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LINKING PAST AND PRESENT: ASSESSING THE STABILITY OF POST-TITLE VII DERIVATIVES MARKETS

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Following the financial crisis of 2007-2008, U.S. lawmakers struggled to address vulnerabilities in over-the-counter derivatives markets in order to preclude these markets from contributing to future crises. Ultimately, in July 2010, Congress enacted Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act. Although the provisions of Title VII and the rules and regulations promulgated thereunder are intended to address vulnerabilities in pre-crisis derivatives markets, their failure to efficiently and comprehensively do so threatens to undermine legislative efforts for market stability.

This Note focuses on the stability of over-the-counter derivatives markets under the new regulatory scheme. But in order to assess current stability and guard against future repetition, "we must understand[] the factors that led to and amplified the crisis." After summarizing the major pre-crisis vulnerabilities, this Note briefly outlines Title VII as a legislative response. It then analyzes the extent to which Title VII addresses each of the major pre-crisis vulnerabilities. Specifically, this Note argues that deficiencies in the drafting and implementation of Title VII create vulnerabilities and inefficiencies that undermine its broad policy goals. The conclusion offers several broad proposals to help improve market stability.

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^{1.} Ben S. Bernanke, Chairman, Bd. of Governors of the Fed. Reserve Sys., Statement before the Financial Crisis Inquiry Commission (Sept. 2, 2010), at 1, http://www.federalreserve.gov/newsevents/testimony/bernanke20100902a.pdf.

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Introduction

In December of 2007 the U.S. entered its worst recession since the Great Depression.² The U.S. economy suffered from

^{2.} Shobhana Chandra, *Revisions Show U.S. Recession Worse than Estimated*, Bloomberg Bus. (July 30, 2010), http://www.bloomberg.com/news/articles/2010-07-30/recession-in-america-was-even-worse-than-estimated-revisions-to-data-show; U.S. Bureau of Labor Statistics, *The Recession of 2007-2009*, Spotlight on Statistics, Feb. 2012, at 2, census.gov/history/pdf/greatreces sion-bls.pdf.

substantially increased unemployment³ and significant declines in consumer spending,⁴ home ownership,⁵ and housing wealth.⁶ Moreover, the economic implications of the downturn were truly global.⁷ In 2010, Congress responded by enacting the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank).⁸

The onset and severity of this global financial crisis largely stemmed from vulnerabilities in over-the-counter (OTC) derivatives markets. A derivative is a bilateral contract or agreement that derives its value from an underlying asset, reference

^{3.} The U.S. unemployment rate more than doubled from 5.0% in December 2007 to 10.0% in October 2009, a twenty-six-year high. See U.S. Bureau of Labor Statistics, supra note 2. This translated to a loss of nearly 8.7 million jobs. U.S. Bureau of Labor Statistics, Consumer Spending and U.S. Employment from the 2007-2009 Recession Through 2022, MONTHLY LABOR REV., Oct. 2014, http://www.bls.gov/opub/mlr/2014/article/pdf/consumerspending-and-us-employment-from-the-recession-through-2022.pdf.

^{4. &}quot;The Great Recession marked the most severe and persistent decline in aggregate consumption since World War II." Mariacristina De Nardi et al., Fed. Reserve Bank of Chi., Consumption and the Great Recession, 36 Econ. Persp. 1, Feb. 2012.

^{5.} Foreclosure starts quadrupled during the Great Recession. Ingrid Gould Ellen & Samuel Dastrup, *Housing and the Great Recession*, Recession Trends, Oct. 2012, at 3, http://furmancenter.org/files/publications/HousingandtheGreatRecession.pdf. "From January 2007 to December 2011 there were more than four million completed foreclosures and more than 8.2 million foreclosures starts." Pam Bennett, *The Aftermath of the Great Recession: Financially Fragile Families and how Professionals can Help*, 17 F. Family & Consumer Issues (2012), http://ncsu.edu/ffci/publications/2012/v17-n1-2012-spring/bennett.php. Economists predict that up to thirteen million homes will have been foreclosed in connection with the Great Recession. *See* Ellen, *supra* note 5.

^{6.} Ingrid Gould Ellen, *The Six Trillion Dollar Loss of Housing Wealth in the Great Recession: What Are the Long-Term Consequences?*, Recession Trends, https://web.stanford.edu/group/recessiontrends/cgi-bin/web/resources/research-project/six-trillion-dollar-loss-housing-wealth-great-recession-what-are-long-ter (last visited Feb. 3, 2016) (stating that existing homes in the U.S. have lost about a third of their market value since the peak of the housing bubble, translating to a loss of about six trillion dollars in homeowners' equity).

^{7.} See Jonathan Eaton et al., Trade and the Global Recession, 1 (Nat'l Bureau of Econ. Research, Working Paper No. 16666, 2011), http://www.nber.org/papers/w16666 ("[G]lobal trade fell 20 percent relative to global GDP" during the Great Recession of 2008-2009.).

^{8.} See, e.g., Wall Street Reform: The Dodd-Frank Act, The White House, https://www.whitehouse.gov/economy/middle-class/dodd-frank-wall-street-reform (last visited Feb. 3, 2016).

rate, or index.⁹ As contrasted with exchange-traded derivatives, which are "standardized agreements . . . traded through an organized exchange," OTC derivatives are "privately negotiated and traded." Both categories of derivatives "provide a means for shifting risk from one party to a counterparty that is more willing or better able to assume that risk." However, several factors distinctive to OTC derivatives markets contributed to vulnerabilities in these markets that precipitated the global financial crisis.

Title VII of Dodd-Frank aims to address these vulnerabilities ¹² and preclude OTC derivatives markets from contributing to future crises. Although the provisions of Title VII and the rules and regulations promulgated thereunder are intended to address vulnerabilities in pre-crisis OTC derivatives markets, this Note argues that their failure to efficiently and comprehensively do so undermines the stability in these markets. To that end, by linking the events of the financial crisis with Title VII's regulatory framework, this Note outlines the instabilities remaining in the global OTC derivatives markets and briefly provides suggested reforms. It should be emphasized that this Note focuses solely on OTC derivatives markets and does not purport to analyze vulnerabilities in the broader financial markets.

This Note focuses on the stability of OTC derivatives markets under the new regulatory scheme. But in order to assess current stability and guard against future repetition, we must "understand[] the factors that led to and amplified the crisis." Accordingly, Section I summarizes the major pre-crisis vulnerabilities and explains how they contributed to the onset and severity of the global financial crisis. These vulnerabilities provide insight into the creation of Title VII and a backdrop against which Title VII's scheme will be assessed. Section II briefly outlines Title VII as a legislative response, focusing on

^{9.} Alan N. Rechtschaffen, Capital Markets, Derivatives and the Law: Evolution after Crisis 148 (Oxford Univ. Press 2d ed. 2014) (citing Procter & Gamble Co. v. Bankers Trust Co., 925 F. Supp. 1270 at 1275 (S.D. Ohio 1996)).

^{10.} Id. at 151 (discussing a distinction made by the U.S. Treasury in the U.S. Treasury Trading and Capital-Markets Activities Manual § 2020.1).

^{11.} Id. at 148.

^{12.} Wall Street Reform: The Dodd-Frank Act, supra note 8.

^{13.} Bernanke, supra note 1, at 1.

its broad policy goals and general scheme. Section III argues that, although it makes some progress toward legislative goals, Title VII fails to comprehensively address the vulnerabilities discussed in Section I and likely creates additional vulnerabilities and inefficiencies that jeopardize market stability. Section IV concludes by briefly proposing some reforms that could help improve OTC derivative market stability and thus preclude OTC derivatives markets from contributing to future crises.

I.

PAST: PRE-CRISIS OTC DERIVATIVES MARKET VULNERABILITIES

"In discussing the causes of the crisis, it is essential to distinguish between triggers (the particular events or factors that touched off the crisis) and vulnerabilities (the structural weaknesses in the financial system and in regulation and supervision that propagated and amplified the initial shocks)." This Section argues that certain vulnerabilities in the pre-crisis OTC derivatives markets contributed substantially to the onset and severity of the global financial crisis. These are the vulnerabilities that Title VII purports to address. 15

A. Regulatory Gaps

Pre-crisis OTC derivatives markets were largely unregulated—a vulnerability that facilitated the excessive risk taking and market opacity that significantly exacerbated the severity of the global financial crisis. The Commodity Futures Modernization Act of 2000 (CFMA) "provided the regulatory backdrop . . . for the derivatives markets" leading up to the financial crisis. The CFMA "effectively eliminat[ed]" regulation of OTC derivatives markets, "including capital adequacy requirements, reporting and disclosure requirements, regulation of financial intermediaries, clearing requirements, and

^{14.} Id.

^{15.} See, e.g., SEC, Dodd-Frank Act Rulemaking: Derivatives, (Feb. 12, 2015), http://www.sec.gov/spotlight/dodd-frank/derivatives.shtml ("Title VII of [Dodd-Frank] addresses the gap in U.S. financial regulation of OTC swaps . . . ").

^{16.} See infra Sections I.B, I.C.

^{17.} Arthur W.S. Duff & David Zaring, New Paradigms and Familiar Tools in the New Derivatives Regulation, 81 Geo. Wash. L. Rev. 677, 684 (2013).

prohibitions on fraud, manipulation, and speculation."¹⁸ As a result, OTC market participants "could agree to any transaction they liked," including how the transaction would clear and whether collateral would be posted.¹⁹

Congress defended the CFMA on three grounds, each of which helps to illustrate the vulnerabilities created by the gaps in the deregulatory approach. Congress argued that (i) the CFMA advanced the development of an important U.S. market by not pushing activity overseas; (ii) the complex nature of the financial instruments effectively limited market involvement to sophisticated institutions; and (iii) the private sector is better equipped to regulate itself.²⁰ In the decade that followed, market activity provided support for the first two arguments. From 1999 (just prior to the CFMA) to 2008 (leading up to the financial crisis), "the total notional value of OTC derivatives grew from approximately \$88 trillion . . . to more than \$670 trillion."21 This exponential growth in the OTC derivatives markets, in conjunction with the deregulatory approach of the CFA, facilitated the concentrations and interconnections of risk that amplified losses during the crisis and resulted in taxpayer bailouts of major institutions.²² Concurrently, although OTC derivatives market participation was effectively limited to major institutions,²³ self-regulation failed; private firms were unable to adequately monitor and manage their exposures, which caused several to fail and complicated regulatory efforts to mitigate losses. Thus, statutory gaps were "an important reason for the buildup of risk in the system and . . . the inadequate response of the public sector to that buildup."24

^{18.} See id. at 685.

^{19.} John Hull, *The Changing Landscape for Derivatives*, 2 (Rotman Sch. of Mgmt., Working Paper No. 2428983, 2014), http://ssrn.com/abstract=2428983

^{20.} See Daria S. Latysheva, Note, Taming the Hydra of Derivatives Regulation: Examining New Regulatory Approaches to OTC Derivatives in the United States and Europe, 20 Cardozo J. Int'l & Comp. L. 465, 478–80 (2012).

^{21.} Duff & Zaring, supra note 17, at 685.

^{22.} See infra Section I.B.

^{23.} See Commodity Futures Modernization Act § 103, Pub. L. No. 106-554, 114 Stat. 2763 (2000) (amending Section 2(d) of the Commodity Exchange Act to exempt certain derivatives transactions between eligible contract participants).

^{24.} Bernanke, *supra* note 1, at 15.

B. Excessive and Concentrated Risks

By definition, derivatives can be very highly leveraged instruments; they are merely contractual relationships that "may not require any transfer of funds until a contemplated performance or maturity date." Swaps, for example, are "contracts in which two parties agree to exchange cash flows on a notional amount over a period of time *in the future*." In essence, derivative instruments "incorporate a loan extending from contract formation to maturity." The leverage inherent in these derivative instruments facilitates excessive market risk exposures; that investors "can achieve the same return provided by an underlying asset, rate or index while paying a tiny fraction of the underlying's price," which can leave them prone to significant losses from small adverse changes in the underlying's price. ²⁸

The leveraged nature of derivatives instruments, along with the opacity that characterized OTC derivatives markets, helped financial institutions to "borrow to the hilt" in the years leading up to the crisis, "leaving them vulnerable to financial distress or ruin if the value of their investments declined even modestly."²⁹ For example, as of 2007, by one metric, the five major investment banks were operating with such "extraordinarily thin capital" that "for every \$40 in assets, there was only \$1 in capital to cover losses" meaning that a "less than 3% drop in asset values could wipe [them] out."³⁰

As major financial institutions continued to lever up and place highly speculative 'bets' on the performance of certain assets,³¹ significant levels of market risk became concentrated

^{25.} RECHTSCHAFFEN, supra note 9, at 153.

^{26.} Id. at 162 (emphasis added).

^{27.} Id. at 153.

^{28.} Arthur E. Wilmarth, Jr., The Transformation of the U.S. Financial Services Industry, 1975–2000, 2002 U. Ill. L. Rev 215, 339 (2002).

^{29.} Nat'l. Crisis Inquiry Comm'n, Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States xix (2011), https://www.gpo.gov/fdsys/pkg/GPO-FCIC/pdf/GPO-FCIC.pdf.

^{30.} Id.

^{31.} As discussed in Sections I.A, II.C, and II.D, OTC derivatives markets lacked the regulatory oversight, transparency and internal processes typically present in modern markets, which enabled many market participants to take on extremely high levels of risk without correspondingly compensating or otherwise providing for the protection of their counterparties.

among several key institutions.³² Since derivative instruments create interconnections among institutions and markets, these exposures left the broader economy extremely vulnerable to otherwise systemically unproblematic fluctuations in asset values.³³

For example, the American Insurance Group (AIG) compiled a credit-default swap (CDS) portfolio with a notional value of approximately \$526 billion.³⁴ A CDS is a derivative "in which a protection buyer makes periodic payments to the protection seller in return for a contingent payment if a predefined credit event occurs in the reference credit (i.e. the obligation on which the contract is written)."³⁵ AIG took the long position in its CDS transactions, meaning it effectively insured its counterparties' credit risks from other transactions.³⁶ By failing to hedge these risks or back their exposures with adequate capital,³⁷ AIG left itself extremely vulnerable to the eventual burst of the housing bubble.³⁸ More importantly, interconnections created by AIG's derivative transactions exposed many other businesses, directly and indirectly, as well as broader financial markets, to substantial potential losses,

³⁹ *Id*

^{33.} *Id.* Bernanke, *supra* note 1, at 1–2 ("With . . . subprime mortgage . . . the potential for losses on these loans was large in absolute terms; however, judged in relation to the size of global financial markets, subprime losses were clearly not large enough on their own to account for the magnitude of the crisis. Indeed, daily movements in global equity markets not infrequently impose aggregate gains or losses equal to or greater than all the subprime mortgage losses incurred thus far.").

^{34.} See, e.g., William K. Sjostrom, Jr., The AIG Bailout, 66 Wash & Lee L. Rev. 943, 945 (2009).

^{35.} Rechtschaffen, *supra* note 9, at 172 (citing Eternity Global Master Fund Ltd. v. Morgan Guar. Trust Co., 375 F.3d 168, 172, n.6 (2d Cir. 2004)).

^{36.} *Id*.

^{37.} Id.

^{38.} As the value of the reference assets declined, the derivatives themselves depreciated in value. Scott E. Harrington, The Financial Crisis, Systemic Risk, and the Future of Insurance Regulation 11–12 (2009). See also Rechtschaffen, supra note 9, at 219 ("[P]oor counterparty risk management by financial institutions led to enormous losses when derivative instruments depreciated in value, losses for which institutions had not allotted sufficient capital"). This decline led to margin calls, which AIG was unable to meet due to liquidity constraints.

prompting hundreds of billions of dollars in government bailouts.³⁹

By allowing institutions, like AIG, to engage in unchecked leveraged speculation, pre-crisis OTC derivatives markets facilitated excessive and concentrated risk-taking, which left the broader economy extremely vulnerable to otherwise systemically unproblematic fluctuations in asset values.⁴⁰ Thus, these levels and concentrations of risk were the basis for systemic concerns that prompted the need for government bailouts.⁴¹

C. Market Opacity

Pre-crisis OTC derivatives markets lacked any meaningful transparency—a vulnerability that caused a liquidity crisis, facilitated the excessive risk-taking discussed in Section I.B, and complicated the regulatory responses intended to mitigate losses.

Due to the nature of derivatives, characteristics of OTC markets, deregulation, and imperfect market disciplines, OTC derivatives markets were characterized by a marked lack of transparency. The heterogeneity of the instruments traded on, and the decentralized nature of, OTC markets make them naturally less transparent than exchange markets. 42 Moreover, because OTC derivative transactions were largely unregulated, market participants "were not required to report data that would adequately reveal their risk positions or practices." 43 Concurrently, private market mechanisms did not stimulate

^{39.} RECHTSCHAFFEN, supra note 9, at 230.

^{40.} See id. See also Bernanke, supra note 1, at 1–2 ("With . . . subprime mortgage . . . the potential for losses on these loans was large in absolute terms; however, judged in relation to the size of global financial markets, subprime losses were clearly not large enough on their own to account for the magnitude of the crisis. (Indeed, daily movements in global equity markets not infrequently impose aggregate gains or losses equal to or greater than all the subprime mortgage losses incurred thus far.)").

^{41.} See Nat'l. Crisis Inquiry Comm'n, supra note 29.

^{42.} Stephen G. Cecchetti, Jacob Gyntelberg, & Marc Hollanders, *Central Counterparties for Over-the-Counter Derivatives*, Bank Int'l Settlements Q. Rev. 45, 49 (2009).

^{43.} Bernanke, *supra* note 1, at 13. *See also* Hull, *supra* note 19, at 6 ("Prior to the crisis, OTC derivatives trades were private transactions that did not have to be disclosed to an outside party").

such disclosures.⁴⁴ As a result, regulators and market participants lacked meaningful information concerning prices and trading volumes of OTC derivatives and trading activities of key financial institutions.⁴⁵

This lack of transparency left regulators and private parties uninformed as to the risk exposures of OTC derivatives market participants, eventually culminating in a liquidity crisis. Since a swap is effectively a transfer of risk⁴⁶ and OTC derivatives markets are opaque, OTC derivatives enable transacting parties to change their respective risk profiles without necessarily informing third parties, public investors, or market regulators.⁴⁷ Further, because derivatives shift risk and derive their value from reference assets in other markets,⁴⁸ derivatives transactions create extensive interconnections among financial markets and market participants. These interconnections contributed to "widespread fear of financial contagion" when reference assets began to significantly decline in value, leading to liquidity crises for Bear Stearns, Lehman Brothers, and AIG.⁴⁹ That is, OTC derivatives market opacity created a pub-

^{44.} Overly optimistic about their ability to obtain margin funding, dealers avoided disclosures in order to maximize short-term profitability: by maintaining informational asymmetries, dealers were able to maximize spreads. See Markus K. Brunnermeier & Martin Oehmke, Bubbles, Financial Crises, and Systemic Risk 44 (Nat'l Bureau of Econ. Research, Working Paper No. 18398, 2012); Steven McNamara, Financial Markets Uncertainty and the Rawlsian Argument for Central Counterparty Clearing of OTC Derivatives, 28 Notre Dame J.L. Ethics & Pub. Pol'y 209, 240 (2014) ("... the major derivatives dealers have benefitted so greatly from the lack of public information concerning derivatives prices. ..").

^{45.} See Wilmarth, supra note 28, at 353-354.

^{46.} Rechtschaffen, supra note 9, at 148.

^{47.} McNamara, supra note 44, at 213.

^{48.} RECHTSCHAFFEN, supra note 9, at 148.

^{49.} McNamara, *supra* note 44, at 235. The market dynamics are analogous to that of a traditional bank run. As reference asset prices decline, firms are required to post collateral. Bear, Lehman and AIG relied on short-term financing in the form of repurchase agreements. Market participants were uninformed as to the exposure of failing firms and the level of interconnection among the major institutions. Thus, when rumors concerning institutional solvency gained support in the market, many firms were perceived as weak and thus no longer able to rollover their short term financing. Concurrently, declining values in reference assets led to large collateral calls for AIG. As a result, liquidity crises caused the firms to default on their obligations and fail. *See* McNamara, *supra* note 44, at 227–34; Rechtschaffen, *supra* note 9, at 230.

lic "fear of the unknown"⁵⁰ that left OTC derivatives market participants and their counterparties in broader financial markets vulnerable to liquidity crises, irrespective of their actual solvency. Thus, when market rumors circulated, investors panicked and stopped rolling their agreements with these key OTC derivatives market participants (effectively, they stopped lending to these institutions),⁵¹ creating a liquidity crisis for OTC derivatives market participants that quickly spread to broader market participants.⁵²

Additionally, market opacity precluded market participants from adequately monitoring and managing their risk profiles, which facilitated the excessive levels and concentrations of risk in the markets. Specifically, the lack of transparency in OTC derivatives markets "prevented market participants from understanding the full nature of the risks they were taking."53 Without detailed disclosures pertaining to the positions and exposures of AIG, Lehman, or Bear, market participants were forced to rely heavily on misleading credit ratings.⁵⁴ As a result, the counterparty risk posed by these institutions was underpriced, causing investors to misunderstand their own risk profiles. These failures in risk monitoring led market participants to inadequately hedge their risks or diversify their portfolios. Thus, market opacity resulted in inefficiently priced risks and inadequate risk management, facilitating the excessive levels and concentrations of risk that left

^{50.} McNamara, supra note 44, at 230-36.

^{51.} Fan Chen & Zhuo Zong, *Pre-Trade Transparency in Over-the-Counter Markets* 1 (August 2012), https://www.ou.edu/dam/price/Finance/CFS/paper/pdf/Fan%20Chen%20Paper.pdf ("In the crisis, the opaqueness of the OTC markets made price discovery and liquidity very challenging and investors were deterred from trading. . . . Investors need better information and better access both to tap and provide liquidity in the market.").

^{52.} McNamara, *supra* note 44, at 235 ("When financial institutions observed the failure . . . their first reaction was to curtail lending across the board in an effort to preserve capital in an environment where the solvency of other institutions was open to question as well as the general trajectory of the markets themselves.").

^{53.} DEP'T OF THE TREASURY, FINANCIAL REGULATORY REFORM 6, http://www.treasury.gov/initiatives/Documents/FinalReport_web.pdf.

^{54.} See id. at 2 ("Market discipline broke down as investors relied excessively on credit rating agencies.").

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key institutions extremely vulnerable to fluctuations in prices of certain reference assets.⁵⁵

Concurrently, this inability to track risk exposures significantly complicated regulatory efforts to mitigate losses in the markets. Because of opaque market conditions and inadequate internal controls, private firms were unable to provide regulators with information regarding their exposures. Similarly, market opacity and the "lack of preexisting reporting and supervisory relationships hindered systematic gathering of information [by regulators] that might have helped in the early days of the crisis. Start Because regulators were unable to discern the levels and concentration of risks corresponding to failing firms' contracts, they were slow to respond and forced to rely on crude policy tools. In this regard, market opacity contributed to aggravated economic losses and a relatively prolonged liquidity crisis.

D. Inadequate Internal Controls

"The crisis revealed many...significant defects in private-sector risk management and risk controls." These defects were a primary and proximate cause of the financial crisis. For example, AIG failed to effectively assess its liquidity risk, reserve adequate capital, or scrutinize the reference assets and corresponding market risk involved in its derivative transactions. This failure left AIG exposed to substantial losses and liquidity issues that ultimately resulted in broader economic losses.

Further, market opacity precluded market participants from adequately monitoring and managing their risk profiles. In addition to contributing to the excessive levels and concentrations of risk in the markets,⁶² these inadequacies greatly complicated efforts to minimize the economic damage of the

^{55.} Failure to hedge is, by definition, speculation and thereby concentrates risk (as the additional risk associated with the investment does not offset a countervailing risk).

^{56.} Bernanke, supra note 1, at 7.

^{57.} Id. at 13.

^{58.} McNamara, supra note 44, at 234.

^{59.} See id. at 234; Bernanke, supra note 1, at 18.

^{60.} Bernanke, supra note 1, at 7.

^{61.} See supra Section I.B.

^{62.} See supra Section I.C.

financial crisis. The inability of OTC derivatives market participants to effectively communicate the nature and extent of their derivative exposures to regulators or lending counterparties⁶³ left firms even more vulnerable to liquidity crises⁶⁴ and complicated the ability of regulators to accurately assess the systemic risk posed by failing institutions.⁶⁵

II. Present: Dodd-Frank Title VII

A. Broad Policy Goals

"The Dodd-Frank Act constituted a seismic shift in the regulation of financial institution and markets in a massive effort to address regulatory shortcomings in derivatives markets." In enacting Dodd-Frank, Congress "sought to preclude these markets from contributing to future crises." With respect to Title VII, Congress pursued two broad policy goals: (i) increased regulatory and public transparency and (ii) reductions in the counterparty and systemic risks created by derivatives transactions. 68

B. Legislative Scheme

In pursuit of its broad policy goals, Title VII: (1) establishes regulatory oversight by repealing the legislative exemptions under the CFMA and delegating jurisdiction over derivatives to the CFTC and Securities Exchange Commission (SEC);⁶⁹ (2) requires certain entities to register with the CFTC

^{63.} Bernanke, supra note 1, at 11.

^{64.} See infra Section I.C.

^{65.} McNamara, *supra* note 44, at 235. *See also* Rechtschaffen, *supra* note 9, at 227 (". . . neither their counterparties nor the regulators could assess the extent to which other market participants were exposed to these failing financial institutions, causing persuasive distrust in financial markets and an ultimate freezing in credit markets.").

^{66.} Rechtschaffen, supra note 9, at 218.

^{67.} RECHTSCHAFFEN, supra note 9, at 227.

^{68.} S. Rep. No. 111-176 at 32-33 (2010) (emphasizing the need for improved transparency, the mitigation of systemic risk, and reductions in counterparty risk as necessary goals to avoid future crises and taxpayer bailouts and protect market participants).

^{69.} See Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, §§ 701–754 (2010) (repealing the CFMA exemptions in 5(a) and 5(d) of the Commodity Exchange Act).

and/or SEC;⁷⁰ (3) requires that certain derivatives be cleared by a clearinghouse and traded on an exchange;⁷¹ (4) provides for minimum capital and margin requirements for swaps transactions and entities that trade in swaps;⁷² and (5) creates reporting requirements for transactions and certain entities.⁷³ Subsections (1) through (5) describe the mechanics of these legislative reforms. Section III goes on to argue that this legislative scheme fails to comprehensively address pre-crisis vulnerabilities and likely creates new vulnerabilities and inefficiencies.

1. Establishment of Regulatory Jurisdiction

Title VII establishes regulatory oversight over the derivatives markets by repealing the CFMA and delegating authority to the CFTC and SEC.⁷⁴ It allocates jurisdiction between the agencies based on whether the financial instrument being regulated is a "swap," "security-based swap," or "mixed swap": the CFTC oversees swaps, the SEC oversees securities-based swaps, and the two agencies jointly oversee mixed swaps.⁷⁵

2. Registration and Oversight

In addition to regulating transactions, Dodd-Frank imposes certain entity-level requirements.⁷⁶ "Swap dealers," "major swap participants," derivatives clearing organizations (DCOs), and swap execution facilities (SEFs) are required to register with the CFTC.⁷⁷ "Security-based swap dealers," "major security-based swap participants," clearing agencies (CAs), and security-based swap execution facilities (SBSEFs) are required

 $^{70. \ \}textit{See id.} \ \S\S \ 725(a), \ 731, \ 763, \ 764.$

^{71.} See id. §§ 723(a)(2)-(3), 763(a).

^{72.} See id. §§ 731(amending Section 4s(e) of the Commodity Exchange Act), 764 (amending Section 15F(e) of the 1934 Securities Exchange Act)

^{73.} See id. §§ 725, 727, 728, 729, 730, 731, 734, 735.

^{74.} Id. §§ 712, 762.

^{75.} See id. § 712(a)–(b) (requiring consultation and coordination, to the extent possible between the CFTC and SEC before either commences rulemaking or issues an order, but clearly delineating regulatory authority).

^{76.} RECHTSCHAFFEN, supra note 9, at 220.

^{77.} Dodd-Frank Wall Street Reform and Consumer Protection Act §§ 725(a), 731; Commodity Exchange Act, 7 U.S.C. § 7b-3(a) (2011).

to register with the SEC.⁷⁸ If relevant, dual registration with both the CFTC and SEC is required.⁷⁹

By virtue of registration, dealers and participants are subject to activity limits, capital and margin requirements, reporting and disclosure requirements, mandatory recordkeeping, business conduct requirements, and monitoring and risk management duties. DCOs, CAs, SEFs, and SBSEFs are subject to reporting and disclosure requirements and an array of other principles discussed in Section II.B.3 supra.

3. Clearing and Exchange Requirements

"Dodd-Frank subjects derivatives to a bifurcated regulatory system, in which derivative contracts with sufficient liquidity must be cleared by a clearinghouse and traded on an exchange, whereas customized derivative contracts are exempt from the clearing and exchange mandates but are nonetheless subject to capital and margin requirements." This transaction structure emulates that of the futures markets, which have utilized clearinghouses and traded on exchanges in the U.S. since the Chicago Board of Trade was established in 1848.82

In cleared transactions, the clearinghouse interposes itself as a separate legal entity in between a buyer and seller in a swap or security-based swap transaction,⁸³ "receiving and distributing payments on behalf of the counterparties."⁸⁴ Only members of a clearinghouse may submit contracts for clearing.⁸⁵ Under the U.S. "agency model" of clearing, these clearing members clear transactions through the clearinghouse on behalf of their customers, "serving as a guarantor and agent

^{78.} Dodd-Frank Wall Street Reform and Consumer Protection Act §§ 763(b)–(c), 764.

^{79.} Commodity Exchange Act § 6s(c); Securities Exchange Act 15 U.S.C. § 78o-10.

^{80.} Commodity Exchange Act § 6s(b), (e)–(h); Securities Exchange Act § 78o-10(e)–(h).

^{81.} RECHTSCHAFFEN, *supra* note 9, at 221; *see also* Dodd-Frank Wall Street Reform and Consumer Protection Act, §§ 723(a)(2), (3), 763(a).

^{82.} Kenan Heise, *The Chicago Board of Trade*, Chi. Trib., http://www.chicagotribune.com/news/nationworld/politics/chi-chicagodays-boardtrade-story-story.html.

^{83.} Cecchetti et al., supra note 42, at 45.

^{84.} Rechtschaffen, supra note 9, at 230.

^{85.} Dodd-Frank Wall Street Reform and Consumer Protection Act, \S 725(c).

for the cleared swap."⁸⁶ Thus, rather than a single contract between the buying and selling counterparties – "the hallmark of an OTC trade" – the transaction results in two contracts: one between the clearinghouse and the buyer and one between the clearinghouse and the seller.⁸⁷ In effect, the buyer and seller are no longer counterparties; each party acquires the clearinghouse as its counterparty (novation).⁸⁸

The relevant commissions are required to determine whether groups, categories, types, or classes of swaps or security-based swaps should be required to be cleared.⁸⁹ In making this determination, the relevant commission is required to take account of various factors, including the feasibility of clearing, effect on systemic risk, and the availability of information.⁹⁰ Additionally, there is an "end-user" exemption:⁹¹ Title VII's clearing requirements do not apply to a transaction where one of the counterparties to the swap: (i) is not a "financial entity;"⁹² (ii) is using swaps to hedge or mitigate commercial risk; and (iii) notifies the commission how it generally meets its financial obligations associated with uncleared swaps.⁹³ As before, however, parties may voluntarily submit swaps to be cleared.

If applicable, swaps are cleared by DCOs.⁹⁴ Dodd-Frank subjects these clearinghouses to various requirements and core principles, governing areas such as participant and product eligibility, risk management, and disclosures.⁹⁵ Among other requirements, each DCO must: (i) maintain adequate

^{86.} Annette L. Nazareth & Jeffrey T. Dinwoodie, *Clearinghouse Regulatory Basics for Swap Market Participants*, Global Capital, March 14 2014, at 1, http://www.davispolk.com/sites/default/files/03.14.14.Clearinghouse.Regulatory.Basics.for_.Swap_.Market.Participants.pdf.

^{87.} Cecchetti et al., supra note 42, at 46.

^{88.} Id. at 49.

^{89.} Dodd-Frank Wall Street Reform and Consumer Protection Act § 763(b)(1)(a) (2010).

^{90.} *Id*.

^{91.} RECHTSCHAFFEN, supra note 9, at 223.

^{92.} Dodd-Frank Wall Street Reform and Consumer Protection Act $\S723(h)(7)(A)(i)$ (2010).

^{93.} Id. § 723(h)(7)(A)(i)

^{94.} Id. § 723(h)(1).

^{95.} $Id. \S 725(c)(2)(c); \S 725(c)(2)(d); \S 725(c)(2)(1)(3).$

financial resources;⁹⁶ (ii) establish admission and eligibility standards for members and instruments;⁹⁷ (iii) possess the ability and tools to measure and manage the risks associated with clearing;⁹⁸ (iv) limit exposure to potential losses from defaults (through margin and other requirements);⁹⁹ (v) devise rules and procedures to allow for the efficient and fair management of defaults;¹⁰⁰ and (vi) comply with reporting and recordkeeping provisions, discussed in III.B.v, supra. DCOs have "reasonable discretion" to establish the manner in which they comply with these core principles,¹⁰¹ but must designate a Chief Compliance Officer (CCO) responsible for monitoring and administering procedures to ensure compliance.¹⁰²

Transactions subject to clearing requirements must also be executed. Swaps are required to be executed on either a board of trade designated as a "contract market" or a SEF. 104 However, swaps are exempted from the exchange requirement when no board of trade/exchange or SEF makes

^{96.} $Id. \S5b(c)(2)(B)$ (requiring DCOs to possess adequate financial resources, including, at a minimum enough to cover: (i) a default by the member creating the largest financial exposure for the DCO in extreme but plausible market conditions; and (ii) the operating costs of the CO for a 1 year period).

^{97.} *Id.* §5b(c)(2)(C) (stating that such standards must be objective, publicly disclosed, permit fair and open access, and require members to maintain sufficient financial resources and operational capacity to meet obligations).

^{98.} *Id.* §5b(c)(2)(D)(i)–(ii). DCOs are required to measure its credit exposures to each member and participant at least once per business day and monitor each of these exposures throughout the business day. *Id.*

^{99.} *Id.* §5b(c)(2)(D)(iii)–(v). DCOs must limit exposure to potential losses from defaults to ensure that its operations would not be disrupted and nondefaulting members would not be exposed to losses that they cannot anticipate. *Id.* Margin requirements shall be sufficient to cover potential exposures in normal market conditions. *Id.* The models/parameters used in setting margin requirements must be risk-based and reviewed regularly. *Id.*

^{100.} Id. §5b(c)(2)(G). Such rules must be clearly stated, publicly available, and ensure that the DCO may take timely action to contain losses and liquidity pressures while continuing to meet its obligations. Id.

^{101.} *Id.* §5b(i)(1)–(2).

^{102.} *Id.* §5b(c)(2)(A)(ii).

^{103.} A "contract market" is a board of trade that complies with certain core principles and other requirements and is thus designated a contract market by the CFTC. *See* Dodd-Frank Wall Street Reform and Consumer Protection Act § 735.

^{104.} *Id.* § 723(a)(2), § 763(a).

the particular swap available for trade. Thus, "unless. . . sufficiently illiquid or nonstandardized such that no exchange will accept them," swaps and security-based swaps must be executed.

Execution facilities "are very similar to exchanges; they are electronic platforms where any market participant can post a bid or an offer. . . [and] any market participant can accept the bid or the offer of another market participant." Dodd-Frank also subjects exchange facilities to several disclosure and reporting requirements, discussed in Section II.B.5, supra.

4. Capital and Margin Requirements

Dodd-Frank imposes capital and margin requirements at both the transaction and entity levels. ¹⁰⁸ It requires the CFTC and SEC to prescribe minimum capital requirements and minimum initial and variation margin requirements for dealers and participants. ¹⁰⁹ These requirements must help ensure the safety and soundness of the entities and consider the greater risk to the entities and financial system from transactions that are not cleared. ¹¹⁰ Though Dodd-Frank requires the CFTC and SEC to account for the riskier nature of uncleared swaps in promulgating capital and margin requirements for registered dealers and participants, the Act does not direct the CFTC or SEC to impose margin requirements on uncleared swaps not being traded by one of these entities. ¹¹¹

^{105.} Id. § 723(a)(2); § 763(a).

^{106.} Rechtschaffen, supra note 9, at 222.

^{107.} Hull, *supra* note 19, at 2.

^{108.} RECHTSCHAFFEN, supra note 9, at 224.

^{109.} Dodd-Frank Wall Street Reform and Consumer Protection Act §§ 731, 764. For swap dealer and major swap participants that are banks, "a 'prudential regulator' will impose these requirements" (e.g. "the Fed, the Office of the Comptroller of the Currency, the Federal Deposit Insurance Corporation. . ."). Rechtschaffen, *supra* note 9, at 224. For non-banks, the SEC or CFTC will be the appropriate regulatory body. Dodd-Frank Wall Street Reform and Consumer Protection Act §§ 731, 764.

^{110.} Dodd-Frank Wall Street Reform and Consumer Protection Act §731, § 764.

^{111.} See Dodd-Frank Wall Street Reform and Consumer Protection Act, Title VII. See also David J. Gilberg, Andrew R. Gladin, & Kenneth M. Raisler, Proposed Margin Requirements for Uncleared Swaps Under Dodd-Frank, Sullivan & Cromwell (Sept. 10, 2014), https://www.sullcrom.com/siteFiles/Publications/SC_Publication_Proposed_Margin_Requirements_for_Uncleared_Swaps_Under_Dodd_Frank.pdf (describing how, for uncleared swaps, Dodd-

As to the instruments themselves, DCOs are directed to impose margin requirements on cleared swaps. ¹¹² Initial margin is posted at the outset "based on the perceived risk of the trade," and as the risk of the instrument fluctuates due to market developments, "variation margin will be required to offset the current risk of the transaction." ¹¹³ Variation margin calls are made daily and sometimes even intraday. ¹¹⁴

5. Disclosure and Reporting Requirements

Dodd-Frank provides comprehensive reporting requirements for derivatives markets. It requires publication of trading data for both cleared swaps¹¹⁵ and uncleared swaps.¹¹⁶ It also provides publication and reporting requirements for certain entities.¹¹⁷ The Act relies on swap data repositories (SDRs) and DCOs to carry out publication responsibilities.¹¹⁸ For cleared swaps, Dodd-Frank requires the DCO to report data to an SDR.¹¹⁹ Uncleared swaps also must be reported to an SDR, unless no SDR will accept the swap, in which case uncleared swaps must be reported to the CFTC.¹²⁰

SDRs are heavily relied upon in the execution of reporting requirements. For each swap, the SDR accepts the relevant data, in accordance with the regulations of the CFTC,¹²¹ confirming with both parties the accuracy of the data submitted.¹²² The SDR maintains data in the form and manner speci-

Frank's amendments to the CEA and SEA relate to the specified entities registered with the CFTC and SEC).

^{112.} Dodd-Frank Wall Street Reform and Consumer Protection Act § 725(c), 764 (2010).

^{113.} McNamara, supra note 44, at 244.

^{114.} Paul Watterson et al., *Margin Costs of OTC Swap Clearing Rules*, 3 HARV. Bus. L Rev. Online 152, 157 (2013), http://www.hblr.org/2013/04/margincosts-of-otc-swap-clearing-rules/.

^{115.} Dodd-Frank Wall Street Reform and Consumer Protection Act § 733 (2010).

^{116.} Dodd-Frank Wall Street Reform and Consumer Protection Act § 729 (2010).

^{117.} See, e.g., id. § 5b.

^{118.} RECHTSCHAFFEN, supra note 9, at 225.

^{119.} Dodd-Frank Wall Street Reform and Consumer Protection Act \S 725 (2010).

^{120.} Id. § 729.

^{121.} Id. § 728.

^{122.} Id.

fied by the CFTC.¹²³ It must provide the CFTC with direct electronic access to this data¹²⁴ and must publish information in accordance with the requirements of Dodd-Frank § 727, discussed below.¹²⁵ Lastly, SDRs are required to share their data with certain regulatory bodies upon request.¹²⁶ However, prior to the release of the data each entity must indemnify the SDR and the CFTC for any expenses arising from litigation relating to the data.

Section 727 of Dodd-Frank requires SDRs to make swap transactions and pricing data publicly available.¹²⁷ "Real-time public reporting"¹²⁸ of swap transaction and pricing data is required for those swaps that are subject to the mandatory clearing requirement (including those that are exempted by virtue of the end-user exception)¹²⁹ and those swaps that are not required to be but nonetheless are cleared by a DCO.¹³⁰ Real-time public reporting is also required for swaps that are not cleared by a DCO but are reported to a SDR, but it must be done in a manner that does not disclose the business transactions and market positions of any person.¹³¹

The CFTC and SEC are required to engage in semiannual reporting of aggregate swap data, which must include information relating to: (i) the trading and clearing in the major swap categories; (ii) market participants; and (iii) developments in new products.¹³² Concurrently, upon request the SEC and CFTC are required to share any relevant information with

^{123.} Id.

^{124.} Id.

^{125.} *Id.* (amending Commodity Exchange Act, 7 U.S.C. 24a to require SDRs to provide information in such form and frequency as the CFTC may require to comply with Section 2(a) (13) of the Commodities Exchange Act).

^{126.} Dodd-Frank Wall Street Reform and Consumer Protection Act § 728 (2010). Such agencies include prudential regulators, the Financial Stability Oversight Council, the SEC, the Department of Justice, and other people or entities the CFTC deems appropriate. *Id.*

^{127.} Id. § 727 ("...provide by rule for the public availability of swap transaction and pricing data. . .").

^{128. &}quot;Real-time public reporting" means "to report data relating to a swap transaction, including price and volume, as soon as technologically practicable after the time at which the swap transaction has been executed." *Id.*

^{129.} Id.

^{130.} Id.

^{131.} Id..

^{132.} Id.

each other¹³³ as well as various other regulatory agencies.¹³⁴ However, each entity must indemnify the sharing agency for any expenses arising from litigation.¹³⁵

Dodd-Frank also imposes reporting requirements on several registered entities. DCOs must provide market participants with "sufficient information to enable the market participants to identify and evaluate the risks and costs associated with using the services of the DCO." Further, DCOs must disclose—to the CFTC and the public—(i) the daily settlement prices, volume, and open interest for each instrument settled or cleared by the DCO and (ii) information related to the terms and conditions of each instrument cleared and settled by the DCO. The DCO and the regulatory body with all information that the regulatory body determines to be necessary to perform its oversight responsibilities. The CFTC and SEC are charged with adopting data collection and maintenance requirements for the swaps cleared by DCOs. The support of the

For dealers and participants, requirements include (i) reporting of transactions, positions, and financial condition to the relevant agency and (ii) keeping books and records, which are open to inspection and examination by the relevant agency.¹⁴⁰

For SEFs and SBSEFs, Dodd-Frank mandates timely publication of trading information (including price, volume, and other data prescribed by the CFTC).¹⁴¹ Similarly, designated contract markets must engage in daily publication of settlement prices, volume, open interest, and opening and closing ranges for actively traded contracts on the contract market.¹⁴²

^{133.} *Id.* § 725.

^{134.} *Id.* Such agencies include the Fed, other prudential regulators, the Financial Stability Oversight Council, the Department of Justice, and certain foreign governmental bodies when deemed appropriate. *Id.*

^{135.} *Id*.

^{136.} Id.

^{137.} *Id*.

^{138.} Id.

^{139.} Id. § 725.

^{140.} Id. § 731, 764.

^{141.} Id. § 733, 763(c).

^{142.} Id. § 735.

III.

LINKING PAST AND PRESENT: POST-TITLE VII MARKET STABILITY

As discussed in Section II.A., Title VII aims to increase regulatory and public transparency and reduce counterparty and systemic risks in the OTC derivatives markets. This Section analyzes the extent to which Title VII advances these goals and addresses pre-crisis vulnerabilities. Subsection A contends that Title VII does much to increase transparency, constrain speculation, and reduce credit risk in derivatives transactions, thereby reducing many pre-crisis market vulnerabilities. Subsection B goes on to argue, however, that significant vulnerabilities and inefficiencies continue to threaten the stability of derivatives markets and, unless resolved, could exacerbate future crises.

A. Title VII's Competences: Vulnerabilities Addressed

1. Regulatory Gaps

As discussed in Section I.A.1, pre-crisis derivatives markets were largely unregulated. This is certainly no longer the case; Dodd-Frank has subjected OTC derivatives markets to a great deal of complex regulation that reaches previously unregulated instruments and entities. Some scholars project that Dodd-Frank "will cause a [twenty-six] percent increase in the number of restrictions in the financial market regulation titles of the Code of Federal Regulations." ¹⁴³

However, quantity is by no means necessarily a proxy for quality, especially with respect to regulation. Pre-crisis regulatory gaps facilitated excessive risk-taking by some firms and contributed to the opacity of OTC derivatives markets. ¹⁴⁴ Sections IV.A.2 and IV.A.3 discuss the extent to which Title VII addresses these vulnerabilities.

2. Lacking Transparency

Opacity in OTC derivatives markets contributed to the fear that ultimately led to the liquidity crisis.¹⁴⁵ It also inhib-

^{143.} Hester Peirce & James Broughel, Dodd-Frank: What it does and Why it's Flawed 15 (2012).

^{144.} See supra Section I.A-C.

^{145.} See supra Section I.C.

ited the ability of regulators and market participants to accurately assess firms' risk profiles and complicated efforts to mitigate losses. ¹⁴⁶ Title VII's provisions for registration of entities, mandatory clearing and exchange trading, and recordkeeping and disclosure help to address these vulnerabilities by increasing public and regulatory transparency. ¹⁴⁷

First, Title VII's registration requirements "provide regulators with more information on [key] parties' derivatives exposure." The regulatory agencies maintain information on the transactions, positions, and financial conditions of registered dealers and participants. These entities tend to be key market participants: they are the entities that "account for the vast majority of swaps trades in the United States," "are heavy players in the commodities markets," and "engage in systemically important derivatives activity." This information should help regulators more accurately assess key firms' risks and, in the event of a crisis, make informed assessments of how to mitigate systemic losses.

Second, mandatory clearing of OTC derivatives also helps to reduce market opacity. DCOs provide regulators with "a locus of regulation,"¹⁵¹ aggregating and providing information on the pricing, volume, and open interest of cleared instruments. More informed as to market activity and exposures, regulators and the public are better equipped to assess risk. This improved understanding of firm exposures should reduce the 'fear of the unknown' dynamic, enabling investors to make efficient decisions and enabling regulators to identify and respond to potential problems sooner.

Third, and perhaps most significantly, Title VII improves market transparency via its exchange-trading requirement. "Exchange trading in itself is essential for disseminating information to market participants because the clearinghouse functions more as an intermediary . . . whereas the exchange ensures transparent pricing." 153 That is, exchanges are the mechange

^{146.} Id.

^{147.} See RECHTSCHAFFEN, supra note 9, at 227–29.

^{148.} Id. at 227.

^{149.} See supra Section II.B.5.

^{150.} See Duff, supra note 17, at 690-91.

^{151.} RECHTSCHAFFEN, supra note 9, at 228.

^{152.} See supra Section II.B.5.

^{153.} RECHTSCHAFFEN, supra note 9, at 228–29.

anism by which Dodd-Frank facilitates timely *publication* of the trading information that is aggregated by clearinghouses. ¹⁵⁴ This increased transparency leads to investor protection (by reducing informational asymmetries and increasing competition) and increases market efficiency. ¹⁵⁵ Since pricing in efficient markets incorporates all public information, ¹⁵⁶ publication of firm exposures will provide investors an indirect assessment of firms' risk profiles (via pricing). This dynamic should provide investors a more accurate assessment of risk. In doing so, transparency will force firms to internalize the cost of their risks and thus disincentivize inefficient risk-taking. ¹⁵⁷

Fourth, SDRs enhance public and regulatory transparency in important ways. Foremost, by "providing counterparty trading data to the public on a real-time basis." SDRs help to keep firms and regulators informed of market developments. This should reduce the likelihood of a crisis (as investors won't continue funneling money into mispriced investments in risky ventures, as was the case with AIG)¹⁵⁹ and help to efficiently mitigate systemic losses should a crisis ever occur (by enabling investors and regulators to respond to market developments in a prompt and informed manner). Moreover, because even uncleared swaps must be reported, SDRs help to provide regulators with a more comprehensive view of the market while also helping them to better understand these complex and illiquid instruments.

3. Excessive and Concentrated Risks

Regulatory gaps and private market failures enabled firms to excessively speculate while maintaining inadequate safeguards. This created significant levels of market risks for

^{154.} See supra Section II.B.5.

^{155.} See ISDA, Transparency and Over-the-counter Derivatives: The Role of Transaction Transparency 5 (Nov. 1, 2009), http://www.isda.org/researchnotes/pdf/ISDA-Research-Notes1.pdf.

^{156.} This argument is grounded in the efficient capital market hypothesis, but is not without critics. For further discussion, see Burton G. Malkiel, *The Efficient Market Hypothesis and its Critics* (CEPS, Working Paper No. 91, 2003), http://www.princeton.edu/ceps/workingpapers/91malkiel.pdf.

^{157.} Costs will be internalized via higher premiums or spreads, corresponding to excessive leverage and/or credit risk posed by firms.

^{158.} Rechtschaffen, supra note 9, at 229; see also supra Section II.B.5.

^{159.} See supra Sections I.B-C.

^{160.} See supra Section I.

speculating firms and correspondingly higher (and misunderstood) credit risks for their counterparties, with interconnections among major financial institutions contributing to broader systemic concerns. ¹⁶¹ To address these vulnerabilities and avoid the need for future government bailouts, several of Title VII's requirements aim to reduce concentrations of market, credit, and systemic risk.

First, the centrally cleared transaction structure, "with its concomitant capital and margin requirements, is the centerpiece of [the] effort to reduce counterparty and systemic risk." ¹⁶² Inherent in the structure of a centrally cleared transaction is a shift in the risks of the buyer and seller: the clearinghouse assumes both parties' credit risk. ¹⁶³ Each party's new counterparty is the clearinghouse, and their credit risk is thus a function of clearinghouse risk. ¹⁶⁴

Several aspects of the cleared transaction model help to keep this new credit risk low. Foremost, because the two contracts assumed by the clearinghouse cancel against each other, the clearinghouse is "not exposed to the market risk" of its contracts and is thus unlikely to default as a result of fluctuations in indices or asset prices. ¹⁶⁵ Further, clearinghouses facilitate multilateral netting. Multilateral netting is the process whereby "counterparties exchange cash flows based on their *net* exposure to one another," rather than on the basis of each outstanding transaction. ¹⁶⁶ This can occur because financial institutions "hold many offsetting positions on the same derivatives with many different parties." ¹⁶⁷ Thus, by lowering the total outstanding exposures of large market participants the

^{161.} See supra Section I.B.

^{162.} RECHTSCHAFFEN, supra note 9, at 230.

^{163.} By virtue of novation, the clearinghouse assumes the credit risk of both counterparties. *See supra* Section II.B.3. Thus, each party need not worry about the other being unable to fulfill its obligations.

^{164.} For example, the buyer in a cleared transaction is not directly affected by the seller defaulting because the actual counterparty is the clearinghouse. Accordingly, the only default that can directly impact said Buyer is a default by the clearinghouse, making credit risk a function of the clearinghouse riskiness. *See, e.g.* RECHTSCHAFFEN, *supra* note 9, at 232.

^{165.} Rechtschaffen, *supra* note 9, at 231.

^{166.} Id. (emphasis added).

^{167.} McNamara, supra note 44, at 223.

netting function of clearinghouses reduces credit and systemic risks. 168

Several requirements imposed by clearinghouses help to further reduce credit risk. Foremost, DCOs restrict trading to clearinghouse members (CMs) that are required to meet admission and ongoing eligibility requirements¹⁶⁹ related to capitalization levels, risk management, and monitoring.¹⁷⁰ By "ensuring that the clearinghouse can adequately monitor its members and that its members meet a basic level of financial health,"171 eligibility requirements help clearinghouses to reduce the prospect of default by its counterparties. Further, DCOs impose initial and variation margin requirements for each transaction that are determined on a neutral basis by the risk management department of the DCO.¹⁷² These margin requirements reduce DCO counterparty risk by "limit[ing] the amount that a clearinghouse could lose on a trade if a member does not fulfill its obligations under the contract;" in such cases, the clearinghouse will keep the posted margin.¹⁷³ Concurrently, by partially deleveraging derivatives transactions, margin requirements effectively cap speculation by firms.¹⁷⁴ This limits the market risk firms can assume, thus reducing prospects of market shifts causing defaults. Additionally, DCOs require each CM to contribute to a default mutualization fund "in proportion to the risk it has outstanding." ¹⁷⁵ Such fund is drawn upon in the event of a CM default.¹⁷⁶ Thus, by spreading losses, mutualization reduces the burden borne by a DCO in the event of a CM default and thereby reduces DCO credit risk.

^{168.} See id. at 222-23; RECHTSCHAFFEN, supra note 9, at 231.

^{169.} See supra Section II.B.3.

^{170.} See Rechtschaffen, supra note 9, at 231; McNamara, supra note 44, at 244.

^{171.} Rechtschaffen, supra note 9, at 231.

^{172.} See supra Section II.B.3-4.

^{173.} RECHTSCHAFFEN, supra note 9, at 231.

^{174.} Transactions are relatively deleveraged by initial and variation margin requirements because these transactions now require some level of payment to secure the rights and obligations under the contract, as contrasted with pre-crisis OTC derivatives market transactions that were often 100% leveraged. *See supra* Section I.B.

^{175.} Anupam Chander, Clearing Credit Default Swaps: A Case Study in Global Legal Convergence, 10 Chi. J. Int'l L. 639, 653 (2010).

^{176.} McNamara, supra note 44, at 244.

Second, by requiring the CFTC and SEC to impose capital and margin requirements on registered dealers and participants,¹⁷⁷ Title VII helps to reduce counterparty risk even in uncleared transactions. Similar to capital and margin requirements imposed by DCOs on CMs, discussed above, these requirements help to limit speculation (and the corresponding market risk) and to mitigate the losses experienced by the counterparties of defaulting entities, thus reducing counterparty risk in applicable uncleared transactions. Further, because the institutions subjected to these requirements tend to be systemically important,¹⁷⁸ decreasing these firms' market and credit risks will tend to reduce systemic risk.

Third, the transparency created by the reporting and disclosure requirements reduces counterparty and systemic risk by: (i) subjecting firms to market discipline (internalizing the costs of risk and thus disincentivizing inefficient risk-taking);¹⁷⁹ (ii) helping to mitigate the 'fear of the unknown' scenario (decreasing likelihood of default due to liquidity issues);¹⁸⁰ and (iii) facilitating enhanced regulatory oversight.

Disclosures will enable more accurate assessments of firm risk profiles. As a result of this transparency, entities will be forced to internalize the costs of their risk exposures by virtue of increased financing (higher cost of capital in debt and equity markets) and transaction costs (larger spreads and more stringent margin requirements in derivatives markets). ¹⁸¹ Thus, public transparency creates market disciplines that help reduce credit and systemic risk (by incentivizing firms to reduce their exposures). Concurrently, regulators and DCOs will be able to accurately monitor the exposure of market participants and adjust capital and margin requirements accordingly, ¹⁸² reducing prospective losses and thus reducing credit

^{177.} See supra Section II.B.4.

^{178.} See supra Section II.C.2.

^{179.} See id.

^{180.} See id.

^{181.} For example, if pre-crisis investors had information concerning the AIG's exposure, they likely would have required higher returns on debt/equity transactions with AIG or avoided such transactions altogether. This dynamic would increase AIG's cost of capital (via higher interest rates or stricter financial covenants), incentivizing AIG to more effectively manage its risks.

^{182.} See supra Section II.B.4.

and counterparty risks.¹⁸³ This is especially important for derivatives that are not subject to clearing requirements, as DCOs are unable to set margin requirements or otherwise reduce counterparty risks in these transactions.¹⁸⁴

4. Inadequate Internal Controls

Inadequacies in pre-crisis risk management systems caused firms to take on excessive risk and greatly complicated the ability of regulators and private firms to mitigate economic losses. ¹⁸⁵ At the core of these issues was firms' inability to effectively assess their net derivative exposures or communicate the nature and extent of those exposures to regulators or counterparties. ¹⁸⁶ To address these vulnerabilities, Title VII attempts to force major financial institutions to comprehensively measure and manage their derivative exposures.

By requiring major financial institutions to report their positions and financial condition to the CFTC and/or SEC and to keep books and records open to examination by these agencies, ¹⁸⁷ Title VII forces these firms to implement risk measurement systems. ¹⁸⁸ Moreover, because capital and margin requirements imposed by DCOs and regulatory agencies are tied to risk, ¹⁸⁹ the requirements provide major financial institutions an incentive to use these systems to effectively monitor and manage risk so as to minimize their transaction costs.

^{183.} See RECHTSCHAFFEN, supra note 9, at 233.

^{184.} See supra Section II.B.4.

^{185.} See supra Section I.C.

^{186.} See id.

^{187.} See supra Section II.B.5.

^{188.} Dodd-Frank requires these entities to "establish and enforce internal systems and procedures to obtain any necessary information to perform the functions" required by the Act. Dodd-Frank Wall Street Reform and Consumer Protection Act §§ 731, 764 (2010).

^{189.} DCO's determine initial margin requirements that must be posted at the outset "based on the perceived risk of the trade." As the risk of the instrument fluctuates due to market developments, "variation margin will be required to offset the current risk of the transaction." *See supra* Section II.B.4. Further, regulatory agencies must consider riskiness of entities and instruments in setting capital and margin requirements for registered entities. *See id.*

B. Title VII's Defects: Remaining Vulnerabilities and Inefficiencies

As discussed in Section II.C, supra, Title VII contains several reforms that address many of the pre-crisis OTC derivatives market vulnerabilities by increasing market transparency and reducing levels of credit and systemic risk. However, Title VII fails to holistically address the pre-crisis market vulnerabilities and also creates additional vulnerabilities and inefficiencies that undermine its broad policy goals. These vulnerabilities and inefficiencies largely stem from: (i) a legislative scheme that is ill-suited to the functional utility of swap markets; (ii) lack of regulatory resources and expertise; (iii) domestic and global regulatory fragmentation; (iv) creation of new systemic risks; and (v) ineffectively tailored requirements and exceptions. This subsection discusses each of these deficiencies. Section IV concludes by briefly proposing reforms that could help address these deficiencies.

1. Legislative Scheme Imperfectly Fits Swaps Markets

Much of Title VII's legislative scheme draws from private market mechanisms in exchange-traded futures markets. 190 That is, Title VII attempts "to reshape the OTC derivatives market so it looks like the highly liquid . . . futures markets" that are characterized by central clearing, exchange trading, and retail participants. 191 However, the functional utilities of these two categories of financial instruments are fundamentally different, which has contributed to vastly different market characteristics. Similar to futures, swaps are used by investors and commercial entities to transfer or hedge risk. However, swaps are "closely tailored to the precise risk a company faces," whereas futures are often used for "less-precise risk management."192 Thus, swaps markets are characterized by customizable contracts that provide firms flexibility to meet their specific needs¹⁹³ while the futures markets are characterized by standardized financial instruments.¹⁹⁴ Further, because be-

^{190.} See infra Section II.B.3.

^{191.} Peirce & Broughel, supra note 143, at 77.

^{192.} Id. at 78

^{193.} RECHTSCHAFFEN, *supra* note 9, at 163. In OTC derivatives trading, "counterparties enter into a customized (or 'bespoke') derivatives contract on a bilateral basis." *Id.* at 189.

^{194.} Id. at 157.

spoke contracts are generally less standardized, liquidity in many swaps instruments is generally episodic in nature. 195

In reshaping transactions involving these customized and relatively illiquid categories of swaps, Title VII will likely increase transaction costs and harm market liquidity, thus impeding the ability of companies to effectively hedge risk. 196 For example, by subjecting even illiquid bespoke swap transactions to real-time public reporting requirements, 197 Title VII may provide market participants with time to react to disclosed information, "making it difficult and more costly" for the counterparty to the bespoke transaction to lay off the risk generated.¹⁹⁸ Similarly, these uncleared bespoke transactions are likely to be subject to higher capital and margin requirements, 199 which will increase transaction costs and may even push participants away from these instruments, further reducing liquidity. By reducing liquidity and/or increasing transaction costs for bespoke contracts, these regulatory provisions will likely contribute to inefficient and ineffective hedging by businesses and ultimately harm consumers.²⁰⁰ This is particularly concerning given that "in 2009, an overwhelming majority of Fortune 500 companies utilized bespoke derivatives contracts to manage business risks."201

Similarly, even for the more standardized and liquid swaps contracts, market participants may "forgo burdensome swap rules and opt for the less onerous and more familiar futures model." There has already been a trend in this direction in the market, as exemplified by Intercontinental Exchange's recent announcement "that it would convert all of

^{195.} J. Christopher Giancarlo, Pro-Reform Reconsideration of the CFTC Swaps Trading Rules: Return to Dodd-Frank 9 (2015).

^{196.} See Peirce & Broughel, supra note 143, at 79.

^{197.} Supra Section II.B.5.

^{198.} Peirce & Broughel, supra note 143, at 84 n.11.

^{199.} See supra Section II.B.4.

^{200.} Additional transaction costs will likely be passed on by end-users, leading to higher costs for consumers. *See id.* Alternatively, firms may avoid bespoke transactions altogether, engaging in less precise hedging transactions or avoiding hedging altogether. Thus, by discouraging economically beneficial trades, these provisions may impede effective risk management and increase market risk exposures. McNamara, *supra* note 44, at 256–57.

^{201.} Rechtschaffen, *supra* note 9, at 240.

^{202.} Peirce & Broughel, supra note 143, at 85 n.12.

its cleared OTC energy products to futures."²⁰³ This dynamic further impedes efficient business decisions; in its effort to deleverage swaps transactions and limit levels and concentrations of risk among speculators, Title VII inhibits the ability of hedgers to effectively manage risk. By pushing parties to other jurisdictions or markets,²⁰⁴ this could undermine Title VII's reform efforts.

Additionally, because it was enacted hastily under crisisconditions, Dodd-Frank provided regulatory agencies with excessive discretion and inadequate guidance for implementation²⁰⁵ while directing them to act expeditiously. This deficiency, in conjunction with the general legislative scheme of Title VII,²⁰⁶ contributed to the CFTC's modeling its SEF rules "on the well-known and readily available . . . template of the U.S. futures market."207 Thus, Required Transactions (those subject to Title VII's trade execution requirement) must be executed in one of two methods,²⁰⁸ despite episodic liquidity in the swaps markets previously giving rise to the need for "a broad and diverse range of competing venues with multiple methods of trade execution."209 Because this rigid framework poorly fits the characteristics of swaps markets, it has contributed to fragmented global markets,²¹⁰ decreased trading liquidity,²¹¹ and increased systemic risk.²¹² These vulnerabilities led CFTC Commissioner J. Christopher Giancarlo to describe the framework as "ill-suited to global swaps trading," "mismatched to the natural commercial workings of the market," and "a square peg being forced into a round hole."

^{203.} See id.

^{204.} See infra Section III.B.3.

^{205.} See infra Section III.B.5.

^{206.} See infra Section II.B.3.

^{207.} Giancarlo, supra note 195, at 21.

^{208.} Id. at 22.

^{209.} Id. at 14.

^{210.} *Id.* at 48 (the binary execution scheme fragments global markets by creating a "reluctance of global market participants to transact with entities subject to CFTC swaps regulation.").

^{211.} *Id.* at 50, 54 (fragmentation results in "smaller, disconnected liquidity pools" and is thus an obstacle to "broad liquidity formation both cross-border and domestically.").

^{212.} The resulting reduction in liquidity in these markets leads to a risk of market failure in times of economic stress, *Id.* at 48–50.

2. Lack of Regulatory Resources and Expertise

Title VII aims to address pre-crisis market vulnerabilities by increasing transparency and reducing counterparty and systemic risk.²¹³ As part of its effort to reduce risk, Title VII requires regulators to set margin and capital requirements for significant dealers and participants.²¹⁴ In order to do so efficiently, regulators must accurately assess the risks posed by these firms and the transactions in which they participate.²¹⁵ Title VII relies on disclosure and reporting requirements to help regulators make these assessments.²¹⁶

A substantial line of criticism argues that inadequate resources and sophistication make this regulatory approach infeasible.²¹⁷ Regulatory governance structures generally "rely on agencies that may lack expertise . . . or . . . funding" and, as a result, regulatory oversight is often poorly tailored to market risks and legislative goals.²¹⁸ Despite Title VII's significant expansion of regulatory responsibility, the SEC and CFTC have not received a comparable increase in funding.²¹⁹ For this reason, many have argued that these agencies have seen their "operations squeezed by drastic underfunding," leaving them unable to effectively implement and enforce Title VII's regulatory scheme and thus rendering it "almost irrelevant." 220 This is particularly concerning given Title VII's heavy reliance on agency rulemaking and monitoring and the broad discretion it affords regulators. Further, these inadequacies are exacerbated by the complexity and pace of innovation in derivatives

^{213.} See supra Section II.A.

^{214.} See supra Section II.B.4.

^{215.} Id.

^{216.} See supra Section II.B.5.

^{217.} See, e.g., McNamara, supra note 44, at 258.

^{218.} Kristin N. Johnson, Things Fall Apart: Regulating the Credit Default Swap Commons, 82 U. Colo. L. Rev. 167, 220–21 (2011).

^{219.} See Latysheva, supra note 20, at 494–95; CFTC, CHAIRMAN'S TRANSMITTAL LETTER in the President's Budget, Fiscal Year 2016 (Feb 2, 2015), http://www.cftc.gov/idc/groups/public/@newsroom/documents/file/cftc budget2016.pdf; Peter Schroeder, Wall Street Watchdog Blasts Omnibus Deal, The Hill (Dec. 21, 2015), http://thehill.com/policy/finance/263928-wall-street-watchdog-blasts-omnibus-deal.

^{220.} See, e.g., David Dayen, Congress is Starving the Agency That's Supposed to Prevent Another Meltdown, New Republic (Nov. 7, 2013), http://www.newrepublic.com/article/115511/cftc-funding-will-prevent-it-regulating-derivatives

markets, which "render it even more difficult for regulators to police the markets and . . . locate and monitor potential risks." 221

Although the SEC and CFTC have developed some expertise with respect to the general dynamics of swaps markets, they lack the detailed sophistication necessary to efficiently implement legislative mandates at both the transaction and entity levels. It should be noted that swaps markets were largely unregulated prior to Title VII.²²² As a result, the SEC and CFTC have been charged with "creating a complicated regulatory framework" for a "huge and complex but historically opaque market."223 It was to be expected that it would take some time for the SEC and CFTC to develop the expertise necessary to efficiently and effectively phase in Title VII's regulatory scheme. However, regulators still lack the resources to manage "the sheer volume of information [made] available" to them, leaving them unable to perform the analyses necessary to fully understand the risks created by various swaps transactions and posed by various market participants.²²⁴ Indeed, former CFTC Commissioner Scott D. O'Malia explained that the "CFTC still cannot crunch the data in SDRs to identify and measure risk exposures in the market," citing a lack of resources as "crippl[ing] to[the CFTC's] utilization of swaps data."225

^{221.} Dan Awrey, Complexity, Innovation, and the Regulation of Modern Financial Markets, 2 Harv. Bus. L. Rev. 235, 275 (2012).

^{222.} See supra Section I.A.

^{223.} William K. Sjostrom, Jr., Afterword to the AIG Bailout, 72 Wash. & Lee L. Rev. 795, 824 (2015).

^{224.} See Awrey, supra note 221, at 289; CFTC, supra note 219, at 42–43; Peter Schroeder, Wall Street Watchdog Blasts Omnibus Deal, The Hill, Dec. 21, 2015, http://thehill.com/policy/finance/263928-wall-street-watchdog-blasts-omnibus-deal.

^{225.} Scott D. O'Malia, Former Commissioner, CFTC, Keynote Address, (Mar. 25, 2014) (transcript available at http://www.cftc.gov/PressRoom/SpeechesTestimony/opaomalia-34). To be sure, the nominal value of CFTC-regulated markets has increased more than ten-fold (from about \$40 trillion to over \$400 trillion) since the enactment of Dodd-Frank, as contrasted with an increase in the CFTC's budget of less than two-fold (from about \$146 million to \$250 million) during the same period. CFTC, Summary 2009 – Understanding the Financial Statements (Mar. 19, 2010), http://www.cftc.gov/reports/summary/2009/2009summary0603.html; CFTC, supra note 219, at 42–43; Peter Schroeder, Wall Street Watchdog Blasts Omnibus Deal, The Hill. (Dec. 21, 2015), http://thehill.com/policy/finance/263928-wall-street-watchdog-blasts-omnibus-deal.

Foremost, this inability to accurately assess, on an ongoing basis, risks posed by key transactions and market participants increases the likelihood that regulators will set inefficient capital and margin requirements. 226 Thus, these regulatory deficiencies threaten to undermine Title VII's response to market vulnerabilities and exacerbate many of the inefficiencies created by other Dodd-Frank provisions. Inefficient capital and margin requirements would lead to inefficient decisions by firms and/or failure to reduce risks. That is, market participants will be (i) inadequately protected;²²⁷ or (ii) incentivized to trade in instruments that are less tailored to the risks they aim to hedge.²²⁸ Indeed, "the failure of the regulators to undertake rigorous economic analysis of their actions has made it even more likely that the Title VII regime will have harmful effects."229 Second, regulators' inability to manage and analyze information will complicate their ability to monitor and respond to risks in the marketplace in order to avoid or mitigate systemic damages. This dynamic illustrates that the "benefits of simply generating more information may be very limited indeed;"230 without the resources or sophistication to analyze and respond to the information, one of the main regulatory tools relied on by Title VII—disclosure—provides regulators only marginal utility in addressing vulnerabilities.

3. Domestic and Global Regulatory Fragmentation

Even if the regulatory structure was feasible and effectively implemented, current domestic and global regulatory fragmentation undermine achievement of Title VII's legisla-

^{226.} See, e.g., CFTC, supra note 219, at 20.

^{227.} Capital and margin requirements are designed to reduce counterparty risk. By reducing the risk posed by the default of key financial institutions, these requirements also help to reduce systemic risk. However, providing inadequate capital or margin may insufficiently reduce the counterparty risk posed by key financial institutions, thus leaving substantial systemic risk unaddressed. For example, if margin requirements are set too low, firms will have an incentive to invest in these investments because of the liquidity benefits. *See supra* Section III.A.3.

^{228.} By ineffectively pricing risk, regulators incentivize regulatory arbitrage. If margin requirements are set too high, firms will be pushed to other instruments or markets that may less effectively hedge their risks.

^{229.} Peirce & Broughel, supra note 143, at 77-78.

^{230.} Awrey, *supra* note 221, at 289.

tive goals. Indeed, "the implementation of Title VII has been plagued by a lack of regulatory coordination."²³¹

First, by splitting swaps market regulation and oversight duties between the CFTC and SEC²³² Title VII unnecessarily complicates the implementation and enforcement processes,²³³ reduces market liquidity,²³⁴ and makes international coordination more difficult.²³⁵ With respect to the implementation and enforcement processes, turf battles between the CFTC and SEC have caused delay in the imposition of regulations²³⁶ and contributed to increased transaction costs.²³⁷ Moreover, by dividing the swaps market into "numerous artificial market segments," domestic regulatory fragmentation has created "an artificial series of smaller and smaller pools of trading," thereby reducing liquidity and increasing market inefficiencies.²³⁸ Lastly, domestic regulatory fragmentation creates a "piecemeal approach to issues of extraterritoriality" where each agency proposes guidance in stages, thus complicating coordination efforts and increasing uncertainty for international market participants and regulators.²³⁹

Second, by creating opportunities for arbitrage, global regulatory fragmentation threatens to render Title VII illusory and irrelevant. Title VII's reforms have substantially increased

^{231.} Paul S. Atkins, CEO, Patomak Global Partners, LLC, *The Dodd-Frank Act Five Years Later: Are We More Stable*?, at 10 (testimony before the U.S. House of Representatives Committee on Financial Services, July 9, 2015), http://financialservices.house.gov/uploadedfiles/hhrg-114-ba00-wstate-patkins-20150709.pdf.

^{232.} See infra Section II.B.1.

^{233.} Latysheva, supra note 20, at 497–98.

^{234.} Giancarlo, supra note 195, at 52.

^{235.} Peirce & Broughel, supra note 143, at 77.

^{236.} Latysheva supra note 20, at 498. See also Atkins supra note 231, at 10.

^{237.} Because regulators have failed to "work effectively with one another by, for example, failing to coordinate the timing and content of similar rules," market participants must operate under uncertainty and sometimes conflicting regulations, which leads to increased transaction costs. See Peirce & Broughel, supra note 143, at 77. For example, according to Jill Sommers, former CFTC Commissioner, the CFTC moved "out of step in time, substance, or both with the SEC . . . in implementing trade execution requirements for standardized swaps." See Jill E. Sommers, Commissioner, CFTC, Remarks before the Institute of International Bankers, (March 7, 2011), http://www.cftc.gov/PressRoom/SpeechesTestimony/opasommers-13.

^{238.} Giancarlo, supra note 195, at 59.

^{239.} Sommers, supra note 237.

transaction costs for private firms.²⁴⁰ Further, Title VII's provisions do not apply to activities outside the United States unless those activities "have a direct and significant connection with activities in, or effect on, commerce of the United States" or "contravene" the rules promulgated by the CFTC as necessary to prevent evasion of Title VII's provisions.²⁴¹ Under CFTC guidance, a "U.S. person" is "squarely within the CFTC's regulatory jurisdiction" and "is subject to the full effect of Dodd-Franks provisions on swaps and the CFTC's rules."242 The "U.S. person" definition is broad, going beyond persons living, organized or with principal place of business in the U.S. and capturing investment vehicles that are majority-owned by such persons.²⁴³ Further, Title VII's requirements apply to non-U.S. persons who enter a swap with a U.S. person or certain affiliates of a U.S. person.²⁴⁴ However, for such transactions, the CFTC has indicated that substituted compliance (i.e., compliance with the comparable requirements of another jurisdiction) may be available.²⁴⁵ To date, the CFTC has made comparability determinations covering the EU, Canada, Switzerland, Japan, Hong Kong and Australia.²⁴⁶ However, while the CFTC "made favorable comparability determinations for all six with

^{240.} Christian Johnson, Regulatory Arbitrage, Extraterritorial Jurisdiction, and Dodd-Frank: The Implications of US Global OTC Derivative Regulation, 14 Nev. L.J. 542 at 569; see also infra Section III.B.1.

^{241.} Dodd–Frank Wall Street Reform and Consumer Protection Act, §722(d)(i)(1)-(2).

^{242.} Anita K. Krug, *Investing and Pretending*, 100 Iowa L. Rev. 1559, 1599–1600 (May 2015) (citing the CFTC's Cross-Border Rules).

^{243.} See id. at 1600.

^{244.} John C. Coffee Jr., Extraterritorial Financial Regulation: Why E.T. Can't Come Home, 99 Cornell L. Rev. 1259, 1280 (Sept. 2014).

^{245.} Rita M Molesworth et. al., CFTC Proposes Cross-Border Margin Rules for Uncleared Swaps, Willkie Farr & Gallagher LLP, 2–3 (2015), http://www.wilkie.com/~/media/Files/Publications/2015/08/CFTC_Proposes_Cross_Border_Margin_Rule_For_Uncleared_Swaps.pdf. For uncleared transactions, substituted compliance may be available for initial margin only or for both initial and variation margin, depending on the status of the participants in said transaction. See id.

^{246.} See Comparability Determination for the European Union: Certain Transaction Level Requirements, 78 Fed. Reg. 78,878 (Dec. 27, 2013); Comparability Determination for the European Union: Certain Entity-Level Requirements, 78 Fed. Reg. 78,923 (Dec. 27, 2013); Comparability Determination for Canada: Entity-Level Requirements, 78 Fed. Reg. 78,839 (Dec. 27, 2013); Comparability Determination for Switzerland: Certain Entity-Level Requirements, 78 Fed. Reg. 78,899 (Dec. 27, 2013).

respect to entity-level requirements," it approved transaction-level requirements only for the EU and Japan, and even then only with respect to certain transaction-level requirements.²⁴⁷

Because transacting with a U.S. person subjects a transaction to Title VII's requirements, foreign counterparties have become increasingly reluctant to transact with domestic market participants.²⁴⁸ As a result, "the global swaps markets [have] fragmented into separate trading and liquidity pools, resulting in less liquidity and more volatile pricing."249 Concurrently, this regulatory fragmentation threatens to undermine Title VII's legislative goals. Initially following Title VII's implementation, "few foreign jurisdictions [had] derivatives regulatory regimes as fully developed [and implemented] as Title VII,"250 as many other G20 jurisdictions fell well behind behind schedule in implementing clearing and corresponding margin requirements.²⁵¹ This created interim opportunities for regulatory arbitrage, pushing swaps trading activity overseas.²⁵² By the second half of 2015, most European countries were implementing clearing requirements.²⁵³ Nonetheless,

^{247.} Coffee Jr., supra note 244, at 1281.

^{248.} Following the CFTC's implementation of Title VII, "volumes between European and U.S. dealers . . . declined 77 percent." Atkins, *supra* note 231, at 10.

^{249.} Id.

^{250.} Lucy McKinstry, Regulating a Global Market: The Extraterritorial Challenge of Dodd-Frank's Margin Requirements for Uncleared OTC Derivatives & A Mutual Recognition Solution, 51 Colum. J. Transnat'l L. 776, 787 (2013).

^{251.} See John Kiff, Stymied Reform, Fin. & Development, June 2015, at 41, 41, https://www.imf.org/external/pubs/ft/fandd/2015/06/pdf/fd0615.pdf.

^{252.} See, e.g., Coffee Jr., supra note 244, at 1283

^{253.} See, e.g., Carolyn H. Jackson, European Commission Publishes Delegated Regulation on Mandatory Clearing for OTC Interest Rate Derivatives, NAT'l. L. REV. (August 9, 2015), http://www.natlawreview.com/article/european-commission-publishes-delegated-regulation-mandatory-clearing-otc-interest-r ("On August 6, the European Commission adopted new rules . . . requiring the mandatory clearing of certain OTC interest rate derivatives contracts through central counterparties. . . ."); Benjamin Durig, Banking in the Crosshairs: Investigations by Financial Regulators and Competition Authorities in the Banking Industry – Libor, Forex, What Next?, Mondaq (September 11, 2015), http://www.mondaq.com/x/426556/Financial+Services/Banking+In+The+Crosshairs+Investigations+By+Financial+Regulators+And+Competition+Authorities+In+The+Banking+Industry+Libor+Forex+What+Next ("The upcoming changes in Swiss financial market law (in particular the Financial Market Infrastructure Act) will create uniform regulation of financial market

even with mandatory clearing across most major international derivatives markets, two possibilities for regulatory arbitrage undermine achievement of Title VII's legislative goals.

The first possibility for regulatory arbitrage relates to the requirements imposed on uncleared transactions.²⁵⁴ In July 2015, the CFTC proposed a rule on the cross-border application of margin requirements for uncleared swaps in cross-border transactions.²⁵⁵ Under the proposed rule, uncleared swaps entered into by registered entities must comply with the CFTC's margin requirements, qualify for an exclusion, or comply with certain foreign jurisdictions' "comparable margin requirements" (substituted compliance).²⁵⁶ Although the proposed rule sets forth factors for making substituted compliance determinations, the CFTC has only made favorable determinations with respect to six jurisdictions.²⁵⁷ Further, many have argued that many of these determinations were made on a "deferential basis" and thus allow "banks to . . .

infrastructures and derivatives trading in line with market developments and international requirements, a case of 'voluntary alignment' to EMIR and Dodd-Frank. . . . ").

254. The imposition of margin requirements increases transaction costs for market participants. See Paul Watterson, Joseph Suh & Craig Stein, Margin Costs of OTC Swap Clearing Rules, 3 HARV. Bus. L. Rev. 152 (2013). Further, "major financial institutions are extremely mobile and can easily park . . . operations abroad and beyond the regulatory reach of their home country. . . ." Coffee Jr., supra note 244, at 1260. Because transaction costs are a function of margin requirements and market participants are highly mobile, a lack of uniform margin requirements provide market participants regulatory arbitrage opportunities. Similarly, because of bifurcated regulatory schemes—imposing different margin requirements on cleared and uncleared transactions—opportunities for regulatory arbitrage can also result from variations in clearing exemptions.

255. Margin Requirements for Uncleared Swaps for Swap Dealers and Major Swap Participants—Cross-Border Application of the Margin Requirements; Proposed Rule, 80 Fed. Reg. 41376 (July 14, 2015).

256. Molesworth et al., supra note 245, at 2.

257. The CFTC issued comparability determinations for entity-level requirements for the EU, Hong Kong, Japan, Australia, Canada and Switzerland. See Press Release, CFTC Approves Comparability Determinations for Six Jurisdictions for Substituted Compliance Purposes (Dec. 20, 2013),

http://www.cftc.gov/PressRoom/PressReleases/pr6802-13. For each of these jurisdictions, the CFTC made a favorable determination with respect to 17 CFR § 23.600, relating to risk management programs for certain registered entities and thus covering margin requirements for uncleared transactions. *See id.*; 17 CFR § 23.600.

escape strict U.S. regulations."²⁵⁸ Due to the structure of the CFTC's extraterritorial provisions²⁵⁹ and the potential leniency of margin requirements even in jurisdictions for which the CFTC has made a favorable determination, ²⁶⁰ banks have moved "more swaps trading overseas to escape strict U.S. regulations."²⁶¹

The second possibility for regulatory arbitrage relates to the margin requirements imposed on cleared transactions. ²⁶² With the clearing model at the centerpiece of Title VII's regulatory scheme, compliance with these requirements is imperative to swaps market stability. Nonetheless, U.S. regulators fundamentally disagree with many international regulators on clearinghouse standards and have been unable to reach a compromise that would facilitate mutual recognition agreements. ²⁶³ Despite ongoing negotiations and intentions to reach a deal by June 15, 2015, ²⁶⁴ progress between U.S. and EU policymakers remains very slow. ²⁶⁵ As a result of the increased transaction costs associated with Title VII and regulators' inability to harmonize regulations with competing jurisdictions, participants are able to weigh jurisdictional trading

^{258.} See Coffee Jr., supra note 244, at 1282-83.

^{259.} Although the CFTC's "U.S. person" definition is broad and CFTC requirements apply to transactions by and/or with U.S. persons, there remains a category of non-U.S. persons that is not subject to CFTC regulations, and these persons have grown increasingly reluctant to transact with U.S. persons. *See* Giancarlo, *supra* note 195, at 48.

^{260.} See Coffee Jr., supra note 244 at 1282-83.

^{261.} See, e.g., id. at 1283. To do so, banks either enter cross-border transactions or move trading overseas altogether. By entering cross-border transactions, banks may be eligible for substituted compliance and must comply only with potentially less stringent foreign margin requirements. By moving trading overseas and not transacting with U.S. persons, banks may escape the "U.S. person" definition and avoid Title VII's provisions altogether. Even if organizational structure (parent company or other subsidiaries/guarantors in the U.S.) places the bank under the CFTC's purview, substituted compliance and the corresponding potential leniency remain an option.

^{262.} See supra Section II.B.1.

^{263.} See Douwe Miedema, EU and U.S. Struggle to Resolve Derivatives Clearing Dispute, Reuters (Feb. 25, 2015), http://www.reuters.com/article/2015/02/25/us-financial-regulations-swaps-idUSKBN0LT1Z020150225.

^{264.} Id.

^{265.} Chip Somodevilla, *Massad: EU-US Clearinghouse Recognition Talks Move Slowly*, SMARTBRIEF (Sept. 14, 2015), http://www.smartbrief.com/s/2015/09/massad-eu-us-clearinghouse-recognition-talks-move-slowly.

costs and may choose to trade in overseas derivatives markets.²⁶⁶

Although Dodd-Frank has provided the CFTC and SEC with some extraterritorial jurisdiction to regulate swaps trading,²⁶⁷ this jurisdiction is not comprehensive²⁶⁸ and opportunities for regulatory arbitrage can thus still push swaps trading overseas.²⁶⁹ This global fragmentation could result in harm to domestic derivatives markets (by virtue of decreased trading activity and corresponding loss of liquidity)²⁷⁰ and indirect harm to the global financial system (by virtue of systemic connections and an incentive for regulators to "race-to-the-bottom").²⁷¹

^{266.} See Johnson, supra note 240 at 565. See also Coffee Jr., supra note 244; Krug, supra note 242.

^{267.} See Sommers, supra note 237 and accompanying text.

^{268.} See Comparability Determination for the European Union: Certain Transaction Level Requirements, 78 Fed. Reg. 78,878 (Dec. 27, 2013); Comparability Determination for the European Union: Certain Entity-Level Requirements, 78 Fed. Reg. 78,923 (Dec. 27, 2013); Comparability Determination for Canada: Entity-Level Requirements, 78 Fed. Reg. 78,839 (Dec. 27, 2013); Comparability Determination for Switzerland: Certain Entity-Level Requirements, 78 Fed. Reg. 78,899 (Dec. 27, 2013).

^{269.} See Johnson, supra note 240, at 565.

^{270.} By creating separate, smaller pools of trading, global fragmentation results in lower trading activity in each pool and thereby harms domestic markets and market participants by reducing liquidity in domestically traded instruments.

^{271.} See Johnson, supra note 240, at 563-74. In order to attract market participants, national agencies have an incentive to avoid increasing compliance costs. In doing so, countries internalize the benefits of risk-taking (increase domestic trading) while externalizing many potential costs (losses are borne globally due to systemic connections). Thus, fragmentation may lead to inadequate standards in some countries, and regulatory arbitrage could lead to high levels of trading in these countries. This dynamic makes prompt harmonization all the more imperative. Further, it must be noted that the CFTC's broad definition of "U.S. person" and regulation of entities that transact with U.S. persons will not serve to sever market interconnections. Because the CFTC permits foreign branches to transact in foreign markets outside the reach of Title VII, U.S. markets are indirectly affected by risk overseas. See supra note 228. Indeed, AIG's bailout was precipitated by activity in a small London branch. See Jay Shaylor, Lauren Pearle and Tina Babarovic, AIG's Small London Office May Have Lost Big (Mar. 10, 2009), http:/ /abcnews.go.com/Business/story?id=7045889.

4. Creation of New Centers of Systemic Risk

By concentrating risks in one entity, the clearing model may actually increase systemic risk.²⁷² Because the clearing-house assumes the counterparty risk that a buyer and seller otherwise would bear,²⁷³ clearinghouses, by their nature, severely concentrate the risks of failure.²⁷⁴ Further, because the numerous CMs and market participants tend to be major financial institutions,²⁷⁵ clearinghouses are a source of substantial systemic risk.²⁷⁶ Nonetheless, "global regulators have yet to agree on who would pay the trillions of dollars that would be needed to bail out any failed clearinghouse for derivatives."²⁷⁷

Even more alarming, any government backing will increase clearinghouses' incentive to shirk risk-management responsibilities. Because Title VII concentrates systemic risk so heavily in DCOs, "the urge to backstop such an institution in the event of a market crisis would be considerable, and governments could then be faced with the ultimate too big to fail entity." Indeed, although policymakers have expressed reluctance in having taxpayers bail out clearinghouses, "central banks . . . have said they would offer backstops to clearinghouses in emergencies." Because the clearinghouse understands that it has this form of insurance, it is incentivized to assume more risk than it otherwise would. As a result of this

^{272.} RECHTSCHAFFEN, supra note 9, at 239.

^{273.} See supra Section II.B.3.

^{274.} RECHTSCHAFFEN, supra note 9, at 239.

^{275.} These interconnections are a result of the exposures of CMs and market participants, the level of which vary with time and trading activity.

^{276.} By virtue of the clearing mechanism, clearinghouses are interconnected with many major financial institutions, all of which may be exposed to substantial losses in the event of a clearinghouse failure. Because of these interconnections, the failure of a clearinghouse could trigger a "chain of significant losses to financial institutions", making its counterparty risk rise to the level of systemic risk. *See* RECHTSCHAFFEN, *supra* note 9, at 232.

^{277.} Huw Jones, Regulators See Slow Progress on who Pays for Failed Clearinghouse, Reuters (Jun 10, 2015) http://www.reuters.com/article/2015/06/10/eu-markets-regulations-idUSL5N0YW2GY20150610.

^{278.} McNamara, supra note 44, at 259.

^{279.} Jones, supra note 277.

^{280.} This is the concept of moral hazard. Because the benefits of the risk assumed by the clearinghouse are internalized but costs of failure are externalized/shared with the government/taxpayers, the effective insurance causes the clearinghouse to engage in riskier behavior. See Rechtschaffen, supra note 9, at 239–40.

moral hazard, "clearinghouses and counterparties to the clearinghouse may shirk their risk management duties, including by decreasing the collateral requirements or mutualization fund contributions, insufficient monitoring by counterparties of the clearinghouses' capitalization, and insufficient insurance purchases by the clearinghouse to protect against counterparty insolvency."281 That is, by creating new systemically significant entities that are effectively government-insured, Dodd-Frank may provide clearinghouses with incentive to shirk risk management responsibilities. Further, the more confident a clearinghouse is in the probability of government bailout, the greater the incentive to shirk risk-management responsibilities. Thus, although regulators now recognize the alarming risk of clearinghouse failure and are working to devise a response to this scenario,282 any government backing would likely increase the very risk it seeks to address.²⁸³

This dynamic places considerable pressure on regulating the financial health of clearinghouses, but Title VII fails to comprehensively do so. Given the systemic significance of clearinghouses and the resulting incentives to shirk risk management responsibilities, the imposition of careful oversight and stringent risk management requirements by regulators is extremely important. However, with few exceptions,²⁸⁴ Title VII effectively authorizes clearinghouses to serve as primary regulators.²⁸⁵ Furthermore, even in those areas where Title VII did provide regulators with authority over clearinghouse gov-

^{281.} Id. at 240.

^{282.} Jones, supra note 277.

^{283.} Further, efforts to force clearinghouses to internalize costs of risk (e.g. mandated insurance) would be inefficient for many of the same reasons as deposit insurance premiums (insufficient data to effectively assess risk, difficulty in quantifying risk, the inability to continuously assess risk, the problem of cyclicality—high premiums pushing the riskiest entities to failure). See, e.g., Jonathan R. Macey, Geoffrey P. Miller & Richard S. Carnell, Banking Law and Regulation, 5th ed., Aspen Publishers (Aug. 16, 2013); Viral Acharya, Systemic Risk and Deposit Insurance Premiums (Sept. 4, 2009), http://www.voxeu.org/article/systemic-risk-and-deposit-insurance-premiums.

^{284.} For example, regulators impose floors below which capital and margin requirements for registered participants and dealers cannot fall. However, regulators may lack the resources, sophistication, and incentives to effectively set these requirements. *See supra* Section II.B.3 and 5.

^{285.} Title VII's requirements for DCOs are highly discretionary, including such instructions as maintaining "adequate" resources and "limiting" expo-

ernance and risk management, regulators have tended to "favor approaches that threaten effective risk management, such as weakening membership requirements ²⁸⁶ Although private market mechanisms have arguably led to effective self-governing in the futures markets, the level of innovation and liquidity are much different in the swaps markets and may interfere with effective self-governance. ²⁸⁷ Thus, without additional governance regulation (which requires regulatory sophistication and resources to devise and oversee), the clearing model may not effectively reduce systemic risk.

5. Ineffectively Tailored Requirements and Exceptions

By imprecisely tailoring many of the Title VII's requirements and exceptions, legislatures may have further undermined the Act's broad policy goals. First, several of Title VII's exceptions may have been drafted so broadly as to "swallow the rule." By exempting contracts that are unstandardized or trade with insufficient liquidity from clearing and exchange-trading requirements,²⁸⁸ the end-user exception may enable market participants to "effectively circumvent the centerpiece of Dodd-Frank as it relates to derivatives trading" by creating customized derivatives.²⁸⁹ That is, because swaps markets are characterized by customizable, illiquid instruments designed

sure to losses. See supra Section II.B.3. See also Kristin N. Johnson, Governing Financial Markets: Regulating Conflicts, 88 Wash. L. Rev. 185, 232 (Mar. 2013).

^{286.} Peirce & Broughel, *supra* note 143, at 80. Note that these approaches may be part of regulatory attempts to "quickly move as many swaps as possible into clearinghouses" so as to shift counterparty and systemic risks and subject more financial instruments to the corresponding requirements. *See id.* In such a case, regulators may make requirements more stringent as more and more swaps continue to move on-exchange.

^{287.} Because of the sophistication and complexity of these customized instruments, it is much more difficult for swaps market participants to assess and mitigate excessive risk taking by other participants or the clearinghouse itself (even though mutualization of risk would arguably provide incentives to monitor). The difficulty of monitoring is demonstrated by pre-crisis interconnection among major financial institutions via contracts deemed safe investments despite large counterparty risk (e.g. with AIG, Lehman, and Bear). While these were largely due to excessive reliance on third party monitoring (credit rating agencies) and inadequate transparency, many of the firms themselves were unable to assess even their own exposures. *See supra Section I.*

^{288.} Supra Section II.B.3; RECHTSCHAFFEN, supra note 8, at 240.

^{289.} RECHTSCHAFFEN, supra note 9, at 240.

to enable firms to precisely hedge risk,²⁹⁰ this exception may be so broad as to encompass an overwhelming majority of the instruments traded and thus render the clearing model irrelevant. Capital and margin requirements still apply to these uncleared transactions,²⁹¹ partially reducing counterparty risk, but the market can circumvent the clearing model's other mechanisms (such as loss mutualization) that reduce/shift systemic risk.²⁹² Alternatively, relatively higher margin requirements for uncleared transactions could inefficiently push firms towards more standardized instruments or other markets.²⁹³

Similarly, overly broad indemnification provisions in information sharing among regulatory agencies²⁹⁴ partially undermine Title VII's transparency efforts. By undermining global sharing, the provision threatens to "fragment global data on swaps markets" as "foreign regulators are forced to create their own SDRs."²⁹⁵ Further, without effective sharing and coordination among domestic and international agencies, regulators will be unable to get a comprehensive view of the market and participants, thus limiting their ability to monitor and mitigate systemic risk.

Second, Title VII provides regulators and, as a result, private entities with excessive discretion in the implementation of many provisions. For example, Title VII provides the CFTC, SEC, and DCO virtually unbound discretion and minimal guidance in setting capital and margin requirements.²⁹⁶ With respect to these provisions, Title VII essentially transforms the regulatory approach to derivatives regulation "from a laissezfaire paradigm to a bank regulatory paradigm focused on safety and soundness."²⁹⁷ Thus, the successes and failures of banking regulation over the years provide helpful insight in

^{290.} Supra Section II.D.1.

^{291.} Supra Section II.B.4.

^{292.} This is likely to be the case if capital and margin requirements on uncleared transactions are set relatively low. *See* RECHTSCHAFFENN, *supra* note 9, at 240.

^{293.} See supra Section II.D.1.

^{294.} See supra Section III.B.5 (Title VII requires indemnification from expenses arising from litigation before an agency may share information).

^{295.} Press Release, Congressman Justin Gibbs, Crawford Swap Market Transparency Bill Gets Hearing (Mar. 14, 2013), http://crawford.house.gov/news/documentsingle.aspx?DocumentID=324047.

^{296.} See supra Section III.A.4.

^{297.} Duff, *supra* note 17, at 678.

assessing the approach of Title VII. Prior to 1981, banking agencies communicated institutions capital adequacy "to mangers and boards of directors on a case-by-case basis, often in qualitative terms."298 Declining financial stability plagued this era, which led banking regulation to evolve into the comprehensive, highly technical Basel framework.²⁹⁹ Concurrently, criticism surfaced that "bank regulation may be susceptible to capture" and that "capture had significantly influenced regulatory and supervisory decisions affecting banks and other financial institutions."300 For this reason, the Basel Committee and U.S. legislatures have reduced regulatory discretion in the banking sector over the years.³⁰¹ In light of these lessons, the discretionary approach of Title VII is particularly troublesome as private incentives and regulatory capture may lead to ineffective implementation, thus undermining legislative efforts to reduce systemic risk and stabilize the OTC derivatives markets.

Even if private firms do not "capture" regulators, given the lacking resources and sophistication, excessive regulatory discretion will likely lead to inefficient policies. For example, "by virtue of the broad regulatory definitions," some firms "may find themselves categorized as swap dealers or major swap participants, a status that will subject them to the clearing mandate and all of the other requirements designed for dealers." This may inefficiently shape private firm activity, unnecessarily curbing legitimate hedging activities and thus interfering with business strategies.

^{298.} Capital Standards for Banks: The Evolving Basel Accord, 89 Fed. Res. Bull. 395 (2003) (summarizing testimony of Federal Reserve Vice Chairman Roger W. Ferguson before congressional committees) http://www.federalreserve.gov/pubs/bulletin/2003/0903lead.pdf.

^{299.} See id. See generally Bank for Int'l Settlements, International Regulatory Framework for Banks (Basel III), http://www.bis.org/bcbs/basel3.htm.

^{300.} Daniel C. Hardy, *Regulatory Capture in Banking*, 3 (Int'l Monetary Fund, Working Paper WP/06/34, 2006), https://www.imf.org/external/pubs/ft/wp/2006/wp0634.pdf.

^{301.} See Charles M Horn et. al, Basel III Numerator, slide 14 (Morrison Foerster, Presentation, Mar. 9, 2011), http://media.mofo.com/files/Up loads/Images/110309-Basel-III-Numerator-Presentation.pdf (Dodd-Frank "limits discretion in establishing Basel III requirements: U.S. [regulators] can adopt more onerous standards, but cannot adopt laxer standards"); Brett H. McDonnell, Designing Countercyclical Capital Buffers, 18 N.C. Banking Inst. 123, 135 (2013) (discussing Basel III's risks on regulator discretion).

^{302.} Peirce & Broughel, supra note 143, at 81.

Relatedly, this excessive discretion leaves OTC derivatives markets susceptible to political volatility. Title VII establishes a general regulatory structure but leaves the working rules to be developed, implemented and administered at the agency-level. Since the SEC and CFTC are within the purview of the U.S. political system, these working rules are vulnerable to political developments. For example, a change in the presidential administration and thereby the makeup of and/or influence over the SEC and CFTC could lead to leniency in capital and margin requirements. Because Title VII relies

303. See supra Section III.A.4; Daniel M. Gallagher, Commissioner, SEC, Remarks before the U.S. Chamber of Commerce (Aug. 4, 2015) ("[Dodd-Frank] is . . . largely just a series of ill-formed mandates that need to be interpreted and implemented to have any practical effect.").

304. Although the SEC and CFTC are "independent" agencies, designed to be bipartisan or non-partisan regulatory bodies, such bodies have always been under some degree of political influence, and Dodd-Frank has arguably exacerbated this dynamic. *See* Gallagher, *supra* note 303, at 2 ("If the SEC seems political nowadays, it is because of Dodd-Frank."); The Editorial Board, *An Uncertain Future for Dodd-Frank*, N.Y. TIMES (Jan. 24, 2015), http://nyti.ms/1EFKZXe ("The law required regulators to write hundreds of rules and conduct dozens of studies . . . regulators found room to indulge their pro-bank bias.").

305. The SEC and CFTC each consist of five Commissioners (including a Chairman). 7 U.S.C. § 2(a) (2) (A) (2001); 15 U.S.C. § 78d(a) (1934). All Commissioners are appointed by the President and as many as three may be members of the same political party. *Id.* Although terms are staggered, making changes in the makeup of Commission somewhat gradual, a President may appoint a majority of each Commission during one term in Office. *Id.* Further, the finite term and prospect for reappointment may provide the President with some level of influence even over Commissioners that he/she did not personally appoint.

306. Although there are limits on agency rulemaking, any such limits are unlikely to be practically significant in this context. Foremost, because of the level of deference afforded under the Chevron doctrine to an agency acting under a statute that it administers, judicial review is essentially limited to an assessment of reasonableness and compliance with procedural requirements. See, e.g., Ernest H. Schopler, Supreme Court's View as to Weight and Effect to be Given, on Subsequent Judicial Construction, to Prior Administrative Construction of Statute, 39 L. Ed. 2d 942 (2012) ("When [an] agency fills such 'gap' reasonably, and in accordance with other applicable (e.g., procedural) requirements, courts accept [the] result as legally binding"). Since the provisions of Title VII are embodied in the Securities Exchange Act and the Commodities Exchange Act, the SEC and CFTC are afforded such deference when administering ambiguous Title VII provisions. See id.; supra Part II.B. Concurrently, the SEC and CFTC rules implementing Dodd-Frank (e.g. capital and margin requirements) rely heavily on assessments of risk posed by

on such requirements to mitigate systemic and counterparty risks,³⁰⁷ such leniency would threaten the entire legislative scheme308 and thereby undermine Title VII's efforts to improve market stability. Indeed, "the post-enactment politics of implementation matter as much to the success of regulatory reform as the politics of passing legislation."309 This concern is currently of particular practical significance. Although there has arguably been strong political support for Dodd-Frank's reform efforts in recent years,³¹⁰ the 2016 election has shown signs of shifting tides, with many candidates repeatedly issuing "calls to repeal, dismantle, hamstring or perform political acts of torture upon Dodd-Frank."311 At a minimum, the prospect of volatile market regulation (and corresponding transaction costs) will likely reduce trading and liquidity in OTC derivatives markets, thereby impeding effective hedging³¹² and increasing levels of systemic risk.³¹³ Thus, by making Title VII's reforms susceptible to political volatility and creating consider-

various transactions and entities. See supra Part II.B.iv. Since risk quantification is a complex exercise involving numerous assumptions and considerable professional, and because derivatives markets are so complex and dynamic and have historically been plagued by informational deficiencies, there is likely a very wide range of "reasonableness" for such rules. See Diana R.H. Winters, False Certainty: Judicial Forcing of the Quantification of Risk, 85 Temp. L. Rev. 315, 316 (2013). This dynamic is exacerbated by the particularly complicated OTC derivatives markets; the complexity of the instruments and markets, the general lack of expertise in such markets and the sheer quantity of information available for such instruments and market participants make any meaningful judicial review infeasible and thus contributes to essentially unbounded agency rulemaking and enforcement in the context of Title VII. See Gina-Gail S. Fletcher, Hazardous Hedging: The (Unacknowledged) Risks of Hedging with Credit Derivatives, 33 Rev. Banking & Fin. L. 813, 881 (2014).

^{307.} See supra Section III.A.3.

^{308.} See supra note 211.

^{309.} J. Nicholas Ziegler and John T. Woolley, *After Dodd-Frank: The Post-Enactment Politics of Financial Reform in the United States*, 2 (IRLE, Working Paper No. 110-14, 2015), http://irle.berkeley.edu/workingpapers/110-14.pdf.

³¹⁰ Id

^{311.} Zach Carter, Republicans Are Obsessed with Deregulating Wall Street, Huffpost Politics (Nov. 11, 2015).

^{312.} See supra Section I.C

^{313.} For example, a reduction in trading reduces liquidity, which leads to a risk of market failure in times of economic stress. *See* Giancarlo, *supra* note 195, at 48–50

able uncertainty for market participants, excessive regulatory discretion threatens the stability of OTC derivative markets.

It must be acknowledged that imprecise legislation and the corresponding agency discretion was likely a necessary approach when Title VII was enacted, given the opacity and complexity of pre-crisis OTC derivatives markets. Nonetheless, such an approach undermines OTC derivative market stability and may curb efficient trading activity. As such, a more comprehensive and technical legislative scheme is likely necessary to achieve Title VII's broad policy goals.

IV. Future: Suggested Reform

"The Dodd-Frank Act constituted a seismic shift in the regulation of financial institutions and markets in a massive effort to address regulatory shortcomings in derivatives markets."314 Because of the traumatic effects on the financial markets and broader economy that resulted from the crisis,³¹⁵ politicians faced "intense demand" and correspondingly severe time constraints for "a major regulatory overhaul of the system."316 With inadequate information, lacking expertise, and insufficient time to further develop their understanding of the OTC derivatives markets, Congress relied on traditional regulatory tools³¹⁷ in remodeling OTC derivatives markets after the more reliable futures markets.318 Although this effort does much to address vulnerabilities in the pre-crisis OTC derivatives markets, by enhancing transparency and reducing counterparty and systemic risk,³¹⁹ many of Title VII's provisions create additional vulnerabilities, contribute to market inefficiencies, and/or undermine legislative goals.³²⁰ In order to truly devise "a safer derivatives market to protect taxpayers against future bailouts,"321 further reforms are likely necessary during the next several years. This Section briefly outlines

^{314.} RECHTSCHAFFEN, supra note 9, at 218.

^{315.} See supra Section I.

^{316.} McNamara, supra note 44, at 237.

^{317.} See Duff, supra note 17, at 678.

^{318.} See supra Section II.B.2.

^{319.} See supra Section III.B.1.

^{320.} See supra Section III.B.

^{321.} S. Rep. No. 1111-176, at 32 (2010).

some potential reforms that could help improve the stability of OTC derivatives markets.

First, in order to help address domestic and global fragmentation and the inadequacy of regulatory resources and sophistication,³²² Congress should create a well-funded crossagency unit, populated by members of the CFTC and SEC, to regulate and oversee domestic swaps and security-based swaps markets. The cross-agency would help to aggregate and analyze market and entity data, providing a more comprehensive view of domestic market activity. By helping to eliminate 'turf battles' and conflicting rulemaking, a cross-agency would decrease uncertainty for market participants. Moreover, it could help to consolidate and further develop regulatory sophistication in the derivatives markets³²³ while creating a single-point of contact for international harmonization.

Second, in order to address the vulnerabilities arising from lacking regulatory expertise, 324 excessive regulatory and private party discretion,³²⁵ global fragmentation,³²⁶ and new systemic risk,³²⁷ the G20 should collaborate in forming an international organization comprised of private-sector experts and representatives from each country's regulatory agencies. The organization would be similar to the Basel Committee on Banking Supervision and the International Organization of Securities Commissions, but would possess authority to set standards that bind its members. By integrating international resources and consulting with major private sector participants, the international organization would help to develop the expertise necessary to formulate efficient and effective standards. Thus, the organization would be able to set comprehensive, highly technical capital and margin requirements (for both cleared and uncleared transactions) necessary to avoid

^{322.} See supra Section III.B.3.

^{323.} It would consolidate sophistication by mandating appointment of regulators with the most derivatives experience. By creating broader exposure and learning opportunities for regulators, it would create synergies and economies of scale that would help to further develop regulatory sophistication.

^{324.} Supra Section III.B.2.

^{325.} Supra Section III.B.5.

^{326.} See supra Section III.B.3.

^{327.} Supra Section III.A.2.

the dangers of excessive discretion.³²⁸ These standards, by more accurately reflecting the risks posed by the instruments and entities involved in transactions, would reduce counterparty risks faced by clearinghouses and thus reduce the systemic risk they pose.

Further, the international collaboration dynamic would help to avoid agency capture and global fragmentation. Because resolutions would be joint-determinations, issued by a single authority, there would be opportunities for compromise without the political undertones associated with negotiation among national agencies. Similarly, because standards would be internationally harmonized, individual countries would not have the incentive to make lax standards in order to attract market activity. This would help push countries toward agreement on standards and would greatly reduce the inefficiencies and arbitrage opportunities that accompany global regulatory fragmentation. Further, although the authority would set standards in consultation with the private sector, the problem of agency capture is greatly reduced by the international dynamics at play. To be sure, "some degree of capture is surely inevitable."329 However, since small, concentrated industries generally have an easier time capturing regulators, 330 and an international authority is likely to face lobbying efforts from a much less concentrated and more diverse set of institutions, regulatory capture is much less likely. Moreover, because the international authority would sit outside any one country's legislative influence or executive branch, it would function similar to a "self-funded and independent" organization, largely beyond the financial and corresponding political reach of market participants.331

Lastly, in order to help achieve transparency goals and reduce domestic and global fragmentation,³³² U.S. legislatures

^{328.} See supra Section III.B.5.

^{329.} Lawrence G. Baxter, *Understanding Regulatory Capture: An Academic Perspective from the United States, in Making Good Financial Regulation 31, 34* (ICFR 2012) .http://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=5262&context=faculty scholarship.

^{330.} DAVID A. MOSS & DANIEL CARPENTER, PREVENTING REGULATORY CAPTURE: SPECIAL INTEREST INFLUENCE AND HOW TO LIMIT IT 462 (2013).

^{331.} See Baxter, supra note 329, at 38.

^{332.} See supra Section III.B.3.

should eliminate Title VII's indemnification provisions.³³³ This would make information sharing among key domestic and international agencies much more likely, thus improving transparency and reducing fragmentation. Further, by allowing regulators to get a more comprehensive view of markets and participants, this would help improve agency sophistication and enable them to monitor and mitigate systemic risk.

In sum, while Dodd-Frank did constitute a "seismic shift" in the regulation of derivatives markets³³⁴ that addressed many pre-crisis market vulnerabilities,³³⁵ many vulnerabilities and inefficiencies continue to threaten financial market stability.³³⁶ In order to link past experiences with future goals—to truly devise more stable derivatives markets and preclude them from contributing to future financial crises—further reforms are likely necessary.

^{333.} See supra Section III.B.5.

^{334.} Supra Section IV.

^{335.} See supra Section I.

^{336.} See supra Section III.B.