the costs of compliance do not outweigh the probability adjusted cost of the harm averted. In order to view regulatory arbitrage as a *problem* and not merely as a manifestation of (potentially efficiency-enhancing) jurisdictional competition, a number of sub-narratives must be smuggled into the basic definition to answer such questions as why Jurisdiction B (or any other jurisdiction) would adopt a regulatory strategy that threatened to destroy its financial system or why any financial institution would willingly move to a financial system that imposed greater risk of loss and failure upon it. It may be possible, in some instances at least, to provide satisfactory answers to these questions focusing on such problems as externalities,¹⁶⁴ moral hazard,¹⁶⁵ agency costs,¹⁶⁶ regulatory capture,¹⁶⁷ or some combination of these.¹⁶⁸

164. See J.J. Lafont, *Externalities*, in THE NEW PALGRAVE DICTIONARY OF ECONOMICS (Steven N. Durlauf & Lawrence E. Blume eds., 2d ed. 2008) (“Externalities are *indirect* effects of consumption or production activity, that is, effects on agents other than the originator of such activity which do not work through the price system.”). In the context of regulatory arbitrage, the ability of one jurisdiction to impose the costs of activity on another jurisdiction while enjoying all of the benefits creates a classic externality problem, often referred to in this context as “spillover effects.”

165. See generally Y. Kotowitz, *Moral Hazard*, in THE NEW PALGRAVE DICTIONARY OF ECONOMICS, *supra* note 164 (“Moral hazard may be defined as actions of economic agents in maximizing their own utility to the detriment of others, in situations where they do not bear the full consequences or, equivalently, do not enjoy the full benefits of their actions due to uncertainty and incomplete information or restricted contracts which prevent the assignment of full damages (benefits) to the agent responsible.” (emphasis omitted)). See also KEOHANE, *supra* note 16, at 95–96 (discussing moral hazard in the context of international banking). A moral hazard account of the problem, for example, might argue that Jurisdiction B has defected from the efficient regulatory

The point here is that in order to view regulatory arbitrage as a problem to be solved, rather than a natural, even desirable outcome, it is not enough merely to note the possibility that business may move from one jurisdiction to another. There must also be some account of why the preferred regulatory regime is superior to the regulatory choice of the alternative jurisdiction as well as some account of why regulators in the alternative jurisdiction are themselves unwilling or unable to solve the problem. A more complete definitional structure for regulatory arbitrage might thus be:

A regulated entity's movement of business from Jurisdiction A, which has adopted *efficient* Regulatory Strategy X addressing Problem Y, to Jurisdiction B, which has *defected* from efficient Regulatory Strategy X (for reasons of moral hazard or agency costs or other) and therefore fails to adequately address Problem Y and in which it is therefore less costly to conduct business.

This definitional structure foregrounds each of the contestable aspects of the claim—that is, the efficiency of Regulatory Strategy X and the defection of Jurisdiction B—thus forcing the

strategy because it anticipates that if it is brought to the brink of failure by low quality regulation (or for any other reason), other countries will bail out its financial system rather than allow it to fail. By defecting from the efficient regulatory regime, Jurisdiction B thus enjoys the full benefit (increased financial activity) and only a portion of the cost (failure of its financial system) of its activities.

166. See generally Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305, 308 (1976) (“[I]t is generally impossible for the principal or the agent at zero cost to ensure that the agent will make optimal decisions from the principal’s viewpoint . . . [T]here will be some divergence between the agent’s decisions and those decisions which would maximize the welfare of the principal.” (citation omitted)). An agency cost account of the problem, for example, might argue that Jurisdiction B has defected from the efficient regulatory regime because some of its ministers have calculated that their personal benefit from increased financial activity outweighs the personal cost of failure of the financial system because failure of the financial system, if it ever occurs, is off in the indefinite future at which time the ministers are likely to occupy other (higher) offices, whereas the benefit of increased financial activity and the revenues generated thereby will help them reach higher office.

167. See generally Jean-Jacques Laffont & Jean Tirole, *The Politics of Government Decision-Making: A Theory of Regulatory Capture*, 106 Q. J. ECON. 1089 (1991).

168. These accounts can (and often do) co-exist. Moreover, similar accounts may apply to financial institutions. For example, a financial institution may expect a bailout (moral hazard) or be run by managers who are compensated more for taking risk than for managing it (agency costs) while at the same time benefiting from a rule structure that enables the institution to receive the benefits of its activities while imposing the costs on someone else (an externality).

party claiming regulatory arbitrage to provide an account of each contestable claim. Such an account is critical if regulatory arbitrage is to be adequately distinguished from regulatory competition.¹⁶⁹

The distinction between regulatory arbitrage and regulatory competition is crucial because regulatory competition has many salutary effects. First and most obviously, it reduces the transaction costs of regulated entities by allowing them to move to the regime with the least costly effective regulation. In the context of financial institutions, this is especially significant because such savings can translate into lower cost of credit for businesses seeking access to capital. Second, regulatory competition provides an incentive for regulators in different jurisdictions to innovate in search of more efficient regulation. More efficient regulation may either achieve the same regulatory result at a lower cost or a better regulatory result at the same cost. Regulators have an incentive to seek efficient regulatory solutions in order to maintain their authority over regulated entities that may otherwise have an incentive to move elsewhere. The resulting emphasis on regulatory efficiency would prevent policymakers from pursuing agendas that depart from or are largely tangential to the underlying purpose of the regulation.¹⁷⁰ Third, by encouraging regulators to experiment and seek innovative solutions to the problems of regulated entities, regulatory competition generates information about the availability and the effectiveness of regulatory alternatives.¹⁷¹

The problem is that in seeking to solve the problem of *regulatory arbitrage*, regulators rarely acknowledge the potential for *regulatory competition*. They are neither made to defend their regulatory regime as the most efficient, nor are they asked to explain why other regulatory structures are necessarily inferior. This certainly was the pattern at the G-20, where mandatory clearing was promoted without either considering

169. See, e.g., Ethiopis Tafara & Robert J. Peterson, *A Blueprint for Cross-Border Access to U.S. Investors: A New International Framework*, 48 HARV. INT'L L.J. 31, 52 (2007) (distinguishing between regulatory arbitrage and regulatory competition on the basis of the quality and cost of alternative regulatory regimes).

170. See *supra* notes 137–39 and accompanying text (discussing this possibility and providing examples).

171. See generally Romano, *supra* note 16, at 7 (arguing that a regime where experimentation was encouraged “would generate information and formalize an ongoing testing of assumptions in the search for better regulatory solutions”).

regulatory alternatives or providing a means for experimentation in regulatory design.¹⁷² Likewise, in the United States, policymakers have consistently treated the availability of alternative regulatory regimes as a problem to be solved, first through harmonization, then if necessary, through an exercise of extra-territorial jurisdiction.

B. CREATING UNIFORMITY: EXTRATERRITORIALITY AND HARMONIZATION

Title VII of the Dodd-Frank Act acknowledges the global nature of the derivatives marketplace and directs the Commissions to consult and coordinate with their counterparts overseas to promote effective and consistent global regulation of derivatives.¹⁷³ As already noted, global consistency in this context has been taken to mean an international regulatory structure organized around mandatory clearing.¹⁷⁴ U.S. regulatory authorities have been engaged in conversations of this sort since reform efforts began. They have all been aimed at achieving uniform regulation through regulatory harmonization.¹⁷⁵

Should those discussions fail to achieve a sufficiently uniform global regulatory environment, however, the Dodd-Frank Act expressly provides the Commissions with authority to prohibit entities from non-compliant jurisdictions from participating in U.S. markets.¹⁷⁶ Under the Act, the Commissions are empowered to regulate risk-creating activities, wherever in the world they originate, if they “have a direct and significant connection with activities in, or effect on, commerce in the United States.”¹⁷⁷ Additionally, in language that directly raises the prospect of regulatory arbitrage, the Commissions are given broad authority to “prevent the evasion” of U.S. rules.¹⁷⁸ Alt-

172. The consideration of unintended consequences emerged only in the most recent (Mexico) meeting of the G-20. *See* FSB-IMF, *supra* note 156, at 1.

173. Dodd-Frank Act § 752, 15 U.S.C. § 8325 (2012).

174. *See supra* notes 81, 88, and 126 (describing the appearance of mandatory central counterparty clearing first as a U.S. policy agenda, followed by its articulation as a global commitment).

175. *See, e.g.*, JOINT REPORT, *supra* note 149, at 6–10 (describing formal comments received from foreign jurisdictions in connection with international swap regulations).

176. Dodd-Frank Act § 715, 15 U.S.C. § 8305; *id.* § 722, Pub. L. No. 111-203, 124 Stat. 1376, 1672 (2010) (codified as amended in scattered sections of 7 U.S.C.).

177. *Id.* § 722(d), 7 U.S.C. § 2 (2012).

178. *Id.*

though it also refers vaguely to principles of “international comity,”¹⁷⁹ the Act is unambiguous in authorizing U.S. regulators to impose uniformity through extraterritorial application of U.S. law.¹⁸⁰ In the summer of 2012, U.S. regulators, starting with the CFTC, began to wield this power.

1. The CFTC Asserts Broad Extraterritorial Regulatory Authority

On June 29, 2012, the CFTC released interpretive guidance on “cross-border application of certain swaps provisions of the Commodity Exchange Act” (the “Proposed Guidance”).¹⁸¹ Although it follows Congress in paying homage to the importance of international comity,¹⁸² in fact, the Proposed Guid-

179. *Id.* § 929Y (not to be codified) (requiring the SEC to solicit public comment and conduct a study to determine the extent to which private anti-fraud rights of action should be extended extraterritorially).

180. Congress subsequently questioned the wisdom of such broad extraterritoriality but failed ultimately to restrict it. A bill, H.R. 3283, was subsequently introduced in the House of Representatives that would have clarified the applicability of Dodd-Frank to non-U.S. swap dealers and market participants by amending the Commodity Exchange Act and the Securities Exchange Act to carving out transactions between U.S. persons and non-U.S. persons. H.R. 3283, 112 Cong. (2011). Specifically, the bill provided that the provisions of Title VII of Dodd-Frank would not apply to non-U.S. persons as long as the parties reported the transaction to a swap data repository. Moreover, the bill expressly permitted non-U.S. persons to comply with capital requirements in their home jurisdictions rather than those mandated by U.S. regulation. *Id.* After seven months stagnation in the House Committee on Agriculture, the bill was committed in December 2012 to the Committee of the Whole House on the State of the Union. Bill Summary & Status, 112th Cong., H.R. 3283, THOMAS, <http://thomas.loc.gov/cgi-bin/bdquery/z?d112:h.r.3283>: (last visited Mar. 11, 2014).

181. Cross-Border Application of Certain Swaps Provisions of the Commodity Exchange Act, 77 Fed. Reg. 41,214, 41,238 (July 12, 2012) [hereinafter Proposed Guidance]. By framing the release as interpretive *guidance* rather than a proposed *rule* (in spite of its many rule-like provisions), the CFTC was not required to perform a cost-benefit analysis of the proposals in the release. See generally Commodity Exchange Act § 15(a), 7 U.S.C. § 19 (2012) (requiring the CFTC to conduct a cost-benefit analysis before issuing an order); 5 U.S.C. §§ 551–59 (2012) (incorporating provisions from the former Administrative Procedure Act of 1946). This drew complaints by some in Congress. See Letter from Scott Garrett (R-NJ) and Randy Neugebauer (R-Tex.) to Hon. Gary Gensler, Chairman, CFTC 2 (June 20, 2012).

182. See Proposed Guidance, *supra* note 181, at 41,223 (“The Supreme Court has held that ‘an act of Congress ought never to be construed to violate the law of nations if any other possible construction remains.’ Jurisdiction is generally construed, ‘to avoid unreasonable interference with the sovereign authority of other nations.’ The . . . Supreme Court has [also] noted that the principles in the Third Restatement of Foreign Relations Law are relevant to the interpretation of U.S. law.” (citations omitted)); see also *id.* at 41,240

ance amounts to an aggressive assertion of extraterritorial regulatory authority.¹⁸³ The basic structure of the Proposed Guidance is threefold. First, the Proposed Guidance identifies those institutions so intertwined with U.S.-facing swap activity that they must submit to U.S. regulation, either as swap dealers or major swap participants, thereby drawing foreign entities with more than a *de minimis* level of U.S. contact in their swap dealings into the ambit of U.S. regulation.¹⁸⁴ Second, it classifies the CFTC's regulations according to whether they will apply to institutions as a whole ("entity-level requirements") or to swaps on a per-transaction basis ("transaction-level requirements").¹⁸⁵ Third, it creates a structure for "substituted compliance" according to which entity-level regulatory compliance may be waived on the basis of a substantially similar regime in the entity's home jurisdiction.¹⁸⁶ Generally, however, the Proposed Guidance denies substituted compliance for transaction-level regulations, exempting from U.S. transaction-level regulations only those transactions that a foreign swap participant enters into with a foreign counterparty not guaranteed by or otherwise operating as a conduit to a U.S. entity.¹⁸⁷ In other words, the

(statement of Commissioner Scott D. O'Malia) ("Although the Proposed Guidance expressly states that the Commission will exercise its regulatory authority over cross-border activities in a manner consistent with principles of international comity, the Commission's proposed approach could be described as unilateral and dismissive of foreign law, even when those laws may achieve the same results sought by the Commission.") (citation omitted).

183. The Proposed Guidance attracted significant controversy both inside and outside of the CFTC for precisely this reason. Although there were no dissents, two Commissioners filed critical concurrences. *See id.* at 41,239 (statement of Commissioner Jill Sommers) (noting that the "current document" does not contain the same aggressive "[i]ntergalactic" interpretation of regulatory authority originally advocated but criticizing the document for "ignor[ing] the Commission's successful history of mutual recognition of foreign regulatory regimes"); *id.* at 41,241 (statement of Commissioner Scott D. O'Malia) (warning that if the CFTC were to adopt the proposals as rules, it would "take an imperialistic view of the swaps market" and rest on a "shaky legal analysis"). O'Malia also noted in his concurrence that "if I were asked to vote on the Proposed Guidance as final, my vote would be no." *Id.* For an example of the controversy engendered outside of the CFTC, see Editorial, *Regulator of the World*, WALL ST. J., May 27, 2013, <http://online.wsj.com/news/articles/SB1001424127887323372504578469280840360860>.

184. *See* 7 U.S.C. § 1a(33) (2012) (defining "major swap participant"); *see also* Further Definition of "Swap Dealer," "Security-Based Swap Participant," "Major Security-Based Swap Participant," and "Eligible Contract Participant," 77 Fed. Reg. 30,596 (May 23, 2012) [hereinafter Final Entity Rules].

185. Proposed Guidance, *supra* note 181, at 41,223–24.

186. *Id.* at 41,227.

187. *Id.* at 41,228 ("[T]he Commission proposes to interpret section 2(i) in a

CFTC claims authority to write the rules for all swap participants worldwide that transact with U.S. entities but promises to offer exemptions on a case-by-case basis, depending upon its assessment on the comparability in terms of coverage and quality of foreign regulatory regimes.

The gateway to U.S. swap regulation is engaging in swap transactions, either as a dealer or a participant, above a *de minimis* threshold over a twelve-month period.¹⁸⁸ Once an entity exceeds this threshold amount and must register with the CFTC, it is fully subject to U.S. regulation irrespective of where in the world it is based.¹⁸⁹ The scope the CFTC's cross-border regulatory reach thus turns on the technical question of how entities must aggregate transactions in measuring their activities against the applicable threshold. "U.S. persons" must aggregate all positions, regardless of counterparty, on the theory that defaults by foreign and domestic counterparties may equally jeopardize the financial stability of the U.S. entity.¹⁹⁰ However, in defining "U.S. person," the Proposed Guidance includes both a territorial element as well as an element taking into account the potential for the consequences of those entities organized elsewhere to have an impact in the United States.¹⁹¹

manner so as to require non-U.S. swap dealers and non-U.S. MSPs to comply with Transaction-Level Requirements for all of their swaps with U.S. persons [I]n most cases, the Commission does not intend to permit substituted compliance for the Transaction-Level Requirements").

188. The *de minimis* exemption for swap dealers is \$3 billion (\$8 billion during the regulations' phase-in period). See Final Entity Rules, *supra* note 184, at 30,744. CFTC regulations define "major swap participant" as someone who is not a swap dealer, but who maintains a "substantial position" in swaps, not including commercial hedging, or whose positions create "substantial counterparty exposure." *Id.* at 30,746. Substantial position has two tests, both of which must be satisfied to avoid qualifying as a major swap participant. *Id.* The first measures current net uncollateralized exposure (threshold of \$1 billion, except for rate swaps which have a threshold of \$3 billion) and the second takes into account future uncollateralized exposure (threshold of \$2 billion, except for rate swaps which have a \$6 billion threshold). *Id.* at 30,747-48. Substantial counterparty exposure is the same test as substantial position but with fewer exceptions (for example, not limited to major categories of swaps and not exempting commercial hedging) with a threshold for current net uncollateralized exposure of \$1 billion (\$3 billion for rate swaps) and a threshold for future uncollateralized exposure of \$2 billion (\$6 billion for rate swaps). *Id.*

189. Proposed Guidance, *supra* note 181, at 41,223.

190. See *id.* at 41,218.

191. The territorial element includes, for example, entities organized in or majority owned by individuals residing in the United States. The consequences element expands the definition of "U.S. person" to include those whose swap activities have a "direct and significant connection with activities in, or effect on, commerce of the United States." *Id.* at 41,218.

As a result, entities that are located abroad but whose swap activities significantly impact U.S. commerce may directly qualify as U.S. persons, obliging them to aggregate all positions in testing whether they qualify under the regulatory threshold.¹⁹² Non-U.S. persons, by contrast, need aggregate only U.S.-facing swap positions—that is, those positions that are (i) guaranteed by a U.S. entity, (ii) transacted with a U.S. counterparty, or (iii) transacted with a counterparty guaranteed by a U.S. entity.¹⁹³ Thus, as conceived by the Proposed Guidance, foreign entities transacting in swaps may come within the regulatory purview of the CFTC either by qualifying directly as “U.S. persons” notwithstanding their jurisdiction of organization, or alternatively, upon aggregating their U.S.-facing positions, finding that they fall into the new categories of “[non-U.S.] swap dealer” or “[non-U.S.] major swap participant.”¹⁹⁴

Once a foreign entity is brought within the ambit of U.S. regulation, the question becomes the extent to which U.S. regulation applies to its operations and how it may comply with those regulations. The Proposed Guidance addresses this issue by creating a tiered approach distinguishing entity-level and transaction-level rules.¹⁹⁵ Entity-level rules are those applying to the swap dealer or major swap participant as a whole, including rules concerning capital adequacy, the chief compliance officer position, risk management, swap data recordkeeping, swap reporting, and large trader reporting.¹⁹⁶ Transaction-level rules, by contrast, are those applying to the individual swap, including the clearing mandate, margin and segregation requirements for uncleared swaps, trade execution, portfolio compression, recordkeeping and reporting, and business conduct rules.¹⁹⁷ With the exception of the business conduct rules, transaction-level rules apply to every U.S.-facing transaction with little opportunity for substituted compliance.¹⁹⁸ Entity-level rules also apply to non-U.S. swap dealers and major swap participants, but their obligations under these requirements

192. *See id.* at 41,220.

193. *Id.* at 41,219–20.

194. *Id.* at 41,217–18.

195. *Id.* at 41,224 (“The Entity-Level Requirements apply to registered swap dealers and MSPs across all their swaps without distinctions as to the counterparty or the location of the swap.”).

196. *Id.* at 41,224–25.

197. *Id.* at 41,225–27.

198. *Id.* at 41,230.

may potentially be fulfilled by means of substituted compliance.¹⁹⁹

Substituted compliance is, as the name suggests, the opportunity for a non-U.S. entity to substitute compliance with its home-state regulator for compliance with U.S. swap regulation.²⁰⁰ Under the terms of the Proposed Guidance, substituted compliance may be available for non-U.S. swap dealers and major swap participants for all entity-level rules.²⁰¹ When it is potentially available, the ultimate applicability of substituted compliance is at the discretion of the CFTC, which promises to make its determinations according to a rubric of *comparability*.²⁰² The Proposed Guidance asserts that the CFTC will not require that the foreign jurisdiction's rules be identical to U.S. rules in order to be deemed comparable, but rather suggests several factors for determining comparability, including (i) comparable scope and objectives, (ii) comparable comprehensiveness of regulation, and (iii) comparable supervisory capacity and enforcement authority.²⁰³ The Proposed Guidance outlines a review process whereby a foreign entity or regulator may submit a request to the CFTC to permit substituted compliance. The request would claim comparability, stating the specific points of comparison with U.S. regulation and making reference to the relevant foreign rules and regulations.²⁰⁴ Approved requests would lead the CFTC to seek a memorandum of understanding with the foreign regulator outlining future information-sharing and other forms of cooperation.²⁰⁵

Substituted compliance, however, is generally not available for transaction-level regulations, and it is important to emphasize here that central counterparty clearing is a transaction-level rule.²⁰⁶ Hence, once a swap is eligible for clearing, it must be cleared. The only question that substituted compliance poses

199. *Id.* at 41,227.

200. *Id.*

201. *Id.* at 41,229–30. The Proposed Guidance suggests that the standards for accepting substituted compliance for the rules relating to risk may be more stringent than for the rules relating to transparency, which are likely to be acceptable as long as the foreign jurisdiction has a reporting regime and makes the data available to the CFTC. *Id.*

202. *Id.* at 41,232–33.

203. *Id.*

204. *Id.* at 41,233.

205. *Id.*

206. *Id.* at 41,230. In some instances, substituted compliance with transaction-level rules may be sought where the foreign entity transacts with a U.S.-guaranteed entity. *Id.*

for mandatory clearing is whether the clearing requirements of a foreign jurisdiction are sufficiently robust to allow the swap to be cleared there, not whether the foreign regime has an alternative approach to systemic risk that is comparable in its effectiveness to mandatory clearing.²⁰⁷ Similarly, notwithstanding assertions that the review process would be “outcomes based,”²⁰⁸ the approach to substituted compliance outlined in the Proposed Guidance is one of comparing specific rules, whether at the entity level or the transaction level, rather than considering the quality of the regime as a whole. It is therefore difficult to imagine that substituted compliance will be available for regimes other than the European Union and, potentially, Japan—regimes that, as described above, have taken an approach to swap regulation that is similar to the U.S. approach both in overall goal and in the details of implementation.²⁰⁹

2. The SEC Offers a Middle Ground

After a long gestation period, the SEC finally issued its proposed approach to cross-border swaps activity on May 1, 2013 (the “Cross-Border Release”).²¹⁰ Although touted as a “middle ground,” less aggressive in its assertion of extraterritorial jurisdiction than the CFTC’s earlier Proposed Guidance, the architecture of the SEC’s Cross-Border Release in fact largely copies that of the CFTC.²¹¹ Like the CFTC, the SEC (1) brings foreign security-based swap dealers within its regulatory ambit on the basis of a threshold amount of U.S.-facing activity, (2) divides its regulation between entity-level and trans-

207. *Id.* at 41,233–34 (“[W]ith regard to swaps covered by a Commission-issued clearing requirement, the Commission notes that it expects to find comparability with foreign regulatory regimes when (i) the swap is subject to a mandate issued by appropriate government authorities in the home country of the counterparties to the swap, provided that the foreign mandate is comparable and comprehensive to the Commission’s mandate; and (ii) the swap is cleared through a DCO that is exempted from registration under the CEA.”).

208. *Id.* at 41,232.

209. *See supra* Part II.B.

210. *See* Cross-Border Security-Based Swap Activities; Re-Proposal of Regulation SBSR and Certain Rules and Forms Relating to the Registration of Security-Based Swap Dealers and Major Security-Based Swap Participants, Release No. 34-69490, 78 Fed. Reg. 30,968 (proposed May 1, 2013) [hereinafter SEC Cross-Border Release].

211. *See* John Ramsay, Acting Dir., Div. of Trading & Mkts., U.S. Sec. Exch. Comm’n, Cross-Border at the Crossroads: The SEC’s “Middle Ground,” Remarks before the New York City Bar Association (May 15, 2013), available at <https://www.sec.gov/News/Speech/Detail/Speech/1365171515690>.

action-level requirements, and (3) offers exemptions to entity-level requirements based on a theory of substituted compliance.

With regard to defining those security-based swap dealers who must register with the SEC, thereby making the foreign entity wholly subject to U.S. swap rules, the SEC offers a narrower, territorially based definition of “U.S. person” than the CFTC, omitting the consequentialist element noted above.²¹² As under the CFTC’s rules, the gateway to registration is a *de minimis* threshold in which U.S. persons and non-U.S. persons aggregate positions differently.²¹³ While U.S. persons must count all positions, under the SEC’s Cross-Border Release, a non-US person must aggregate (1) outstanding security-based swaps with US counterparties, (2) security-based swaps for which it guarantees a U.S. person’s performance, and (3) security-based swaps for which it guarantees a non-U.S. person’s performance if the guaranteed entity’s counterparty is a U.S. person.²¹⁴ Thus while the technical sweep of the SEC’s registration requirements may differ slightly from that of the CFTC, the rules are structurally identical and likely to result in substantially similar outcomes.

The SEC classifies the entity-level and transaction-level rules differently for dealers and swap participants, noting that the same requirements do not necessarily apply to each entity.²¹⁵ Moreover, the SEC’s classification scheme divides entity-level and transaction-level requirements somewhat differently from the CFTC—for example, treating margin, trade documentation, confirmation, and portfolio reconciliation rules as entity-level rather than transaction-level requirements—suggesting a somewhat broader scope of substituted compliance for these rules.²¹⁶ Still, as in the CFTC’s Proposed Guidance, the SEC’s Cross-Border Release makes central counterparty clearing a mandatory rule from which exception cannot be sought.²¹⁷ As a

212. See SEC Cross-Border Release, *supra* note 210, at 30,996 (defining “U.S. person” to include U.S. natural persons, entities based in the United States, and accounts held by U.S. persons). On the CFTC’s additional consequences element, see *supra* note 191 and accompanying text.

213. Compare *supra* note 193 and accompanying text, with SEC Cross-Border Release, *supra* note 210, at 31,145–46.

214. SEC Cross-Border Release, *supra* note 210, at 30,993–95.

215. *Id.* at 31,008–24 (discussing application of entity-level and transaction-level rules to security-based swap dealers); *id.* at 31,035–37 (discussing application of entity-level and transaction-level rules to major security-based swap participants).

216. *Id.* at 31,011–15.

217. *Id.* at 31,075.

result, any security-based swap that is either (a) conducted in the United States or (b) not conducted in the United States, but that involves either a U.S. person or a counterparty guaranteed by a U.S. person, is subject to mandatory clearing rules.²¹⁸ The question thus becomes whether a foreign regime's approach to mandatory clearing is sufficiently robust to allow the transaction to be cleared under the rules of that regime.²¹⁹ The SEC's Cross-Border Release allows security-based swap transactions to be cleared in the foreign jurisdiction upon a substituted compliance determination for the clearinghouse.²²⁰ The SEC suggests that such a determination would be available upon a finding that the foreign clearinghouse has no U.S. person members (and therefore is not required to register or seek exemption from registration in the U.S.) and is subject to comparable foreign regulation (as in its substituted compliance determinations generally).²²¹

Perhaps the greatest difference between the CFTC and SEC releases is in the tone in which they discuss substituted compliance. The SEC's approach to substituted compliance is more principles-based and less focused on rule-by-rule comparability.²²² Chairman White touted this aspect of the proposed rules in her Statement announcing the Cross-Border Release.²²³ The Release broadly promises:

[W]e do not envision that the Commission, in making a comparability determination, would look to whether a foreign jurisdiction has implemented specific rules and regulations that are comparable to rules and regulations adopted by the Commission. Rather, the Commission would determine whether the foreign regulatory system in a particu-

218. The SEC follows a broad territorial approach to swap business conducted in the United States, counting transactions executed, solicited, negotiated, or booked in the United States as "conducted within" the United States. *Id.* at 31,077. However, two foreign entities not guaranteed by any U.S. person would not be subject to the SEC's clearing mandate even if the transaction was conducted in the United States. *Id.*

219. *See id.* at 31,098–99 (discussing under what circumstances the SEC would consider substituted compliance on the basis of another regime's comparable mandatory clearing rules).

220. *Id.* at 31,098.

221. *Id.*

222. *Id.* at 31,085.

223. Mary Jo White, Chairman, U.S. Sec. & Exch. Comm'n, Opening Statement at SEC Open Meeting (May 1, 2013), <http://ftp.sec.gov/news/speech/2013/spch050113mjw.htm> ("[S]ubstituted compliance would not be based on a line-by-line comparison of the relevant rules in a foreign jurisdiction. Instead, in making a substituted compliance determination, the Commission would look at key categories . . . focusing on regulatory outcomes rather than the particular means of achieving those outcomes.").

lar area, taking into consideration any relevant principles, regulations, or rules in other areas of the foreign regulatory system to the extent they are relevant to the analysis, achieves regulatory outcomes that are comparable to the regulatory outcomes of the relevant provisions of the Exchange Act.²²⁴

In taking into account factors such as the scope and objectives of the relevant foreign regulatory regime, and its enforcement capacity, the SEC contemplates that jurisdictions that are partially, but not fully comparable might receive a substituted compliance determination for specific requirements rather than on a regime-wide basis.²²⁵

In sum, although the architecture of the SEC's system is substantially similar to that of the CFTC, there is every indication, at least with regard to substituted compliance, that the system will be supplied in a considerably more flexible way than the CFTC had outlined in its *Proposed Guidance*.²²⁶ Even the SEC, however, is expressly focused on its particular approach to mitigating systemic risk and not on the broader question of whether the foreign authority might adequately contain systemic risk through an altogether different approach.²²⁷ In acknowledging this road not taken, the SEC ultimately falls back on its role of implementing U.S. regulatory policy, specifically the "specific statutory provisions of the Exchange Act added by Title VII of the Dodd-Frank Act."²²⁸ The SEC's role in other words, is implementing the approach to systemic risk voted on by the U.S. Congress—that is, a system built around mandatory clearing.²²⁹

3. The CFTC and Europe Harmonize Approaches, and the CFTC Issues Revised Interpretive Guidance

Having engendered significant international controversy with the jurisdictional reach of its original *Proposed Guidance*, the CFTC opened an on-again, off-again series of negotiations with European regulators on the topic of cross-border deriva-

224. SEC Cross-Border Release, *supra* note 210, at 31,086.

225. *Id.* at 31,086.

226. Proposed Guidance, *supra* note 181, at 41,214.

227. SEC Cross-Border Release, *supra* note 210, at 31,086 ("One alternative to making substituted compliance determinations by looking at separate categories of requirements would be to provide substituted compliance across the entire set of security-based swap requirements with respect to regimes that have implemented regulations consistent with the overall objectives of the G20 commitments.").

228. *Id.*

229. See Dodd-Frank Act § 725, 15 U.S.C. § 78c(a) (2012).

tives.²³⁰ The process was highly politicized and included several public denouncements of the CFTC's position.²³¹ A public letter to the U.S. Treasury Secretary signed by nine world finance ministers expressed concern that the CFTC's example would produce "fragmentation" and "lack of regulatory coordination" leading to reduced efficiency and impairing the ability to manage risk.²³² Ultimately, however, on July 11, 2013, mere days before the CFTC's rules subjecting foreign entities to U.S. regulation would have taken effect, the CFTC and the European Commission (EC) reached agreement to converge on a harmonized approach to cross-border swap regulation.²³³

Emphasizing several areas in which U.S. and EU rules are identical or nearly so, the Agreement promises that each jurisdiction will defer to the other "when it is justified by the quality of their respective regulation and enforcement regimes."²³⁴ Spe-

230. See generally CFTC, Interpretive Guidance and Policy Statement Regarding Compliance with Certain Swap Regulations, 78 Fed. Reg. 45,292, 45,296 n.32 (July 26, 2013) [hereinafter Final Guidance] (noting that the CFTC "is engaged in consultations with Europe, Japan, Hong Kong, Singapore, Switzerland, Canada, Australia, Brazil, and Mexico on derivatives reform. In addition, the Commission's staff is participating in several standard-setting initiatives, [and] co-chairs the IOSCO Task Force on OTC Derivatives . . .").

231. See, e.g., Philip Stafford, *US-EU Swaps Trading Deal Is Not the End of the Story*, FIN. TIMES, July 16, 2013 (referring to the process as "intensely politicised"). For an example of the public criticisms directed at the CFTC approach, consider the statements of EC officials Patrick Pearson ("The proposed approaches across the globe simply won't work. They won't mesh. They won't interact. They will cause conflicts.") and Emil Paulus ("It is impossible even for the most important jurisdictions to think they can control this market even by having a very far extraterritorial application of the rules."). Silla Brush, *U.S. Swaps Plan Won't Work Overseas, European Official Says*, TREASURY & RISK (Nov. 8, 2012), available at <http://www.treasuryandrisk.com/2012/11/08/us-swaps-plan-wont-work-overseas-european-official> (quoting both).

232. Letter from Taro Aso, Deputy Prime Minister, Minister of State for Fin. Servs., Gov't of Japan; Michel Barnier, Comm'r for Internal Mkts & Servs., Eur. Comm'n; Pravin Gordhan, Minister of Fin., Gov't of S. Afr.; Guido Mantega, Ministry of Fin., Gov't of Braz.; Pierre Moscovici, Ministry of Fin., Gov't of Fr.; George Osborne, C. of the Exchequer, Gov't of the U.K.; Wolfgang Schäuble, Ministry of Fin., Gov't of Ger.; Anton Siluanov, Minister of Fin., Gov't of Russ.; & Eveline Widmer-Schlumpf, Fin. Minister, Gov't of Switz. ("Nine International Regulators"), to Jack Lew, U.S. Sec'y of the Treasury (Apr. 18, 2013), available at <http://www.fsa.go.jp/inter/etc/20130419-1/01.pdf>.

233. Press Release, U.S. Commodity Futures Trading Comm'n, The European Commission and the CFTC Reach a Common Path Forward on Derivatives (July 11, 2013) [hereinafter *Path Forward Release*], available at <http://www.cftc.gov/PressRoom/PressReleases/pr6640-13> (announcing and reprinting the full text of the agreement).

234. *Id.*

cifically, “the CFTC has proposed that substituted compliance will be permitted for the requirements applicable in the EU that are comparable to, and as comprehensive as, those applicable in the US” while “EU law foresees a system of equivalence. . . based on a broad outcomes-based assessment of the regulatory framework,” which once determined would enable firms to “access and provide their services across the 28 Member States of the EU.”²³⁵ The Agreement generally contemplates that in cases of joint jurisdiction, an entity’s compliance with either set of requirements will achieve compliance with both, ultimately providing for a regime of regulatory choice.²³⁶

With specific regard to mandatory clearing, the Agreement again acknowledges “essentially identical processes,” with a European pledge to “cover the same classes of interest rate swaps and credit default swap” that the CFTC has already deemed eligible for clearing.²³⁷ Further, the two jurisdictions agreed to a “stricter-rule-applies” heuristic in cases of disagreement regarding clearing eligibility.²³⁸ The CFTC and the EC further undertook to allow swaps to be cleared by registered clearinghouses in either jurisdiction.²³⁹ Again, it is worth emphasizing that harmonization in this context clearly amounts to harmonization around the concept of mandatory clearing. Alternative approaches to managing the systemic risk of OTC derivatives are not contemplated by the agreement.

However, it is in the area of clearing that the Agreement highlights the largest unresolved difference between the CFTC and the EC approach. Initial margin—that is, the taking of collateral by the clearinghouse as a condition to opening a mem-

235. *Id.*

236. *Id.* For example, in the area of risk mitigation for uncleared trades, the agreement notes that because the CFTC regards the requirements under EMIR as “essentially identical . . . compliance under EMIR will achieve compliance with the relevant CFTC rules.” *Id.* Once the EC makes a formal determination as to the equivalency of CFTC requirements, “it can allow market participants the choice to comply either with EMIR rules or with the equivalent CFTC rules.” *Id.*

237. *Id.*

238. *Id.* In other words, if an exemption to clearing is available in one jurisdiction but not another, the swap would have to be cleared. *See* Bradley E. Phipps & Marc A. Horwitz, *European Commission and CFTC Announce a Path Forward on Cross-Border Regulation of OTC Derivatives*, DLA PIPER (July 11, 2013), <http://www.dlapiper.com/global/publications/Detail.aspx?pub=8306&RSS=true>.

239. *Path Forward Release*, *supra* note 233 (noting that two EU CCPs are already registered with the CFTC, with registration determinations pending for four other non-US CCPs).

ber account—is currently required of clearinghouses in the U.S. to a significantly greater degree than clearinghouses in the EU.²⁴⁰ Differences in other technical clearing details—such as acceptable forms of collateral and how margin is to be calculated and when it is to be posted—reprise the larger debate concerning regulatory competition and arbitrage.²⁴¹ It may be that having insisted on big picture uniformity—that is, mandatory clearing imposed on a worldwide basis—regulatory authorities will remain subject to competition on the technical details of implementation.²⁴² While this can be a good thing, preventing jurisdictions from making inefficient rules regarding, for example, the taking of initial margin, it does not expose the larger system to the rigors of competition. The larger architecture is still imposed by financial market hegemony. Moreover, the ad hoc negotiations of world regulators may not be well suited to oversee this competition in such a way to ensure that prudential concerns are adequately addressed but not inefficiently burdened.

In any event, in the wake of the Agreement, the CFTC issued final Interpretive Guidance on cross-border issues as well as an Executive Order to provide for additional time to phase-in the cross-border rules.²⁴³ The Final Guidance responded to comments received and generally made relatively minor alterations to the regulatory structure first outlined in the Proposed

240. *Id.* (noting that initial margin coverage is a material difference between the two regulatory regimes); see also Hal Scott, Op-Ed, *Land Mines in the Derivatives 'Path Forward'*, WALL ST. J., July 15, 2013, at A13 (“U.S. regulators . . . require a U.S. bank to post more than twice as much collateral for a cleared interest-rate swap as do the EU rules for a European bank. Considering that there is about \$500 trillion in outstanding interest-rate swaps . . . this difference in rules about collateral is notable.”).

241. *Path Forward Release*, *supra* note 233 (stating the EU, ESMA and the CFTC’s commitment to “work together to reduce . . . regulatory arbitrage opportunities”).

242. Indeed, there is some evidence that this process is well underway. See, e.g., Mike Kentz, *Swaps Clients Plan US Bank Exodus*, REUTERS (Aug. 12, 2013), <http://www.reuters.com/article/2013/08/12/markets-credit-idUSL2N0GD1JA20130812> (reporting that European clients of U.S. banks have begun to move their business to non-U.S. banks in order to avoid getting caught in the more rapid implementation of mandatory clearing underway in the U.S. and making the point that substituted compliance will not be available for regulatory regimes that are not finalized, as in Europe).

243. Final Guidance, *supra* note 230; Exemptive Order Regarding Compliance with Certain Swap Regulations, 78 Fed. Reg. 43,785 (July 22, 2013) (to be codified at 17 C.F.R. ch. 1).

Guidance.²⁴⁴ Perhaps, most significant, however, is the discussion of substituted compliance in the Final Guidance, the tone of which is considerably more open to the possibility of substituted compliance than the Proposed Guidance had seemed.²⁴⁵

The Final Guidance sets forth a process for substituted compliance determinations that is not substantively different from that laid out in the Proposed Guidance, noting that upon application, the CFTC will make “outcomes-based” comparability determinations along its thirteen regulatory parameters—that is, the five core entity-level requirements and eight key transaction-level requirements.²⁴⁶ Once a comparability determination is made, it may apply to all entities or transactions in a jurisdiction.²⁴⁷ Comparability determinations will be evaluated every four years to determine whether the comparability finding should reissue or changes should be made.²⁴⁸ Most interesting, however, is the extended example the CFTC gives in response to requests made in several comments:

[A] comparability analysis would begin with a consideration of the regulatory objectives of a foreign jurisdiction’s regulation of swaps and swaps market participants. In this regard, the Commission will first look to foreign regulator’s swap-specific regulations. The Commission recognizes, however, that jurisdictions may not have swap-specific regulations in some areas, and instead may have regulatory or supervisory regimes that achieve comparable and comprehensive regulatory objectives as the Dodd-Frank Act requirements, but on a more general, entity-wide, or prudential, basis. In addition, portions of a foreign regulatory regime may have similar regulatory objectives, but the means by which these objectives are achieved with respect to swaps market activities may not be clearly defined, or may not ex-

244. See Final Guidance, *supra* note 230, at 45,308–15 (providing technical amendments and guidance in response to comments concerning the definition of “U.S. Person”); *id.* at 45,335–36 (discussing minor modifications to the Entity-Level/Transaction-Level classification scheme).

245. Consider, for example, the acknowledgment that the Commission “generally would” permit substituted compliance whenever possible—that is, when it finds the foreign jurisdiction’s regulatory requirements are “comparable with and as comprehensive as the corollary areas(s)” in the U.S. Final Guidance. Final Guidance, *supra* note 230, at 45,342.

246. *Id.* at 45,342–45. The entity-level requirements are: (1) capital adequacy, (2) chief compliance officer, (3) risk management, (4) swap data recordkeeping, (5) swap data reporting, and (6) large trader reporting. *Id.* at 45,338. The transaction level requirements are: (1) mandatory clearing, (2) margining and segregation for uncleared swaps, (3) trade execution, (4) swap trading relationship documentation, (5) portfolio reconciliation and compression, (6) public reporting, (7) trade confirmation, (8) daily trading records, and (9) external business conduct standards. *Id.* at 45,339.

247. *Id.* at 45,344.

248. *Id.* at 45,345.

pressly include specific regulatory elements that the Commission concludes are critical to achieving [required] regulatory objectives. In these circumstances, the Commission anticipates that . . . it will work with the regulators and registrants in these jurisdictions to consider alternative approaches that may result in a determination that substituted compliance applies.²⁴⁹

The CFTC expects, in other words, that the process of regulatory harmonization organized around substituted compliance will be an ongoing process and will include consultation with foreign legislators or regulators to craft rules enabling the CFTC to arrive at a determination of comparability.²⁵⁰ The CFTC subsequently made good on this promise, announcing comparability determinations with regard to a variety of entity-level business practice rules in various jurisdictions, including Australia, Canada, the EU, Hong Kong, Japan, and Switzerland.²⁵¹ However, it is important to emphasize, as the CFTC did in a footnote to the July release, that comparability is more likely to be found for entity-level requirements than for transaction-level requirements.²⁵² In other words, foreign jurisdictions may have considerable leeway in how they regulate their financial institutions, but eligible swaps must be cleared.

In sum, whether policymakers have proceeded through assertions of extraterritorial authority or through negotiation and harmonization, their efforts have been aimed at global regulatory uniformity, specifically built around mandatory central counterparty clearing. Uniformity around the idea of mandatory clearing, however, is quite a different thing from uniformity around the idea of containing systemic risk. The difference between these two ideas and the potentially massive implications for the global financial system are the focus of the next Part.

249. *Id.* at 45,345.

250. *Id.* at 45,343–44 (foreseeing the need to collaborate with foreign officials “in developing appropriate regulatory changes or new regulations, particularly where changes or new regulations already are being considered or proposed by the foreign regulators or legislative bodies”).

251. See Press Release, CFTC, CFTC Approves Comparability Determinations for Six Jurisdictions for Substituted Compliance Purposes (Dec. 20, 2013), available at <http://www.cftc.gov/PressRoom/PressReleases/pr6802-13>; *Business Conduct Rules for Swap Dealers and Major Swap Participants, Summary of Entity-Level Comparability Determinations*, CFTC.GOV (Dec. 20, 2013), <http://www.cftc.gov/ucm/groups/public/@newsroom/documents/file/cptable122013.pdf>.

252. Final Guidance, *supra* note 230, at 45,343 n.467.

IV. UNIFORMITY, FRAGILITY, AND SYSTEMIC RISK

Scholars of international law and regulation have often focused on the problem of how to make and administer uniform laws and regulations across jurisdictional boundaries. Much of their focus has been on modalities of international rulemaking, whether through formal treaties, less formal cooperation of international legislative, administrative, and judicial bodies,²⁵³ or still more informal coordination around sources of “soft law.”²⁵⁴ Although some scholars have argued in favor of international regulatory competition in areas such as corporate,²⁵⁵ securities,²⁵⁶ and bankruptcy law,²⁵⁷ the focus of much writing in the

253. ANNE-MARIE SLAUGHTER, *A NEW WORLD ORDER* 14 (Princeton 2004) (describing networks of international coordination and cooperation as “pattern[s] of regular and purposive relations among like government units working across the borders that divide countries from one another and that demarcate the ‘domestic’ from the ‘international’ sphere”). See generally Chris Brummer, *Post-American Securities Regulation*, 98 CALIF. L. REV. 327 (2010) (emphasizing the role of international regulatory networks in the securities regulation); David Zaring, *International Law by Other Means: The Twilight Existence of International Financial Regulatory Organizations*, 33 TEX. INT’L L.J. 281 (1998) (discussing the future of international cooperation among world regulators); Sungjoon Cho, *Globalizing Administrative Law* (Oct. 20, 2011) (unpublished manuscript), available at http://www.nyls.edu/global_law_justice_and_policy/wp-content/uploads/sites/137/2013/07/Cho-Globalizing-Administrative-Law-October-2011-3.pdf.

254. See CHRIS BRUMMER, *SOFT LAW AND THE GLOBAL FINANCIAL SYSTEM* 210 (2012); Andrew T. Guzman & Timothy L. Meyer, *International Soft Law*, 2 J. LEGAL ANALYSIS 171, 179 (2010).

255. Frederick Tung, *Passports, Private Choice, and Private Interests: Regulatory Competition and Cooperation in Corporate, Securities, and Bankruptcy Law*, 3 CHI. J. INT’L L. 369, 388 (2002) (recommending regulatory choice as a means “to spur competition among regulators”).

256. Stephen J. Choi & Andrew T. Guzman, *Portable Reciprocity: Rethinking the International Reach of Securities Regulation*, 71 S. CAL. L. REV. 903, 914–39 (1998) (arguing in favor of “portable reciprocity” as a means of providing choice to regulated entities and competition among regulators); see also Chris Brummer, *Stock Exchanges and the New Markets for Securities Laws*, 75 U. CHI. L. REV. 1435, 1440 (2008) (examining the implications of stock exchange-based regulation over national territory-based securities regulation); Steven M. Davidoff, *Regulating Listings in a Global Market*, 86 N.C. L. REV. 89, 155 (2007) (advocating a form of substituted compliance for foreign listings in U.S. markets in order to provide a differentiated regulatory product to U.S. investors); Paul G. Mahoney, *The Exchange as Regulator*, 83 VA. L. REV. 1453, 1454 (1997) (arguing that granting stock exchanges greater autonomy as regulators would induce greater regulatory competition in the securities area); Roberta Romano, *Empowering Investors: A Market Approach to Securities Regulation*, 107 YALE L.J. 2359, 2392–95 (1998) (advocating the abandonment of uniform federal securities regulation in the U.S. in favor of regulatory competition among U.S. states).

area of international financial regulation, especially post-crisis, is on overcoming obstacles to greater coordination and uniformity.²⁵⁸ This is a sensible starting point in the area of international financial regulation, considering not only the cost of conflicting or overlapping rules, but also the disregard of national boundaries shown by systemic risk and the potentially catastrophic consequences of financial system collapse.

Uniformity in the management of systemic risk, however, is not an unambiguous good. By definition, uniformity crowds out alternatives.²⁵⁹ A uniform regulatory structure is therefore insulated from the competition of alternative approaches to a problem.²⁶⁰ Such structures are especially prone to becoming ossified, unresponsive, and are thus unable to manage emerging crises.²⁶¹ They are, in a word, fragile.

The fragility of much of our regulatory structure was recently emphasized in Nassim Taleb's *Antifragile*.²⁶² The ultimate goal of institutional design, according to Taleb, ought to be the cultivation of institutions that are improved by mistakes, randomness, and disorder.²⁶³ Such systems are characterized by constant strife or competition and through constant

257. Robert K. Rasmussen, *A New Approach to Transnational Insolvencies*, 19 MICH. J. INT'L L. 1, 26 (1997).

258. See, e.g., Robert B. Ahdieh, *The Visible Hand: Coordination Functions of the Regulatory State*, 95 MINN. L. REV. 578, 583 (2010) (describing "coordination as an increasingly important impetus for regulatory action" but remaining agnostic regarding its desirability in specific cases); Eric J. Pan, *The Challenge of International Cooperation and Institutional Design in Financial Supervision: Beyond Transgovernmental Networks*, 11 CHI. J. INT'L L. 243, 273–81 (2010) (emphasizing the need for greater coordination among international financial law and policymakers to respond to crises); Pierre-Hughes Verdier, *The Political Economy of International Financial Regulation*, 88 IND. L.J. 1405, 1437–59 (arguing against unilateral state action in financial regulation and outlining obstacles to achieving greater international uniformity); David Zaring, *International Institutional Performance in Crisis*, 10 CHI. J. INT'L L. 475, 479–86 (2010) (critiquing the failure of international law institutions to respond in a coordinated or effective way to the financial crisis).

259. See, e.g., Mahoney, *supra* note 256, at 1493–94 (describing the consequences of the Exchange Act's mandate of uniformity on the exchanges).

260. See NASSIM NICHOLAS TALEB, *ANTIFRAGILE: THINGS THAT GAIN FROM DISORDER* 11–12 (2012).

261. See *id.*

262. *Id.* at 19–20. Although ranging widely on the conceptual relationship between the fragile, the robust, and the anti-fragile, the clearest implications of Taleb's core concept is the global financial system. See generally *id.* at 23–27 (cataloguing implications of the thesis in a variety of areas).

263. *Id.* at 65–84 (referring to "anti-fragile" things—that is, those that are improved by external shocks).

trial and error and re-evaluation are continually improved.²⁶⁴ Systems emphasizing uniformity and harmonization, however, are by definition not exposed to competition and therefore lack the fundamental capacity for trial and error necessary for learning and improvement. As a result, such a system is ultimately doomed when a large, unpredictable shock—sometimes referred to as “tail risk,” sometimes as “black swans”—finally arrives.²⁶⁵

The optimal regulatory structure therefore celebrates diversity. It seeks to guarantee the robustness of individual units within the system as a whole, but in order to avoid discouraging experimentation and innovation, does not insist that each unit within the system regulate risk in the same way.²⁶⁶ In the context of global financial regulation, each regulatory regime is thus given the opportunity of learning from the innovation and experimentation of every other regulatory regime.²⁶⁷

Moving closer to such a system is the task of the next Part. In what remains of this Part, I argue that policymakers have in fact been devising a fragile system—that is, a global financial order that is *more* rather than *less* exposed to systemic risk—by insisting upon regulatory uniformity organized around the idea

264. See also Charles K. Whitehead, *The Goldilocks Approach: Financial Risk and Staged Regulation*, 97 CORNELL L. REV. 1267, 1295 (2012) (“At its heart, the Goldilocks approach relies on a real options method of new regulation—staging new rules in order to provide regulators with additional information regarding their effect on market conduct and, as necessary, adjusting those rules to reflect any unanticipated consequences.”).

265. See generally RAGHURAM RAJAN, FAULT LINES: HOW HIDDEN FRACTURES STILL THREATEN THE WORLD ECONOMY 152 (2010) (discussing tail risk); NASSIM NICHOLAS TALEB, THE BLACK SWAN: THE IMPACT OF THE HIGHLY IMPROBABLE 3–7 (2010) (discussing black swans). Such unpredictable high severity events may be increasingly common. TALEB, *supra* note 260, at 285 (“Black Swan effects are necessarily increasing, as a result of complexity, interdependence between parts, globalization and the beastly thing called ‘efficiency’ that makes people now sail too close to the wind.”); see also Whitehead, *supra* note 264, at 1273 (“[I]t can be difficult to prospectively assess the impact of new regulation on the financial markets. Private actors can be expected to minimize regulatory cost, potentially in ways that are less obvious to detect. The result may be a rise in new risks or a shift in risk taking—responses that regulators can anticipate but may not be able to accurately predict or control.”).

266. A system of uniform regulation discourages experimentation and innovation by creating substantial barriers to the enactment of alternative regimes. See *supra* Part III.B (discussing policymakers’ efforts to implement regulatory uniformity). Faced with odds stacked against enactment, a would-be regulatory entrepreneur is less likely to invest in developing an alternative regime than they might otherwise. See *id.*

267. Whitehead, *supra* note 264, at 1273, 1295.

of central counterparty clearing. The sections that follow develop three arguments for believing this to be the case. First and most obviously, the regulatory alternative that policymakers choose to make the uniform approach may be (or become) ineffective and, by virtue of being the only regulatory structure worldwide, therefore be unable to prevent a systemic collapse of the world financial system. Second, uniform cross-jurisdictional rules may induce regulated entities to converge on particular business strategies rather than acting in an independent and disaggregated manner, thereby increasing coordination and, with it, systemic risk. Third and finally, the imposition of uniformity across jurisdictions stifles regulatory experimentation and the potential development of more efficient regulatory structures.

A. MISTAKES WITHOUT FIREBREAKS

Uniformity is obviously desirable if the uniform rule is the optimal solution to the problem.²⁶⁸ However, financial systems generally and international finance in particular are characterized by two core attributes, complexity and dynamism, each of which belies the assumption of optimality.²⁶⁹ Complexity, in which the many parts of a system interact with each other and, often, with exogenous elements, in ways that are difficult or impossible to predict, is a commonly accepted property of financial systems.²⁷⁰ Errors in judgment, of course, are especially likely in situations of complexity. Behavioral scientists have posited a variety of theoretical biases to explain this basic intuition,²⁷¹ but anecdotal evidence clearly supports it as well.²⁷²

268. See RICHARD J. HERRING & ROBERT E. LITAN, FINANCIAL REGULATION IN THE GLOBAL ECONOMY 134 (1995) (“[I]t is easy to be enthusiastic about harmonizing the *right* rules . . .”).

269. See generally Saule T. Omarova, *Bankers, Bureaucrats, and Guardians: Toward Tripartism in Financial Services Regulation*, 37 J. CORP. L. 621, 629 (2012) (describing the complexity and dynamics in the current global financial market).

270. See generally FRANCIS X. DIEBOLD ET AL., THE KNOWN, THE UNKNOWN, AND THE UNKNOWABLE IN FINANCIAL RISK MANAGEMENT 3 (Princeton 2010) (discussing complexity in financial risk management as comprised of “knowns (K),” “unknowns (u),” and “unknowables (U),” defined respectively as situations “where the probability distribution is completely specified,” situations “where probabilities cannot be assigned to at least some events,” and situations “where even the events cannot be identified in advance—neither events nor probabilities are known”); see also Whitehead, *supra* note 264, at 1268–74.

271. See Geoffrey P. Miller & Gerald Rosenfeld, *Intellectual Hazard: How Conceptual Biases in Complex Organizations Contributed to the Crisis of 2008*, 33 HARV. J.L. & PUB. POL’Y 807, 813 (2010) (grouping a number of heuristics

Given the complexity of international finance, it thus seems unlikely that policymakers will happen upon the optimal solution in fashioning the uniform rule.²⁷³

Moreover, even if they do happen upon the optimal solution, the dynamism of financial markets suggests that the solution will not be the right one for long.²⁷⁴ Financial markets are in constant flux as participants adapt to changing conditions.²⁷⁵ One of the basic conditions that can change in a financial market, of course, is regulation, and the adaptations that market participants make to changes in regulation are often unpredictable.²⁷⁶ This “dynamic uncertainty” of financial systems leads to unintended consequences and a high likelihood that even the most careful and well-meaning policymakers and regulators will make mistakes.²⁷⁷ Worse still, mistakes made in an environment of regulatory uniformity are likely to become entrenched as a result of the high sunk costs in achieving the uniform rule—laborious international negotiations resulting in

and decision-making biases, including “tunnel vision,” “confirmation bias,” “representative bias,” “oversimplification bias,” and “authoritarian bias,” under the heading of “complexity bias”).

272. Consider the scandals of Bernie Madoff, MF Global, the London Whale, and Peregrine Financial. See generally Steve Schaefer, *Know Your Financial Scandals: Libor, Peregrine and the London Whale*, FORBES, July 12, 2012, <http://www.forbes.com/sites/steveschaefer/2012/07/12/know-your-financial-scandals-libor-peregrine-and-the-london-whale/> (last visited Mar. 11, 2014).

273. HERRING & LITAN, *supra* note 268, at 134 (noting, for these reasons, that financial systems present the “very real danger that the *wrong* rules will be harmonized”); see also Whitehead, *supra* note 264, at 1268–74.

274. HERRING & LITAN, *supra* note 268, at 134 (“[R]ules that may be *right* for the moment will become *wrong* after they are implemented.”).

275. See generally Michael S. Barr, *The Financial Crisis and the Path of Reform*, 29 YALE J. ON REG. 91 (2012) (arguing that the pace of financial innovation may exceed the ability of either regulators or market mechanisms to respond).

276. See generally Whitehead, *supra* note 264, at 1295 (“Permitting new rules to be adjusted to reflect market feedback can assist in minimizing uncertainty over the rules’ benefits, as well as lower the likelihood that regulation will be ineffective or result in unanticipated costs.”).

277. Romano, *supra* note 79, at 2. In Romano’s words:

[T]he nub of the regulatory problem derives from the fact that financial firms operate in a dynamic environment in which there are many unknowns and unknowables and state of the art knowledge quickly obsolesces. In such a context, even the most informed regulatory response . . . will be prone to error, and is likely to produce backward-looking regulation that takes aim at yesterday’s perceived problem, rather than tomorrow’s, for regulators necessarily operate under considerable uncertainty and at a lag behind private actors.

Id. at 2.

highly wrought agreements requiring many levels of approval and ratification—and the difficulty in achieving consensus to change it.²⁷⁸

Regulatory mistakes could prove catastrophic in a regime of regulatory uniformity since the imposition of uniformity has the effect of eliminating other possible means of constraining the risky conduct. Simply put: if every jurisdiction regulates conduct in the same way, there will be no firebreaks in the event that the regulatory system fails to account for a significant risk.²⁷⁹ If the whole world regulates their financial institutions in the same way, then the whole world is exposed if the regulations miss a significant source of risk.²⁸⁰

There are several strong reasons to believe that mandatory clearing of derivatives may be a regulatory mistake or, at least, far less than the total solution it is sometimes portrayed to be.²⁸¹ These arguments, summarized below, suggest that mandatory clearing will not only fail to solve the problem of systemic risk inherent in derivatives transactions but may also contribute to the problem of systemic risk. The key point to

278. HERRING & LITAN, *supra* note 268, at 134–35 (“The complexity of international negotiations means that international agreements are very difficult to fine-tune after they are made because all parties are likely to find it costly to reopen negotiations.”).

279. Roberta Romano, *Against Financial Regulation Harmonization: A Comment* 18 (Yale L. & Econ. Res. Paper No. 414, 2010), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1697348 (characterizing international regulatory harmonization as a “source of catastrophic systemic risk” and noting that “[w]ith numerous regulatory regimes, there is at least a chance that not all regulators will make the same mistake, and accordingly, thereby not incentivize all financial institutions to follow the same flawed strategy” (citation omitted)).

280. See also Alessandra Arcuri & Giuseppe Dari-Mattiacci, *Centralization Versus Decentralization as a Risk-Return Trade-Off*, 53 J. L. & ECON. 359, 374 (2010) (modeling the different outcomes of centralized versus decentralized decision processes and finding that “the choice between centralization and decentralization crucially depends on the level of scientific expertise available. If advanced expertise is available, centralization guarantees both more accurate decisions and less risk. Instead, with poor expertise, while centralization yields more accurate decisions, decentralization lowers risk.”); George J. Benston, *International Harmonization of Banking Regulations and Cooperation Among National Regulators: An Assessment*, 8 J. FIN. SERV. RES. 205, 208 (1994) (surveying theoretical support for international harmonization of banking regulation and finding that harmonization in general benefited only governmental officials, allowing them to benefit important constituencies, or the regulated entities, principally by shielding them from foreign competition).

281. See Pirrong, *supra* note 73, at 8. See generally Roe, *supra* note 16, at 1700 (“[T]he purported core value of the clearinghouse in containing counterparty risk and contagion is exaggerated, and sometimes incorrect.”).

remember here, however, is that in a world of harmonization, if the mandatory clearing solution turns out to be as flawed as these arguments suggest, no alternative regulatory structure will exist to check the next crisis from spreading contagion.

1. The Too-Big-to-Fail Clearinghouse

The fundamental purpose of the clearinghouse is to amass risk in hopes of containing it. In doing so, of course, the clearinghouse itself is likely to become an important nexus of systemic risk, the failure of which would immediately spread contagion throughout the economy.²⁸² Even the rumor of a clearinghouse failure, Ben Bernanke has warned, could be a source of contagion.²⁸³ In acknowledgment of this problem, regulators have already designated some clearinghouses as “systemically important” financial institutions, thereby subjecting them to greater regulatory oversight.²⁸⁴ More may follow. The regulators’ calculation thus appears to balance too-big-to-fail concerns against less-likely-to-fail hopes.

But clearinghouses have failed before.²⁸⁵ The fact that clearinghouses will be regulated entities does not give one much comfort considering the history of failure of other highly regulated financial entities.²⁸⁶ Moreover, the derivatives dealers

282. See generally Julia Lees Allen, *Derivatives Clearinghouses and Systemic Risk: A Bankruptcy and Dodd-Frank Analysis*, 64 STAN. L. REV. 1079 (2012); Jeremy C. Kress, *Credit Default Swaps, Clearinghouses, and Systemic Risk: Why Centralized Counterparties Must Have Access to Central Bank Liquidity*, 48 HARV. J. ON LEGIS. 49 (2011).

283. Ben S. Bernanke, *Clearing and Settlement During the Crash*, 3 REV. FIN. STUD. 133, 133–34 (1990) (analyzing the October 1987 stock market crash, and noting, “[r]umors about possible clearinghouse failures added to the sense of panic in the markets”).

284. See Silla Brush & Matthew Leising, *CME, ICE Clearinghouses Designated Systemic by U.S. Regulators*, BLOOMBERG NEWS (May 23, 2012, 11:38 AM), <http://www.bloomberg.com/news/2012-05-23/cme-ice-clearinghouses-designated-systemic-by-u-s-regulators.html>.

285. Financial clearinghouses have failed in France (the Caisse de Liquidation, in 1974), Kuala Lumpur (the Commodity Clearing House, in 1983), and in Hong Kong (the Futures Guarantee Corporation, in 1987). Bob Hills et al., *Central Counterparty Clearing Houses and Financial Stability*, FIN. STABILITY REV. 129 (1999). The Chicago Mercantile Exchange survived failure in 1987 thanks to a last minute government bailout of its constituent members. See Acharya et al., *supra* note 94, at 401 (noting that the CME President’s claim that “if the Merc had not opened that morning, it would not have opened again”).

286. For a list of recent examples, consider the savings and loans crisis of the 1980s and 1990s, the Asian financial crisis of 1997, the accounting scandals of 2001–2002, or indeed, the global financial crisis of 2008.

that become clearinghouse members cannot be trusted to manage clearinghouse risk because the clearinghouse structure itself subverts ordinary incentives to monitor and manage trading risk.²⁸⁷ Furthermore, the clearinghouses themselves are likely to be less qualified than their members at monitoring and evaluating complex risks.²⁸⁸ In this way, the transfer of counterparty credit risk to central counterparties does not seem to have placed the risk with the party best able to monitor and manage it, and one begins to doubt that the too-big-to-fail/less-likely-to-fail balance has been optimally struck.

2. The Fragmentation of Netting

A basic advantage of central counterparty clearing is increased efficiency in netting.²⁸⁹ Netting mitigates the shock of a dealer default by providing counterparties a means of offsetting losses in some positions with gains in others.²⁹⁰ Its effect is most powerful in a system in which all major counterparties participate across all of their positions so that the greatest number of transactions is available to offset a dealer default.²⁹¹ Thus, the preservation of the greatest advantage from netting implies a single world clearinghouse through which all products would be cleared.²⁹²

287. See Sean J. Griffith, *Governing Systemic Risk: Towards A Governance Structure for Derivatives Clearinghouses*, 61 EMORY L. J. 1153, 1189–1210 (2012) (discussing moral hazard and free-riding problems associated with clearinghouses); accord Kress, *supra* note 282, at 74 (describing the potential moral hazard in clearinghouses requiring “lower collateral requirements or default fund contributions in an attempt to attract additional members without regard to safety and soundness” or failing to “monitor the clearinghouse for adequate capitalization”).

288. See Pirrong, *supra* note 104, at 48; Yesha Yadav, *The Problematic Case of Clearinghouses in Complex Markets*, 101 GEO. L. J. 387, 399–400 (2013) (discussing clearinghouse underinvestment in due diligence).

289. See *supra* notes 103–07 and accompanying text.

290. See *supra* note 45 and accompanying text.

291. See Manmohan Singh, *Making OTC Derivatives Safe—A Fresh Look* 5 (Int'l Monetary Fund, Working Paper No. 11/66, 2011), available at <http://www.imf.org/external/pubs/ft/wp/2011/wp1166.pdf> (“[I]f there are multiple CCPs that are not linked, the benefits of netting are reduced, because cross-product netting will not take place (since CCPs presently only offer multilateral netting in the same asset class and not across products).”).

292. See *id.* (“A single CCP with an adequate, multicurrency, central-bank liquidity backstop that is well regulated and spans the broadest range of derivatives would have been an ideal ‘first-best’ solution.”).

This, unfortunately, is not the way in which central counterparty clearing has evolved.²⁹³ Instead, multiple clearinghouses have arisen in multiple jurisdictions, each typically clearing only a subset of derivatives or, often, only a single derivatives product.²⁹⁴ This is partly due to natural economies of scope—the risks associated with clearing interest rate swaps, for example, are different from those associated with clearing CDS, resulting in specialization in one product or the other.²⁹⁵ But it is also due to political exigencies—jurisdictions insist on having a clearinghouse within their borders, especially for local currency derivative products.²⁹⁶ The rise of multiple clearinghouses means fragmented netting.

Fragmentation reduces the power of netting to contain systemic risk.²⁹⁷ To see this contrast a world in which there is a single clearinghouse clearing all trades for all parties against a world (the real one) in which there are multiple clearinghouses for different jurisdictions and different products. In the single clearinghouse world, losses from the default of a dealer would be set off against the maximum number of trades—that is, all open positions with that dealer.²⁹⁸ In the multiple clearinghouse world, by contrast, the only trades available to offset losses

293. Manmohan Singh, *The Fallacy of Moving the Over-the-Counter Derivatives Market to Central Counterparties*, VOX (Jan. 22, 2012), http://www.voxeu.org/article/fallasy-moving-over-counter-derivatives-market-central-counterparties?quicktabs_tabbed_recent_articles_block=1 (“We are not moving the status quo of 10–15 large banks (or ‘pockets’ of risk) to one global ‘pocket’ (which would maximise netting); we are moving towards something like 20–30 ‘pockets’ of risk that include large banks and CCPs.”).

294. As described by former ISDA CEO Conrad Voldstad:

[C]learing may double up the need for collateral. This problem is multiplied because there will be separate clearinghouses for each product. Furthermore, the number of clearinghouses per asset class is forecast to be large as many countries will require transactions in their markets to be cleared in local clearinghouse.

Conrad P. Voldstad, Address at the Fordham Journal of Corporate and Financial Law Symposium: Regulation of Over-the-Counter Derivatives 4–5 (Feb. 13, 2012) (on file with author); see also Henderson, *supra* note 2, at 8 (noting that “different CCPs will specialize in different products. An end-user will be unlikely to be able to clear on only one.”).

295. See Griffith, *supra* note 287, at 1519.

296. See Singh, *supra* note 293 (“[T]here will be a plethora of central counterparties since many jurisdictions, such as Australia, Canada, etc., do not want to lose oversight of their local currency derivative products to an offshore central counterparty.”). European Union regulators, for example, have insisted on the continuing existence of a European clearinghouse. See Singh, *supra* note 106, at 5.

297. See Singh, *supra* note 291, at 4.

298. *Cf. id.* at 5.

from the default of a dealer are those cleared by that particular clearinghouse, a subset of all open positions with defaulting dealer.²⁹⁹ Fewer open positions, of course, means greater residual loss for the clearinghouse to absorb, a problem that will be repeated for each clearinghouse in which the defaulting member participates.

Fragmented netting thus implies that clearinghouses will be less than optimally effective at containing systemic risk. Although clearinghouse interoperability—that is, some form of risk mutualization and netting across clearinghouses—could mitigate this problem, interoperability does not seem to be on the regulatory horizon, at least in the near term.³⁰⁰ As a result, clearinghouses are likely to respond to the problem of less effective netting by taking more collateral.³⁰¹ Likewise, clearinghouses are likely to place additional requirements on the collateral that they take, requiring segregation and limiting rehypothecation.³⁰² Increasing collateral demands, of course, increases transaction costs for all participants in clearing, which ultimately increases the cost of capital and limits the effectiveness of derivatives as a risk management tool.³⁰³

3. The Shifting of Systemic Risk

The standard reasoning supporting central clearing is that clearinghouses mitigate systemic risk by controlling counterparty credit risk.³⁰⁴ But the control of counterparty credit risk, even when it is optimally effective, is not the same as the elimination of systemic risk. Fundamentally, central clearing guarantees that clearinghouse members will be paid when another member defaults. This works partly through netting, described above, and partly through a set of preferential bankruptcy rules that protect margin collateral from other creditors and

299. See Singh, *supra* note 106, at 8–9.

300. See Singh, *supra* note 293.

301. See *id.* at 3.

302. Rehypothecation is simply the right to use posted collateral. See generally Christian A. Johnson, *Derivatives and Rehypothecation Failure: It's 3:00 P.M., Do You Know Where Your Collateral Is?*, 30 ARIZ. L. REV. 949 (1997). In the pre-clearinghouse world, collateral was fungible. See Singh, *supra* note 106, at 5–9. Multiple clearinghouses require greater collateral segmentation to ensure the availability of collateral as posted to a particular clearinghouse. See Singh, *supra* note 293.

303. This is the core objection to dealers and explains why other industry participants object to mandatory clearing. Voldstad, *supra* note 294, at 4–5.

304. See *supra* note 91 and accompanying text.

more broadly provide derivatives counterparties with preferential treatment in bankruptcy.³⁰⁵ Thus, the clearinghouse replicates the classic bankruptcy “setoff” problem, where transfers outside of the bankruptcy estate result in less recovery to creditors who are forced to seek recovery through the estate.³⁰⁶ Clearinghouses, in other words, mitigate counterparty credit risk among clearinghouse members by imposing that risk on prospective creditors outside of the clearinghouse.

The simple way to see this is to imagine three parties—A, B, and C—transacting through a central clearinghouse.³⁰⁷ If one of them, C, defaults, the other two are made whole by the clearinghouse, whose obligations net to zero.³⁰⁸ From this perspective, central clearing seems like a very neat means of managing counterparty credit risk, but this perspective—focusing exclusively on the parties *inside* the clearinghouse—is myopic since in reality all clearinghouse members would also have important creditors *outside* of the clearinghouse.³⁰⁹ So, injecting a modicum of reality, add a fourth party, D, who transacts with the defaulting member, C, but not through the clearinghouse (say, in the form of a loan obligation or a guaranty).³¹⁰ Without central clearing, D would be in a better position to collect from C. With central clearing, however, D may well collect nothing since a large portion of C’s assets—what would otherwise be collectibles from A, B, and other trading partners—will be consumed by the clearinghouse to make whole A and B and other clearinghouse members.³¹¹ So consumed, these assets will not

305. See Franklin R. Edwards & Edward R. Morrison, *Derivatives and the Bankruptcy Code: Why the Special Treatment?*, 22 YALE J. ON REG. 91, 95–99 (2005); Mark J. Roe, *The Derivatives Market’s Payment Priorities as Financial Crisis Accelerator*, 63 STAN. L. REV. 539, 547–49 (2011).

306. See Roe, *supra* note 16, at 1662–69 (applying the “setoff” problem to the context of derivatives clearinghouses); see also Craig Pirrong, *Derivatives Clearing Mandates: Cure or Curse?*, 22 J. APPLIED CORP. FIN. 48, 50 (2010) (“[N]etting effectively changes priorities among creditors; netting improves the priority of derivatives counterparties in bankruptcy, and lowers the priority of a bankrupt’s other creditors.”); Pirrong, *supra* note 104, at 47 (“[N]etting effectively gives derivatives counterparties a priority claim on one of the dealer’s assets—its winning derivatives positions. This priority shifts wealth from other creditors to these counterparties, and hence is not a social benefit, but a transfer.”).

307. This example follows Mark Roe’s example in Part III.B of *Clearinghouse Over-Confidence*. See Roe, *supra* note 16, at 1664–69.

308. *Id.* at 1664–65.

309. *Id.* at 1666.

310. *Id.* at 1666–67.

311. *Id.*

be available to creditors outside of the clearinghouse, who effectively bear the full brunt of the clearing member's risk of default.

Although this may seem harsh, the imposition of credit risk outside of the clearinghouse might nevertheless be defensible from a policy standpoint if all systemically important institutions transact all systemically important business through the clearinghouse.³¹² This, however, is not the case. Derivatives dealers are typically part of massive and deeply interconnected financial institutions, many of whose dealings do not involve transactions that are cleared by central counterparties.³¹³ Because systemically important institutions engage important transactions that are not centrally cleared, the imposition of risk outside of the clearinghouse may have dangerous systemic effects.

More basically, counterparty credit risk is not the only important source of systemic risk.³¹⁴ Although clearinghouses may mitigate counterparty credit risk in the derivatives market, they do so by imposing credit risk on other systemically significant interconnections.³¹⁵ The risk of a major derivative counterparty default, in other words, is merely shifted to other forms of interconnection such as interbank loans and the shadow banking system.³¹⁶ Clearly, this in no way solves the problem of systemic risk, and in regime of global uniformity organized around mandatory clearing, it leaves the world financial system vulnerable to systemic risk.

312. *Id.* at 1668.

313. In Roe's words:

The core American derivatives-trading financial institutions . . . have large, deep, recurrent and systemically critical interconnections with one another *and* with the rest of the economy *that are outside the clearinghouse*, such as uncleared (and unclearable) derivatives transactions, widespread old-school lending syndicates, interbank debt . . . and the massive new-finance repo market

Id. at 1681.

314. *Cf. id.* at 1668 (discussing setoff in the clearinghouse context and noting "[w]hether its basic risk transfer character can arrest systemic risk in any major way . . . has yet to be seen").

315. The liquidity benefits enjoyed by clearinghouse members come at the expense of those transacting outside of the clearinghouse. Pirrong, *supra* note 104, at 54; Roe, *supra* note 16, at 1670–72.

316. See Roe, *supra* note 16, at 1676; accord Whitehead, *supra* note 264, at 1275–76 ("The shadow banking system . . . arose in response to rules that increased the cost to a bank of maintaining assets on its balance sheet. In that case, regulation became less effective as a result of the shift in risky conduct to outside the regulated entity.").

B. DESTRUCTIVE COORDINATION

In addition to a lack of regulatory firebreaks, uniform financial regulation can contribute to systemic risk by causing the behavior of regulated institutions to converge on similar business strategies. Professor Charles Whitehead has recently focused attention on the unintended consequence of “destructive coordination”—that is, the tendency of financial regulation to channel the behavior of regulated entities and thereby create asset bubbles.³¹⁷ Examples of this phenomenon abound, including the Black Monday crash of 1987,³¹⁸ banks’ overinvestment in mortgage-backed securities leading to the financial crisis of 2007–2008,³¹⁹ the run on Bear Stearns in the midst of that crisis,³²⁰ and the ongoing European sovereign debt crisis.³²¹ As in these examples, uniform financial regulation can cause coordinated errors on the part of financial institutions thereby leading to multiple interconnected failures, potentially leading to the collapse of financial systems.³²² International regulatory uniformity threatens to unleash this risk on a global scale.³²³

In the derivatives context, the problem of destructive coordination would seem to be worst in a world where there was a single world clearinghouse to monitor and manage systemic risk. In such a world, derivatives counterparties would tend to coordinate their conduct around the risk management requirements employed by the governing body of that clearinghouse,

317. See generally Whitehead, *supra* note 54.

318. See *id.* at 328 (focusing on the automated selling in connection with portfolio insurance).

319. See Romano, *supra* note 16, at 17–29 (emphasizing the risk-weighting schemes that subjected residential mortgages and securities based on them to lower capital requirements than otherwise similar assets).

320. See Whitehead, *supra* note 54, at 352–53 (emphasizing portfolio managers’ use of VaR (value at risk) in hastening the decline of Bear Stearns).

321. Romano, *supra* note 16, at 27–28 (emphasizing the preferential treatment accorded to sovereign debt in the risk-weighting scheme of the Basel accords, thereby incentivizing banks to invest in sovereign debt and, within that officially riskless category, to invest in the debt of the riskiest sovereigns in search of higher returns).

322. Whitehead, *supra* note 54, at 326 (“By promoting coordination, regulations and standards can erode key presumptions underlying financial risk management, reducing its effectiveness and magnifying the systemic impact of a downturn in the financial markets.”).

323. Accord Bank for Int’l Settlements Comm. on the Global Fin. Sys., *Long-Term Issues in International Banking* 31 (CGFS Papers No. 41, 2010), available at <http://www.bis.org/publ/cgfs41.pdf> (“Convergence to a single risk assessment or risk management framework . . . would encourage herd behavior and weaken financial stability.”).

resulting in uniformity of conduct, thereby increasing the risk of systemic failure. Happily, as noted above, a single world clearinghouse does not appear to be on the horizon anytime soon.³²⁴ Nevertheless, even in a world of multiple clearinghouses, destructive coordination could result if the clearinghouses were forced by regulators to manage risk in essentially the same way, and this unfortunately, does seem to be the case, with leading regulators drafting precise guidelines for clearinghouse risk management.³²⁵

The current environment of clearinghouse segmentation also raises the specter of destructive coordination by increasing the systemic effect of asset bubbles. To see this, recall as described above, that clearinghouses are now and are likely to continue to specialize in specific asset classes—for example, foreign exchange, interest rate swaps, or CDS.³²⁶ As a result, they are likely to be susceptible to asset bubbles in the underlying asset. Consider, for example, a clearinghouse specializing in CDS that has a member who has suffered severe losses due to a bursting of the bubble in residential MBS. The member's losing investments will trigger capital calls from the clearinghouse, forcing it to sell assets to cover the capital call.³²⁷ This sale of assets is likely to come at the worst possible time, flooding the market with supply when asset values are already falling—a situation often referred to as the “fire sale” problem³²⁸—which will have the effect of weakening other members of the clear-

324. See *supra* note 300 and accompanying text.

325. CFTC, Risk Management Requirements for Derivatives Clearing Organizations, 76 Fed. Reg. 3698 (Jan. 20, 2011); SEC, Clearing Agency Standards, 77 Fed. Reg. 66,220 (Nov. 2, 2012); Commission Regulation No. 153/2013, *Regulatory Technical Standards on Requirements for Central Counterparties*, 2012 O.J. (L 52/41); Commission Regulation No. 152/2013 *Regulatory Technical Standards on Capital Requirements for Central Counterparties*, 2012 O.J. (L 52/37).

326. See *supra* notes 294–96 and accompanying text.

327. See Whitehead, *supra* note 54, at 353–56 (describing the standardized system of collateral posting under ISDA's Credit Support Annex and the way in which this system of collateral may have contributed to the financial crisis because “[s]tandard provisions in the CSA caused protection sellers to react to the increase in CDS prices in the same way and at roughly the same time, simultaneously driving prices lower, which in turn required additional sales to raise further funds”).

328. The problem is triggered by parties being forced to sell into a market with very few buyers. Sellers are thus forced to significantly reduce prices in order to sell. The discount will be even greater if the market is flooded with other sellers forced to liquidate large positions at the same time. See Romano, *supra* note 16, at 15–16.

inghouse exposed to the same asset class who will face capital calls from the clearinghouse, thereby raising the specter of further fire sales and further sharp declines in asset value, thus bringing about “the same ugly financial spiral that the economy suffered from in the financial crisis.”³²⁹ Traders may begin to suspect that the clearinghouse itself is weak and seek to sell out of their positions, thereby spreading contagion throughout the economy in spite of (or, in this example, because of) the presence of a central counterparty clearing in the relevant asset class.³³⁰

C. STIFLING REGULATORY INNOVATION

Finally, uniform financial regulation stifles regulatory innovation and ensures the entrenchment of potentially inefficient regulatory regimes.³³¹ The lack of experimentation may be a pervasive problem in the modern regulatory state which typically evaluates new regulations only when they are adopted and even then with a questionable form of cost-benefit analysis.³³² The best way to evaluate the efficiency of regulatory regimes is by experimentation and comparison with other regula-

329. Roe, *supra* note 16, at 1679; *see also* Pirrong, *supra* note 73, at 23.

330. This dynamic is fundamentally a liquidity problem: clearinghouse members are forced to post additional collateral precisely when they are least able to do so. *Id.* at 22. As a result, it may be tempting to seek to solve the problem by providing the clearinghouse with central bank support, as indeed is contemplated in Dodd-Frank Title VIII. The effect of this central bank support, however, is merely to shift credit risk to the central bank and the governments (and taxpayers) that support them. *See generally* Singh, *supra* note 293.

331. Paraphrasing Freidrich von Hayek, “[t]he surest way to stifle innovation is to take current best practices and convert them into rigid requirements.” GILLIAN TETT, FOOL’S GOLD 31 (2009) (attributing the paraphrase to J.P. Morgan banker Mark Brickell).

332. Don Bradford Hardin, Jr., *Why Cost-Benefit Analysis? A Question (and Some Answers) About the Legal Academy*, 59 ALA. L. REV. 1135, 1165 (2008) (cataloguing objections to cost-benefit analysis as performed by federal regulators); *see also* Michael Greenstone, *Toward a Culture of Persistent Regulatory Experimentation and Evaluation*, in NEW PERSPECTIVES ON REGULATION 111, 113 (David Moss & John Cisternino eds., 2009). In his words:

The current regulatory problem is not a lack of cost-benefit analysis. Some form of cost-benefit analysis already underlies most regulatory decisions. Rather, the problem is the poor quality of the evidence underlying many applications. Indeed, critics of cost-benefit analysis have argued that it can be twisted to produce desired results. One major reason for these criticisms is that most cost-benefit analyses are not performed in a credible manner.

Id.

tory approaches.³³³ This, of course, is antithetical to a regime of regulatory uniformity. Seen in this light, regulatory uniformity seems likely to perpetuate inefficient regulatory structures and also to suppress the very information that would make possible an evaluation of the cost and efficacy of the existing regulatory structure.

With regard to derivatives, the first thing to note concerning regulatory alternatives is that many of the proffered benefits of central counterparty clearing—including greater price transparency and increased reporting of open positions—are available outside of the clearing context.³³⁴ For example, it would be a much simpler matter to adopt rules requiring traders to report prices and positions than it would be to impose a wholly new regulatory framework—mandatory clearing—to accomplish the same objective. Moreover several commentators have suggested alternative regulatory structures to reduce systemic risk in connection with OTC derivatives transactions.³³⁵ Three of these regulatory alternatives are briefly sketched below.

1. Licensing Third Parties to Monitor Risk and Collect Variation Margin

A core benefit of central counterparty clearing is risk monitoring and collateralization, but there are other ways to achieve this basic benefit outside of the clearinghouse context. Moreover, there is reason to believe that outsourcing certain risk monitoring and collateralization functions of the clearinghouse may create important efficiencies, both in terms of reduced cost and increased effectiveness.

An initial proposal along these lines has been made by Conrad Voldstad, a derivatives pioneer and former president of ISDA.³³⁶ Although generally supportive of clearing, Voldstad

333. Greenstone, *supra* note 332, at 118–21 (advocating for a culture of experimentation—to “[s]tructure [r]egulations so that [e]xperiments are [f]easible,” to collect data, to release it publicly, and to provide for ultimate review by an independent review board).

334. See Roe, *supra* note 16, at 1678–79.

335. See, e.g., E-mail from Conrad Voldstad to Sean Griffith, Dir., Corp. Law Ctr., Professor of Law, Fordham Law School (Nov. 1, 2013, 11:52 AM) (on file with author).

336. See TETT, *supra* note 331, at 17 (describing Voldstad as “one of the most brilliant minds in the derivatives world”); see also Press Release, Int’l Swaps & Derivatives Ass’n, Robert Pickel Appointed Chief Executive Officer of International Swaps and Derivatives Association (Nov. 10, 2011), available at <http://www2.isda.org/news/Robert-pickel-appointed-ceo-of-isda>

has argued that the aggregate cost of initial margin is excessive, perhaps amounting to trillions of dollars of collateral.³³⁷ His proposal therefore sketches an alternative regime where the core benefit of clearing could be outsourced to a third-party entity that monitored dealer positions and collected collateral.³³⁸ Unlike clearinghouses that, as discussed above, disrupt netting sets and thereby render netting less effective, this third-party would not operate as a trade intermediary, thus preserving the full benefit of bilateral netting across all positions. The third-party would mark all positions to market on a net basis and then take collateral against the residual exposure. In Voldstad's words:

[V]ariation margin is the critical collateral required for safety. Suppose each dealer were to use an entity licensed by regulators to collect variation margin collateral across all derivative products on a netted basis. You would retain the benefits of netting and capture the main benefits of clearing. The same licensed entity could organize the liquidation of dealer portfolios in a dealer bankruptcy, perhaps by collecting some initial margin from the dealer.³³⁹

The proposal would make posting initial margin a term that would be agreed between the parties on a case by case basis. While this might result in some losses, Voldstad estimates that such losses would pale in comparison with the savings generated by the reduction in stranded initial margin collateral.³⁴⁰ Because the full benefit of netting would be retained, the total residual exposure would be smaller than it would be in the context of multiple clearinghouses and fragmented netting. The role of regulators, under such a proposal, would then shift from designing and implementing an entirely new system of derivatives transactions to setting standards and overseeing the private entities that arise to monitor and manage risk.³⁴¹

-conrad-voldstad-to-serve-as-special-advisor-to-the-board (announcing Voldstad's departure and referring to him as an "industry pioneer").

337. Voldstad's support for initial margining through the clearinghouse is strongest in the context of large dealers and users where very large portfolios of derivatives make posting initial margin efficient and allow for large scale tear-ups of contracts, a process known as "compression." See E-mail from Conrad Voldstad to Sean Griffith, *supra* note 335.

338. See generally Conrad P. Voldstad et al., Remarks at the Fordham Journal of Corporate and Financial Law Symposium: Regulation of Over-the-Counter Derivatives (Feb. 13, 2012) (on file with the author) (during which Voldstad offers several suggestions for derivatives reform, of which the third-party collateral guarantor, described here, is the most radical).

339. *Id.* at 7.

340. See E-mail from Conrad Voldstad to Sean Griffith, *supra* note 335.

341. See Voldstad et al., *supra* note 338, at 7–8 ("It's up to the industry to

A similar proposal, focusing on the role of outside “gatekeeper guarantors” to core risk monitoring and collateralization functions, has been made by Professor Jeffrey Manns.³⁴² Rather than outsource the entire clearinghouse function, however, Manns argues in favor of requiring clearinghouses to secure private guarantors (reinsurers) to cover their potential liabilities above a threshold level.³⁴³ Once private reinsurers had thus taken “skin in the game,” Manns argues, they would be in a better position than government or clearinghouses to monitor the risk of derivatives because of the clarity of their incentives, their “longstanding experience in assessing and pricing insurance risks,” and their greater ability to respond to industry change by altering contracts as opposed to amending regulation.³⁴⁴ In addition to monitoring, reinsurers could insist that their clients make changes in their risk exposure by making such changes a condition to coverage.³⁴⁵ Manns argues that third party reinsurers would also understand the clearinghouse’s collateral needs better than other regulators.³⁴⁶ In sum, under this scheme:

[Reinsurers] would serve as classic gatekeepers in identifying and remedying risks. . . well before government actors even are aware of them. Their partial guarantor role would create self-interested incentives to temper clients’ risk taking, which would achieve a far greater impact in stabilizing and disciplining markets than blanket government guarantees during crises that are rife with moral hazard.³⁴⁷

The reinsurance entity, acting as a gatekeeper guarantor, thus improves the risk monitoring and collateral taking functions of the clearinghouse.

What these two proposals have in common is the underlying view that a third party might be able to perform the core

design a better mousetrap. It’ll be up to the regulators to analyze the mousetrap to ensure it is strong and flexible.”). Acknowledging the difficulty of convincing authorities to accept this “initial margin light” proposal, Voldstad has also developed an outline for a strongly capitalized clearing house that could offer efficiencies in initial margining. See E-mail from Conrad Voldstad to Sean Griffith, *supra* note 335.

342. See generally Jeffrey Manns, *Insuring Against a Derivative Disaster: The Case for Decentralized Risk Management*, 98 IOWA L. REV. 1575 (2013).

343. *Id.* at 1588–90.

344. *Id.* at 1611–12.

345. *Id.* at 1612.

346. *Id.* at 1614 (arguing that reinsurers would “have a better appreciation of what degree of capital is required to ensure that their clients can live up to their obligations” along with the leverage, in the form of the threat to deny or withdraw coverage, to get their way).

347. *Id.* at 1612.

functions of the clearinghouse more efficiently than the clearinghouse itself. Manns' proposal, offered as a supplement to, rather than a substitute for the clearinghouse, does not claim to offer the same cost efficiencies as Voldstad's, gained principally through efficiencies in netting.³⁴⁸ Both, however, emphasize similar gains in regulatory effectiveness by injecting a third party specialized in risk monitoring and collateralization thereby addressing the moral hazard problem inherent in mandatory clearing as currently conceived.³⁴⁹

2. Taxing Residual Derivative Liabilities

Another alternative regulatory structure is suggested in a working paper by IMF economist Manmohan Singh who, like Voldstad, would take the regulators out of the business of redesigning the market, and focus them instead on collecting information on dealers' derivative positions so that a portion of these positions—dealers' residual exposures—could be taxed.³⁵⁰ Taxing these positions would both provide revenue to the governments bankrolling too-big-to-fail financial institutions and create an incentive for dealers to minimize their residual exposures.

The details of Singh's tax-based proposal are as follows: Because many derivatives counterparties are viewed as "safe" by banks, they are not made to post full value of collateral in connection with derivatives trades.³⁵¹ As a result of not taking full collateral, dealers carry residual derivatives liabilities, which contribute to systemic risk.³⁵² Singh therefore suggests that these residual derivatives liabilities be taxed at a punitive rate.³⁵³ The cost of this tax, Singh expects, will outweigh the business advantage of not taking sufficient collateral from supposedly safe entities, therefore causing banks to take full collateral from all counterparties.³⁵⁴ If banks take full collateral from all counterparties, the failure of a large counterparty in

348. See *supra* note 339 and accompanying text.

349. On moral hazard in central counterparty clearing, see *supra* note 287.

350. The paper cited and discussed in this section is Singh, *A Fresh Look*, *supra* note 291.

351. *Id.* at 5 (listing sovereigns, AAA-rated insurers, large corporations, and government-sponsored entities as counterparties that are considered "safe" (in varying degrees)).

352. *Id.*

353. *Id.* at 14–16.

354. Singh, *supra* note 293, at 5 ("If a levy is punitive enough, then large banks will strive to make derivative liabilities reach zero . . .").

the OTC derivatives market will create no systemic risk.³⁵⁵ Side-benefits of this tax proposal include the reduced need to hedge derivative assets and the overall fairness of the party that will ultimately be made to bear derivative losses in a bailout (i.e., government taxpayers) benefiting from an alternative source of tax revenue in the interim.

3. Invalidating Speculative Trades

Finally, Professor Lynn Stout has argued that systemic risk would be reduced if OTC derivatives were subject to the common law “rule against difference contracts” and not the regulatory regime enacted in 2000 with the Commodities Futures Modernization Act.³⁵⁶ The crux of Stout’s argument is that by reinstating this common law rule courts would no longer be responsible for enforcing purely speculative derivative contracts, but rather would only enforce those derivative contracts used for hedging, defined by Stout as contracts in which one party owns the underlying interest.³⁵⁷ According to Stout, making speculative OTC derivative contracts unenforceable would channel speculators into private ordering, limit the derivatives market, and reduce systemic risk.³⁵⁸

Pointing to the Chicago Mercantile Exchange as an example of successful private ordering—that is, a private organization where membership requirements enforce effective “margin requirements, netting requirements, and a host of other rules designed to make sure that, despite the legal invalidity of speculative contracts, speculating traders would make good on their contract promises”³⁵⁹—Stout argues that judicial invalidity of speculation may lead to safer derivatives transactions than a clearing mandate supervised by public regulators.³⁶⁰ By eliminating high stakes speculation from the OTC derivatives market or, at least, creating strong incentives for such transactions

355. *Id.*

356. Lynn A. Stout, *Regulate OTC Derivatives by Deregulating Them*, 32 REG. 30, 30 (Fall 2009).

357. *Id.* at 33 (arguing that policymakers should “refus[e] to devote public resources to enforcing an OTC derivatives contract unless at least one of the parties to the contract either owned or was legally obligated to take ownership of the asset underlying the contract”).

358. *Id.* at 30–33.

359. *Id.* at 32.

360. *Id.* (arguing that the rule against difference contracts can be seen in the private exchanges and self-regulatory regimes established in order to ensure parties to derivatives contracts deliver their end of the bargain).

to migrate to exchanges, Stout argues, her proposal leads to a substantial reduction in systemic risk.³⁶¹

In any event, the point of this section is not to *prove* that any of these alternative regulatory proposals is superior to central counterparty clearing. Each of these proposals would, if ever seriously entertained by a policymaker, no doubt be a source of serious debate. But this, in turn, would force the surfacing of data necessary to choose one regulatory structure over another. That data currently is suppressed by the imposition of global uniformity in the form of mandatory clearing. Returning to the larger theme of this Part, the imposition of regulatory uniformity increases the fragility of the world financial system and heightens our exposure to systemic risk. The next Part offers a way out of this dangerously stultified regulatory environment.

V. MORE COMPETITIVE FINANCIAL REGULATION

International policymaking with regard to derivatives regulation has failed because it has created a fundamentally fragile system and thereby increased the exposure of the financial system to systemic risk, the minimization of which is the stated goal of regulation. If, as argued above, diversity and experimentation are desirable components of a successful regulatory regime, the question becomes how to design a regulatory superstructure that is sufficiently serious about systemic risk while remaining supple and adaptable. How, in other words, might the regulation of derivatives have been designed to accommodate diversity and experimentation?

Effective policy-making starts from a clear diagnosis of the problem and proceeds with an open-minded evaluation of all potential responses to the problem in search of an effective solution.³⁶² The problem revealed by the 2008 financial crisis was not, as is sometimes claimed, that OTC derivatives are or were unregulated.³⁶³ It is rather that they may, in some instances,

361. *Id.* at 32–33.

362. See Richard J. Herring, Remarks at Yale Conference on the Future of Financial Regulation 91 (Feb. 13, 2009) (“Public policy should start from a clear diagnosis of the problem . . . It should have clear goals that address the problem. It should be efficient in a sense that it accomplishes these goals at least cost.”).

363. See *Editorial: A Long Road to Regulating Derivatives*, N.Y. TIMES, Mar. 25, 2012, at 12 (“If there is one lesson from the financial crisis that should be indelible, it is that unregulated derivatives are prone to catastrophic failure. And yet, nearly four years after the crash . . . regulation is a slow work in progress.”).

contribute to systemic risk. Rather than fixing immediately on mandatory clearing as a solution to be implemented, a more effective response might have been for the G-20 to identify the problem—the systemic risk created by OTC derivatives transactions—and to devise a standard for members to meet in designing regulatory structures that respond to this threat. For example, the G-20 might have encouraged members to adopt a means of regulating derivatives such that member-state financial institutions would be able to survive the default of their one or two largest counterparties. Member-states meeting that standard, as evaluated by an expert body identified by the G-20, would be free to implement their own regulatory schemes, while member states failing to meet that standard could be denied access to the market or channeled into another regulatory regime.³⁶⁴ This would have preserved the benefits of regulatory diversity while also responding to the problem of systemic risk at the global level. In failing to respond in this way, the G-20 essentially adopted a rule when it should have adopted a standard.

All of that, of course, is now water under the bridge. If the question turns to what can be done now to build a more robust and adaptable regulatory structure going forward, two possible approaches, outlined below, appear. The principal difference between these approaches is their scope. The first is international, the second domestic.

A. REFORMING THE GLOBAL REGULATORY STRUCTURE OF DERIVATIVES

Building upon Professor Roberta Romano's recent proposal advocating the creation of a peer review committee to approve or deny the petitions of nations seeking to implement banking regulations that deviate from the Basel Accords,³⁶⁵ the international architecture of derivatives regulation could be redesigned to create a review panel charged with approving or denying the petitions of jurisdictions seeking to depart from the regulatory norm of mandatory clearing.³⁶⁶ The G-20 would thus

364. Such as through the extraterritoriality mechanism proposed by the CFTC Guidance, discussed above, at *supra* Part III.B.1.

365. The Basel Accords technically are non-binding agreements which Committee members agree to enact through domestic law-making. See Michael S. Barr & Geoffrey P. Miller, *Global Administrative Law: The View from Basel*, 17 EUR. J. INT'L LAW 15, 28 (2006).

366. Romano's proposal is summarized, in part, as follows:

[T]he proposal formalizes a procedural mechanism for approving de-

act as the standard-setting body, choosing, in this case, central counterparty clearing as the default regulatory structure. The review panel would then issue waivers from the standard as long as a proposed alternative regulatory structure did not increase systemic risk, a determination that would be supported by economic analysis.³⁶⁷ The goal, however, would be to approve departures whenever possible to permit a proliferation of regulatory alternatives and avoid the dangerous effects of regulatory uniformity.

Finding a real world institution capable of functioning as such a review panel may not be as challenging as it might at first appear. A strong candidate for the job already exists in the form of the Financial Stability Board (FSB).³⁶⁸ Consisting of members including the central banks of the major national economies as well as international organizations—such as the Bank for International Settlements (BIS), the European Central Bank (ECB), the International Monetary Fund (IMF), and the World Bank—and various international standard-setting bodies—including the Basel Committee on Banking Supervision, the International Accounting Standards Board, and the International Organization of Securities Commissioners—the

partures, that would render Basel requirements “off the rack” defaults which could be altered in any direction, subject to a peer review. In short, upon presentation in writing of a detailed, reasoned analysis to a committee of peer regulators with expert technical support, nations would be able to adopt regulations that reconfigure or reject elements of the Basel regime, or even to replace it with an entirely different regulatory approach. The review committee would undertake an evaluation of a proposal’s impact on global systemic risk, with a presumption of approval, to be rebutted by convincing evidence that it would, on net, increase global systemic risk. To facilitate flexibility and hence diversity, of international financial regulation, the burden of proof to demonstrate an adverse impact on systemic risk—theoretically or empirically—would be placed on the review committee, and a decision to disapprove a deviation would require a well-reasoned written explanation.

Romano, *supra* note 16, at 10–11. For further details on Romano’s proposal see Romano, *supra* note 79, at 26–27; Romano, *supra* note 279, at 16–17.

367. Romano, *supra* note 79, at 26–27; *see also* Romano, *supra* note 16, at 69–70 (“The review committee’s task would be to ascertain . . . whether a proposed deviation could be anticipated to impact global system stability The committee’s review would be delimited to a proposal’s impact on systemic risk and financial system stability, with an adverse impact the sole criterion for a proposal’s rejection . . .”).

368. *See generally* Stavros Gadinis, *The Financial Stability Board: The New Politics of International Financial Regulation*, 48 TEX. INT’L L. J. 157, 164–75 (2013) (discussing the role and history of the FSB and its relationship to the G-20).

FSB is organized “to develop and promote the implementation of effective regulatory, supervisory, and other financial sector policies.”³⁶⁹ Most importantly, the FSB has considerable expertise in OTC derivatives, having issued several studies of the general topic as well as a regular status report on the implementation of derivatives market reforms.³⁷⁰ A review panel selected from or by this body seems well suited to evaluate the effect of systemic risk posed alternative regulatory structures for derivatives.

It is worth noting, however, that the FSB and its predecessor entity have come under criticism for lacking independence,³⁷¹ for succumbing to the groupthink,³⁷² and for generally failing to prevent the most recent financial crisis.³⁷³ However,

369. *Overview*, FIN. STABILITY BD., <http://www.financialstabilityboard.org/about/overview.htm> (last visited Mar. 11, 2014). More specifically, the official mandate of the FSB is to:

assess vulnerabilities affecting the financial system and identify and oversee action needed to address them; promote co-ordination and information exchange among authorities responsible for financial stability; monitor and advise on market developments and their implications for regulatory policy; advise on and monitor best practice in meeting regulatory standards; undertake joint strategic reviews of the policy development work of the international standard setting bodies to ensure their work is timely, coordinated, focused on priorities, and addressing gaps; set guidelines for and support the establishment of supervisory colleges; manage contingency planning for cross-border crisis management, particularly with respect to systemically important firms; and collaborate with the IMF to conduct Early Warning Exercises.

Mandate, FIN. STABILITY BD., <http://www.financialstabilityboard.org/about/mandate.htm> (last visited Mar. 11, 2014).

370. *See, e.g.*, FIN. STABILITY BD., OTC DERIVATIVE MARKET REFORMS: THIRD PROGRESS REPORT ON IMPLEMENTATION (2012).

371. Geoffrey P. Miller, Remarks at Yale Conference on the Future of Financial Regulation 97 (Feb. 13, 2009) (noting that the FSF, the predecessor of the FSB, had very little funds, resources, or authority and that it was “very heavily dependent upon the central banks, whose activities would be the principal source of [its] criticism” and therefore lacked “a reliable ability to make comments and make reform”).

372. *Id.* at 98 (arguing that the clubby nature of the FSF led to dominance by its most powerful members—namely, the Fed, the ECB, and the Bank of England—contributing to “groupthink” or “one conventional orthodox set of opinions that central bankers who met in Basel tended to adhere to”). Social scientists have long recognized that a small but cohesive group can set the agenda of a much larger group, especially when the small group include powerful or otherwise well-regarded members. *See, e.g.*, IRVING L. JANIS, VICTIMS OF GROUPTHINK: A PSYCHOLOGICAL STUDY OF FOREIGN-POLICY DECISIONS AND FIASCOS (1972) (describing, in general, the various effects of the groupthink phenomena on foreign-policy decisions).

373. Miller, *supra* note 371, at 101 (“It seems to me that the Basel brand

with respect to the review panel sketched above, it may be possible to correct these failings. Fears over a lack of independence might be allayed by the adoption of formal mechanisms such as a random empanelling of decision-makers and a mandatory recusal system.³⁷⁴ Groupthink and status quo bias could be addressed by allocating the burden of proof on the committee itself, rather than the petitioner,³⁷⁵ and by requiring that the panel support its findings in written opinions detailing their economic analysis.³⁷⁶

In sum, there is both a strong theoretical justification and an existing institutional superstructure to support these changes to the international architecture of derivatives regulation. Policy-makers have begun to express interest in forming such an organization as well.³⁷⁷ However, the type of body advocated in this Article, because it would encourage diversity and foster competition rather than consensus, represents a significant departure from the way in which these organizations typically function and entails a partial rejection of what these organizations have already chosen as the consensus solution—that is, mandatory clearing.³⁷⁸ Hence, rather than pinning all hope on the reform of international organizations, it may be wise to consider ways in which domestic regulators can bring about a similar outcome by rethinking the way in which they assess substituted compliance.

B. REVISITING SUBSTITUTED COMPLIANCE: THINKING GLOBALLY, ACTING LOCALLY

If reforming the architecture of international financial regulation seems like an ambitious policy agenda, it may be possible to achieve a similar effect—that is, a regulatory environment that allows for the flourishing of diversity in and

performed poorly and that its reputation is somewhat tarnished by the events that have happened. And that does raise a question: Should we look to this avenue or mechanism for reforming financial regulation in the future?").

374. Romano, *supra* note 16, at 74–75.

375. *Id.* at 77–79.

376. *Id.* at 81–83.

377. See, e.g., Huw Jones, *Global Watchdog Says New Body with Teeth Needed to Police Markets*, REUTERS (Nov. 5, 2013), <http://www.reuters.com/article/2013/11/05/g20-regulation-idUSL5W0IQ2G820131105> (reporting remarks by international financial regulators in favor of forming a new organization with binding powers over its members to ensure global financial stability).

378. See *supra* notes 82–90 and accompanying text.

competition among alternative regulatory regimes—through purely domestic reform. While it is true that the U.S., because it does not act alone in dictating world financial policy, cannot act alone in granting nations leave to depart from international norms, it is also true that the enormous importance of its financial markets gives the U.S. a leading role to play in designing and implementing global regulatory policy, a role the CFTC has already assumed in the area of swaps regulation.³⁷⁹

Substituted compliance, as already noted, can be used to offer a way out of U.S. regulation for foreign persons complying with a sufficiently similar regulatory scheme elsewhere.³⁸⁰ Yet substituted compliance begs two questions: (i) what is sufficiently similar? And (ii) who decides? The answer U.S. regulators have thus far offered to each of these questions is: (i) a comparable set of regulatory requirements, and (ii) we do.³⁸¹ If the world financial system is to be rendered less rather than more fragile, neither of these answers is satisfactory.

A better rubric for the analysis of substituted compliance, following the reasoning outlined above, is whether the foreign regulatory regime increases systemic risk or otherwise undermines the stability of U.S. financial institutions.³⁸² This determination should be fully transparent and, unlike agency cost-benefit analysis as it is currently practiced, thoroughly supported by expert economic analysis.³⁸³ The substituted compliance determination in the domestic context would thus parallel the decision of the review panel in the international context. Foreign regimes or foreign regulated entities could apply for

379. See *supra* notes 193–203 (discussing substituted compliance in the context of the CFTC’s Global Guidance); see also Tafara & Peterson, *supra* note 169 (discussing substituted compliance in the context of securities regulation).

380. Describing substituted compliance in the context of foreign stock exchanges, Tafara and Peterson write:

Instead of being subject to direct SEC supervision and U.S. federal securities regulations and rules, foreign stock exchanges and broker-dealers would apply for an exemption from SEC registration based on their compliance with substantively comparable foreign securities regulations and laws and supervision by a foreign securities regulator with oversight powers and a regulatory and enforcement philosophy substantively similar to the SEC’s.

Tafara & Peterson, *supra* note 169, at 32.

381. See *supra* Part III.B.2 (describing current approach of the SEC) and Part III.B.3 (describing current approach of the CFTC).

382. See *supra* note 367 and accompanying text (making this argument in the international context).

383. See generally Hardin, *supra* note 332.

waivers from U.S. regulation, which would be granted as long as the alternative regulatory regime was deemed to be equally effective at mitigating systemic risk.³⁸⁴ The result of this approach, like the international review panel outlined above, would be to create an opening for the flourishing of a diversity of regulatory approaches.

Having settled on this rubric for substituted compliance, the question of who should decide remains open. As in the international context, a critical issue is for the review committee to be independent of the agency responsible for drafting and implementing the domestic regulation. Obviously, then, the decision should not be left with either the CFTC or the SEC. Where then to locate this decision-maker with our domestic regulatory structure?

As an obvious first choice, paralleling the FSB in the international context, the review committee could be established under the aegis of the Financial Stability Oversight Council (FSOC), the body created by the Dodd-Frank Act to provide comprehensive monitoring to ensure the stability of the financial system.³⁸⁵ Just as the FSB consists of representatives of the leading economies and leading economic policymakers, the FSOC has ten voting members representing the most important federal officials in charge of financial regulatory policy³⁸⁶ and five non-voting members primarily representing state regulatory agencies.³⁸⁷ This makes the choice of the FSOC prob-

384. In the context of derivatives regulation, U.S. authorities have chosen to implement the international standard. But even if U.S. authorities, in other systemic risk contexts, chose an alternative approach, the substituted compliance analysis outlined in the text could still be applied, in which case the appropriate standard (as between the international standard and the U.S. rule) would be the one deemed most effective at minimizing systemic risk.

385. Dodd-Frank Act, Pub. L. No. 111-203, § 111, 124 Stat. 1376 (2010).

386. These include: the Secretary of the Treasury, the Chairman of the Board of Governors of the Federal Reserve System, the Comptroller of the Currency, the Director of the Consumer Financial Protection Bureau, the Chairman of the Securities and Exchange Commission, the Chairperson of the Federal Deposit Insurance Corporation, the Chairperson of the Commodity Futures Trading Commission, the Director of the Federal Housing Finance Agency, the Chairman of the National Credit Union Administration, and an independent member with insurance expertise appointed by the President and confirmed by the Senate. *Financial Stability Oversight Council: Who Is on the Council?*, U.S. DEPT OF TREASURY (Apr. 10, 2013), <http://www.treasury.gov/initiatives/fsoc/about/council/Pages/default.aspx>.

387. These include: the Director of the Office of Financial Research, the Director of the Federal Insurance Office, a state insurance commissioner selected by the state insurance commissioners, a state banking supervisor chosen by

lematic since a body appointed by the leading architects of domestic financial regulation may be more interested in protecting their regulatory turf and preserving the *status quo* of U.S. financial regulation than in providing for a flourishing of regulatory approaches.³⁸⁸ A logical second choice of a more neutral institution that still has expertise in financial regulation would be the Board of Governors of the Federal Reserve System (the “Fed”), especially considering the Fed’s core duty of “maintaining the stability of the financial system and containing systemic risk that may arise in financial markets.”³⁸⁹ Yet, housing the power to decide substituted compliance at the Fed runs the risk of creating an excessively powerful super-regulator of U.S. markets.³⁹⁰ This leaves the courts.

The risk of leaving this determination to the judiciary would seem to lie in finding a sufficiently qualified bench. Judges, after all, are not chosen for their financial expertise, and the decisions of generalist judges in areas involving complex financial matters have been subject to significant criticism.³⁹¹ It therefore seems desirable to allocate the decision to a specialist court, similar to the U.S. Court of International Trade, with a limited jurisdictional mandate to consider alternative regulatory design in light of the problem of systemic risk.³⁹² The upside of allocating this decision to a judicial body is the recognized independence of the federal judiciary, the ex-

the state banking supervisors, and a state securities commissioner designated by the state securities commissioners. *Id.*

388. See generally Romano, *supra* note 79, at 29 (noting that “an agency could be expected to be predisposed to believe that whatever regulation exists is good and hence to oppose exemptions”).

389. Mission, BD. OF GOVERNORS OF THE FED. RESERVE SYS. (Nov. 6, 2009), <http://www.federalreserve.gov/aboutthefed/mission.htm>.

390. See generally Heidi Mandanis Schooner, *The Role of Central Banks in Bank Supervision in the United States and the United Kingdom*, 28 BROOK. J. INT’L L. 411, 433–34 (2003) (noting concerns over concentration of power in the central banks).

391. See Stephen M. Bainbridge & G. Mitu Gulati, *How Do Judges Maximize? (The Same Way Everybody Else Does—Boundedly): Rules of Thumb in Securities Fraud Opinions*, 51 EMORY L. J. 83, 96–97 (2002) (critiquing the decisions of the federal judiciary in the securities area as a product of the institutional constraints operating upon members of the judiciary). *But see* Jed S. Rakoff, *Are Federal Judges Competent? Dilettantes in an Era of Economic Expertise*, 17 FORDHAM J. CORP. & FIN. L. 4, 13–14 (2012) (emphasizing that judges need not be sufficiently expert to perform economic analyses themselves, but rather sufficiently expert to judge between competing experts).

392. See generally *About the Court*, U.S. COURT OF INT’L TRADE, <http://www.cit.uscourts.gov/AboutTheCourt.html> (describing the history, jurisdiction, and procedures of this unique Article III court).

perience of that body in analyzing complex issues of international comity, and the clarity of its procedure, including the ability to appeal.³⁹³

Wherever the decision-making body is ultimately housed, however, it is fairly clear that neither the CFTC nor the SEC should be left with the discretion to extend its authority internationally. Some other body, whether domestic or foreign, should decide whether foreign jurisdictions take swap regulation sufficiently seriously to waive compliance with U.S. law for U.S.-facing counterparties and transactions. Moreover, the rubric for making this decision should not be comparability with U.S. regulation, but rather an equally robust approach to the underlying problem of systemic risk. Within these basic parameters any number of review structures can be conceived.

CONCLUSION

This Article has argued that regulatory diversity offers a better approach to systemic risk in the context of derivatives regulation than does the regime of regulatory uniformity organized around mandatory clearing. Providing for a diversity of regulatory approaches creates a number of benefits, including the promotion of innovation and the adoption of efficient regulatory structures as well as the production of information about successful and unsuccessful approaches to the underlying problem. None of this should be taken to imply, however, that a regime of regulatory diversity would be less seriously targeted at the problem of systemic risk. Systemic risk is indeed an externality of derivatives transactions, and the transacting parties, alone, appear to lack insufficient incentives to contain it.

The best approach to systemic risk, however, may be one that understands and anticipates that regulators and policymakers are not infallible and are likely to make mistakes in the future, as indeed they have done in the past. In this environ-

393. On the suitability of courts to this role, see ROBERT SCHAPIRO, POLYPHONIC FEDERALISM: TOWARD THE PROTECTION OF FUNDAMENTAL RIGHTS (2009) (describing the interaction between overlapping spheres of authority as “polyphonic federalism” and arguing that these overlapping interactions, mediated by the judiciary, may result in superior laws and better fail-safe mechanisms for relief of wrongs); Robert B. Ahdieh, *Between Dialogue and Decree: International Review of National Courts*, 79 N.Y.U. L. REV. 2029, 2049–53, 2062–64 (2004) (presenting a conception of dialectical review between courts internationally and domestically and arguing that this type of review promotes innovation). On the failure of regulators and policymakers to take comity seriously, see *supra* notes 169–77 and accompanying text.

ment, a diversity of regulatory approaches to the same underlying problem may provide greater protection against contagion and an outbreak of systemic risk that, under global regulatory uniformity, might prove fatal to the world financial system. A regulatory super-structure providing for diversity rather than uniformity in systemic risk regulation could be implemented internationally or domestically.