Scholarship Repository University of Minnesota Law School

Articles Faculty Scholarship

2019

Regulating Entities and Activities: Complementary Approaches to Nonbank Systemic Risk

Daniel Schwarcz

Follow this and additional works at: https://scholarship.law.umn.edu/faculty_articles



Part of the Law Commons

Recommended Citation

Daniel Schwarcz, Regulating Entities and Activities: Complementary Approaches to Nonbank Systemic Risk, 92 1455 (2019), available at https://scholarship.law.umn.edu/faculty_articles/685.

This Article is brought to you for free and open access by the University of Minnesota Law School. It has been accepted for inclusion in the Faculty Scholarship collection by an authorized administrator of the Scholarship Repository. For more information, please contact lenzx009@umn.edu.

REGULATING ENTITIES AND ACTIVITIES: COMPLEMENTARY APPROACHES TO NONBANK SYSTEMIC RISK

JEREMY C. KRESS, * PATRICIA A. MCCOY[†] & DANIEL SCHWARCZ[‡]

The recent financial crisis demonstrated that, contrary to longstanding regulatory assumptions, nonbank financial firms—such as investment banks and insurance companies—can propagate systemic risk throughout the financial system. After the crisis, policymakers in the United States and abroad developed two different strategies for dealing with nonbank systemic risk. The first strategy seeks to regulate individual nonbank entities that officials designate as being potentially systemically important. The second approach targets financial activities that could create systemic risk, irrespective of the types of firms that engage in those transactions. In the last several years, domestic and international policymakers have come to view these two strategies as substitutes, largely abandoning entity-based designations in favor of activities-based approaches. This Article argues that

^{*.} Assistant Professor of Business Law, University of Michigan Ross School of Business. Kress was previously an attorney in the Federal Reserve Board's Legal Division.

^{†.} Liberty Mutual Insurance Professor, Boston College Law School. McCoy founded the Mortgage Markets group at the Consumer Financial Protection Bureau in 2011 and was responsible for mortgage policymaking at the Bureau.

^{‡.} Fredrikson & Byron Professor of Law, University of Minnesota Law School. Schwarcz has testified before Congress on issues relating to entity-based nonbank designations on six different occasions, and he was one of four academic participants in the Presidential Memorandum Engagement Process for the 2017 United States Department of Treasury Report to the President on Financial Stability Oversight Council Designations. For helpful comments and suggestions, we thank Anat Admati, Hilary Allen, Michael Barr, Christopher Bruner, Gregg Gelzinis, Erik Gerding, Claire Hill, Michael Malloy, Heidi Mandanis Schooner, Steven Schwarcz, Art Wilmarth, David Zaring, and the audiences at presentations at The Wharton School, Tulane Law School, Center for International Governance Innovation, National Business Law Scholars Conference, Academy of Legal Studies in Business Annual Conference, Office of Financial Research—University of Michigan Annual Conference, and Villanova Workshop on Insurance and Contract Law. Thanks to Alexander Tibor for research assistance.

this trend is deeply misguided because entity- and activities-based approaches are complementary tools that are each essential for effectively regulating nonbank systemic risk. Eliminating an entity-based approach to nonbank systemic risk—either formally or through onerous procedural requirements—would expose the financial system to the same risks that it experienced in 2008 as a result of distress at nonbanks like AIG, Bear Stearns, and Lehman Brothers. This conclusion is especially salient in the United States, where jurisdictional fragmentation undermines the capacity of financial regulators to implement an effective activities-based approach. Significant reforms to the U.S. regulatory framework are necessary, therefore, before an activities-based approach can meaningfully complement domestic entity-based systemic risk regulation.

TABLE OF CONTENTS

INTRODUCTION	1458
I. THE NONBANK SIFI PROBLEM	1465
A. THE ROLE OF NONBANKS IN THE CRISIS	1466
B. THE CONTINUING RISKS POSED BY NONBANKS	1467
C. SYSTEMIC RISK TRANSMISSION CHANNELS	1469
1. The Counterparty Channel	1470
2. The Asset Liquidation Channel	1471
II. TRACING FSOC'S MOVE FROM AN ENTITY-BASED	
TO AN ACTIVITIES-BASED APPROACH TO NONBANK	
SYSTEMIC RISK	1472
A. EVOLUTION OF FSOC'S ENTITY- AND ACTIVITIES-BASED	
APPROACHES	1473
B. NEW PROCEDURAL BARRIERS TO FSOC'S	
ENTITY-BASED AUTHORITY	1480
1. New Procedural Requirements for Designation	1480
2. A New Cost-Benefit Requirement	1485
III. WHY AN ACTIVITIES-BASED APPROACH MUST BE	
SUPPLEMENTED WITH AN ENTITY-BASED APPROACH	1487
A. AN ACTIVITIES-BASED APPROACH IS POORLY SUITED TO	
PREVENT SYSTEMIC INSOLVENCIES	1487
1. The Counterparty Channel	1488
2. The Asset Liquidation Channel	1493
B. AN ENTITY-BASED APPROACH IS WELL STRUCTURED TO	
LIMIT THE COSTS OF SYSTEMIC INSOLVENCIES	1494
1. Designation Limits the Risk that Firms Will Experience	
a Systemic Failure	1494

2019]	REGULATING ENTITIES AND ACTIVITIES	1457
2. R	egulators Can More Easily Target Systemic Entities than	
	Systemic Activities	1496
	an Entity-Based Approach Limits Harm When a Systemic	
	Ionbank Fails	1497
	n Entity-Based Approach Supplements Traditional	
	egulatory Regimes That Do Not Address or Sufficiently	
	revent Systemic Risk	
	ntity-Based Regulation Can Improve the Effectiveness of	
	ctivities-Based Regulation	1501
	criticisms of FSOC's Designation Regime Are	
	verblown and Have Been Addressed	1501
	EFFECTIVE ACTIVITIES-BASED APPROACH	
	POSSIBLE IN THE CURRENT U.S.	
	LATORY FRAMEWORK	1503
	OC CANNOT IMPLEMENT ACTIVITIES-BASED	
	GULATION DIRECTLY	1504
	GMENTED U.S. FINANCIAL REGULATION PRECLUDES AN	
	ECTIVE ACTIVITIES-BASED APPROACH	1505
	Saps in the U.S. Regulatory Framework Undermine	
	egulation of Systemic Activities	1506
	ragmentation in the U.S. Regulatory Framework	
Iı	npedes Activities-Based Regulation	1511
	PPROPRIATELY STRUCTURED ACTIVITIES-BASEI)
	DACH COULD COMPLEMENT ENTITY-BASED	
	SNATIONS	1519
	EFFECTIVE ACTIVITIES-BASED APPROACH REQUIRES A	
	GLE FINANCIAL STABILITY REGULATOR	1519
	ONFIGURED APPROPRIATELY, ACTIVITIES-BASED	
	GULATION IS UNIQUELY CAPABLE OF ADDRESSING	
	ME SYSTEMIC RISKS	1521
1. A	ctivities-Based Regulation Can Address Systemic	
	Correlations Among Individual Firms	
	an Activities-Based Approach Can Target Conduct That Is	
	nadequately Addressed by Entity-Based Regulation	1524
	ctivities-Based Regulation Can Help Eliminate	
	egulatory Arbitrage	
CONCLU	USION	1526

INTRODUCTION

Over the last decade, a consensus has emerged among policymakers and academics that systemic risk is not confined to the traditional banking sector. Instead, contrary to longstanding assumptions, various types of nonbank financial firms—such as investment banks and insurance companies—can generate instability that propagates throughout the financial system, with potentially dire consequences. The global financial crisis of 2008 was a vivid demonstration of such nonbank systemic risk.

After the crisis abated, Congress resolved to strengthen regulation of nonbank financial firms. To accomplish this, it created the Financial Stability Oversight Council ("FSOC") as a centerpiece of the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank").⁴ Comprised of top financial regulators, FSOC is responsible for diagnosing and responding to emerging forms of systemic risk whether or not those risks are confined to the banking system.⁵

Congress mapped out two strategies for FSOC to achieve this objective. The first, dubbed an entity-based approach, empowers FSOC to designate as Systemically Important Financial Institutions ("SIFIs") individual, nonbank financial firms that could pose systemic risk but are not appropriately regulated with respect to this danger.⁶ Designated SIFIs are subject to a supplemental layer of restrictions and oversight that augment their baseline regulatory regime.⁷ This enhanced regulation of nonbank SIFIs is conducted

_

^{1.} See, e.g., John Armour et al., Principles of Financial Regulation 445–48 (2016); Michael S. Barr et al., Financial Regulation: Law and Policy 59–62 (2d ed. 2018); Kathleen C. Engel & Patricia A. McCoy, The Subprime Virus: Reckless Credit, Regulatory Failure, and Next Steps 25–27, 69–75 (2011); Hilary J. Allen, The SEC as Financial Stability Regulator, 43 J. Corp. L. 715, 718–22 (2018); Daniel Schwarcz & Steven L. Schwarcz, Regulating Systemic Risk in Insurance, 81 U. Chi. L. Rev. 1569, 1601 (2014).

^{2.} See infra Part I.

^{3.} See U.S. Fin. Crisis Inquiry Comm'n, The Financial Crisis Inquiry Report 27–34, 255 (2011), https://www.govinfo.gov/content/pkg/GPO-FCIC/pdf/GPO-FCIC.pdf [hereinafter FCIC Purport]

^{4.} See Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act"), Pub. L. No. 111-203, § 111, 124 Stat. 1376, 1392–94 (2010) (codified as amended at 12 U.S.C. § 5321 (2018)).

^{5.} Hilary J. Allen, Putting the "Financial Stability" in Financial Stability Oversight Council, 76 Ohio St. L.J. 1087, 1113 (2015); Jeffrey N. Gordon, "Dynamic Precaution" in Maintaining Financial Stability: The Importance of FSOC, in Ten Years After the Crash (Sharyn O'Halloran & Thomas Groll, eds., forthcoming 2019); Patricia A. McCoy, Systemic Risk Oversight and the Shifting Balance of State and Federal Authority Over Insurance, 5 U.C. IRVINE L. REV. 1389, 1411–12 (2015); Christina Parajon Skinner, Regulating Nonbanks: A Plan for SIFI Lite, 105 Geo. L.J. 1379, 1382 (2017).

^{6.} Daniel Schwarcz & David Zaring, Regulation by Threat: Dodd-Frank and the Nonbank Problem, 84 U. CHI. L. REV. 1813, 1835–38 (2017).

^{7.} See id.

by the Federal Reserve—traditionally a bank regulator—and focuses on limiting the risk that designated firms could threaten financial stability.⁸

Although unique in some respects, FSOC's entity-based authority builds on a long history of entity-based financial regulation. Indeed, many traditional forms of financial regulation—such as solvency regulation of insurers and banks—focus on oversight of individual legal entities. Oftentimes, a legal entity's charter type dictates its applicable regulatory regime, with investment banks subject to one set of regulatory restrictions, insurers a second set, and commercial banks a third. FSOC's entity-based approach departs from this tradition because its enhanced regulations apply to all nonbank SIFIs, regardless of their charter types. But aside from this design feature, FSOC's entity-based approach fits comfortably within traditional entity-based schemes of financial regulation. 10

The second strategy that FSOC can employ to address nonbank systemic risk is to target systemically risky financial activities, irrespective of the firms that engage in those activities. Although this has come to be known as FSOC's activities-based authority, Dodd-Frank did not actually give FSOC power to regulate financial activities directly. Instead, it merely empowered FSOC to make nonbinding recommendations that individual federal agencies implement activities-based reforms under their preexisting authorities. In the second strategy and the second strategy activities activities.

As with its entity-based approach, FSOC's activities-based authority is hardly unique from the standpoint of regulatory architecture. In fact, many types of financial regulations are organized around activities, rather than firms. Perhaps the most well-known reform in Dodd-Frank—the creation of the Consumer Financial Protection Bureau ("CFPB")—is, in many ways, focused on the activities of consumer credit and payment systems, rather than the firms engaging in those activities.¹³ The same can be said of Dodd-

^{8.} See id.

^{9.} Howell E. Jackson, *Regulation in a Multisectored Financial Services Industry: An Exploratory Essay*, 77 WASH. U. L.Q. 319, 333–34 (1999); Heidi Mandanis Schooner, *Regulating Risk Not Function*, 66 U. CIN. L. REV. 441, 442–43 (1998).

^{10.} See infra Part II. The fact that the Federal Reserve's regulatory scheme is specifically designed to supplement, rather than displace, the ordinary entity-based rules that apply to designated firms is also unusual. But overlapping entity-based regulatory schemes are not unique, particularly when a firm is chartered as one type of financial institution but engages in activities that fall within the definition of another type of financial institution.

^{11.} Dodd-Frank Act, Pub. L. No. 111-203, § 112(a)(2)(K), 124 Stat. 1376, 1395 (2010) (codified as amended at 12 U.S.C. § 5322(a)(2)(K) (2018)).

^{12.} *Id*.

^{13.} See Oren Bar-Gill & Elizabeth Warren, Making Credit Safer, 157 U. PA. L. REV. 1, 98 (2008) (proposing the creation of a Financial Product Safety Commission).

Frank's derivatives reforms, which generally target the activity of derivatives trading, not the entities that conduct this trading. ¹⁴ Thus, while the procedures associated with FSOC's activities-based authority—particularly its nonbinding status—are unusual, the idea of organizing financial regulation around activities, rather than firms, is not.

During the first several years after its creation in Dodd-Frank, FSOC deployed its entity- and activities-based authorities to varying extents. FSOC first focused on developing its entity-based authority, promulgating a lengthy rule laying out its procedural and substantive framework for evaluating whether a nonbank firm poses a systemic risk. It subsequently designated four firms—American International Group ("AIG"), Prudential Financial, General Electric Capital Corporation, and MetLife, Inc.—as nonbank SIFIs. FSOC also used its activities-based authority during this timeframe, albeit only once. In 2012, it recommended that the Securities and Exchange Commission ("SEC") adopt one of three potential reforms to its regulatory scheme for money market mutual funds ("MMMF"). The SEC responded by implementing its own version of MMMF reforms the following year.

More recently, however, an emerging view has begun to dominate financial regulatory circles: that FSOC should focus principally on its activities-based, rather than its entity-based, authority.¹⁹ This view, which originated within think tanks and the financial industry,²⁰ gained momentum after President Donald Trump's election and became the official policy of the U.S. Treasury Department in an important 2017 Treasury Report.²¹

^{14.} See Yesha Yadav, The Problematic Case of Clearinghouses in Complex Markets, 101 GEO. L.J. 387, 436–37 (2013).

^{15.} Financial Stability Oversight Council Guidance for Nonbank Financial Company Determinations, 12 C.F.R. pt. 1310, app. A (2019) [hereinafter FSOC Guidance].

^{16.} See Schwarcz & Zaring, supra note 6, at 1841.

^{17.} See Proposed Recommendations Regarding Money Market Mutual Fund Reform, 77 Fed. Reg. 69,455, 69,455–57 (Nov. 19, 2012).

^{18.} See SEC Money Market Fund Reform; Amendments to Form PF, Securities Act Release No. 9616, Investment Company Act Release No. 31166, 79 Fed. Reg. 47,736, 47,737–39 (Aug. 14, 2014). The SEC's MMMF rules, however, were less aggressive than the approaches FSOC had proposed. See infra note 258.

^{19.} See infra Section II.A.

^{20.} See, e.g., Complaint at 43–46, MetLife, Inc. v. Fin. Stability Oversight Council, 177 F. Supp. 3d 219 (D.D.C. 2016) (No. 15-45); Scott E. Harrington, Systemic Risk and Regulation: The Misguided Case of Insurance SIFIs (Oct. 2016) (unpublished manuscript) (available at https://ssrn.com/abstract=2998646); Peter J. Wallison, Opinion, The Trump Treasury's Disturbing Regulatory Turn, WALL ST. J. (Dec. 6, 2017, 6:12 PM), https://www.wsj.com/articles/the-trump-treasurys-disturbing-regulatory-turn-1512601948.

^{21.} See U.S. Dep't of the Treasury, Financial Stability Oversight Council

FSOC's entity-based approach has now fallen out of favor, and the Council has reversed the designations of all four nonbank SIFIs.²² In a bid to make this trend lasting, the Treasury Report proposed a series of onerous procedural barriers to future nonbank SIFI designations.²³ These include a requirement that individual designations pass traditional cost-benefit analysis and that FSOC conduct various quantitative assessments when considering whether a firm's distress could threaten U.S. financial stability.²⁴ Consistent with the Treasury Department's recommendations, FSOC proposed in early 2019 to prioritize an activities-based approach to nonbank systemic risk and codify these barriers to new nonbank SIFI designations.²⁵

This move away from an entity-based approach to nonbank systemic risk is not localized to the United States. To the contrary, the Financial Stability Board ("FSB") announced that it will no longer update its list of international insurance SIFIs—known as Global Systemically Important Insurers ("G-SIIs")—which it has been publishing since 2013 in a parallel process to FSOC's entity-based approach.²⁶ The FSB explained that ongoing work "to develop an Activities-Based Approach to systemic risk in the insurance sector . . . may have significant implications for . . . the identification of G-SIIs and for G-SII policy measures."²⁷ In sum, entity-based approaches to nonbank systemic risk have already been largely displaced, and this displacement may well prove permanent if current trends continue.²⁸

This Article challenges the emerging consensus that FSOC and its international counterparts should rely predominantly or exclusively on an activities-based, rather than an entity-based, approach to nonbank systemic

DESIGNATIONS 21 (2017), https://www.treasury.gov/press-center/news/Pages/Treasury-Releases-Memo randum-to-the-President-on-FSOCs-Designation.aspx [hereinafter TREASURY FSOC REPORT].

- 22. See infra Section II.A.
- 23. See TREASURY FSOC REPORT, supra note 21, at 22–29.
- 24. See infra Section II.B.
- 25. Authority to Require Supervision and Regulation of Certain Nonbank Financial Companies, 84 Fed. Reg. 9028, 9028–29 (proposed March 13, 2019) [hereinafter FSOC Proposal].
- 26. FIN. STABILITY BD., ASSESSMENT METHODOLOGIES FOR IDENTIFYING NON-BANK NON-INSURER GLOBAL SYSTEMICALLY IMPORTANT FINANCIAL INSTITUTIONS 6–9 (2015), http://www.fsb.org/wp-content/uploads/2nd-Con-Doc-on-NBNI-G-SIFI-methodologies.pdf; Press Release, Fin. Stability Bd., FSB Statement on Identification of Global Systemically Important Insurers (Nov. 21, 2017), http://www.fsb.org/2017/11/fsb-statement-on-identification-of-global-systemically-important-insurers [hereinafter FSB Press Release].
 - 27. FSB Press Release, supra note 26.
- 28. For an international perspective on the evolution of nonbank systemic risk regulation, see generally Jeremy C. Kress, Patricia A. McCoy & Daniel Schwarcz, *Activities Are Not Enough!: Why Non-bank SIFI Designations Are Essential to Prevent Systemic Risk, in Systemic Risk* in The Financial Sector: Ten Years After the Great Crash 165 (Douglas W. Arner et al. eds., 2019).

risk. Instead, it argues that entity- and activities-based approaches are both essential, and complementary, components of an integrated strategy to effectively regulate new and emerging forms of nonbank systemic risk. Eliminating or substantially impeding the designation of nonbank SIFIs, the Article contends, will ultimately expose the financial system to the same risks that the world experienced in 2008 as a result of the financial distress of nonbanks like AIG, Bear Stearns, and Lehman Brothers.²⁹

In advancing this argument, the Article first contends that even a well-implemented activities-based regime cannot, on its own, prevent individual nonbank firms from transmitting systemic risk.³⁰ At bottom, this is because an individual firm's systemic riskiness is inherently a product of the interrelations among its various activities and risk-management practices. Individual activities may pose limited systemic risk in isolation, but much greater systemic risk when combined with one another at a single firm with lax risk-management practices and aggressive investment strategies.

This reality is illustrated by each of the major nonbanks that threatened catastrophic failure in 2008, all of which were pushed to the brink by a broad range of activities, rather than a single activity in isolation. AIG, for instance, nearly failed because of the toxic interactions between its derivatives and securities lending operations.³¹ Meanwhile, investment banks like Bear Stearns and Lehman Brothers failed because they relied on numerous different types of short-term borrowing—including commercial paper, repurchase agreements ("repos"), and warehouse lines of credit—to back their investments in illiquid mortgage-backed securities.³²

An activities-based approach is inherently blind to this cumulative nature of a firm's systemic risk profile. To be sure, an activities-based approach might be able to prevent systemic insolvencies if only a few, well-defined activities were essential ingredients for a firm to pose this type of risk. But that is not the case. To the contrary, even assuming that a firm can only be systemically important if it is subject to the possibility of a bank-like "run"—an assumption we ultimately reject—the financial crisis illustrated that there are countless ways for financial activities to create this prospect. Not only can short-term borrowing come in innumerable forms, but various activities that are not borrowing at all—such as transactions that potentially require firms to post increasing amounts of cash collateral or activities that

^{29.} See FCIC REPORT, supra note 3, at 280-91, 309-52.

^{30.} See infra Part III.

^{31.} See Daniel Schwarcz, A Critical Take on Group Regulation of Insurers in the United States, 5 U.C. IRVINE L. REV. 537, 553–54 (2015).

^{32.} See Armour et al., supra note 1, at 445–48.

allow investors to redeem equity investments on demand—can also generate runs on nonbank financial firms. Even more importantly, identifying ahead of time which new financial activities may create run risk is a nearly impossible assignment for regulators given the varied forms such risk can take and the constant evolution of activities to evade regulatory restrictions.³³

In contrast to an activities-based approach, an entity-based approach is reasonably well designed to limit the risk that a systemically important nonbank will fail. Perhaps most obviously, the content of entity-based regulation—such as capital, liquidity, and risk-management requirements—is inherently focused on the cumulative impact of a firm's activities across the entire financial conglomerate.³⁴ Moreover, an entity-based approach is a more effective deterrent against firms taking on systemic risk than an activities-based approach, as firms can much more easily and quickly adjust to new activities-based rules through regulatory arbitrage.³⁵ An entity-based approach is also inherently more reliable than the alternative, as identifying systemically significant firms is substantially easier than identifying systemically significant activities ex ante. Finally, an entity-based approach that includes resolution planning requirements is necessary for the success of Dodd-Frank's Orderly Liquidation Authority ("OLA"), which is designed to limit the consequences of systemic insolvencies when they do occur.

Proposals to eliminate or deemphasize an entity-based approach in favor of an activities-based approach are misguided for a second set of reasons: an activities-based approach is much harder to implement effectively, particularly in fragmented regulatory systems like the United States'. This point is underscored by the obvious, but often overlooked or mischaracterized, fact that FSOC does not have any legal authority to implement activities-based reforms directly. Instead, it can only make nonbinding recommendations that other agencies adopt such rules. As such, proposals to deemphasize FSOC's designation authority would end up turning it into a glorified think tank.

Like FSOC, other domestic financial regulators have limited authority to implement activities-based reforms. In theory, an effective activitiesbased regime would have a single regulator and would apply to all companies that engage in a particular activity, regardless of charter type. In practice, however, it is highly unusual for activities-based rules to apply uniformly to

^{33.} See Brett McDonnell & Daniel Schwarcz, Regulatory Contrarians, 89 N.C. L. REV. 1629, 1635 (2011).

^{34.} See infra Section III.B.

^{35.} See Schwarcz & Zaring, supra note 6, at 1813.

^{36.} See infra Part IV.

all financial firms, particularly in the United States. This fragmentation often leads to coverage gaps and divergent outcomes, depending on the categorization of firms engaging in specific activities.³⁷ These gaps and inconsistencies, in turn, promote regulatory arbitrage and undermine regulators' capacity to grasp the full risks created by particular transactions.³⁸

By contrast, FSOC's entity-based approach faces none of these implementation challenges. Most importantly, this is because it is layered on top of a firm's default regulatory regime and only applies when FSOC determines that the baseline regime is insufficient to prevent systemic risk. Moreover, the Federal Reserve, which administers entity-based regulation of nonbank SIFIs, has a systemic perspective on risk due to its superior access to information about the global financial system. No other entity-based regulator, state or federal, has access to the same full set of information needed to address system-wide risks.

None of this is to say that a well-designed activities-based approach cannot help preserve financial stability. To the contrary, if configured appropriately, activities-based regulation has the potential to combat some sources of nonbank systemic risk even more effectively than an entity-based approach.³⁹ Most importantly, an activities-based approach is uniquely capable of responding to systemic risk that may arise from correlations across numerous different nonbank firms' investment activities, riskmanagement practices, or product features. 40 An activities-based approach may also be better designed to address certain risks that arise from complex relationships among firms and that require regulators or other actors to mediate intercompany relationships though market infrastructure, such as clearinghouses and exchanges. Finally, an activities-based approach can help limit the type of regulatory arbitrage that accompanies all entity-based financial regulatory regimes. When properly configured, therefore, an activities-based approach can both level the regulatory playing field across different market segments and prevent risks from relocating to less regulated entities by applying consistent standards to financial transactions, regardless of a firm's legal classification.

As currently structured, however, the fragmented U.S. regulatory framework is not designed to realize these potential benefits of activities-

^{37.} See infra id.

^{38.} See infra id.

^{39.} See infra Section V.B.

^{40.} See infra Section V.B.1; see also Schwarcz & Schwarcz, supra note 1, at 1601.

based regulation. To operationalize an effective activities-based approach, the United States would need to create a single financial stability regulator with authority to oversee activities spanning different segments of the financial sector. With such structural reforms, activities-based regulation could meaningfully complement an effective entity-based approach. In the absence of such reforms, however, proposals to rely primarily or exclusively on an activities-based approach to nonbank systemic risk are doomed to fail.

The Article details these arguments in five Parts. Part I begins by briefly reviewing the role of nonbank firms in the financial crisis and the continued threats to financial stability posed by nonbank firms. In Part II, the Article traces the evolution of entity-based and activities-based approaches to nonbank systemic risk, showing the former has gradually been eclipsed by the latter. Part III explains why even a well-crafted activities-based approach must be supplemented with a robust entity-based approach to prevent nonbanks from posing the risk of systemic insolvencies. In fact, Part IV shows that activities-based regulation faces serious implementation challenges, particularly in fragmented financial regulatory systems like the United States regime. Part V then explores the significant reforms to the U.S. regulatory framework that would be necessary to operationalize an effective activities-based approach in the United States. Finally, Part V examines the unique benefits that an appropriately configured activities-based approach could offer as a complement to, rather than substitute for, entity-based regulation. The Article therefore concludes that properly designed entityand activities-based approaches are essential and complementary elements of an effective scheme to regulate nonbank systemic risk.

I. THE NONBANK SIFI PROBLEM

The financial crisis demonstrated unequivocally that nonbank financial companies can destabilize the financial system when not regulated appropriately. This Part examines how nonbanks transmit systemic risk. Section I.A begins by reviewing the central role that nonbanks played in triggering the crisis. Section I.B then assesses the continuing financial stability risks that nonbanks still pose a decade later. Finally, Section I.C highlights two principal ways in which nonbanks might transmit instability to the broader financial system: through the counterparty and asset liquidation channels.

1466

A. THE ROLE OF NONBANKS IN THE CRISIS

Countless books, reports, and articles have explored the role of nonbank financial firms in the 2008 financial crisis. ⁴¹ Not surprisingly, these sources disagree about myriad issues, ranging from the relative fault of different types of nonbanks in causing the crisis to the transmission mechanisms by which instability at nonbanks spread throughout the financial system. But virtually all commentators agree on one central point: contrary to long-standing regulatory assumptions, the crisis conclusively demonstrated that nonbank financial firms can indeed threaten the stability of the financial system and the broader economy.

There is little doubt, for instance, that nonbank financial firms were central in creating and propagating the mortgage-linked securities that sowed the seeds for the 2008 crisis. Nonbank mortgage companies like Ameriquest and New Century created the raw material for these instruments by issuing billions of dollars of subprime loans to borrowers who had no realistic ability to repay. These shaky loans were then repackaged into exotic mortgage-linked securities issued by those lenders or by nonbank securities underwriters like Bear Stearns, Lehman Brothers, and Goldman Sachs. To promote the sale of these toxic securities, insurance companies like AIG and various financial guarantee insurers promised to protect investors in these instruments through both credit derivatives and conventional insurance policies. While many banks engaged in similar activities, nonbanks led the charge in creating the instruments that spread risk throughout the financial sector.

Nor is there any doubt that the failure or near failure of countless nonbank financial firms—including Bear Stearns, Lehman Brothers, and

^{41.} For a sampling of scholarship on this topic, see generally Ben S. Bernanke, The Courage to Act: A Memoir of a Crisis and Its Aftermath (2015); FCIC Report, *supra* note 3; Timothy F. Geithner, Stress Test: Reflections on Financial Crises (2014); Erik F. Gerding, Law, Bubbles, and Financial Regulation (2014); Roger Lowenstein, The End of Wall Street (2010); Bethany McLean & Joe Nocera, All the Devils Are Here: The Hidden History of the Financial Crisis (2011).

^{42.} See ENGEL & MCCOY, supra note 1, at 26, 40, 46, 61, 70–71.

^{43.} See id. at 44–45; FCIC REPORT, supra note 3, at 134–37, 176–78. Goldman Sachs became a bank holding company at the peak of the crisis to access the Federal Reserve's discount window. See U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-14-18, GOVERNMENT SUPPORT FOR BANK HOLDING COMPANIES: STATUTORY CHANGES TO LIMIT FUTURE SUPPORT ARE NOT YET FULLY IMPLEMENTED 40–41 (2013), https://www.gao.gov/assets/660/659004.pdf [hereinafter GAO REPORT]; Jon Hilsenrath et al., Goldman, Morgan Scrap Wall Street Model, Become Banks in Bid to Ride Out Crisis, WALL ST. J., https://www.wsj.com/articles/SB122202739111460721 (last updated Sept. 22, 2008, 11:59 PM).

^{44.} See ENGEL & MCCOY, supra note 1, at 48, 74; FCIC REPORT, supra note 3, at 139–42, 200–02, 243–44.

AIG—destabilized the broader financial system. Many of these nonbanks relied on extremely short-term funding through repo transactions, securities lending, or warehouse lines of credit. To maximize their potential return on—and the riskiness of—the toxic mortgage-linked securities they invested in, they employed massive amounts of leverage. When housing prices across the country declined, these nonbank companies were the first to fail, triggering a broader panic and necessitating massive government bailouts. The financial crisis, in sum, demonstrated that nonbank financial firms can pose the very same types of systemic risk that were once thought to be exclusive to banking.

B. THE CONTINUING RISKS POSED BY NONBANKS

The 2008 financial crisis may have been the first time that nonbank financial firms were so clearly responsible for a market crash, but it will almost certainly not be the last. By demonstrating that the federal government can and will bail out nonbank financial firms whose failure would exacerbate broader financial instability, the crisis increased nonbanks' incentives to affirmatively become systemically significant.⁴⁷ The moral hazard created by such a guarantee against failure is obvious to the extent that a failing firm's management retains their jobs or company stock in the event of a bailout.⁴⁸ But it is more insidious than that: any firm that markets believe may be bailed out by the federal government in future crises can borrow at favorable rates.⁴⁹ Such implicitly subsidized funding, in turn, encourages firms to take on large risks that promise the possibility of correspondingly large payoffs, while externalizing the potential costs of this strategy onto the federal government.

This incentive for nonbanks to embrace systemic risk is stronger than

^{45.} See Kathryn Judge, The First Year: The Role of a Modern Lender of Last Resort, 116 COLUM. L. REV. 843, 854–55 (2016).

^{46.} See BARR ET AL., supra note 1, at 62; ENGEL & MCCOY, supra note 1, at 69–77, 79–81, 86–95, 99–126.

^{47.} See Adam J. Levitin, In Defense of Bailouts, 99 GEO. L.J. 435, 437–38 (2011).

^{48.} See Claire A. Hill & Richard W. Painter, Better Bankers, Better Banks 95–99 (2015).

^{49.} Most of the empirical literature illustrating this point has focused on banks. See, e.g., João A. C. Santos, Evidence from the Bond Market on Banks' "Too-Big-to-Fail" Subsidy, 20 FRBNY ECON. POL'Y REV., Dec. 2014, at 29, 33–38; Viral V. Acharya et al., The End of Market Discipline? Investor Expectations of Implicit Government Guarantees 35 (Munich Pers. RePEc Archive, Working Paper No. 79700, 2016). But there is evidence consistent with the conclusion that these findings would apply to nonbank financial firms that markets expected to receive support in a crisis. See Paolo Zanghieri, The Value and Price of a "Too-Big-to-Fail" Guarantee: Evidence from the Insurance Industry, 4 J. FIN. PERSP.: INS. 21, 32–38 (2017).

ever, notwithstanding public promises by government officials to end bailouts.⁵⁰ As the Federal Reserve Bank of Minneapolis has emphasized, such anti-bailout pledges are simply not "credible, because tying policymakers' hands without addressing the underlying risks from [systemically significant] firms could inflict widespread damage on the U.S. economy."⁵¹ Indeed, notwithstanding claims by numerous critics that specific nonbank bailouts were unnecessary⁵² or inappropriately structured,⁵³ virtually everyone agrees that the federal government had no responsible choice but to prop up a broad array of bank and nonbank financial firms in the midst of the crisis.⁵⁴ Failure to do so likely would have caused the 2008 financial crisis to exact a toll on the economy that rivaled the Great Depression.⁵⁵ In the event of a future systemic crisis, federal decisionmakers are certain to face this very same pressure.

If this use of section 13(3) authority proved too difficult or controversial to implement, the Federal Reserve could instead open the discount window

^{50.} See, e.g., Exec. Order No. 13,772, 82 Fed. Reg. 9965 (Feb. 3, 2017).

^{51.} Fed. Reserve Bank of Minneapolis, The Minneapolis Plan to End Too Big to Fail 40 (2017).

^{52.} See, e.g., DAVID A. STOCKMAN, THE GREAT DEFORMATION 3–18 (2013); Leslie Scism, Hank Greenberg Challenges AIG Bailout, WALL St. J. (Sept. 28, 2014, 5:52 PM), https://www.wsj.com/articles/hank-greenberg-challenges-aig-bailout-1411941174.

^{53.} See, e.g., Neil Barofsky, Bailout: An Inside Account of How Washington Abandoned Main Street While Rescuing Wall Street 178–91 (2012); Simon Johnson & James Kwak, 13 Bankers: The Wall Street Takeover and the Next Financial Meltdown 169 (Vintage Books 2011).

^{54.} *See* Levitin, *supra* note 47, at 438–39.

^{55.} See, e.g., GEITHNER, supra note 41, at 493–96.

^{56.} See 12 U.S.C. § 343(3)(A) (2018).

^{57.} See id. § 343(3)(B)(iii).

to a teetering nonbank by facilitating that firm's conversion to a bank holding company ("BHC"). Although rarely framed as a bailout, during the crisis the Federal Reserve successfully encouraged nonbanks like Goldman Sachs and Morgan Stanley to convert to BHCs.⁵⁸ Doing so allowed these firms to borrow from the discount window against their illiquid collateral. Crucially, Dodd-Frank did nothing to limit the Federal Reserve's authority to deliver bailouts to nonbanks in this way. And while Dodd-Frank did establish the Orderly Liquidation Authority ("OLA") as a potential alternative to bailouts, many are skeptical about how reliable this mechanism will prove.⁵⁹ As we discuss later, this concern is amplified with respect to nonbanks that are not designated as systemically significant prior to the onset of a financial crisis.⁶⁰ One way or another, then, bailouts of nonbank financial firms can and will take place in future crises.⁶¹

C. SYSTEMIC RISK TRANSMISSION CHANNELS

Despite the continued threats posed by nonbank financial companies, no consensus exists about how to identify specific nonbanks that could prove systemically risky amidst a financial crisis. A firm's size is both relevant and nondeterminative in this inquiry. So too are a number of additional factors, such as a firm's connections with the broader financial system and its susceptibility to run-like dynamics. Many observers disagree, however, about how to evaluate these indicia of systemic risk. Moreover, as we discuss below, systemic risk forecasting is an inherently uncertain exercise.

Notwithstanding this uncertainty, we can draw important conclusions

^{58.} See GAO REPORT, supra note 43, at 40–41; Hilsenrath, supra note 43.

^{59.} See, e.g., Stephen J. Lubben & Arthur E. Wilmarth, Jr., Too Big and Unable to Fail, 69 FLA. L. REV. 1205, 1223–43 (2017); see generally Thomas W. Merrill & Margaret L. Merrill, Dodd-Frank Orderly Liquidation Authority: Too Big for the Constitution?, 163 U. PA. L. REV. 165 (2014) (raising constitutional objections to OLA).

^{60.} See infra Section III.B.3.

^{61.} See, e.g., Jonathan R. Macey & James P. Holdcroft, Jr., Failure Is an Option: An Ersatz-Antitrust Approach to Financial Regulation, 120 YALE L.J. 1368, 1375 (2011) ("Bailouts of large, systemically important financial institutions are inevitable").

^{62.} Dodd-Frank, for example, contains a list of relevant factors that FSOC must consider when identifying nonbanks that are systemically important. These factors include a firm's size, leverage, off-balance sheet exposures, counterparty exposures, activities, and reliance on short-term funding. *See* 12 U.S.C. § 5323(a)(2).

^{63.} Notably, finance academics have developed numerous different market-based predictors of a firm's systemic importance. See, e.g., Viral V. Acharya et al., Measuring Systemic Risk, 30 REV. FIN. STUD. 2, 6–14 (2017); Monica Billio et al., Econometric Measures of Connectedness and Systemic Risk in the Finance and Insurance Sectors, 104 J. FIN. ECON. 535, 538–41 (2012); Zachary Feinstein et al., Measures of Systemic Risk, 8 SIAM J. FIN. MATH. 672, 675–92 (2017).

^{64.} See infra Section II.B.

about the pathways through which financial institutions might transmit systemic risk based on previous crises. History suggests two primary systemic risk transmission channels: the *counterparty* channel and the *asset liquidation* channel.⁶⁵ While it is impossible to predict how systemic risk will spread in the next financial crisis, the frequency with which the counterparty and asset liquidation channels have propagated risks in the past suggests that they will remain common pathways for systemic risks in the future.

1. The Counterparty Channel

Systemic risk spreads through the counterparty channel when a firm defaults on its financial obligations to counterparties and saddles them with losses. Firms default on their obligations in many different circumstances, few of which threaten financial stability. However, a nonbank financial firm *can* generate systemic risk if it experiences a run in the midst of broader financial market instability.

To be vulnerable to a run, a firm normally must fund itself with some form of short-term liabilities payable in cash.⁶⁶ Examples include repo transactions, securities lending, and commercial paper. In many ways, these short-term debts resemble bank demand deposits, the classic liability implicated in runs.⁶⁷ Other types of short-term liabilities, such as a firm's escalating need to post cash collateral, can also trigger a run.⁶⁸

In the normal scenario, a firm is subject to a run if it pairs such short-term liabilities with long-term illiquid assets.⁶⁹ Firms in this position may be required to dump their illiquid assets at fire-sale prices in order to raise enough cash to meet immediate demands by creditors. Knowing this, creditors will rush to claim repayment before the firm's cash reserves run out, in a classic case of the prisoner's dilemma. Creditors' uncertainty about

_

^{65.} FSOC Guidance, supra note 15, at pt. 1310, app. A.II.a.

^{66.} In 2008, a variety of short-term obligations triggered runs at nonbanks, including repo financing and prime brokerage accounts at leading U.S. investment banks, securities lending by AIG's insurance subsidiaries, and money market mutual fund shares redeemable at par. ENGEL & MCCOY, *supra* note 1, at 88–89, 103–05; Lawrence Schmidt et al., *Runs on Money Market Mutual Funds*, 106 AM. ECON. REV. 2625, 2625–29 (2016); Schwarcz & Schwarcz, *supra* note 1, at 1571 n.1, 1585–86.

^{67.} See Douglas W. Diamond & Philip H. Dybvig, Bank Runs, Deposit Insurance, and Liquidity, 91 J. Pol. Econ. 401, 401–02 (1983).

^{68.} See infra Section IV.A.

^{69.} In the traditional theory of financial intermediation, institutions transform short-term, private liabilities into long-term loans. *See, e.g.*, STEPHEN G. CECCHETTI & KERMIT SCHOENHOLTZ, MONEY, BANKING, AND FINANCIAL MARKETS 39 (3d ed. 2010). For an alternative theory, see Robert C. Hockett & Saule T. Omarova, *The Finance Franchise*, 102 CORNELL L. REV. 1143, 1144–49 (2017) (comparing the modern financial system to a franchise arrangement).

the firm's true financial health will exacerbate this stampede. Unless the firm's asset sales generate enough cash to cover its obligations (which is unlikely) and absent a bailout, the firm will default.

Runs at nonbanks are likely to propagate systemic risk through the counterparty channel if two conditions are met. First, the nonbank firm must have large positions with counterparties that are themselves potentially important players in the financial system. Only in such cases will the losses inflicted on counterparties due to the nonbank's default be large enough to jeopardize their solvency, potentially setting off a chain reaction.

Second, for systemic risk to spread through the counterparty channel, the broader financial system must already be in a weakened state when the nonbank firm experiences a run. This makes the company's impending failure *systemic*, not idiosyncratic, in nature. Nonbank financial companies fail for all sorts of reasons, few of which end up threatening financial stability. The idiosyncratic failure of even a large and highly interconnected nonbank financial firm generally will not threaten to bring down its counterparties. But when the firm's counterparties and the broader financial system are already so financially precarious that they lack the resilience or capital to absorb losses, the firm's collapse could jeopardize financial stability.⁷⁰

2. The Asset Liquidation Channel

The second major conduit for systemic risk is the asset liquidation channel. In this channel, a nonbank firm—or a group of similarly situated nonbank firms—liquidates enough assets in a single asset class to send prices into freefall. If the price drop is steep enough, other firms holding the same asset could sustain losses and face insolvency.

A firm can transmit systemic risk through the asset liquidation channel if two conditions are met. First, a significant subset of financial firms must have correlated asset holdings. Only then can a group of nonbanks with similar investments generate instability, harming other investors in that asset class, by dumping those assets simultaneously. Second, the ensuing losses must wipe out the capital of a critical mass of firms, causing insolvencies. For this to happen, the financial system generally must be in a weakened state.

When these two conditions are met, several different scenarios can

^{70.} See Brief of Professors Viral V. Acharya et al. as *Amici Curiae* in Support of Appellant at 20–21, MetLife, Inc. v. Fin. Stability Oversight Council, 1:15-cv-00045-RMC, 2018 WL 1052618 (D.C. Cir. Jan. 23, 2018) (No. 16-5086) [hereinafter Acharya Br.].

trigger asset liquidations that could generate systemic risk. The first is a run, which can figure just as prominently in the asset liquidation channel as in the counterparty channel. When a company attempts to staunch a run by selling off assets to pay creditors, the downward pressure on asset prices impairs other firms with similar holdings. In other cases, one or more firms could transmit risk through the asset liquidation channel without themselves experiencing financial distress. This could occur due to herd investing behavior, where firms crowd into popular asset classes and sell, en masse, less popular assets. Alternatively, firms responding to regulatory or rating agency pressures to divest certain holdings could trigger the asset liquidation channel. In another scenario, a firm might intentionally manipulate the price of an asset. Thus, a nonbank firm or group of firms with the power to move prices by dumping financial assets could be systemically significant even if they are not particularly vulnerable to financial distress during a broader financial downturn.

To summarize, not every nonbank financial firm poses systemic risk. Rather, a nonbank financial firm's systemic significance is likely to hinge on its propensity to transmit instability through the counterparty or asset liquidation channels.⁷⁴ This propensity, in turn, will depend on the unique characteristics of the company's balance sheet structure, its connections to other financial institutions, and its ability to affect the prices of financial assets.

II. TRACING FSOC'S MOVE FROM AN ENTITY-BASED TO AN ACTIVITIES-BASED APPROACH TO NONBANK SYSTEMIC RISK

This Part examines post-crisis reforms to mitigate nonbank systemic risk in the United States and abroad. Section II.A introduces FSOC and its dual entity- and activity-based authorities for responding to nonbank systemic risk. It details how both FSOC and its international counterparts have recently deemphasized an entity-based approach in favor of an

^{71.} See Viral V. Acharya, A Theory of Systemic Risk and Design of Prudential Bank Regulation, 5 J. Fin. Stability 224, 225 (2009).

^{72.} See GERDING, supra note 41, at 311–36.

^{73.} See id.

^{74.} FSOC has posited a third potential transmission channel where a firm is no longer able or willing to provide a critical function or service that market actors rely on and for which there are no ready substitutes. See FSOC Guidance, supra note 15, at pt. 1310, app. A.II.a. This critical function or service channel will most commonly arise when the firm in question is a dominant financial intermediary—for example, Fannie Mae and Freddie Mac—or financial market utility, such as a payments clearing operator. Partly for this reason, FSOC has designated a number of financial market utilities as systemically important. See Financial Market Utility Designations, U.S. DEP'T TREASURY, https://www.treasury.gov/initiatives/fsoc/designations/Pages/default.aspx#FMU (last visited Sept. 17, 2019).

activities-based approach. Section II.B then describes efforts in the United States to permanently undermine FSOC's entity-based approach by establishing nearly insurmountable procedural requirements for future designations of nonbank SIFIs.

A. EVOLUTION OF FSOC'S ENTITY- AND ACTIVITIES-BASED APPROACHES

After the crisis, lawmakers quickly moved to address financial stability risks arising from nonbanks. The centerpiece of their efforts was the creation of FSOC in the Dodd-Frank Act. The Act empowered FSOC to designate nonbank financial entities as systemically significant, an authority that has come to be known as the "entity-based" approach. This authority, of course, mirrors traditional financial regulation, which attaches different regulatory regimes to different types of financial firms.⁷⁵ Dodd-Frank also authorized FSOC to make nonbinding recommendations to primary financial regulators regarding the treatment of nonbank financial activities that raise systemic risk concerns. This is FSOC's so-called "activities-based" authority.

FSOC has varied over time in how it has exercised its entity- and activities-based authorities. Initially, FSOC focused on its entity-based authority, but more recently it has backed off from that approach. This troubling evolution away from entity-based nonbank regulation has occurred not only domestically but also among international financial regulators and organizations.

FSOC's entity-based authority allows it to designate nonbank companies as SIFIs. The Under section 113 of Dodd-Frank, FSOC may designate a nonbank financial company if the firm "could pose a threat to the financial stability of the United States" in one of two ways: (1) in the event of its "material financial distress" (the "First Determination Standard") or (2) based on "the nature, scope, size, scale, concentration, interconnectedness, or mix of [its] activities" (the "Second Determination Standard"). Thus, the First Determination Standard allows FSOC to designate a firm whose failure could create systemic risk. By contrast, the Second Determination Standard permits the designation of a firm whose operations could transmit financial stability risks, even if the company itself

^{75.} See Jackson, supra note 9, at 364–66.

^{76.} Dodd-Frank does not itself use the term "SIFI," but the term is commonly used to refer to entities designated under Section 113 of Dodd-Frank.

^{77. 12} U.S.C. § 5323(a)(1) (2018). A two-thirds majority of FSOC's voting members is required to designate a firm under either determination standard. *Id.* For an administrative law analysis of FSOC's section 113 designation power, see Robert F. Weber, *The FSOC's Designation Program as a Case Study of the New Administrative Law of Financial Supervision*, 36 YALE J. ON REG. 359, 370–94 (2019).

does not fail. Although the Second Determination Standard focuses on an individual firm's mix of "activities," it is part of Dodd-Frank's entity-based, rather than activities-based, approach because it specifies one avenue for designating an individual firm as a SIFI.

Any firm that FSOC designates as a nonbank SIFI becomes subject to consolidated supervision and regulation by the Federal Reserve. Critically, the Federal Reserve's oversight of nonbank SIFIs targets financial stability risks. This macroprudential orientation is important because traditional nonbank regulation, such as state-based insurance regulation and SEC oversight of broker-dealers, is not designed to address risks to financial stability. Instead, nonbank financial oversight generally focuses on other goals, such as solvency and market conduct. The Federal Reserve, by contrast, applies risk-based capital requirements, liquidity requirements, stress tests, overall risk management standards, and other macroprudential tools to prevent nonbank SIFIs from transmitting systemic risk through the broader economy.

In the years immediately following the crisis, FSOC wielded its entity-based designation power aggressively. In one of its first major actions, the Council established a process for evaluating whether a company could pose a threat to U.S. financial stability under either determination standard.⁸² After finalizing its designation procedures, FSOC quickly began evaluating nonbank financial companies. In 2013, it designated insurance-focused companies AIG and Prudential, as well as General Electric's captive finance subsidiary, GE Capital.⁸³ The following year, FSOC added MetLife, Inc.,

^{78.} See 12 U.S.C. § 5365(b)(1)(A).

^{79.} See, e.g., Allen, supra note 1, at 725; Schwarcz & Schwarcz, supra note 1, at 1627–34. Broadly speaking, macroprudential regulation addresses the stability of the financial system as a whole, while microprudential regulation focuses on the stability of individual financial institutions. See Jacek Osiński et al., Int'l Monetary Fund, Macroprudential and Microprudential Policies: Toward Cohabitation, 4, SDN 2013/05 (June 2013).

^{80.} See infra Section III.B.4.

^{81.} See 12 U.S.C. § 5365(a).

^{82.} See FSOC Guidance, supra note 15, at pt. 1310, app. A.

^{83.} See Fin. Stability Oversight Council, Basis of the Financial Stability Oversight Council's Final Determination Regarding American International Group, Inc. (2013), https://www.treasury.gov/initiatives/fsoc/designations/Documents/Basis%20of%20Final%20Determination%20Regarding%20American%20International%20Group,%20Inc.pdf [hereinafter AIG Designation]; Fin. Stability Oversight Council, Basis of the Financial Stability Oversight Council's Final Determination Regarding General Electric Capital Corporation, Inc. (2013), https://www.treasury.gov/initiatives/fsoc/designations/Documents/Basis%20of%20Final%20Determination%20Regarding%20General%20Electric%20Capital%20Corporation,%20Inc.pdf [hereinafter GE Capital Designation]; Fin. Stability Oversight Council, Basis for the Financial Stability Oversight Council's Final Determination Regarding Prudential Financial, Inc. (2013), https://www.

another insurance-focused firm.⁸⁴ FSOC concluded that material financial distress at each of these firms could threaten U.S. financial stability under the First Determination Standard, but it did not evaluate any of these firms under the Second Determination Standard.⁸⁵ FSOC closely analyzed five additional firms but ultimately opted not to designate them.⁸⁶

International financial regulators adopted a similar entity-based orientation to nonbank systemic risk in the years after the crisis. The International Association of Insurance Supervisors ("IAIS"), for example, developed a methodology for identifying global systemically important insurers ("G-SIIs") at the urging of the Financial Stability Board ("FSB").⁸⁷ Beginning in 2013, the IAIS published annual lists of such firms, identifying nine G-SIIs, including AIG, MetLife, and Prudential.⁸⁸ The IAIS and FSB instructed the G-SIIs' home country regulators to subject these firms to enhanced macroprudential oversight.⁸⁹

In contrast to its early entity-based designations, the Obama Administration FSOC rarely used its authority to recommend that primary financial regulators implement activities-based reforms. Under section 120 of Dodd-Frank, FSOC may "issu[e] recommendations to the primary financial regulatory agencies to apply new or heightened standards and safeguards" to any activity that could increase risks in the financial sector. 90

treasury.gov/initiatives/fsoc/designations/Documents/Prudential%20Financial%20Inc.pdf [hereinafter PRUDENTIAL DESIGNATION].

- 84. See Fin. Stability Oversight Council, Basis for the Financial Stability Oversight Council's Final Determination Regarding MetLife, Inc. (2014), https://www.treasury.gov/initiatives/fsoc/designations/Documents/MetLife%20Public%20Basis.pdf [hereinafter MetLife Designation].
- 85. See AIG DESIGNATION, supra note 83, at 4; GE CAPITAL DESIGNATION, supra note 83, at 4; PRUDENTIAL DESIGNATION, supra note 83, at 5; METLIFE DESIGNATION, supra note 84, at 4.
- 86. See Fin. Stability Oversight Council, 2017 Annual Report 120 (2017), https://www.treasury.gov/initiatives/fsoc/studies-reports/Documents/FSOC_2017_Annual_Report.pdf [hereinafter FSOC_2017 Annual_Report].
- 87. See generally INT'L ASS'N OF INS. SUPERVISORS, GLOBAL SYSTEMICALLY IMPORTANT INSURERS (2013), https://www.fsb.org/2016/06/global-systemically-important-insurers-updated-assess ment-methodology. Paralleling FSOC's First Determination Standard, the IAIS and FSB defined G-SIIs as insurers whose "distress or failure would cause significant dislocation in the global financial system..." See id. at 3 n.1.
- 88. See Global Systemically Important Financial Institutions (G-SIFIs), FIN. STABILITY BOARD, http://www.fsb.org/what-we-do/policy-development/systematically-important-financial-institutions-sifis/global-systemically-important-financial-institutions-g-sifis (last visited Sept. 17, 2019).
- 89. See Fin. Stability Bd., Reducing the Moral Hazard Posed by Systemically Important Financial Institutions 1 (2010), https://www.fsb.org/2010/11/r_101111a.
- 90. 12 U.S.C. § 5330(a) (2018). FSOC may identify an activity for heightened regulation if it determines that "the conduct, scope, nature, size, scale, concentration, or interconnectedness of such activity or practice could create or increase the risk of significant liquidity, credit, or other problems" in the financial sector. *Id.*

Critically, however, the primary financial regulators are not obligated to adopt FSOC's activities-based recommendations. ⁹¹ Nor does FSOC have authority to write rules governing financial activities on its own. FSOC's activities-based powers, therefore, are no more potent than recommendations by an advisory council.

The Obama-era FSOC used its section 120 activities-based authority only once. In 2012, Treasury Secretary Tim Geithner asked FSOC to recommend regulations for MMMFs after the SEC declined to adopt long-anticipated rules for these funds. Exercising its section 120 power, FSOC requested public comment on regulatory approaches to mitigate systemic risk posed by MMMFs. The SEC responded to FSOC's recommendations by adopting its own MMMF reforms the following year. ⁹⁴

FSOC considered—but declined to pursue—other activities-based recommendations during the Obama Administration. In late 2014, for example, FSOC sought public comment on whether the products and activities of asset managers, including hedge funds, could pose a risk to financial stability. In response to public input, FSOC created an interagency working group to monitor the use of leverage by hedge funds and analyze the sufficiency of hedge funds' data reporting. FSOC, however, stopped short of recommending enhanced regulations of any asset managers' activities. FSOC

Opponents of FSOC's entity-based designations seized on the Council's sparing use of its section 120 authority and urged it to use an activities-based approach in lieu of designating nonbank SIFIs. Activities-

^{91. 12} U.S.C. § 5330(c)(2).

^{92.} See Kirsten Grind, Funds Face New Battle on Rules, WALL ST. J., https://www.wsj.com/articles/SB10000872396390443493304578038410540850592 (last updated Oct. 5, 2012, 6:54 PM). MMMFs are specialized pooled investment vehicles that typically invest in low-risk assets such as commercial paper and government securities. See Hester Peirce & Robert Greene, Opening the Gate to Money Market Fund Reform, 34 PACE L. REV. 1093, 1093 (2014).

^{93.} See Proposed Recommendations Regarding Money Market Mutual Fund Reform, 77 Fed. Reg. 69,455, 69,455 (Nov. 19, 2012).

^{94.} For the SEC release adopting these reforms, see generally Money Market Fund Reform; Amendments to Form PF, Securities Act Release No. 9616, Investment Company Act Release No. 31166, 79 Fed. Reg. 47,736 (Aug. 14, 2014). The SEC's MMMF rules, however, were less stringent than the approaches FSOC had proposed. *See* Allen, *supra* note 5, at 1119.

^{95.} See Notice Seeking Comment on Asset Management Products and Activities, 79 Fed. Reg. 77,488, 77,488–89 (Dec. 24, 2014).

^{96.} FIN. STABILITY OVERSIGHT COUNCIL, UPDATE ON REVIEW OF ASSET MANAGEMENT PRODUCTS AND ACTIVITIES 20-21 (2016), https://www.treasury.gov/initiatives/fsoc/news/Documents/FSOC%20Update%20on%20Review%20of%20Asset%20Management%20Products%20and%20Activities.pdf.

^{97.} See id.

based regulation, these critics insisted, would more effectively mitigate nonbank risks by providing clear guidance about how a broad range of financial firms could mitigate their systemic significance. By contrast, opponents contended that the entity-based approach was fundamentally flawed. For example, critics argued that it created an uneven playing field for designated firms, who would be unable to compete with firms not subject to enhanced regulation. Moreover, critics feared that the Federal Reserve—traditionally a bank regulator—would subject SIFIs to bank-centric regulations, which they insisted would be inappropriate for a nonbank business model. Finally, opponents alleged that FSOC's designation process was opaque, arbitrary, political, and driven by the FSB, effectively outsourcing domestic regulatory decisions to international policymakers.

Criticism of FSOC's entity-based designation authority was particularly pronounced in the financial sector and among conservative political commentators. Prior to MetLife's designation, for example, the firm's CEO implored FSOC to "adopt an activities-based approach to systemic risk, rather than an institutions-based approach." Sometimes, conservative critics confused FSOC's section 120 activities-based authority with its power to designate a nonbank SIFI based on its activities under section 113's Second Determination Standard. This confusion, in turn, created a misimpression that FSOC had direct statutory authority to implement an activities-based approach. Other critics argued that the best way to limit nonbank systemic risk is through an activities-based approach, and FSOC and international regulators should therefore abandon their efforts to

^{98.} See, e.g., The Arbitrary and Inconsistent Non-Bank SIFI Designation Process: Hearing Before the Subcomm. on Oversight & Investigations of the H. Comm. on Fin. Servs., 115th Cong. 5 (2017) [hereinafter Holtz-Eakin Statement] (statement of Douglas Holtz-Eakin, President, American Action Forum).

^{99.} See, e.g., Dirk A. Kempthorne, Designating Life Insurers as SIFIs Creates Uneven Playing Field, AM. BANKER: BANKTHINK (Aug. 22, 2014, 12:00 PM), https://www.americanbanker.com/opinion/designating-life-insurers-as-sifis-creates-uneven-playing-field.

^{100.} See Steven A. Kandarian, Chairman, President and CEO, MetLife, Inc., Keynote Address at the U.S. Chamber of Commerce Capital Markets Summit: Life Insurers as SIFIs: A Case of Mistaken Identity? 1–2 (Apr. 10, 2013) (on file with authors). For a discussion of the Federal Reserve's role as a bank regulator, see Peter Conti-Brown, The Power and Independence of the Federal Reserve 158–75 (Princeton Univ. Press 2018).

^{101.} See The Arbitrary and Inconsistent Non-Bank SIFI Designation Process: Hearing Before the Subcomm. on Oversight & Investigations of the H. Comm. on Fin. Servs., 115th Cong. 48 (2017) (statement of Alex J. Pollock, Distinguished Senior Fellow, R Street Institute).

^{102.} See Kandarian, supra note 100.

^{103.} *See, e.g.*, Wallison, *supra* note 20 (mischaracterizing the Trump Administration's proposed shift to section 113 activities-based regulation as an exercise of its section 120 entity-based authority using the Second Determination Standard).

^{104.} See id.

designate individual firms as systemically significant. 105 Critics, in sum, portrayed an activities-based approach as an alternative, rather than a complement, to the entity-based approach.

Over time, these criticisms have evolved into a seeming consensus among policymakers that FSOC should focus on an activities-based approach in lieu of entity-based designations. With President Trump's financial regulatory nominees serving as voting members of FSOC, a majority of the Council now holds this view. In fact, FSOC has shifted its focus to activities-based regulation in two different ways.

First, FSOC reversed all of its entity-based designations, freeing each of the previously-designated nonbank SIFIs from Federal Reserve oversight. Even before President Trump's election, FSOC voted unanimously to rescind GE Capital's designation after the company shrunk by more than half and substantially simplified its activities in an effort to reduce its systemic footprint. 106 More controversially, after many of President Trump's nominees took office, FSOC voted 6–3 to rescind AIG's designation. 107 Later, FSOC freed MetLife from enhanced regulation by dropping its appeal of a district court order overturning the company's designation on procedural grounds. 108 Finally, the Council rescinded Prudential's SIFI designation in late 2018, leaving no remaining nonbank SIFIs. 109

Second, FSOC is in the process of adopting formal policies prioritizing

See, e.g., Holtz-Eakin Statement, supra note 98, at 6-7.

See Fin. Stability Oversight Council, Basis for the Financial Stability Oversight COUNCIL'S RESCISSION OF ITS DETERMINATION REGARDING GE CAPITAL GLOBAL HOLDINGS, LLC 2 (2016), https://www.treasury.gov/initiatives/fsoc/designations/Documents/GE%20Capital%20Public%2 0Rescission%20Basis.pdf.

^{107.} See Fin. Stability Oversight Council, Notice and Explanation of the Basis for the FINANCIAL STABILITY OVERSIGHT COUNCIL'S RESCISSION OF ITS DETERMINATION REGARDING AMERICAN INTERNATIONAL GROUP, INC. 12 (2017), https://www.treasury.gov/initiatives/fsoc/designatio ns/Documents/American_International_Group,_Inc._(Rescission).pdf; cf. Gregg Gelzinis, Deregulating AIG Was a Mistake, CTR. AM. PROGRESS (Oct. 11, 2017, 9:01 AM), https://www.americanprog ress.org/issues/economy/reports/2017/10/11/440570/deregulating-aig-mistake (arguing that AIG did not sufficiently simplify itself to warrant de-designation).

^{108.} See Alistair Gray, Trump Administration Drops Appeal in MetLife 'Too Big to Fail' Case, FIN. TIMES (Jan. 18, 2018), https://www.ft.com/content/cfc31764-ff65-351d-95f2-78e7b413af4f.

^{109.} Fin. Stability Oversight Council, Notice and Explanation of the Basis for the FINANCIAL STABILITY OVERSIGHT COUNCIL'S RESCISSION OF ITS DETERMINATION REGARDING PRUDENTIAL FINANCIAL, INC. 2 (2018), https://home.treasury.gov/system/files/261/Prudential-Financial-Inc-Rescission.pdf. Jeremy Kress has argued that Prudential's de-designation was arbitrary and capricious because the Council violated its procedural rules, relied on misleading quantitative analyses, and ignored a mandatory statutory factor. See Jeremy C. Kress, The Last SIFI: The Unwise and Illegal Deregulation of Prudential Financial, 71 STAN. L. REV. ONLINE 171, 175-82 (2018). For further analysis of FSOC's de-designation of nonbank SIFIs, see David Zaring, The Federal Deregulation of Insurance, 97 TEX. L. REV. 125, 135-54 (2018).

its section 120 activities-based authority over its section 113 designation power. In early 2017, President Trump directed FSOC to discontinue new nonbank SIFI designations while the Treasury Department conducted a thorough review of FSOC's designation process. 110 Several months later, the Treasury Department issued recommendations that would fundamentally change FSOC's approach to nonbank systemic risk. 111 Calling entity-based designations "a blunt instrument" for addressing systemic risk, the Treasury Department urged FSOC to prioritize an activities-based approach and to resort to entity-based designations in exceedingly rare circumstances. 112 FSOC proposed formal guidance adopting substantially all of the Treasury Department's recommendations in March 2019 ("the FSOC Proposal"). 113 FSOC, however, has not issued any new activities-based recommendations in the interim.

Mirroring these domestic developments, international policymakers have also deemphasized entity-based approaches to nonbank regulation. ¹¹⁴ Just one week after the Treasury Department's report, the FSB announced that it would not publish a new list of G-SIIs for 2017 in light of "work being undertaken by the IAIS to develop an Activities-Based Approach to systemic risk in the insurance sector" ¹¹⁵ Such an approach, the FSB cryptically suggested, "may have significant implications for the assessment of systemic risk in the insurance sector and hence for the identification of G-SIIs and for G-SII policy measures." ¹¹⁶ A few weeks later, the IAIS issued a public consultation document that laid out broad principles for implementing an activities-based approach in the insurance sector. ¹¹⁷

^{110.} *See* Presidential Memorandum for the Secretary of the Treasury: Financial Stability Oversight Council (Apr. 21, 2017), https://www.whitehouse.gov/presidential-actions/presidential-memorandum-secretary-treasury.

^{111.} For these recommendations, see generally TREASURY FSOC REPORT, *supra* note 21.

^{112.} *Id.* at 19–21. Specifically, the Treasury Department recommended that FSOC follow a three-step process: (1) prioritize reviews of potential stability risks from financial activities and products; (2) work with primary financial regulators to address identified risks, including through section 120 activities-based recommendations if necessary; and (3) consider individual firms for designation only if consultation with the primary regulators is insufficient to mitigate risks to financial stability. *See id.*

^{113.} See generally FSOC Proposal, supra note 25, at 9028 (proposing the prioritization of an activities-based approach).

^{114.} For a full account of the international shift away from entity-based nonbank systemic risk regulation, see generally Kress, McCoy & Schwarcz, *supra* note 28.

^{115.} Press Release, Fin. Stability Bd., FSB Statement on Identification of Global Systemically Important Insurers (Nov. 21, 2017), http://www.fsb.org/2017/11/fsb-statement-on-identification-of-global-systemically-important-insurers.

^{116.} *Id*.

^{117.} See generally INT'L ASS'N OF INS. SUPERVISORS, ACTIVITIES-BASED APPROACH TO SYSTEMIC RISK (2017), https://www.iaisweb.org/page/consultations/closed-consultations/2018/activities-based-approach-to-systemic-risk//file/70440/interim-aba-cp-final-for-launch.

In sum, policymakers have completely transformed their approach to nonbank systemic risk in the years since the crisis. FSOC initially deployed its entity-based authority with marked success, resulting in firms like GE Capital and, to a lesser extent, AIG reducing their systemic footprints to escape SIFI designation. Yet entity-based designations have fallen out of favor, and policymakers have coalesced around a new consensus that systemic risk regulation should focus on an activities-based approach. New entity-based designations have ceased and policymakers have proposed policies that could eliminate or substantially deemphasize designations in the future.

B. New Procedural Barriers to FSOC's Entity-Based Authority

Proponents of the shift to activities-based nonbank systemic risk regulation hope to permanently erect procedural barriers to nonbank SIFI designations. Most recently, the Trump Administration proposed that FSOC (1) conduct various quantitative assessments when considering whether a firm's material financial distress could threaten U.S. financial stability, and (2) perform a quantitative cost-benefit analysis of each designation. Is enacted, these new policies would slow FSOC's evaluation of nonbank financial companies, increase the litigation risk associated with new designations, and significantly undermine the feasibility of an entity-based approach.

1. New Procedural Requirements for Designation

The First Determination Standard under section 113 of Dodd-Frank—which authorizes designation if FSOC "determines that material financial distress at" a nonbank "*could* pose a threat to the financial stability of the United States"¹²⁰—has formed the basis for all four nonbank SIFI designations to date. ¹²¹ The Trump Administration, however, has proposed attaching two prerequisites to determinations under this standard: a threshold vulnerability analysis and a series of quantitative assessments. Both prerequisites depart from the mandates of Dodd-Frank and would

^{118.} See FSOC Proposal, supra note 25, at 9041–46; TREASURY FSOC REPORT, supra note 21, at 26–28

^{119.} For additional analysis of the Trump Administration's proposal to impede nonbank SIFI designations, see generally *Financial Stability Oversight Council Nonbank Designations: Hearing Before the S. Comm. on Banking, Hous. & Urban Affairs*, 116th Cong. (2019) (testimony of Professor Jeremy C. Kress).

^{120. 12} U.S.C. § 5323(a)(1) (2018) (emphasis added).

^{121.} See AIG DESIGNATION, supra note 83, at 4; GE CAPITAL DESIGNATION, supra note 83, at 4; METLIFE DESIGNATION, supra note 84, at 4; PRUDENTIAL DESIGNATION, supra note 83, at 5.

substantially undermine the practical ability of FSOC to designate nonbank SIFIs in the future.

The first new procedural requirement proposed by the Trump Administration is that FSOC assess a firm's likelihood of financial distress as a "threshold question" in the nonbank SIFI designation process. 122 The Trump Administration contends that "[s]ound risk regulation requires consideration of not only the impact of an identifiable risk, but also the likelihood that the risk will be realized." Reading between the lines, the Trump Administration is signaling that FSOC should refrain from designating a firm unless the company is likely to experience material financial distress. 124

However, such a threshold "vulnerability" analysis conflicts with Dodd-Frank's text. Dodd-Frank does not instruct FSOC to evaluate the likelihood that a nonbank financial firm will experience material financial distress. To the contrary, Congress directed FSOC to *assume* that the firm is in distress and analyze whether that distress "could pose a threat" to U.S. financial stability. ¹²⁵

The Trump Administration's proposed vulnerability analysis would undermine FSOC's ability to prevent a systemically significant failure through designation. Congress had good reason for instructing FSOC to conduct its designation analysis by assuming financial distress at a company. It wanted FSOC to take a precautionary approach by considering designation where a nonbank financial firm *could*—not would—threaten U.S. financial stability. This safeguard is eminently sensible, because the FSOC designation process is inherently lengthy and results in regulation and supervision of designated firms by an entirely separate entity: the Federal Reserve. Consequently, there will inevitably be a substantial time gap between a firm's initial designation and the implementation of enhanced regulation and supervision for that firm. A system that reacts to systemically risky firms only years after they become vulnerable to failure is certain to be ineffective. 127

^{122.} TREASURY FSOC REPORT, *supra* note 21, at 26; *see also* FSOC Proposal, *supra* note 25, at 9044–45 (proposing that the Council assess a potential designee's likelihood of material financial distress).

^{123.} TREASURY FSOC REPORT, supra note 21, at 26.

^{124.} See id. at 27; see also FSOC Proposal, supra note 25, at 9044–45.

^{125. 12} U.S.C. § 5323(a)(1).

^{126.} Yet another concern is that requiring FSOC to estimate a firm's chance of distress could perversely increase the risk of a run by signaling questions about a designated company's solvency.

^{127.} Indeed, a central principle of effective financial regulation is that regulators must intervene quickly when a firm is in trouble, as firms approaching insolvency have strong incentives to gamble for

The second way that the Trump Administration recommended adding hurdles to Dodd-Frank's designation process was by suggesting that, as part of any future designation, FSOC should be required to conduct a series of quantitative assessments. This includes not only the threshold vulnerability analysis described above, but also various statistical analyses designed to illustrate how a firm's distress would reverberate throughout the U.S. financial system. For instance, the Trump Administration suggested that FSOC should be required to "quantify the losses that each of [a firm's] counterparties would suffer in the event of its distress," including any factors that would reduce losses to the counterparties. And it suggested requiring quantitative evaluations of "the means by which a company's asset fire sale could disrupt trading or funding markets or cause significant losses or funding problems for other companies with similar holdings." 129

The Trump Administration embraced these reforms after MetLife successfully challenged its SIFI designation in court based on FSOC's refusal to perform similar analyses. In *MetLife, Inc. v. Financial Stability Oversight Council*,¹³⁰ the U.S. District Court for the District of Columbia found FSOC's designation of MetLife arbitrary and capricious because FSOC failed to consider the statistical probability of MetLife experiencing material financial distress or the magnitude of the ensuing losses to MetLife's counterparties.¹³¹ The court required FSOC to statistically estimate these ensuing losses "based on reasoned predictions," stating that "a summary of exposures and assets is not a prediction." Effectively, the court insisted that FSOC use multivariate regression analysis, not descriptive statistics, to analyze how a firm's distress could impact the broader financial system. ¹³³

As a district court opinion, the *MetLife* ruling holds limited precedential value and does not necessarily bind FSOC in the future.¹³⁴ But by proposing that FSOC formally adopt the court's analysis through notice-and-comment rulemaking, the Trump Administration would elevate it to a binding feature

resurrection. See George W. Downs & David M. Rocke, Conflict, Agency, and Gambling for Resurrection: The Principal-Agent Problem Goes to War, 38 Am. J. Pol. Sci. 362, 375 (1994).

res

^{128.} TREASURY FSOC REPORT, supra note 21, at 24.

^{129.} Id. at 11.

^{130.} MetLife, Inc. v. Fin. Stability Oversight Council, 177 F. Supp. 3d 219 (D.D.C. 2016).

^{131.} Id. at 233-39.

^{132.} Id. at 237.

^{133.} FSOC initially appealed the district court's decision but later dropped its appeal after President Trump took office. MetLife, Inc. v. Fin. Stability Oversight Council, No. 16-5086, 2018 U.S. App. LEXIS 162, at *1 (D.C. Cir. Jan. 23, 2018).

^{134.} See, e.g., Camreta v. Greene, 563 U.S. 692, 709 n.7 (2011) (discussing the precedential weight of a federal district court decision).

of future FSOC designations. 135

Mandatory quantitative projections of the type envisioned by the *MetLife* decision and proposed by the Trump Administration would effectively require the impossible as a condition of future designations. Simply put, officials cannot reliably predict the probability that any one nonbank will experience material financial distress that will have systemic consequences for the broader financial system. This is because much of systemic risk oversight operates on the frontiers of what the economist Frank H. Knight termed "the unknowable."

Nearly a century ago, Knight distinguished predictions that are amenable to probability analysis from those that are not. According to Knight, two types of predictions can be analyzed probabilistically. The first, *known knowns*, involves deductions about the future that follow mathematical rules or established laws of science. The second, *known unknowns*, involves forecasts that can be induced empirically using statistics. Such statistical analyses require enough similar prior occurrences to permit statistical inferences with a sufficient degree of confidence. Even when this condition is met, statistical predictions entail higher potential error than the logical mathematical rules of probability that apply to known knowns. Further, while statistical forecasts can predict how many people in a group will experience an event, they cannot identify exactly who will experience it. 139

A third category of predictions—*unknowables*—involves so many factors that it is impossible to formulate probability forecasts.¹⁴⁰ The "conception of an objectively measurable probability or chance" in this situation "is simply inapplicable."¹⁴¹ Knight referred to this as *uncertainty* and distinguished it from risk, which involves the measurable certainty that is entailed in known unknowns.¹⁴²

^{135.} In its proposed guidance, the Council asked for public comment on whether it should "interpret its authority under section 113 of the Dodd-Frank Act in a manner that is consistent with the opinion of the U.S. District Court for the District of Columbia in *MetLife, Inc. v. Financial Stability Oversight Council*" FSOC Proposal, *supra* note 25, at 9035.

^{136.} FRANK H. KNIGHT, RISK, UNCERTAINTY AND PROFIT 6, 214–15, 224–25 (Dover Publ'ns, Inc. 2006) (1921). Known knowns are almost never found in the economic realm. Instead, they are normally restricted to certain physical phenomena such as the law of gravity. *Id.* at 210–24.

^{137.} *Id.* at 6, 215, 224–25.

^{138.} *Id.* at 215, 230–31.

^{139.} Id. at 217.

^{140.} Id. at 218.

^{141.} Id. at 231.

^{142.} Id. at 19-20, 233.

The *MetLife* opinion and the Trump Administration's probability analysis recommendations are deaf to the fact that major elements of systemic risk lie in the realm of uncertainty rather than risk. Thus, when the Trump Administration calls on FSOC to calculate the statistical likelihood of a firm experiencing material financial distress that could trigger a chain reaction, or to quantify the precise pathways of such a chain reaction, it makes herculean demands. This is because systemic failures only occur when the broader financial system is unstable and other financial firms are too weak to survive losses. ¹⁴³ As a result, the likelihood of systemic failure cannot be modeled without predicting the chance that crisis conditions will already exist in the larger financial system.

It is impossible, however, to statistically estimate the likelihood, magnitude, or timing of a future financial crisis. 144 Sample size is one barrier. Unless the sample is sufficiently large, reliable statistical inferences cannot be drawn. 145 This problem is insurmountable when it comes to nonbank firms, which did not manifest systemic risk (with rare exceptions) before 2008 and thus are relatively new objects of systemic concern. 146

Further complicating the statistical task, analysts would have to consider far too many potential explanatory variables to draw inferences with confidence. ¹⁴⁷ In the systemic risk context, there are a virtually infinite number of explanatory factors that can predict a future financial crisis or losses to a firm's counterparties. ¹⁴⁸ Innumerable permutations of events might make financial companies fragile. Some of those scenarios are known from past experience, but others are unknown and cannot be anticipated, making any forecast too conservative. Moreover, because the timing of

^{143.} FSOC's guidance makes clear that it assesses the impact of the company's material financial distress "in the context of a period of overall stress in the financial services industry and in a weak macroeconomic environment." FSOC Guidance, *supra* note 15, at pt. 1310, app. A.II.b.

^{144.} See Acharya Br., supra note 70, at 12; see also DAVID ORRELL, THE FUTURE OF EVERYTHING 7–8, 112–13, 169, 243 (2007) (describing mathematically why financial systems are too complex to be predictable); Serena Ng & Jonathan H. Wright, Facts and Challenges from the Great Recession for Forecasting and Macroeconomic Modeling, 51 J. ECON. LITERATURE 1120, 1140–50 (2013) (analyzing impediments to statistical forecasts of financial crises).

^{145.} See, e.g., DOUGLAS C. MONTGOMERY & GEORGE C. RUNGER, APPLIED STATISTICS AND PROBABILITY FOR ENGINEERS 312–21 (2d ed. 1999); Ng & Wright, supra note 144, at 1144.

^{146.} See supra Part I. One potential exception is Long-Term Capital Management in 1998. See generally ROGER LOWENSTEIN, WHEN GENIUS FAILED: THE RISE AND FALL OF LONG-TERM CAPITAL MANAGEMENT (2000) (providing an extensive history of Long-Term Capital Management).

^{147.} In statistical terms, analysts would have too few degrees of freedom to take all of the possible disaster scenarios into account. *See, e.g., What Are Degrees of Freedom in Statistics?*, MINITAB BLOG (Apr. 8, 2016), http://blog.minitab.com/blog/statistics-and-quality-data-analysis/what-are-degrees-of-freedom-in-statistics.

^{148.} See Ng & Wright, supra note 144, at 1146.

crises is hard to predict, statisticians would have to compute their projections for multiple and often distant points in the future.

The analysis could not stop there, because financial crises have a large behavioral element. Next, statisticians would have to predict how other market participants would react if the counterparties' solvency was in doubt and the counterparties' responses to those reactions. The often irrational nature of market actors' reactions and the many assumptions that would need to be made would relegate any such projections to guesswork. In short, there would be far too many potential explanatory variables to make accurate predictions under these circumstances, particularly given the small sample size available.

Because material financial distress (in the systemic sense) cannot occur outside of crisis conditions, any attempt to statistically model an individual company's systemic distress would be subject to question. Further, even if a financial catastrophe could be forecasted, that forecast would only apply to financial firms in the aggregate, not to specific firms. Nothing in that forecast would tell us that MetLife, for instance, would be the one to trigger that crisis instead of another firm. Even the Trump Administration has conceded this point, stating that "[t]here is no proven method for predicting with precision the effect that the failure of any nonbank financial company will have on financial stability." 149

To summarize, the Trump Administration and the *MetLife* court would require the impossible of FSOC by insisting that it statistically calculate both the probability of any distress at a nonbank that could threaten financial stability and the pathways by which such distress might spread. In the process, they have brought FSOC's ability to designate nonbank SIFIs to a halt and opened up any future designations to the prospect of judicial challenge.

2. A New Cost-Benefit Requirement

The Trump Administration also recommended that, prior to any future nonbank SIFI designation, FSOC conclude that "the expected benefits to financial stability from Federal Reserve supervision and prudential standards justify the costs that the [designation] would impose." Such a quantitative cost-benefit analysis, however, would increase the legal risk of future SIFI designations because it is nearly impossible to calculate the costs and

^{149.} TREASURY FSOC REPORT, supra note 21, at 23.

^{150.} FSOC Proposal, *supra* note 25, at 9044; *see also* TREASURY FSOC REPORT, *supra* note 21, at 27 (recommending a quantitative cost-benefit analysis).

benefits of designation with anything approximating precision.

Like its first recommendation, the Trump Administration's cost-benefit proposal finds its origins in the *MetLife* decision. MetLife challenged its designation on the alternative ground that FSOC failed to consider the costs of designating the firm. ¹⁵¹ After enumerating the ten specific factors that FSOC must consider when evaluating a nonbank financial company, Dodd-Frank adds to the list "any other risk-related factors that the Council deems appropriate." Even though this last catchall provision is couched in permissive language, the *MetLife* court held that it *required* FSOC to consider the costs MetLife would incur from designation. ¹⁵³

Although most commentators agree that the *MetLife* court's costbenefit analysis is suspect as a matter of statutory interpretation,¹⁵⁴ the Trump Administration would nonetheless require FSOC to perform quantitative cost-benefit analyses as a matter of policy. This standard, if codified in FSOC's Interpretive Guidance, "risks imposing an impossible burden on the council"¹⁵⁵

Similar to assessing a firm's likelihood of systemic distress, quantifying the costs and benefits of nonbank SIFI designations poses serious analytical challenges. The stability-enhancing benefits of financial regulations are particularly difficult to calculate accurately. Quantifying the benefit of a crisis averted is nearly impossible. Because of the infrequency of financial crises, moreover, financial regulatory cost-benefit analyses are highly sensitive to crude economic loss and discount rate assumptions. Unpredictable financial market dynamics, including future regulation and adaptation by financial firms, further complicate any attempt to quantify the effects of financial regulation.

For these reasons, quantitative cost-benefit analysis is susceptible to ex

^{151.} *See* Complaint at 71–72, MetLife, Inc. v. Fin. Stability Oversight Council, 177 F. Supp. 3d 219 (D.D.C. 2016) (No. 15-0045).

^{152. 12} U.S.C. § 5323(a)(2) (2018).

^{153.} See MetLife, Inc., 177 F. Supp. 3d at 239-42.

^{154.} See, e.g., Brief of Professors of Administrative Law and Financial Regulation as Amici Curiae Supporting Appellant at 5–9, MetLife, Inc. v. Fin. Stability Oversight Council, No. 16-5086, 2018 U.S. App. LEXIS 162 (D.C. Cir. Jan. 23, 2018); Jared Bernstein, Financial Reform and MetLife: The Judge Got it (Mostly) Wrong, WASH. POST (Apr. 12, 2016), https://www.washingtonpost.com/posteverything/wp/2016/04/12/financial-reform-and-metlife-the-judge-got-it-mostly-wrong.

^{155.} Schwarcz & Zaring, supra note 6, at 1822.

^{156.} See John C. Coates IV, Cost-Benefit Analysis of Financial Regulation: Case Studies and Implications, 124 YALE L.J. 882, 960–69 (2015).

^{157.} See, e.g., id. at 947, 962, 972.

^{158.} See Jeffrey N. Gordon, The Empty Call for Benefit-Cost Analysis in Financial Regulation, 43. J. LEGAL STUD. S351, S373–75 (2014).

post second-guessing by a reviewing court.¹⁵⁹ Indeed, courts have increasingly overturned agencies' rules "on the ground that [the] court would conduct its guesstimated [cost-benefit analysis] differently than [the] agency would."¹⁶⁰ As a result, the uncertainty and discretion inherent in quantitative cost-benefit analyses create litigation risk for financial regulators. A nonbank SIFI might be especially motivated to challenge its designation because Federal Reserve regulation would put it at a perceived competitive disadvantage to competitors who operate free from those rules.

To conclude, requiring FSOC to perform quantitative cost-benefit analyses, as the Trump Administration proposes, would hold the Council to an impossible standard and render future SIFI designations vulnerable to legal challenge. It would thus further eviscerate entity-based nonbank regulation.

III. WHY AN ACTIVITIES-BASED APPROACH MUST BE SUPPLEMENTED WITH AN ENTITY-BASED APPROACH

These evolving barriers to FSOC's designation authority are deeply misguided. Even assuming the implementation of an effective activities-based regime, an entity-based approach is necessary to prevent nonbank firms from propagating systemic risk. This Part explains why. Section III.A contends that even a well-executed activities-based approach, standing alone, cannot reliably prevent individual firms from becoming systemically important. Section III.B then argues that FSOC's entity-based designation authority is reasonably well tailored to promote this objective, while criticisms of this authority are overblown. This Part focuses on nonbank SIFI designations in the United States, but its arguments are largely applicable to parallel entity-based regimes at the international level, such as the FSB's designation regime for G-SIIs.

A. AN ACTIVITIES-BASED APPROACH IS POORLY SUITED TO PREVENT SYSTEMIC INSOLVENCIES

Proposals to replace FSOC's entity-based approach with an activities-based approach assume that appropriately regulating systemically risky activities will prevent nonbanks from experiencing a systemic insolvency. ¹⁶¹ Although intuitively attractive, this assumption is wrong. While activities-based regulation may mitigate some sources of systemic risk, ¹⁶² even well-

^{159.} See Coates, supra note 156, at 920.

^{160.} Id. at 919-20.

^{161.} See, e.g., Holtz-Eakin Statement, supra note 98, at 37; Harrington, supra note 20.

^{162.} See infra Section V.B for a discussion of how activities-based regulation could limit some

designed activities-based rules cannot prevent nonbanks from experiencing systemic insolvencies. At bottom, this is because the risk that a firm will experience a systemic failure is inherently a product of the interrelations among its various activities. Individual activities may pose limited systemic risk in isolation, but much greater systemic risk when combined at an individual firm. An activities-based approach is inherently blind to these realities.

This point is well understood with respect to individual firms. Indeed, modern risk management emphasizes the importance of understanding and managing a firm's risks holistically, across the entire enterprise. 163 Failure to take such an "enterprise-wide" approach to managing risk can result in problems that cross-cut a firm's operations remaining undiagnosed or ignored. 164 But the centrality of the relationships among a firm's individual activities is equally applicable to the effective management of systemic risk. To appreciate this point, consider the two main transmission mechanisms by which the failure of nonbank financial institutions can trigger broader financial instability: the *counterparty* channel and the *asset liquidation* channel. 165

1. The Counterparty Channel

As discussed in Part I, a firm's susceptibility to a run is central to the prospect that it could trigger systemic risk through the counterparty channel. Moreover, only certain activities could plausibly expose a nonbank to the risk of a run, which requires some form of short-term liabilities. 166 Longterm debt funding or the issuance of term life insurance products do not create any run risk, while securities lending and the issuance of deposit-like contracts almost certainly do. 167 Thus, many calls for an activities-based approach to nonbank systemic risk target activities that are thought to create run risk.¹⁶⁸

Yet an activities-based approach cannot prevent the excessive

types of systemic risk, if properly configured.

^{163.} See, e.g., AM. LAW INST., PRINCIPLES OF THE LAW: COMPLIANCE, RISK MANAGEMENT, AND ENFORCEMENT § 4.02 & cmt. a (Council Draft No. 3, Sept. 11, 2019).

^{164.} Betty Simkins & Steven A. Ramirez, Enterprise-Wide Risk Management and Corporate Governance, 39 LOY. U. CHI. L.J. 571, 572-77 (2008).

^{165.} See supra Section I.C.

^{166.} See id.

^{167.} See id.

^{168.} See, e.g., INT'L ASS'N OF INS. SUPERVISORS, supra note 117, at 11-13 (naming activities that create liquidity risk as the first type of activity that would be subject to scrutiny under an activities-based approach).

accumulation of run risk at an individual nonbank financial firm for three reasons. First, numerous types of activities are known to create run risk, and many other activities may create run risk in ways that are not yet fully understood. Second, even if regulators could accurately identify conduct that creates run risk, a pure activities-based approach would still fail to prevent the excessive accumulation of such risk, which inherently depends on the interrelationships among a firm's activities. Finally, an activities-based approach is also incapable of addressing other key factors relevant to counterparty risk, such as the size and character of a firm's connections to other large financial firms.

i. Numerous Known and Unknown Activities Can Create Run Risk

The financial crisis vividly demonstrated that any type of short-term borrowing can cause a run at a nonbank financial firm. ¹⁶⁹ Just as panicked depositors can withdraw funds from their bank account en masse, panicked counterparties in these transactions can collectively refuse to roll over their loans to the vulnerable nonbank. This dynamic repeated itself in numerous different settings during the 2008 financial crisis, including commercial paper, repo transactions, warehouse lines of credit, and securities lending agreements. ¹⁷⁰

In fact, there are nearly infinite ways to structure short-term borrowing arrangements. For example, the sale or lease of any economic interest can be transformed into collateralized borrowing through contractual engineering. Securities lending and repo transactions exploited this fact in different ways, but they are merely specific examples of the broader principle. It is therefore nearly impossible to define in advance all of the different forms that short-term borrowing might take, at least with the specificity that activities-based regulation requires. 173

^{169.} See supra Section I.C.

^{170.} ARMOUR ET AL., *supra* note 1, at 445–48; MORGAN RICKS, THE MONEY PROBLEM 52–77 (2016).

^{171.} It is for this precise reason that Article 9 of the UCC, which governs many types of collateralized lending, ultimately employs a broad standard to define its scope—it applies to any transaction that creates a security interest, "regardless of form." *See* LYNN M. LOPUCKI ET AL., SECURED TRANSACTIONS: A SYSTEMS APPROACH 27–32 (8th ed. 2015).

^{172.} For a detailed account of the legal and institutional architecture of some of these instruments, see Anna Gelpern & Erik F. Gerding, *Inside Safe Assets*, 33 YALE J. REG. 363, 387–406 (2016).

^{173.} Morgan Ricks offers one definition of short-term borrowing. *See* RICKS, *supra* note 170, at 223–47. But Ricks' proposal—to treat all short-term borrowing as a type of money creation—does not require him to differentiate among the numerous different sub-classes of short-term debt. Any activities-based regulatory strategy would have to do this under the current regulatory framework, and could not therefore rely on a broad standard that lumped together all different types of short-term borrowing.

Not only are there innumerable potential types of short-term borrowing, but short-term borrowing is not the only type of liability that can generate a run. For instance, the crisis illustrated that run risk can also arise from any transaction that potentially requires a firm to post increasing amounts of cash collateral. AIG's credit default swaps ("CDSs") are the poster child for this type of cash-collateral-driven run.¹⁷⁴ These derivatives allowed counterparties to insist on increasing amounts of cash collateral to back the firm's insurance-like promises as either the firm's credit rating declined or the mortgage-backed securities they referenced decreased in value.¹⁷⁵ Starting in September 2007, Goldman Sachs and other counterparties hounded AIG to post increasing cash collateral, ultimately forcing it to raise \$75 billion. Together with the run on AIG's securities lending operations, this pressure necessitated the largest bailout of a private firm in U.S. history.¹⁷⁶

The redeemable equity issued by MMMFs is yet another type of liability that generated runs in the crisis but that was not short-term borrowing. Open-end mutual funds generally do not borrow, but instead fund themselves entirely with equity.¹⁷⁷ Unlike any other types of equity, however, investors can redeem their shares in those funds directly on demand, at the fund's net asset value ("NAV").¹⁷⁸ This fact created run risk at MMMFs because unique accounting rules artificially allowed them to maintain a NAV of one dollar even when the market value of their assets fell below this level.¹⁷⁹ As a result, investors ran from these funds by seeking to withdraw their funds en masse once one large MMMF "broke the buck," disclosing that the value of its assets had fallen below the one dollar threshold.¹⁸⁰

So far, this litany of activities that create run risk consists of examples that precipitated runs during the crisis. But innumerable potential activities that were not yet in widespread use during the crisis could also create run risk. For instance, many life insurers sell products that provide policyholders with an immediate right to withdraw their investment or borrow against their

^{174.} See Schwarcz, supra note 31, at 553-54. A CDS insures against the risk that securities referenced in the agreement will fare poorly. See id.

^{175.} See FCIC REPORT, supra note 3, at 344–55.

^{176.} See id.

^{177.} William A. Birdthistle, *Breaking Bucks in Money Market Funds*, 2010 Wis. L. Rev. 1155, 1175 (2010).

^{178.} *Id*.

^{179.} FCIC REPORT, supra note 3, at 253.

^{180.} See Steven M. Davidoff & David Zaring, Regulation by Deal: The Government's Response to the Financial Crisis, 61 ADMIN. L. REV. 463, 505 (2009).

policy value.¹⁸¹ Other examples include guaranteed investment contracts, funding agreements, and certain variable annuity contracts.¹⁸² As insurers' product designs change in the future, still other innovations could trigger a run.¹⁸³

The prospect of new and unanticipated sources of run risk is particularly troubling because financial regulators are almost certain to fail to identify them ahead of time. Financial activities constantly evolve to evade regulatory restrictions when doing so can produce significant financial returns or lower costs, as in the case of cheap short-term funding.¹⁸⁴ The predictable result is that regulators will consistently be one step behind the financial sector in identifying new and emerging sources of run risk.¹⁸⁵

ii. An Activities-Based Approach Cannot Effectively Prevent the Accumulation of Run Risk

Even if regulators could reliably identify all individual activities that create run risks, an activities-based approach would still fall short of preventing runs at nonbank financial firms. This is because an individual firm's exposure to a run ultimately depends on its aggregate reliance on all activities that create run risk.

The inherently cumulative nature of run risk follows from the fact that all of a firm's potential sources of run risk are likely to be triggered when it faces acute financial distress. This point is nicely illustrated by the collapse of AIG. As AIG's precarious financial position became clear throughout 2008, its CDS counterparties insisted that it post cash collateral on its derivatives at the same time that its securities lending counterparties terminated these transactions. ¹⁸⁶ It was hardly fortuitous that this run on AIG implicated two different activities operated out of different subsidiaries; as AIG's counterparties realized the extent of the firm's troubles, they ran however they could to avoid experiencing losses if AIG defaulted.

An activities-based approach fails to address the risk that a combination of activities—none of which creates excessive short-term liabilities individually—might generate excessive run risk in the aggregate. Activities-

^{181.} See Schwarcz & Schwarcz, supra note 1, at 1619–23.

^{182.} See Anna Paulson et al., How Liquid Are U.S. Life Insurance Liabilities?, CHI. FED LETTER (2012), http://www.chicagofed.org/publications/Chicago-fed-letter/2012/September-302.

^{183.} See Schwarcz & Schwarcz, supra note 1, at 1619–23.

^{184.} See Schwarcz & Zaring, supra note 6, at 1830–34.

^{185.} See, e.g., Examining How the Dodd-Frank Act Could Result in More Taxpayer-Funded Bailouts: Hearing Before the H. Comm. on Fin. Servs., 113th Cong. 80 (2013) (statement of Richard W. Fisher, President and CEO, Federal Reserve Bank of Dallas).

^{186.} See Schwarcz, supra note 31, at 554.

based regulation generally seeks to limit the risks of an activity that creates short-term liabilities by, for instance, requiring that firms engaging in the activity maintain specified levels of liquid assets or creating mechanisms by which counterparties' capacity to run is suspended. In doing so, activities-based regulation sets these safeguards only by reference to the prospect that the underlying activity, considered in isolation, might generate a run. In the absence of a complementary entity-based regime, however, activities-based regulation cannot calibrate customized safeguards for an individual firm's cumulative activities, in the aggregate.

The inability of an activities-based approach to appropriately limit cumulative run risk is exacerbated by the fact that this risk is a byproduct of interactions between firms' liabilities and assets. A seemingly reasonable amount of short-term debt might create dangerous run risk for a firm that overinvests in highly illiquid assets. For this reason, even a single activity that creates potential short-term liabilities may have a very different valance when it is combined with other activities that are not ordinarily considered systemic in isolation. An activities-based approach is limited in its capacity to respond to such interactions between the asset and liability sides of firms' balance sheets.

iii. An Activities-Based Approach Cannot Police Against Potentially Systemic Interconnections Between Firms

The prospect that a nonbank firm will transmit systemic risk through the counterparty channel is linked to other factors in addition to its susceptibility to a run, including the identity of the firm's major counterparties and the size of those counterparties' exposures to the firm. ¹⁸⁹ An activities-based approach, however, is unable to police these indicators of an individual firm's interconnectedness with the broader financial system. This is for several reasons. First, a firm's interconnectedness turns on the cumulative impact of its numerous activities. Innumerable financial activities—ranging from ordinary borrowing, to securities management, to derivatives, to the issuance of insurance policies—expose a nonbank firm's counterparties to the risk that the firm might fail. ¹⁹⁰ Second, the one-size-fits-all nature of an activities-based approach means that it is not sensitive to the prospect that a specific activity may pose heightened systemic risk at a

^{187.} The SEC's reforms of MMMFs provide examples of these strategies. See supra notes 92–94.

^{188.} See supra Section I.C.

^{189.} See id.

^{190.} A sufficiently large and interconnected nonbank financial firm might generate counterparty risk even if it did not experience a run. For instance, the sudden revelation of accounting fraud or manipulation at a large nonbank firm could potentially reproduce each of the salient features of a run.

particular firm in light of its other activities and counterparty exposures. For instance, writing a CDS on a reference entity poses much greater risks if the firm also owns a large amount of the reference entity's bonds. Third, U.S. activities-based regulation is often fragmented and unable to grasp the full magnitude of a company's counterparty exposure. ¹⁹¹ It is presumably for these reasons that the IAIS's first report on designing an activities-based approach for systemic risk in insurance provides that "with regards to counterparty exposure . . . the IAIS tentatively concluded that [it is] mainly [an] entity-specific concept[]"¹⁹²

Ultimately, preventing the potentially systemic buildup of counterparty risk at individual nonbanks is impossible without considering the sum of all a firm's activities and its potential threat to counterparties. This is true even though only certain types of activities can generate runs, as such activities are numerous, are difficult to identify ex ante, and pose cumulative risks to nonbank firms.

2. The Asset Liquidation Channel

As suggested in Part I, the transmission of systemic risk through the asset liquidation channel often involves correlated trading behavior among multiple firms with similar asset holdings. But an individual firm, rather than a cluster of many firms, could play a dominant role in transmitting systemic risk through the asset liquidation channel if it owned a large percentage of a certain asset class relative to the overall market. An individual firm could only accomplish this if it maintained a large percentage of a certain asset class relative to the overall market, and the other major holders of that asset class were also major financial institutions. Under these conditions, the firm's sudden efforts to dump its portfolio during a crisis could topple those other institutions by wiping out their capital. 194

An activities-based approach cannot prevent this possibility, for two reasons. First, as noted above, activities-based regulation targets a specific activity, such as a type of short-term liability, in isolation. ¹⁹⁵ In many cases, however, firms fail to design their liability structures to take into account the risks from their investment strategies. Even when an explicit link between a firm's assets and liabilities does exist—as in insurance, where firms

^{191.} See infra Section IV.B.

^{192.} INT'L ASS'N OF INS. SUPERVISORS, supra note 117.

^{193.} See supra Part I. An activities-based approach is generally necessary to address the transmission of systemic risk in this manner. See infra Section V.B.1.

^{194.} See supra Section I.C.

^{195.} See supra note 187 and accompanying text.

generally seek to match asset and liability durations¹⁹⁶—a firm may manage to accumulate a large enough position to affect prices in a particular asset class.¹⁹⁷ Second, a firm is more likely to sell illiquid assets during a crisis if it is forced to do so as a result of a run. As discussed above, an activities-based approach cannot prevent the accumulation of excessive run risk at a nonbank financial firm.¹⁹⁸

B. AN ENTITY-BASED APPROACH IS WELL STRUCTURED TO LIMIT THE COSTS OF SYSTEMIC INSOLVENCIES

In contrast to an activities-based approach, FSOC's entity-based designation regime is reasonably well designed to limit the risk that firms will experience systemic insolvencies through either the counterparty or asset liquidation channels. Moreover, while identifying systemically significant nonbank firms is challenging, this task is much more manageable than correctly identifying all systemically significant activities ex ante. In addition, an entity-based approach mitigates financial stability risks if a systemic nonbank were to fail, supplements traditional regulatory regimes that lack a macroprudential orientation, and can improve the effectiveness of activities-based regulation. Meanwhile, many of the criticisms levied against FSOC's designation authority both are overblown and have been addressed.

1. Designation Limits the Risk that Firms Will Experience a Systemic Failure

In contrast to an activities-based approach, an entity-based regime is inherently focused on the cumulative impact of a firm's activities across the entire financial conglomerate, as well as interactions between its assets and liabilities. Each of the core tools of entity-based nonbank SIFI regulation is oriented toward these objectives. For instance, consolidated risk-based capital requirements and leverage limits ensure that SIFIs maintain a sufficient capital cushion to absorb potential losses. ¹⁹⁹ Liquidity rules require a SIFI to hold a minimum amount of liquid assets to protect against runs and

_

^{196.} See Kenneth S. Abraham & Daniel Schwarcz, Insurance Law and Regulation 126 (6th ed. 2015).

^{197.} This could occur even if the law imposes caps on the percentage of a firm's capital and surplus that can be devoted to that holding.

^{198.} See supra Section III.A.1.ii.

^{199.} See 12 U.S.C. § 5365(b)(1)(A)(i) (2018). For a discussion of how capital requirements protect financial firms from insolvency, see ANAT ADMATI & MARTIN HELLWIG, THE BANKERS' NEW CLOTHES: WHAT'S WRONG WITH BANKING AND WHAT TO DO ABOUT IT 94–95 (2013). The Federal Reserve has not yet finalized rules implementing several nonbank SIFI standards mandated in Dodd-Frank, including capital and leverage requirements.

reduce the likelihood that it will have to sell illiquid assets in a fire sale.²⁰⁰ Stress tests simulate adverse economic conditions to ensure that SIFIs could withstand a severe downturn.²⁰¹ And corporate governance reforms focus on improving enterprise risk management across SIFIs' operations.²⁰²

Supervision of nonbank SIFIs by the Federal Reserve, which is charged with carrying out the entity-based approach to financial stability, is also inherently focused on the prospect that a firm's cumulative risk profile could result in a systemic insolvency. The Federal Reserve's supervisory authority gives it the discretion to tailor the heightened prudential requirements described above to the circumstances of each individual firm's systemic risk profile. Additionally, the Federal Reserve's uniquely prominent role in financial regulation means that it often has the capability to observe both sides of a nonbank SIFI's counterparty transactions. Description

Entity-based nonbank SIFI regulation can also prevent systemic insolvencies indirectly, by causing designated firms to shed risk in an effort to jettison their SIFI designations. The various extra regulatory restrictions and costs that designated firms experience are significant.²⁰⁶ For this reason, nonbanks that are designated as SIFIs have strong incentives to cease activities that may create the prospect of a systemic failure.²⁰⁷ This reality

^{200.} See 12 U.S.C. § 5365(b)(1)(A)(ii).

^{201.} See id. § 5365(i); see also Robert Weber, A Theory for Deliberation-Oriented Stress Testing Regulation, 98 Minn. L. Rev. 2236, 2237–40 (2014).

^{202.} See Proposed Guidance on Supervisory Expectations for Boards of Directors, 82 Fed. Reg. 37,219, 37,225 (Aug. 9, 2017). Oversight of an institution's board of directors and independent risk management function is a key element of an entity-based approach. These governance mechanisms are uniquely positioned to prevent excessive risk-taking or misconduct that could transmit financial instability. See Jeremy C. Kress, Board to Death: How Busy Directors Could Cause the Next Financial Crisis, 59 B.C. L. Rev. 877, 888–91 (2018); see also Christopher M. Bruner, Corporate Governance Reform in Post-Crisis Financial Firms: Two Fundamental Tensions, 60 ARIZ. L. Rev. 959, 976–77 (2018). An entity-based approach allows regulators to monitor the effectiveness of a nonbank SIFI's corporate governance through regular on-site supervision. See infra Section III.B.5.

^{203.} See Daniel K. Tarullo, Member, Bd. of Governors of the Fed. Reserve Sys., Remarks at the National Association of Insurance Commissioners International Insurance Forum: Insurance Companies and the Role of the Federal Reserve (May 20, 2016) (available at https://www.federalreserve.gov/newsevents/speech/tarullo20160520a.pdf).

^{204.} This power inheres in large part from the Federal Reserve's authority to take enforcement actions—including cease-and-desist orders—against nonbank SIFIs for unsafe and unsound practices. See 12 U.S.C. § 1818.

^{205.} As activities-based regulation is currently configured in the United States, it does not always have sight lines into both sides of a transaction. For example, when an insurer engages in securities lending with an outside broker-dealer, state insurance regulators will be able to observe the insurance company's side of the transaction, but not the broker-dealer's side.

^{206.} See Schwarcz & Zaring, supra note 6, at 1851-55.

^{207.} *Id.* Aaron Levine and Joshua Macey suggest that nonbank SIFI designations are akin to a Pigouvian tax because they incentivize designated firms to divest their riskiest business lines. *See* Aaron

has been vividly demonstrated with respect to firms that have been designated as SIFIs by FSOC: GE Capital and AIG both restructured their businesses in successful bids to shed their status as nonbank SIFIs. 208 Even MetLife, which embraced a successful legal and political strategy to escape its status as a nonbank SIFI, simultaneously reduced its participation in certain potentially systemic activities.²⁰⁹

2. Regulators Can More Easily Target Systemic Entities than Systemic Activities

An entity-based approach is inherently more effective than an activitiesbased approach at preventing systemic insolvencies for a second set of reasons: an entity-based regime is much easier to target effectively. 210 As discussed above, it is extremely difficult for regulators to anticipate new and emerging systemic activities.²¹¹ Relative to these difficulties, FSOC and other financial regulators are much more likely to be able to consistently and accurately identify nonbank SIFIs. Although the distinction between firms that are systemically significant and those that are not is notoriously blurry, it is generally straightforward to identify which firms are plausibly close to the line and which are clearly on one side or the other. 212 Moreover, both U.S. and international actors have developed detailed frameworks for identifying systemically significant firms, which have produced similar results as alternative methodologies.²¹³

Additionally, an entity-based approach need not perfectly distinguish

- 211. See supra note 184 and accompanying text.
- See FSOC Guidance, supra note 15, at pt. 1310, app. A.II.

M. Levine & Joshua C. Macey, Note, Dodd-Frank Is a Pigouvian Regulation, 127 YALE L.J. 1336, 1381 (2018).

See Schwarcz & Zaring, supra note 6, at 1851-55. 208.

Id. In contrast to its former SIFI peers, Prudential neither shrunk nor substantially simplified itself to win a rescission of its designation. Instead, Prudential calculated—correctly—that its designation would be rescinded when FSOC's membership changed, despite maintaining its size and complexity. See Kress, supra note 109, at 174; see also Jeremy Kress, Prudential Hasn't Earned the Right to Shed SIFI Label, AM. BANKER: BANKTHINK (Mar. 13, 2018, 9:29 AM), https://www.americanbanker.com/opinion/ prudential-hasnt-earned-the-right-to-shed-sifi-label.

^{210.} See Gregg Gelzinis, Don't Put SIFI Designations on the Back Burner, AM. BANKER: BANKTHINK (Jan. 29, 2018, 9:58 AM), https://www.americanbanker.com/opinion/dont-put-sifi-design ations-on-the-back-burner.

See supra Section II.A; see also Acharya et al., supra note 63, at 39 (identifying Bear Stearns, Lehman Brothers, Morgan Stanley, Goldman Sachs, and Merrill Lynch among the top 10 systemically risky financial firms in 2006 to 2007 in back-testing of authors' marginal expected shortfall approach to systemic risk); Christian Brownlees & Robert F. Engle, SRISK: A Conditional Capital Shortfall Measure of Systemic Risk, 30 REV. FIN. STUD. 48, 62-63 (2017) (finding that back-testing of authors' SRISK metric identified Morgan Stanley, Bear Stearns, Lehman Brothers, Fannie Mae, and Freddie Mac as top systemic risk contributors as early as the beginning of 2005).

between nonbanks that are systemically significant and those which are not to deter nonbanks from seeking out systemic risk. ²¹⁴ To the contrary, so long as the designation process is even roughly accurate, nonbank firms will have strong incentives to avoid pursuing strategies that could result in their failure propagating systemic risk. This is because the mere prospect of being designated as a SIFI—and thus facing increased regulatory restrictions and compliance burdens—creates real risks and uncertainties for firms, which they will seek to avoid.

By contrast, an activities-based approach in isolation affirmatively incentivizes nonbanks to engage in regulatory arbitrage by seeking out activities that have not been identified or appropriately regulated. Doing so offers all the ordinary potential benefits to firms of systemic risk—the ability to reap the upside reward of risk, while externalizing some of the downside—but only limited downside. This is because the firm does not bear the full costs of engaging in such an activity until it is regulated appropriately. Financial firms are accustomed to adjusting as the regulatory landscape changes, and they can choose either to cease engaging in a newly identified systemic activity or to conform to the new regulatory standards. And unlike in an entity-based regime, either choice can be implemented immediately because they do not usually require affirmative approval by regulators.

3. An Entity-Based Approach Limits Harm When a Systemic Nonbank Fails

Entity-based regulation not only reduces the likelihood that a systemically important nonbank will fail, it also limits the macroeconomic consequences if such a firm were to experience distress. The Dodd-Frank Act established the OLA to resolve financial firms that prove systemically important while limiting the harm to the broader economy. The OLA is unlikely to succeed, however, without ex ante entity-based nonbank regulation.

The OLA expands the FDIC's traditional commercial bank resolution powers by authorizing it to resolve any financial company whose disorderly collapse would impair U.S. financial stability.²¹⁶ It thus aims to prevent a recurrence of the destabilizing uncertainty that took place in the aftermath of

^{214.} See Schwarcz & Zaring, supra note 6, at 1858.

^{215.} See 12 U.S.C. § 5384 (2018).

^{216.} See id. § 5383(b)(2). The decision to place a financial company into OLA requires a recommendation by at least two-thirds of the members of the Federal Reserve Board and the FDIC board of directors, as well as the Treasury Secretary (in consultation with the President). See id. § 5383(a)–(b).

Lehman Brothers' bankruptcy filing, when many of Lehman's subsidiaries ceased operations. In an OLA proceeding, the FDIC would transfer a distressed financial conglomerate's operating subsidiaries to a new bridge company. The FDIC would capitalize the new bridge company by wiping out the firm's original shareholders and replacing unsecured creditors' claims on the original holding company with the bridge company's equity securities. In theory, this process would allow the company's subsidiaries to continue their critical operations, while forcing the firm's original stockholders and debt holders to absorb losses. 220

Policymakers may place any failing nonbank into an OLA proceeding if its collapse would adversely affect financial stability, even if FSOC had not previously designated the firm as a SIFI.²²¹ Ex ante SIFI designation, however, is critical to a successful orderly liquidation for three reasons.

First, ex ante entity-based regulation requires the firm, and enables regulators, to prepare in advance for the firm's OLA resolution, should one be necessary. Dodd-Frank directs designated nonbank SIFIs to develop an annual resolution plan, or "living will," explaining how the firm could be wound down. A nonbank SIFI's living will provides regulators crucial insight into the firm's legal entity structure, its key operations, and management information systems that allows the FDIC to plan, in advance, if it must resolve the firm through OLA. A Moreover, if the FDIC or Federal Reserve concludes that the nonbank SIFI is too complex to be resolved in an orderly fashion, the agencies may object to its living will and compel the firm to simplify its organizational structure. Thus, ex ante entity-based regulation enhances the likelihood that a systemically important nonbank can be resolved with minimal systemic externalities.

Second, ex ante entity-based regulation can help ensure that a nonbank SIFI holds sufficient financial resources to facilitate its orderly resolution. Recall that in an OLA proceeding, the FDIC would convert the original

^{217.} See generally The Orderly Liquidation of Lehman Brothers Holdings Inc. Under the Dodd-Frank Act, 5 FDIC Q., no. 2, 2011, at 31 [hereinafter Orderly Liquidation of Lehman Brothers].

^{218.} See Resolution of Systemically Important Financial Institutions: The Single Point of Entry Strategy, 78 Fed. Reg. 76,614, 76,616 (proposed Dec. 18, 2013).

^{219.} See id. at 76,618.

^{220.} See Howell E. Jackson & Stephanie Massman, The Resolution of Distressed Financial Conglomerates, 3 RUSSELL SAGE FOUND. J. SOC. SCI. 48, 49–50 (2017).

^{221.} See id. at 58.

^{222.} See 12 U.S.C. § 5365(d)(1) (2018).

^{223.} See Orderly Liquidation of Lehman Brothers, supra note 217, at 43.

^{224.} See 12 U.S.C. § 5365(d)(4).

^{225.} See Orderly Liquidation of Lehman Brothers, supra note 217, at 41.

holding company's long-term creditors into equity holders in the new bridge company. This recapitalization allows the holding company's subsidiaries—for instance, its commercial bank, broker-dealer, or insurance companies—to continue operating. If, however, the holding company does not have sufficient long-term debt to recapitalize the bridge company, then the firm's subsidiaries will be shut down and resolved under applicable insolvency laws—the precise outcome that the OLA seeks to avoid. Under Dodd-Frank, the Federal Reserve may require a designated nonbank SIFI to issue minimum amounts of long-term debt to enhance its resolvability. Without ex ante entity-based regulation, however, a systemically important nonbank is unlikely to hold the financial resources necessary for an orderly resolution.

Third, ex ante entity-based oversight gives the Federal Reserve advance warning of an impending failure through the supervision process and fuller information about counterparties' exposure to the firm. This would help prevent a repeat of the situation with Bear Stearns and AIG in 2008, in which the Federal Reserve had to fly blind when both companies approached it for emergency bailouts because it was neither company's supervisor.²³¹ In today's framework, ex ante supervision would help policymakers assess whether such a firm should be placed into OLA.²³²

In sum, ex ante entity-based regulation is critical if the post-crisis framework for resolving systemically important firms is to function as intended. Unless FSOC designates systemically important firms as nonbank SIFIs, the OLA is not likely to prevent the distress of such firms from destabilizing the broader economy.²³³

^{226.} See supra note 219 and accompanying text; see also John Crawford, Credible Losers: A Regulatory Design for Prudential Market Discipline, 54 AM. BUS. L.J. 107, 127–32, 137–41 (2017).

^{227.} See Jackson & Massman, supra note 220, at 53.

^{228.} See Resolution of Systemically Important Financial Institutions: The Single Point of Entry Strategy, 78 Fed. Reg. 76,614, 76,623 (proposed Dec. 18, 2013).

^{229.} See 12 U.S.C. § 5365(b)(1)(B)(iv) (authorizing the Federal Reserve to establish prudential standards as it deems appropriate for nonbank SIFIs). The Federal Reserve has mandated that global systemically important banks hold minimum amounts of unsecured long-term debt and other loss-absorbing instruments. See 12 C.F.R. § 252.62 (2019). The Federal Reserve has not yet proposed comparable standards for nonbank SIFIs.

^{230.} See Jackson & Massman, supra note 220, at 59.

^{231.} See ENGEL & MCCOY, supra note 1, at 88–90, 105–07.

^{232.} See generally John Crawford, Resolution Triggers for Systemically Important Financial Institutions, 97 Neb. L. Rev. 101 (2018) (proposing a solvency-based trigger for OLA).

^{233.} Notably, the Treasury Department has acknowledged the importance of entity-based regulation to facilitate the potential resolution of systemic financial market utilities. U.S. DEP'T OF THE TREASURY, A FINANCIAL SYSTEM THAT CREATES ECONOMIC OPPORTUNITIES: CAPITAL MARKETS 166–67 (2017), https://www.treasury.gov/press-center/press-releases/Documents/A-Financial-System-Capital-Markets-

4. An Entity-Based Approach Supplements Traditional Regulatory Regimes That Do Not Address or Sufficiently Prevent Systemic Risk

Entity-based designation is necessary because most nonbank sectoral regulatory regimes have not implemented reliable macroprudential regulatory tools of the type that the Federal Reserve deploys for designated firms. Insurance regulation is the most straightforward example. In the United States, insurance regulation has long been the responsibility of the states, with little federal involvement.²³⁴ But the state-based system of insurance regulation suffers from serious flaws with respect to systemic risk regulation, which became apparent during the crisis. Most critically, the U.S. system of insurance regulation lacks well-developed, consolidated regulation and supervision of insurance holding companies.²³⁵ And state regulators have limited experience with or expertise in monitoring risks arising from an insurance conglomerate's noninsurance subsidiaries or from the interactions of the conglomerate's component parts.²³⁶ Meanwhile, in most states, the insurance commissioner is subject to a narrow regulatory mandate to protect an insurance subsidiary's policyholders, not to limit financial stability risks.²³⁷

Implementing an entity-based designation regime in settings like insurance, where a nonbank firm's baseline sectoral regime is not oriented to systemic risk concerns, is relatively straightforward. This is because FSOC's designation regime layers enhanced macroprudential regulation on top of an entity's baseline regulatory regime. Although this creates some coordination challenges between the Federal Reserve and a firm's baseline regulator, these challenges are generally manageable and have improved gradually as the Federal Reserve has developed working relationships with designated firms' sectoral regulators, particularly state insurance

FINAL-FINAL.pdf. Ex ante entity-based regulation of systemically important nonbanks is equally imperative to ensure that they can be resolved in an orderly fashion, if necessary.

E

^{234.} See ABRAHAM & SCHWARCZ, supra note 196, at 107–11.

^{235.} See Daniel Schwarcz, Professor, Univ. of Minn. Law Sch., Speech Accepting the ALI Early Career Scholar Award: The Failures of State Insurance Regulation 5–6 (May 24, 2017) (available at https://papers.ssrn.com/sol3/Papers.cfm?abstract_id=2974099). After the crisis, several states have adopted laws purporting to authorize their insurance commissioners to supervise, on a consolidated basis, insurance groups domiciled in their states. See, e.g., N.J. STAT. ANN. § 17:27A-5.2 (West 2019). State agencies, however, lack the appropriate jurisdiction, incentives, and resources to regulate multinational insurance companies effectively. See Kress, supra note 209; Schwarcz, supra, at 5–6.

^{236.} See Schwarcz, supra note 235, at 6.

^{237.} A state insurance commission generally focuses on whether an insurance subsidiary maintains sufficient financial resources to satisfy customer claims. This is a narrower goal than preserving financial stability. *See* Schwarcz & Schwarcz, *supra* note 1, at 1627–34.

regulators.²³⁸

5. Entity-Based Regulation Can Improve the Effectiveness of Activities-Based Regulation

As suggested above, regulators implementing an activities-based approach face an immense challenge in identifying new and emerging types of systemically risky activities, particularly given that firms are constantly innovating to avoid regulatory burdens. ²³⁹ An entity-based approach to financial stability can mitigate these shortcomings of activities-based regulation both by helping regulators to identify potentially systemic activities ex ante, and by allowing them to assess how well activities-based reforms are curbing risk.

An entity-based approach produces these benefits through regular onand off-site supervision of nonbank SIFIs. Continuous monitoring—a hallmark of entity-based systemic risk oversight—allows FSOC members and Federal Reserve officials to observe the impact of different activities across time. This unique vantage point allows supervisors to more quickly identify troubling activities. For instance, if supervisors observe that several nonbank SIFIs are suddenly engaging in a new activity at accelerating rates, this is likely to trigger enhanced scrutiny of the activity itself, in a way that might otherwise be overlooked. Likewise, firm-wide examinations and continuous off-site monitoring can help supervisors detect when nonbank SIFIs respond to activities-based rules by changing their business models to continue taking systemic risks. In this way, regular entity-based nonbank SIFI supervision can help overcome some of the limitations inherent in an activities-based approach.

6. Criticisms of FSOC's Designation Regime Are Overblown and Have Been Addressed

Critics of FSOC's entity-based designation regime have complained that it creates an uneven playing field, is opaque, and imposes bank-centric

^{238.} See generally Insurance Regulation: Hearing Before the Subcomm. on Hous. & Ins. of the H. Comm. on Fin. Servs., 115th Cong. (2016) (statement of Thomas Sullivan, Associate Director, Federal Reserve Board of Governors, Department of Banking Supervision and Regulation).

^{239.} See supra Section III.A.1.

^{240.} See Bd. of Governors of the Fed. Reserve Sys., SR 12-17, Consolidated Supervision Framework for Large Financial Institutions 9-10 (2012) (discussing Federal Reserve supervision of nonbank SIFIs).

^{241.} See Matthew C. Turk, The Convergence of Insurance with Banking and Securities Industries, and the Limits of Regulatory Arbitrage in Finance, 2015 COLUM. BUS. L. REV. 967, 1040, 1053 (2015).

rules on nonbanks.²⁴² Each of these criticisms, however, has limited persuasive force.

First, the fact that FSOC's entity-based approach creates an uneven playing field for designated firms is a feature, not a bug. It helps to ensure that nonbank firms have incentives to avoid being designated in the first place, and to shed their status quickly if they are so designated.²⁴³ Moreover, the costs of SIFI designation are less unfair than critics suggest, as they help offset the funding advantages that come along with being perceived as systemically important.²⁴⁴ Finally, designated firms can avoid these costs by taking steps to limit their systemic importance, a fact that is well illustrated by the de-designation of nonbank SIFIs, even under the Obama Administration.²⁴⁵

Second, allegations of FSOC's opacity are overblown, and in any event, FSOC has increased its transparency in recent years. As with all broad legal standards, the FSOC designation scheme necessarily sacrifices predictability in favor of flexibility and adaptability.²⁴⁶ But within these constraints, FSOC has taken numerous steps to enhance the transparency of its process. For instance, it developed a formulaic quantitative test to select only a small subset of all nonbank financial firms for potential designation.²⁴⁷ In response to continued industry concerns, it began informing firms earlier when they were being considered for designation, and it formalized its process for annually reevaluating such designations.²⁴⁸ FSOC also began to release more detailed explanations for its designation decisions that provide much clearer indications of how firms can achieve de-designation. In sum, while FSOC can surely further improve the transparency of its designation process, critics' concerns in this domain are no longer persuasive.

Finally, critics' claims that designation results in the imposition of bank-centric rules on nonbanks are inaccurate. In response to these concerns, Congress passed the Insurance Capital Standards Clarification Act of 2014, which specifically authorized the Federal Reserve to tailor its capital standards for insurers to the distinctive risks posed by such firms.²⁴⁹ Over

- 242. See supra Section II.A.
- 243. See Schwarcz & Zaring, supra note 6, at 1851-55.
- 244. See supra Section I.B.
- 245. See supra Section II.A.
- 246. Gideon Parchomovsky & Alex Stein, Catalogs, 115 COLUM. L. REV. 165, 208–09 (2015).
- 247. See FSOC Guidance, supra note 15, at pt. 1310, app. A.III.a.

^{248.} See Examining Insurance Capital Rules and FSOC Process: Hearing Before the Subcomm. on Sec., Ins. & Investments of the S. Comm. on Banking, Hous. & Urban Affairs, 114th Cong. 7–8 (2015) (statement of Daniel Schwarcz, Professor, University of Minnesota Law School).

^{249.} Insurance Capital Standards Clarification Act of 2014, Pub. L. No. 113-279, sec. 2, § 5371,

the course of the last decade, the Federal Reserve has also developed a specialized team of insurance-focused experts to supervise nonbank SIFIs. The head of this group has repeatedly emphasized in Congressional testimony that the agency goes to great lengths to recognize the distinct regulatory issues associated with nonbank financial firms like insurers, and to tailor its approach accordingly. And, in fact, the Federal Reserve's proposed insurance SIFI capital standards reflect thoughtful consideration of the differences between bank and insurance company business models. Once again, therefore, whatever the merit of critics' concerns about the bank-centric nature of the Federal Reserve at the time of Dodd-Frank's passage, these arguments hold little force in the continued debate over the appropriateness of an entity-based approach.

In sum, entity-based systemic risk regulation is uniquely capable of preventing catastrophic nonbank failures. Nonbank SIFI oversight takes into account the cumulative effect of all of a firm's activities, is relatively easy to target, and is necessary to limit the fallout if a systemic firm were to become insolvent. An activities-based approach, by contrast, is severely limited along these dimensions, as it focuses on a firm's activities in isolation and is difficult to target effectively due to constant efforts by firms to avoid regulatory restrictions. Entity-based nonbank SIFI designations are therefore critical to prevent a recurrence of the systemic nonbank insolvencies from 2008.

IV. AN EFFECTIVE ACTIVITIES-BASED APPROACH IS IMPOSSIBLE IN THE CURRENT U.S. REGULATORY FRAMEWORK

The Trump Administration's proposal to deemphasize FSOC's entity-based authority in favor of an activities-based approach is misguided for another reason. Although it can theoretically combat some types of systemic risk, ²⁵² activities-based regulation is immensely difficult to implement domestically as a practical matter. This is a direct result of the United States' deeply fragmented legal and regulatory framework. Consequently, effective

¹²⁸ Stat. 3017, 3018-19.

^{250.} See, e.g., The Impact of Domestic Regulatory Standards on the U.S. Insurance Market: Hearing Before the Subcomm. on Hous. & Ins. of the H. Comm. on Fin. Servs., 114th Cong. 2–3 (2015) (statement of Thomas Sullivan, Associate Director, Federal Reserve Board of Governors, Department of Banking Supervision and Regulation).

^{251.} See Capital Requirements for Supervised Institutions Significantly Engaged in Insurance Activities, 81 Fed. Reg. 38,631, 38,632–37 (June 14, 2016).

^{252.} See *infra* Section V.B for a discussion of how activities-based regulation could limit some types of systemic risk, if properly configured.

activities-based systemic risk regulation might be plausible in foreign jurisdictions with a more centralized financial regulatory scheme. But it is not in the United States.

Activities-based systemic risk regulation faces two significant obstacles in the United States. First, FSOC lacks legal authority to order activities-based regulation on its own. Second, jurisdictional gaps and fragmentation among the primary financial regulators will impede efforts to curb systemic risk through activities-based regulation.

A. FSOC CANNOT IMPLEMENT ACTIVITIES-BASED REGULATION DIRECTLY

FSOC faces a threshold challenge in implementing an activities-based approach: the Council has no legal authority to promulgate activities-based rules. Instead, FSOC's activities-based authority is solely precatory. As discussed above, FSOC may *recommend* that the primary financial regulators adopt specific activities-based standards under section 120 of Dodd-Frank.²⁵³ But nothing requires an agency to follow this recommendation. Rather, the agency is free to decline FSOC's suggestion after "explain[ing] in writing" why the agency determined not to follow it.²⁵⁴

An agency might resist implementing activities-based regulations at FSOC's urging for several reasons. For one, an agency might be captured by the financial sector it is supposed to regulate. When the SEC initially resisted FSOC's recommendation for stronger regulation of MMMFs, for example, some commentators attributed the SEC's intransigence to the MMMF industry's influence over SEC policymaking. Second, an agency might decline a recommendation by the Council to protect its regulatory turf. Financial regulators are notorious for guarding their jurisdiction, and an agency might therefore resist perceived encroachment by the Council. Third, an agency might not be inclined to spend its resources and political capital on drafting, implementing, and enforcing a rule that a different entity believes is necessary.

^{253.} See supra Section II.A.

^{254. 12} U.S.C. § 5330(c)(2) (2018).

^{255.} See, e.g., Lawrence G. Baxter, Capture Nuances in Financial Regulation, 47 WAKE FOREST L. REV. 537, 541 (2012).

^{256.} See Stewart L. Brown, Mutual Funds and the Regulatory Capture of the SEC, 19 U. PA. J. BUS. L. 701, 707–10 (2017); Jill E. Fisch, The Broken Buck Stops Here: Embracing Sponsor Support in Money Market Fund Reform, 93 N.C. L. REV. 935, 940–41 (2015).

^{257.} See, e.g., Elizabeth F. Brown, E Pluribus Unum—Out of Many, One: Why the United States Needs a Single Financial Services Agency, 14 U. MIAMI BUS. L. REV. 1, 64–65 (2005).

^{258.} That appears to be what happened when FSOC urged the SEC to adopt heightened regulations

Because its activities-based authority is solely precatory, FSOC's only recourse when an agency declines to follow its recommendation is to designate—or threaten to designate—nonbanks within the agency's jurisdiction. The threat of such a designation might convince an agency to adopt the Council's proposed activities-based regulations because "[f]ew agencies relish the prospect of losing control over firms...that they traditionally regulate...." However, if the entity-based approach continues to erode—whether as a result of FSOC finalizing its proposed procedural barriers to nonbank SIFI designations, or otherwise—such threats will lack credibility, leading to agencies resisting the Council's activities-based recommendations with impunity. The sole of the sole of

B. FRAGMENTED U.S. FINANCIAL REGULATION PRECLUDES AN EFFECTIVE ACTIVITIES-BASED APPROACH

Even if FSOC could order federal regulators to adopt activities-based rules, existing jurisdictional barriers would prevent an activities-based approach from effectively curbing nonbank systemic risk. As currently configured, the U.S. regulatory structure is simply incapable of overseeing systemically important financial activities on a system-wide basis.

Jurisdictional fragmentation is pervasive in U.S. financial regulation, with both gaps and overlaps in the regulatory framework.²⁶² In some cases, no federal regulator has the requisite authority to impose activities-based

for MMMFs. In response to FSOC's recommendation, the SEC implemented modest MMMF regulations that were not as strong as FSOC had initially proposed. Key members of FSOC expressed displeasure that the SEC's rules did not go as far as FSOC intended. *See* Allen, *supra* note 5, at 1119.

260. Schwarcz & Zaring, supra note 6, at 1861.

^{259.} Notably, Treasury Secretary Timothy Geithner warned the SEC that FSOC would consider designating certain asset managers as nonbank SIFIs if the SEC did not implement stricter regulations for MMMFs. See Martha L. Cochran et al., Money Market Fund Reform: SEC Rulemaking in the FSOC Era, 2015 COLUM. BUS. L. REV. 861, 916–40 (2015). This threat convinced the SEC to adopt parts of FSOC's recommended MMMF regulations, but many observers criticized the SEC for weakening the Council's proposal. See, e.g., supra note 258; Sarah N. Lynch, SEC's Long Path to Money Market Fund Reform Ends in Compromise, REUTERS (July 22, 2014, 9:06 PM), https://www.reuters.com/article/us-secmoneyfunds/secs-long-path-to-money-market-fund-reform-ends

⁻in-compromise-idUSKBN0FS08E20140723.

^{261.} Alternatively, FSOC could attempt to "name and shame" an agency for failing to comply with the Council's recommendation. See Edward F. Greene & Joshua L. Boehm, The Limits of "Name-and-Shame" in International Financial Regulation, 97 CORNELL L. REV. 1083, 1091 (2012). As a regulatory tool, however, naming and shaming suffers from critical limitations. See generally id. (discussing shortcomings of a naming-and-shaming strategy in cross-border resolutions). For example, independent financial regulators might be unresponsive to such a strategy because they are politically insulated.

^{262.} See, e.g., Lawrence A. Cunningham & David Zaring, The Three or Four Approaches to Financial Regulation: A Cautionary Analysis Against Exuberance in Crisis Response, 78 GEO. WASH. L. REV. 39, 49–56 (2009).

regulations on relevant nonbank actors, leading to potentially systemic activities going unpoliced. In other cases, multiple federal regulators share jurisdiction, which can produce inconsistent enforcement and implementation patterns as well as critical information gaps.²⁶³ Taken together, these structural deficiencies seriously undermine the practical capacity of an activities-based approach to effectively protect financial stability.

This Section details these critical structural deficiencies in the United States' capacity to regulate potentially systemic financial activities. To do so, it focuses on eight areas where FSOC has identified activities that could potentially threaten U.S. financial stability. Each of these sets of activities has one thing in common: there is no single federal regulator that can oversee them for systemic risk across the entire financial sector.

1. Gaps in the U.S. Regulatory Framework Undermine Regulation of Systemic Activities

Important segments of the financial sector lack effective systemic risk regulatory oversight because of gaps in the U.S. regulatory framework. These gaps persist for several reasons. Some are attributable to divisions of authority between federal and state regulators. Others developed when industry participants fought for, and won, exemptions from regulatory oversight. Still, other gaps emerged as new industries evolved that legacy regulatory structures were not equipped to oversee. Because of these gaps, even if FSOC were to recommend enhanced regulations for a particular financial activity, there is no guarantee that a primary federal financial regulator would be able to act on FSOC's recommendation. This Section examines how gaps in insurance, hedge fund, and fintech oversight preclude an effective activities-based approach to nonbank systemic risk.

i. Insurance Activities

Gaps in insurance regulation demonstrate the limits of FSOC's activities-based authority. Since the financial crisis, FSOC has identified a wide range of insurance company activities as potentially systemically risky—for example, life insurance policies with cash surrender or redemption rights,²⁶⁴ guaranteed investment contracts,²⁶⁵ captive

^{263.} See Kathryn Judge, Information Gaps and Shadow Banking, 103 VA. L. REV. 411, 444–46 (2017).

^{264.} See, e.g., METLIFE DESIGNATION, supra note 84, at 13–14, 16–18, 22–23.

^{265.} See id. at 11–12, 18.

reinsurance,²⁶⁶ and financial guaranty insurance.²⁶⁷ Yet effective activities-based regulation of these types of transactions for systemic risk is virtually impossible because of jurisdictional gaps in U.S. insurance regulation.

As discussed above, the states have traditionally regulated U.S. insurance companies, with minimal federal involvement.²⁶⁸ States' dominance in insurance regulation is rooted in the reverse preemption provision of the McCarran-Ferguson Act, which provides that no federal law may "invalidate, impair, or supersede" state laws governing the business of insurance unless the federal law specifically relates to the business of insurance.²⁶⁹

This system of state-based insurance regulation creates critical blind spots in the regulation of potentially systemic activities. First, not only is FSOC powerless to directly reform potentially systemic insurance activities like the cash redemption or surrender terms of life insurance policies, but so too are all other federal financial regulators. McCarran-Ferguson's strictures against federal insurance oversight strip federal agencies of almost all authority to implement an FSOC recommendation regarding traditional insurance activities.

Second, even if states were inclined to adopt an FSOC recommendation to regulate an insurance company activity more stringently, they would face severe coordination problems. States cannot consistently regulate potentially systemic activities of insurance carriers due to the independent legal authority of each individual state to regulate insurers conducting business in its jurisdiction. Although states attempt to coordinate their laws, regulation, and enforcement through the National Association of Insurance Commissioners ("NAIC"), these efforts are often inconsistent. States often refuse to implement reforms, or else implement them differently than other states.²⁷⁰

^{266.} See, e.g., FIN. STABILITY OVERSIGHT COUNCIL, 2016 ANNUAL REPORT 97–98 (2016), https://www.treasury.gov/initiatives/fsoc/studies-reports/Documents/FSOC%202016%20Annual%20 Report.pdf.

^{267.} See Fin. Stability Oversight Council, 2011 Annual Report 62 (2011), https://www.treasury.gov/initiatives/fsoc/Documents/FSOCAR2011.pdf.

^{268.} See supra Section III.B.4.

^{269.} Act of Mar. 9, 1945, Pub. L. No. 79-15, 59 Stat. 33, 34 (codified at 15 U.S.C. §§ 1011–15 (2018)). For a brief history of U.S. insurance regulation, see McCoy, *supra* note 5, at 1393–94.

^{270.} See ABRAHAM & SCHWARCZ, supra note 196, at 112. And even when state laws and regulations are harmonious, their enforcement by states often is not. FED. INS. OFFICE, U.S. DEP'T OF THE TREASURY, HOW TO MODERNIZE AND IMPROVE THE SYSTEM OF INSURANCE REGULATION IN THE UNITED STATES 33–34 (2013), https://www.treasury.gov/initiatives/fio/Documents/How% 20to% 20 Modernize% 20and% 20Improve% 20the% 20System% 20of% 20Insurance% 20Regulation% 20in% 20the% 20US.pdf.

Meanwhile, most states lack the legal authority to implement FSOCrecommended regulations for activities conducted outside of chartered insurance subsidiaries. Although several states have enacted laws purporting to authorize their insurance commissioners to *supervise* insurance groups domiciled in their states on a consolidated basis, these statutes do not clearly permit commissioners to regulate noninsurance or group-wide conduct.²⁷¹ Even for those states with the legal authority to regulate activities conducted outside of insurance entities, some of those activities are nevertheless off limits due to federal preemption.²⁷² And for activities that states *could* reach at the group level, it is hardly clear that they would enforce such regulation vigorously. State insurance commissions have limited experience scrutinizing activities conducted within an insurance conglomerate's noninsurance subsidiaries, a task they did not even attempt prior to the financial crisis.²⁷³ Further, states lack the system-wide information on exposures outside of insurance that effective financial stability oversight demands. Due to weak and untested group-wide supervision, insurance conglomerates face few restrictions in conducting systemically risky activities within their noninsurance affiliates—precisely what went wrong with AIG's CDS and securities lending operations.²⁷⁴

In sum, gaps in group-wide regulation of insurance conglomerates would render an activities-based approach to insurance activities impotent. In the absence of nonbank SIFI designations, therefore, FSOC cannot effectively mitigate systemic risk arising from the insurance sector.

ii. Hedge Fund Activities

Regulatory gaps would likewise undermine an activities-based approach to hedge funds. The near-failure of LTCM in 1998 and its need for a government-orchestrated private bailout underscored the potential risk that

^{271.} See Kress, supra note 209.

^{272.} For instance, in 2008, state insurance regulators lacked jurisdiction over the CDS activities of AIG Financial Products because the U.S. Office of Thrift Supervision exerted field preemption over those activities. ENGEL & MCCOY, *supra* note 1, at 157–58, 162, 221–23.

^{273.} The FSB concluded that the U.S. state-based system of insurance regulation lacks the capacity for consolidated group supervision. FIN. STABILITY BD., PEER REVIEW OF THE UNITED STATES 32–38 (2013), http://www.fsb.org/wp-content/uploads/r_130827.pdf. In recent years, states have implemented a variety of reforms intended to improve their group-level regulation. But these reforms rely almost exclusively on qualitative rather than quantitative constraints and are susceptible to coordination problems among state regulators. See Schwarcz, supra note 31, at 550. Moreover, these reforms are new, still developing, and largely untested. See generally The Federal Government's Role in the Insurance Industry: Hearing Before the Subcomm. on Hous. & Ins. of the H. Comm. on Fin. Servs., 115th Cong. (2017) (testimony of Daniel Schwarcz, Professor, University of Minnesota Law School) (discussing these state reforms).

^{274.} See Schwarcz, supra note 31, at 551–55.

hedge fund activities can pose to the larger financial system.²⁷⁵ In recognition of this continued threat, FSOC created an interagency working group to monitor systemic risk in the hedge fund industry.²⁷⁶ Because of statutory exemptions, however, hedge funds could avoid activities-based systemic risk regulation absent congressional action.

Before the financial crisis, hedge funds largely escaped SEC regulation because they operated outside of the purview of federal securities laws. Hedge fund managers were not required to register with the SEC, nor were the funds themselves subject to leverage limits and other prudential rules that applied to other investment companies, like mutual funds.²⁷⁷ After the crisis, Dodd-Frank imposed modest regulatory requirements on hedge fund managers for the first time. Dodd-Frank required hedge fund managers to register with the SEC, undergo periodic examinations, and file confidential reports containing information on their funds' leverage, counterparty identities and exposures, and trading strategies.²⁷⁸

Dodd-Frank did not, however, impose prudential requirements on hedge funds, nor did it authorize the SEC to adopt such regulations. Thus, hedge funds remain exempt from the Investment Company Act of 1940—the statutory authority that permits the SEC to regulate mutual funds and other investment companies. The SEC, therefore, currently lacks power to adopt activities-based reforms for hedge funds, such as restrictions on specific trading practices. This inability to prudentially regulate hedge funds would frustrate an activities-based approach to nonbank systemic risk. Even if FSOC wanted to recommend activities-based regulations for hedge funds' activities, it would be fruitless because the SEC would not be able to implement such rules.

iii. Fintech

Similarly, gaps in the U.S. regulatory framework would impede an activities-based approach to emerging risks in the fintech sector. FSOC has warned about financial stability threats from marketplace lending, payment

^{275.} See President's Working Grp. on Fin. Mkts., Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management 10–17 (1999), https://www.treasury.gov/resource-center/fin-mkts/Documents/hedgfund.pdf.

^{276.} FIN. STABILITY OVERSIGHT COUNCIL, *supra* note 96, at 20–21.

^{277.} Id. at 14; Marco Bodellini, From Systemic Risk to Financial Scandals: The Shortcomings of U.S. Hedge Fund Regulation, 11 BROOK. J. CORP. FIN. & COM. L. 417, 456–59 (2017).

^{278. 15} U.S.C. § 80b-4 (2018).

^{279.} Bodellini, *supra* note 277, at 456–59.

^{280.} See id.

systems, virtual currencies, and other fintech innovations.²⁸¹ According to the Council, these technologies "create unanticipated risks and vulnerabilities."²⁸² Despite these risks, the U.S. Government Accountability Office reports that "some fintech companies may not be subject to *any*... financial oversight..."²⁸³ Accordingly, activities-based systemic risk regulation of fintech would face serious challenges because, at least in some cases, no primary federal financial regulatory agency would have authority to implement FSOC's activities-based recommendations.²⁸⁴

Rapid innovations in the fintech sector have revealed problematic gaps in the oversight of these new technologies. Online marketplace lenders like LendingClub and Prosper, which provide financing to consumers and small businesses, are subject to a patchwork of state-based licensing requirements but no federal regulation for safety and soundness or systemic risk. ²⁸⁵ Likewise, nonbank payment services like PayPal and Venmo face inconsistent state oversight, and some fintech payments firms could escape federal and state regulation entirely. ²⁸⁶ Meanwhile, Bitcoin, Ether, and other cryptocurrencies avoid comprehensive federal oversight by the CFTC and SEC, whose legal authority to regulate such products is debatable. ²⁸⁷ Because federal jurisdiction in these areas is unclear at best, activities-based systemic risk regulation might be unable to reach important segments of the fintech market.

_

^{281.} See FSOC 2017 ANNUAL REPORT, supra note 86, at 126–27. For a discussion of fintech's potential threats to financial stability, see generally Saule T. Omarova, New Tech v. New Deal: Fintech as a Systemic Phenomenon, 36 YALE J. ON REG. 735, 786–89 (2019); Rory Van Loo, Making Innovation More Competitive: The Case of Fintech, 65 UCLA L. REV. 232 (2018).

^{282.} FSOC 2017 ANNUAL REPORT, supra note 86, at 6.

^{283.} U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-18-254, FINANCIAL TECHNOLOGY: ADDITIONAL STEPS BY REGULATORS COULD BETTER PROTECT CONSUMERS AND AID REGULATORY OVERSIGHT 38 (2018) (emphasis added), https://www.gao.gov/assets/700/690803.pdf [hereinafter GAO FINTECH REPORT].

^{284.} For a discussion of gaps in fintech supervision, see Rory Van Loo, *Digital Market Perfection*, 117 MICH. L. REV. 815, 875 (2019).

^{285.} See GAO FINTECH REPORT, supra note 283, at 34; Brian Knight, Federalism and Federalization on the Fintech Frontier, 20 VAND. J. ENT. & TECH. L. 129, 144 (2017). In July 2018, the OCC created a federal charter for fintech firms, but the prospects for this charter type are uncertain. See Rachel Witkowski, After Years of Debate, OCC to Offer Fintech Charter, AM. BANKER (July 31, 2018, 2:00 PM), https://www.americanbanker.com/news/after-years-of-debate-occ-to-offer-fintech-charter.

^{286.} See GAO FINTECH REPORT, supra note 283, at 38; Knight, supra note 285, at 153-61.

^{287.} See Virtual Currencies: The Oversight Role of the U.S. Securities and Exchange Commission and the U.S. Commodity Futures Trading Commission: Hearing Before the S. Comm. on Banking, Hous., & Urban Affairs, 115th Cong. 103 (2018) (statement of J. Christopher Giancarlo, Chairman, U.S. Commodity Futures Trading Commission); Anna Irrera, U.S. SEC Official Says Ether Not a Security, Price Surges, REUTERS (June 14, 2018, 1:24 PM), https://www.reuters.com/article/us-cryptocurrencies-ether/u-s-sec-official-says-ether-not-a-security-price-surges-idUSKBN1JA30Q.

Fragmentation in the U.S. Regulatory Framework Impedes Activities-Based Regulation

While some parts of the financial sector fall within regulatory interstices, other areas suffer from the opposite problem: they are subject to regulation by many agencies. There are a number of reasons why jurisdictional fragmentation pervades U.S. financial regulation. Often, agencies split responsibility for functionally equivalent activities because those activities are defined as different products. In other cases, different agencies regulate different types of entities that engage in the same activity. And in still other cases, multiple regulators oversee the same activities for different risks. Finally, jurisdiction for a single activity or entity may be spread across federal and state agencies.

This fragmentation poses serious challenges for activities-based systemic risk regulation. Even if FSOC were to recommend activities-based regulations, jurisdictional fragmentation would undermine regulators' ability to enact and enforce uniform, consistent rules in five ways. First, because each financial regulator focuses narrowly on its jurisdiction, no agency has a complete view of the risks within the larger financial system. Highly fragmented regulators therefore lack sufficient information to implement a holistic, activities-based approach. Second, while FSOC could attempt to coordinate among regulators, such coordination is inherently limited because different agencies may nonetheless issue incompatible rules for the same risk. Third, even if the agencies did adopt uniform rules, differences in how the agencies interpret and enforce regulations could undermine the goal of a uniform, consistent approach to systemic risk. Fourth, regulators may engage in a race-to-the-bottom by adopting less stringent regulations than other agencies, as each regulator competes to expand its jurisdiction. Finally, under these circumstances, financial institutions may seek out opportunities for regulatory arbitrage by moving activities to less-regulated parts of the system.

These challenges vastly complicate activities-based regulation of nonbank systemic risk. By way of example, this Section examines regulatory fragmentation of five activities that pose potential financial stability risks: mortgages, securities, derivatives, short-term funding, and cybersecurity. It concludes that fragmentation would create serious challenges if FSOC were to adopt an activities-based approach in any of these areas.

i. Mortgages

The central role of mortgages in both the 2008 financial crisis and the 1980s savings and loan crisis epitomizes a larger historical trend: the worst

global financial crises have involved real estate bubbles fueled by lax lending standards. Given the prominence of mortgage credit in financial crises, one might expect to find a robust, unified framework for systemic risk oversight of mortgages in the United States. But that is hardly the case. To the contrary, federal mortgage regulation is highly fragmented. This fragmentation renders an activities-based approach to mortgage regulation practically unworkable.

Considerable fragmentation stems from differences in the regulation of commercial and residential mortgages. Commercial mortgages are subject to lighter federal regulation than their residential counterparts. Banks, which dominate commercial mortgage lending, are supervised by the Federal Reserve, the FDIC, or the OCC, depending on their charters, for solvency risk. Separately, commercial mortgage-backed securitizations and REITs undergo SEC regulation for risk to investors. Commercial mortgages originated by independent nonbank lenders generally are not subject to significant federal oversight.

Residential mortgages are subject to most of the same federal regulation as commercial mortgages, plus more. For example, the CFPB regulates residential mortgages—by depository institutions and nonbank lenders alike—for market conduct risk to consumers. The CFPB has virtually exclusive rulemaking authority in that respect, but shares responsibility for supervision and enforcement with the federal prudential banking regulators and the Federal Trade Commission. ²⁹² Although the CFPB Director sits on FSOC and the CFPB's rules play an important role in constraining systemic risk from home mortgages, the Bureau frames its mission in terms of protecting consumers, not mitigating threats to financial stability. ²⁹³

Additional federal regulation of residential mortgages comes from two

^{288.} See, e.g., CARMEN M. REINHART & KENNETH S. ROGOFF, THIS TIME IS DIFFERENT: EIGHT CENTURIES OF FINANCIAL FOLLY, at xliv–xlv, 158–62 (2009); see also Ryan Bubb & Prasad Krishnamurthy, Regulating Against Bubbles: How Mortgage Regulation Can Keep Main Street and Wall Street Safe—From Themselves, 163 U. PA. L. REV. 1539, 1549–55 (2015).

^{289.} There is some systemic risk regulation of mortgages, but it is limited in reach. The mortgage activities of systemically important depository institutions and nonbank SIFIs are subject to financial stability oversight by the Federal Reserve. Meanwhile, the joint risk retention rule requires sponsors of certain mortgage-backed securities to retain risk. Joint Press Release, Bd. of Governors of the Fed. Reserve Sys. et al., Six Federal Agencies Jointly Approve Final Risk Retention Rule (Oct. 22, 2014), https://www.sec.gov/news/pressrelease/2014-236.html.

^{290.} See, e.g., BARR ET AL., supra note 1, at 174, 174 fig. 2.1-.5.

^{291.} See, e.g., 17 C.F.R. pt. 229 (2019).

^{292.} See BARR ET AL., supra note 1, at 584, 588–91.

 $^{293.\ \} See\ The\ Bureau,$ Consumer Fin. Protection Bureau, https://www.consumerfinance.gov/about-us/the-bureau (last visited Sept. 19, 2019).

main financing channels: the government-sponsored entities ("GSEs") Fannie Mae and Freddie Mac, and the federal insurers and guarantors. The GSEs, under the auspices of their regulator and conservator, the Federal Housing Finance Agency ("FHFA"), impose extensive requirements on the origination and servicing of the residential mortgage loans they buy.²⁹⁴ Meanwhile, the Federal Housing Administration, the Department of Veterans Affairs, the Department of Agriculture, and the Rural Housing Service (plus their financing arm, Ginnie Mae), heavily regulate the home loans they insure or guarantee.²⁹⁵ In light of this fragmentation, even if FSOC sought to implement consistent activities-based mortgage regulation for systemic risk, it would be hard-pressed to succeed because that jurisdiction is divided among so many federal agencies.

ii. Securities

U.S. securities regulation is likewise divided because Congress ceded jurisdiction over some securities activities of commercial banks to the traditional banking regulators—the FDIC, OCC, and Federal Reserve. ²⁹⁶ This dispersed authority over securities regulation must be taken into account in any appraisal of an activities-based approach to systemic risk, given the role of banking groups in securitization and the reorganization of leading investment banks as financial holding companies under the watch of the Federal Reserve.

In the banking sector, jurisdiction over securities regulation is split between the SEC and federal banking regulators, and some federal securities laws do not apply to banks at all. Congress exempted banks from important provisions of the Securities Act of 1933 ("Securities Act"),²⁹⁷ the Securities Exchange Act of 1934 ("Exchange Act"),²⁹⁸ the Investment Company Act of 1940,²⁹⁹ and the Investment Advisers Act of 1940³⁰⁰ because banks are

^{294.} See Access the Single Family Guides, FANNIE MAE, https://www.fanniemae.com/singlefamily/index (last visited Sept. 19, 2019); Freddie Mac's Selling and Servicing Requirements, FREDDIE MAC, http://www.freddiemac.com/singlefamily/guide (last visited Sept. 19, 2019); About FHFA, FED. HOUSING FIN. AGENCY, https://www.fhfa.gov/AboutUs (last visited Sept. 19, 2019).

^{295.} See, e.g., U.S. DEP'T OF HOUS. & URBAN DEV., SINGLE FAMILY HOUSING POLICY HANDBOOK 4000.1 (2019), https://www.hud.gov/sites/dfiles/OCHCO/documents/4000.1hsgh.pdf; Statutes & Regulations, GINNIE MAE, https://www.ginniemae.gov/about_us/what_we_do/Pages/statutes_regulations.aspx (last visited Sept. 19, 2019).

^{296.} This discussion of securities regulation jurisdiction is heavily informed by Schooner, *supra* note 9.

^{297.} Securities Act of 1933, Pub. L. No. 73-22, 48 Stat. 74.

^{298.} Securities Exchange Act of 1934, Pub. L. No. 73-290, 48 Stat. 881.

^{299.} Investment Company Act of 1940, Pub. L. No. 76-768, 54 Stat. 789 (codified at 15 U.S.C. §§ 80a-1 to -64 (2018)).

³⁰⁰ Investment Advisors Act of 1940, Pub. L. No. 76-768, 54 Stat. 847 (codified at 15 U.S.C.

subject to a comprehensive scheme of federal banking regulation.³⁰¹ In other cases, depository institutions are bound by federal securities laws, but Congress entrusted oversight of those provisions with respect to banks and sometimes thrifts to federal prudential banking regulators, not the SEC.³⁰²

This division of federal securities jurisdiction among the SEC and three federal banking regulators impedes activities-based regulation of securities for systemic risk. It creates one system of securities regulation for independent nonbank securities market actors (who are regulated by the SEC) and another one for banking companies (whose securities activities are regulated by federal banking regulators and are sometimes exempt from federal regulation altogether). These two systems produce inconsistent rules and openings for regulatory arbitrage that obstruct a unified approach to systemic risk in securities regulation.

iii. Derivatives

A similar fragmentation problem bedevils derivatives regulation. Throughout their histories, the SEC and the Commodity Futures Trading Commission ("CFTC") have clashed repeatedly in jurisdictional battles over securities and commodities markets. 303 Since Dodd-Frank, the combative agencies now share legal authority for derivatives that previously had been traded over-the-counter ("OTC"), without regulation. In deference to the historic division of authority between the CFTC over futures and the SEC over securities, Congress gave jurisdiction over "swaps" to the CFTC and

^{§§ 80}b-1 to -2).

^{301.} For example, banks are exempt from broker-dealer registration, examination, and regulation, 15 U.S.C. §§ 78c(a)(4)-(6), 78o-5(a)(1)(A)-(B), some SEC registration of clearing activities, id. § 78c(a)(23)(B); see also id. §§ 78c(a)(23)(A), 78q-1(b)(1), SEC regulation, supervision, and regulation of common investment funds maintained in a fiduciary capacity, id. § 80a-3(c)(3), (6); see also id. § 80a-8, and SEC registration, supervision, and regulation as investment advisors, id. § 80b-2(a)(11)(A); see also id. § 80a-2(a)(20).

^{302.} Id. § 78l(i). For covered banks and thrifts, federal prudential banking regulators administer Exchange Act Sections 10A(m) (audit committee requirements), 12 (registration requirements for securities traded on national securities exchanges), 13 (periodic reporting requirements), 14(a) and 14(c) (on proxy solicitations), 14(d) and 14(f) (on tender offers), 15C (government securities brokers and dealers), 16 (on short swing profits), and 17A (on transfer agents). Id. §§ 78j-1(m), 78l, 78m, 78n(a), (c)-(d), (f), 78o-5(g)(2), 78p, 78q-1(d); see also id. § 78c(a)(34)(B) (defining "appropriate regulatory agency"). Sometimes the SEC and federal prudential banking regulators share authority. For instance, banks and thrifts that do not qualify for the exemption for clearing activities must register with the SEC. Id. § 78q-1(b)(1); see also id. § 78c(a)(23)(B). However, the prudential federal banking regulators exercise rulemaking, supervision, and enforcement jurisdiction over those activities. Id. §§ 78c(a)(34)(B), 78q-1(d).

^{303.} See Jerry W. Markham, Merging the SEC and CFTC—A Clash of Cultures, 78 U. CIN. L. REV. 537, 574-81 (2009).

"security-based swaps" to the SEC.³⁰⁴ The two agencies jointly regulate "mixed swaps."³⁰⁵ Notably, however, the SEC and CFTC are not required to treat functionally or economically similar swap products or entities in an identical manner.³⁰⁶

This fragmented oversight of derivatives markets creates the risk of inconsistent regulations, regulatory arbitrage, and a race-to-the-bottom, as discussed above. While the SEC and CFTC have attempted to coordinate with one another, 307 some observers remain concerned that jurisdictional fragmentation undermines systemic risk regulation in derivatives markets. 308 In short, if FSOC were to recommend enhanced activities-based derivatives rules, jurisdictional feuds and potentially inconsistent rules and enforcement by the SEC and CFTC could thwart effective systemic risk regulation.

iv. Short-Term Securities Financing

Fragmented regulatory jurisdiction would likewise undercut an activities-based approach to short-term securities financing, such as repo agreements and securities lending. As discussed above, these short-term liabilities pose legitimate threats to financial stability, as an institution's rapid loss of such funding can spread systemic risk. Recognizing these risks, FSOC has warned that short-term securities financing "must be carefully managed and subjected to appropriate oversight." Comprehensive, activities-based oversight of short-term securities financing is nearly impossible, however, because jurisdiction over repo and securities lending is fractured among a multiplicity of regulators.

Fragmented jurisdiction over short-term securities financing stems from its near-ubiquitous use in different financial sectors. Broker-dealers, hedge funds, banks, pension funds, mutual funds, insurance companies, central

^{304.} See 15 U.S.C. § 8302(b)(1)–(2). Dodd-Frank uses the word "swaps" to refer to derivatives that were formerly traded OTC. See BARR ET AL., supra note 1, at 59.

^{305.} See, e.g., 15 U.S.C. § 8302(a)(8).

^{306.} Id. § 8302(a)(7)(B).

^{307.} See, e.g., U.S. Sec. & Exch. Comm'n & U.S. Commodity Futures Trading Comm'n, Memorandum of Understanding Between the U.S. Securities and Exchange Commission and the U.S. Commodity Futures Trading Commission Regarding Coordination in Areas of Common Regulatory Interest and Information Sharing (2018), https://www.cftc.gov/sites/default/files/2018-07/CFTC_MOU_InformationSharing062818.pdf. Congress anticipated that this division of authority would produce tension between the two historic rivals and enacted a host of provisions to mediate future disputes. See 15 U.S.C. § 8302(a), (b)(1)–(2), (c), (d)(1), (d)(3).

^{308.} See, e.g., Colleen M. Baker, Regulating the Invisible: The Case of Over-the-Counter Derivatives, 85 Notre Dame L. Rev. 1287, 1338–49 (2010).

^{309.} See supra Sections I.C, III.A.1.i.

^{310.} FIN. STABILITY OVERSIGHT COUNCIL, 2012 ANNUAL REPORT 10 (2012), https://www.treasury.gov/initiatives/fsoc/Documents/2012%20Annual%20Report.pdf.

banks, sovereign wealth funds, and endowments commonly borrow through repo or securities lending.³¹¹ Many of these same institutions also participate on the opposite side of these transactions by providing short-term funding to counterparties. Indeed, insurance companies, pension funds, mutual funds, MMMFs, banks, governments, GSEs, securities dealers, and hedge funds are major cash investors in both repo and securities lending.³¹²

Given the diversity of institutions that engage in short-term securities financing, numerous federal and state regulators assert jurisdiction over this conduct. For example, the SEC oversees the repo activities of registered investment companies and U.S. broker-dealers, often in tandem with the Federal Reserve, which regulates the BHC parent companies of many broker-dealers. Meanwhile, federal banking regulators oversee the repo activities of banks, while state insurance commissioners supervise repo transactions by insurance firms. Hurisdiction over securities lending is similarly fragmented along entity and sectoral lines, with the SEC, Federal Reserve, OCC, FDIC, U.S. Department of Labor, and state insurance commissions all playing prominent roles.

This decentralized oversight creates thorny problems for implementing activities-based oversight of repo and securities lending. Just monitoring these markets for systemic risk is difficult because the reporting requirements differ by sector. The Any activities-based approach to regulating short-term securities financing—such as limits on the aggregate amount of this activity at any firm or requirements that they be paired with liquid assets—would inevitably result in inconsistent implementation and an unlevel competitive playing field that would present opportunities for regulatory arbitrage. Indeed, this is exactly what has occurred with respect to entity-based approaches in this domain. Although an activities-based

^{311.} See Viktoria Baklanova et al., Fed. Reserve Bank of N.Y., Staff Report No. 740, Reference Guide to U.S. Repo and Securities Lending Markets 15–16, 22 (rev. ed. Dec. 2015), https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr740.pdf; see also FSOC 2017 Annual Report, supra note 86, at 52.

^{312.} See BAKLANOVA ET AL., supra note 311, at 17, 29.

^{313.} See Paolo Saguato, The Liquidity Dilemma and the Repo Market: A Two-Step Policy Option to Address the Regulatory Void, 22 STAN. J.L. BUS. & FIN. 85, 94–95 (2017).

^{314.} *See, e.g.*, BAKLANOVA ET AL., *supra* note 311, at 34–35.

^{315.} See id. at 31, 54-56.

^{316.} See id. at 46-60.

^{317.} For instance, banks engaged in repo must meet capital adequacy, liquidity, and leverage requirements, but there are no comparable direct rules for lending agent affiliates of U.S. banks. This has encouraged securities lending operations to migrate to overseas banks or independent nonbank firms. See id. at 42. Moreover, cross-border differences in reporting metrics induce non-U.S. banks with low capital ratios to temporarily reduce their repo funding soon before each quarter-end in order to appear less levered. Benjamin Munyan, Regulatory Arbitrage in Repo Markets 1–7, 11–12 (Office of Fin. Research,

approach might theoretically be able to resolve this problem, there is no way to implement such an approach consistently given the current fragmentation of regulatory authority in this domain. Meanwhile, coordination problems would thwart a crisis response if a securities dealer defaulted on its repo loans because no single regulator would have the authority to oversee an orderly sale of the collateral in its creditors' hands, increasing the chances of a run.³¹⁸ In sum, this web of competing rules, agency fiefdoms, arbitrage incentives, and coordination problems would make a uniform set of activities-based rules for systemic risk nearly impossible in the repo and securities lending space.

v. Cybersecurity

Cybersecurity is yet another potentially systemic threat where jurisdictional fragmentation would undermine an activities-based approach. As FSOC has noted, a cyberattack or outage could disrupt market trading, paralyze the operations of a key financial hub, interrupt clearing and settlement, and shatter customers' confidence in the financial system.³¹⁹ This system-wide risk demands an overarching approach that focuses on the larger structure of financial markets and the weak links within them. U.S. regulation of financial market cybersecurity falls woefully short of this goal.

In the financial arena, cyber regulation is siloed among various state and federal regulators. At the federal level, nine financial regulators and the Treasury Department have direct jurisdiction over cybersecurity at financial firms. State banking, insurance, and securities regulators have concurrent authority over state-chartered financial companies. Adding to this, the Department of Homeland Security has lead responsibility for the federal response to cyber threats, while other federal agencies and departments, including the Federal Communications Commission and the Department of

W

Working Paper No. 15-22, 2015), https://www.financialresearch.gov/working-papers/files/OFRwp-2015 -22_Repo-Arbitrage.pdf.

^{318.} See FSOC 2017 ANNUAL REPORT, supra note 86, at 12, 124; FIN. STABILITY OVERSIGHT COUNCIL, 2015 ANNUAL REPORT 115 (2015), https://www.treasury.gov/initiatives/fsoc/studies-reports/Documents/2015%20FSOC%20Annual%20Report.pdf.

^{319.} FSOC 2017 ANNUAL REPORT, *supra* note 86, at 127–28.

^{320.} See Cybersecurity Regulation Harmonization: Hearing Before the S. Comm. on Homeland Sec. & Gov't Affairs, 115th Cong. 35 (2017) [hereinafter Feeney Testimony] (statement of Christopher F. Feeney, President, BITS, Financial Services Roundtable); Office of Fin. Research, Cybersecurity and Financial Stability: Risks and Resilience, OFR VIEWPOINT, Feb. 15, 2017, at 1, 7–10 [hereinafter OFR VIEWPOINT].

^{321.} Feeney Testimony, *supra* note 320; *see*, *e.g.*, *Key Initiative: Data, Innovation & Cyber*, NAT'L ASS'N INS. COMMISSIONERS, https://www.naic.org/cipr_topics/topic_cyber_risk.htm (last updated Sept. 19, 2019).

Justice, oversee other discrete aspects of cybersecurity.³²²

This cybersecurity tower of Babel seriously impedes a system-wide approach to cyber threats against financial firms. There is no single financial regulator with sight lines into the IT infrastructure of the entire financial sector or umbrella jurisdiction to address the sectoral threat. Alarmingly, cooperation among federal regulators has mostly been limited to "sharing information about cybersecurity threats." The Office of Financial Research has warned that current "[r]egulatory boundaries may limit regulators' perspectives on key parts of financial networks" and that "[p]otential blind spots include third-party vendors, overseas counterparties, and cross-border service providers." To exacerbate matters, the welter of regulators has resulted in a proliferation of cybersecurity rules, guidelines, and frameworks that are marred by inconsistency and complexity. 325

In light of system-wide risks, an activities-based approach to cybersecurity would make eminent sense. Currently, however, the jumble of overlapping jurisdictional lines makes a unified approach to activities-based regulation of cybersecurity-related systemic risk impossible.

Jurisdictional complexities in the U.S. regulatory framework would thus render an activities-based approach to systemic risk unworkable. Even if FSOC were to recommend activities-based regulation for systemically important activities, the primary financial regulators would be unlikely to enact uniform, effective rules because of gaps and fragmentation in the regulatory structure. Remarkably, not one of the potentially systemic activities discussed in this section has an umbrella federal regulator that can oversee conduct across the entire financial sector. In some cases, like insurance activities, hedge funds, and fintech, federal regulators lack authority to impose systemic risk constraints. In other cases, like mortgages, derivatives, securities, short-term financing, and cybersecurity, federal regulation is divided among multiple agencies, all with different rules and approaches. These are just a few examples of potential weaknesses in the U.S. regulatory framework, and additional jurisdictional problems are certain to arise in the future. It is therefore unrealistic to imagine that regulators could implement uniform activities-based rules to curb risk for

LΈ

^{322.} Feeney Testimony, *supra* note 320, at 2–3.

^{323.} OFFICE OF FIN. RESEARCH, 2016 FINANCIAL STABILITY REPORT 47 (2016), https://www.financialresearch.gov/financial-stability-reports/files/OFR_2016_Financial-Stability-Report.pdf.

^{324.} OFR VIEWPOINT, supra note 320, at 10.

^{325.} See Feeney Testimony, supra note 320, at 36–37.

systemically important financial activities, absent significant reforms to the U.S. regulatory framework.

V. AN APPROPRIATELY STRUCTURED ACTIVITIES-BASED APPROACH COULD COMPLEMENT ENTITY-BASED DESIGNATIONS

Abandoning FSOC's entity-based authority in favor of an activities-based approach would be deeply misguided for reasons that we explained in Parts III and IV. None of this is to say, however, that activities-based regulation is incapable of helping to preserve financial stability. To the contrary, activities-based regulation *could* combat some sources of nonbank systemic risk—but only if Congress overhauls the U.S. regulatory framework to achieve this goal.

In an optimal activities-based regulatory regime, a single agency with a financial stability mandate would enact and enforce rules across the entire U.S. financial sector. This Part explains how, if such a regime were implemented in the United States, an activities-based approach could meaningfully complement an entity-based approach to nonbank systemic risk. Section V.A describes the significant structural changes that policymakers would need to make to the U.S. regulatory framework to operationalize an effective activities-based approach. Section V.B then assesses the unique benefits that an activities-based approach could achieve under this optimal regulatory design.

A. AN EFFECTIVE ACTIVITIES-BASED APPROACH REQUIRES A SINGLE FINANCIAL STABILITY REGULATOR

Despite its shortcomings, an activities-based approach to nonbank systemic risk has the potential to augment an entity-based approach, but only after significant structural reforms to the U.S. regulatory framework. The current regime—with its fragmentation, microprudential focus, and opportunities for arbitrage—is inimical to effective activities-based systemic risk regulation. To effectively mitigate systemic risk through an activities-based approach, a financial stability regulator must have three key characteristics: consolidated authority, a macroprudential orientation, and market-wide reach.

First, an effective activities-based regulatory regime must be carried out by a single federal regulator. By consolidating authority for systemic risk regulation in one regulator, the United States could avoid the interagency coordination problems, jurisdictional turf wars, races-to-the-bottom, and other pitfalls inherent in its current fragmented system. Congress understood the need for unified jurisdiction when it consolidated nonbank SIFI regulation in the Federal Reserve. An activities-based approach to systemic risk likewise requires a single federal regulator.

Second, this unified regulator should have macroprudential stability as its core objective. Financial stability oversight is principally concerned with the transmission of systemic risk among companies and throughout the financial sector. As discussed above, however, most U.S. sectoral regulators currently focus on microprudential goals, such as preserving individual firms' solvency and protecting consumers. By contrast, an effective financial stability regulator would augment this existing regime by focusing on how systemically important activities could propagate financial instability.

Finally, effective activities-based regulation requires the unified systemic risk regulator to have authority over the entire financial system. This means that the regulator must be able to implement and enforce activities-based rules across different financial institutions, including banks, insurance companies, investment banks, and asset managers. Market-wide reach ensures that activities-based rules will apply consistently across the financial system, thereby preventing risk from migrating to less heavily regulated parts of the financial system. Moreover, it would limit uncertainty as to whether the regulator has authority over unanticipated financial innovations.

Other jurisdictions have adopted a regulatory structure similar to the one we envision here.³²⁷ Often referred to as a "multi-peaked" system, this regulatory design pairs a single financial stability regulator with one or more additional regulators focused on other objectives, such as market conduct and solvency oversight.³²⁸ The United States, however, has rejected previous calls for a multi-peaked system with a consolidated systemic risk regulator.³²⁹

To be sure, a consolidated systemic risk regulator in the United States would face serious implementation challenges. Policymakers would have to consider, for example, how to resolve conflicts between agencies in a multipeaked system, ensure the systemic risk regulator has access to financial

^{326.} See supra Section III.B.4.

^{327.} See Allen, supra note 5, at 1140–41 (describing regulatory systems in the United Kingdom and Australia).

^{328.} See BARR ET AL., supra note 1, at 79.

^{329.} See, e.g., U.S. DEP'T OF THE TREASURY, BLUEPRINT FOR A MODERNIZED FINANCIAL REGULATORY STRUCTURE 146–56 (2008), https://www.treasury.gov/press-center/press-releases/Documents/Blueprint.pdf.

sector information and data, and fund the agency. Moreover, such a dramatic shift in regulatory structure would likely face political opposition from existing regulatory agencies and entrenched financial sector interests.

We do not set out to resolve these implementation barriers here. Rather, we highlight this alternative regulatory structure to emphasize a critical point: for an activities-based approach to systemic risk regulation to work in the United States, a radical restructuring of the existing regulatory framework would be required. The Trump Administration's proposal to shift to a predominantly activities-based approach, unfortunately, does not acknowledge this reality.

B. IF CONFIGURED APPROPRIATELY, ACTIVITIES-BASED REGULATION IS UNIQUELY CAPABLE OF ADDRESSING SOME SYSTEMIC RISKS

While practically and politically challenging, these structural reforms are nonetheless worth pursuing because a properly configured activities-based approach could meaningfully complement FSOC's entity-based designation regime. In fact, a properly designed activities-based approach would be superior to entity-based regulation at preventing some sources of financial stability risks. Specifically, activities-based regulation, when structured appropriately, can address systemic correlations among firms, mitigate risks of particular systemic activities, and help eliminate regulatory arbitrage.

Activities-Based Regulation Can Address Systemic Correlations Among Individual Firms

Properly configured activities-based regulation is well suited to mitigate risks that cross-cut different segments of the financial sector and are not concentrated in a single firm. Large, interconnected institutions are not the only firms that can propagate systemic risk. Firms that are not systemically important individually can threaten financial stability when they adopt common business models, investment strategies, or other correlated practices.³³⁰ Activities-based regulation can target these marketwide systemic correlations effectively and efficiently.

Potentially systemic correlations among individual firms can arise in different ways. For example, commonalities in firms' business models or

^{330.} See John O'Keefe & James A. Wilcox, How Has Bank Supervision Performed and How Might it Be Improved? 33 (Oct. 2009) (unpublished manuscript) (available at https://www.bostonfed.org/-/media/Documents/conference/54/wilcox.pdf). The 1980s savings and loan crisis is a notable example of numerous smaller institutions collectively transmitting systemic risk. See Lawrence J. White, The S&L Debacle, 59 FORDHAM L. REV. S57, S65–68 (1991).

product offerings may destabilize the broader financial system, as occurred with nonbank mortgage lenders and securitizers during the financial crisis.³³¹ Many of these firms were relatively small and not systemically important, individually.³³² Yet they collectively propagated systemic risk because they adopted nearly identical business models based on issuance of dubious debt instruments.

Similarly, correlations among nonbanks' investment holdings and strategies can threaten financial markets through the asset liquidation channel.³³³ For example, because many insurance companies hold similar portfolios of financial assets, the liquidation of an asset class by a subset of insurers could create downward pressure on asset prices that threatens the solvency of other firms.³³⁴ Simultaneous dumping of assets could occur if firms faced similar regulatory or rating agency pressures to divest.³³⁵ Pension funds and hedge funds may exhibit similar potentially systemic correlations with respect to both their asset holdings and their investment strategies.³³⁶

Still other correlations could destabilize the financial system. Widespread risk management deficiencies can create systemic risk, as when firms' pre-crisis risk models discounted the possibility of a nationwide drop in housing prices. Similarly, defective information technology might propagate risks, as could occur in the event of widespread cybersecurity breaches. Moreover, algorithmic high-frequency traders or automated investment advisors might adopt highly correlated strategies, creating the risk of "flash crashes" and severe market disruptions. In sum, many different types of conduct can trigger systemic risk when replicated by a

^{331.} See supra Section I.A; Miriam Goldby & Anat Keller, Product Intervention as a Macroprudential Tool: The Case of Catastrophe Bonds, 51 GEO. WASH. INT'L L. REV. 1 (2019) (exploring how correlations in the design of certain financial products could potentially create systemic risk).

^{332.} See, e.g., Michael Simkovic, Competition and Crisis in Mortgage Securitization, 88 IND. L.J. 213, 240 (2013).

^{333.} See supra Section I.C.

^{334.} That was the case in 2008, when a subset of insurance companies exacerbated the fire sale of mortgage-backed securities. *See* Schwarcz & Schwarcz, *supra* note 1, at 1601.

^{335.} See id. at 1596–97.

^{336.} *See, e.g.*, OFFICE OF FIN. RESEARCH, ASSET MANAGEMENT AND FINANCIAL STABILITY 9–12 (2013), https://www.financialresearch.gov/reports/files/ofr_asset_management_and_financial_stability.pdf.

^{337.} See FCIC REPORT, supra note 3, at 120, 262.

^{338.} See Why We Have to Really Worry About the Banks' Cybersecurity, WALL St. J. (Dec. 18, 2017, 10:08 PM), https://www.wsj.com/articles/why-we-have-to-really-worry-about-the-banks-cyber security-1513652881.

^{339.} See, e.g., William Magnuson, Regulating Fintech, 71 VAND. L. REV. 1167, 1202 & n.170 (2018).

critical mass of smaller institutions.

An entity-based approach is ill-equipped to address these market-wide risks. By definition, FSOC's entity-based designation regime applies only to a limited subset of nonbanks that could individually threaten U.S. financial stability through their material financial distress or mix of activities.³⁴⁰ Because it focuses only on these large, interconnected firms, FSOC's entity-based approach cannot effectively mitigate systemic risk arising from correlations among numerous smaller companies.³⁴¹ For example, even if the Federal Reserve mandated enhancements in systemically important firms' risk models or information technology, correlated weaknesses in smaller companies' risk management or cybersecurity could still pose systemic risk.

By contrast, properly configured activities-based regulation is uniquely suited to address correlated systemic risks because it can reach across different segments of the financial sector to all institutions, regardless of their perceived systemic importance. It was for this reason that Dodd-Frank directly mandated several activities-based changes to financial regulation. For example, Dodd-Frank established minimum underwriting standards and risk-retention requirements applicable to all residential mortgage originators and all securitizers, respectively, regardless of their systemic importance. Such an activities-based approach was necessary because of the plethora of different types of firms involved in these activities.

A consolidated systemic risk regulator could implement reforms targeting correlated, potentially systemic activities in much the same way Congress adopted such reforms legislatively in Dodd-Frank. For instance, it could impose regulations to mitigate weaknesses in firms' risk management or cybersecurity practices by establishing market-wide standards for risk models and information technology. Or, it could implement an activities-based approach to correlated high-frequency or automated trading that risks destabilizing financial markets. In this way, FSOC can use its activities-based authority to mitigate the chances of numerous institutions collectively propagating systemic risk.

^{340.} See supra Section II.A.

^{341.} Schwarcz & Schwarcz, supra note 1, at 1627–39.

^{342.} See 15 U.S.C. § 780–11 (2018); Patricia A. McCoy, Countercyclical Regulation and Its Challenges, 47 ARIZ. St. L.J. 1181, 1213–16 (2015).

2. An Activities-Based Approach Can Target Conduct That Is Inadequately Addressed by Entity-Based Regulation

Because it focuses on individual firms' health, entity-based regulation generally does not attempt to address market-wide risks posed by specific types of financial transactions. An activities-based approach, however, can ensure that firms conduct systemically risky activities in ways that limit threats to financial stability.

Derivatives dealing and securities lending are classic examples of activities that can threaten financial stability. In the lead-up to the 2008 financial crisis, just a handful of firms traded the vast majority of over-the-counter derivatives in the United States.³⁴³ This concentration created a web of overlapping exposures among systemically important derivatives dealers, leading to the prospect that a single dealer's failure could impose catastrophic losses on its counterparties.³⁴⁴ Similarly, AIG's extensive securities lending operations contributed to its collapse when borrowers demanded early return of their cash collateral, forcing AIG to liquidate its mortgage-backed securities portfolio and raising questions about its ability to satisfy its obligations to counterparties.³⁴⁵

Standing alone, an entity-based approach is insufficient to mitigate risks of these and other systemically risky activities. In practice, entity-based regulation focuses inward, on broad indicators of an individual firm's health, such as its capital and liquidity. But many systemically important activities, such as derivatives trading and securities lending, involve complex relationships among firms across the financial sector. Regulating this type of conduct often requires mediating intercompany relationships and potentially relying on market infrastructure such as clearinghouses and exchanges. Traditional entity-based regulation is often not well-equipped to oversee these relationships or provide this infrastructure.

A well-designed activities-based approach, by contrast, can more

^{343.} See FCIC REPORT, supra note 3, at 50, 300.

^{344.} See BARR ET AL., supra note 1, at 1174-75.

^{345.} See Schwarcz, supra note 31, at 551-55.

^{346.} *See, e.g.,* Enhanced Prudential Standards for Systemically Important Insurance Companies, 81 Fed. Reg. 38,610, 38,611 (June 14, 2016); Capital Requirements for Supervised Institutions Significantly Engaged in Insurance Companies, 81 Fed. Reg. 38,631, 38,632–66 (June 14, 2016).

^{347.} See Hockett & Omarova, supra note 69, at 1165–95 (detailing the linkages across disparate elements of the financial system).

^{348.} Entity-based regulation could severely limit or even prohibit firms from engaging in certain systemically risky activities. But in many cases such prohibitions would not be advisable because most such activities have socially beneficial uses. *See, e.g.*, Frank Partnoy & David A. Skeel, Jr., *The Promise and Perils of Credit Derivatives*, 75 U. CIN. L. REV. 1019, 1022–27 (2007).

directly increase the safety of systemically important activities. That is precisely why Congress adopted activities-based derivatives regulations in Dodd-Frank. As a centerpiece of its derivatives reforms, Congress subjected certain categories of swaps to mandatory central clearing and to trading on exchanges.³⁴⁹ Exchange trading enhances transparency, while central clearing places a clearinghouse between the original counterparties to a derivative trade, thereby reducing market participants' direct exposures to one another.³⁵⁰ In this way, Congress mitigated risks through activities-based derivatives regulation more effectively than would have been possible through an entity-based approach alone.³⁵¹

A consolidated financial stability regulator could implement activities-based rules to limit risks associated with other systemically important conduct, as well. Such a regulator could, for instance, implement reforms specifically addressing the risks of securities lending. Moreover, an activities-based approach to repo markets could allow policymakers to oversee both the lending and borrowing sides of those transactions. In sum, appropriately configured activities-based regulation can help moderate the risks of certain systemically important activities that an entity-based approach is poorly equipped to address.

3. Activities-Based Regulation Can Help Eliminate Regulatory Arbitrage

In addition to addressing various types of systemic risk more effectively than entity-based regulation, activities-based regulation can also improve the effectiveness of entity-based systemic risk regulation by reducing regulatory arbitrage. In traditional financial regulation, the applicable regulatory regime depends on a firm's classification as a bank, broker-dealer, insurance company, or other type of legal entity. This entity-based approach incentivizes the financial sector to shift activities to less regulated legal entities, a fact that was well illustrated in the lead up to the financial crisis. AIG, for example, issued its CDSs out of AIG Financial Products, a subsidiary that was not licensed as an insurance company and therefore

^{349.} See 7 U.S.C. § 2(h)(1), (8) (2018); 15 U.S.C. § 78c–3(a), (h) (2018).

^{350.} See Jeremy C. Kress, Credit Default Swaps, Clearinghouses, and Systemic Risk: Why Centralized Counterparties Must Have Access to Central Bank Liquidity, 48 HARV. J. ON LEGIS. 49, 65–69 (2011).

^{351.} See generally Iñaki Aldasoro & Torsten Ehlers, The Credit Default Swap Market: What a Difference a Decade Makes, BIS Q. REV., June 2018, at 1 (discussing the reduction in risk from derivatives).

^{352.} See Jackson, supra note 9, at 364–66.

^{353.} For a seminal treatment of regulatory arbitrage, see generally Victor Fleischer, *Regulatory Arbitrage*, 89 Tex. L. Rev. 227 (2010).

exempt from state insurance regulation.³⁵⁴ Similarly, in the mid-2000s, a significant proportion of mortgage lending shifted to federally chartered depository institutions and their nonbank mortgage subsidiaries because federal preemption allowed them to offer subprime and other exotic loans free from restrictions under state anti-predatory lending laws.³⁵⁵

A properly designed activities-based approach would be immune to this type of regulatory arbitrage because it would apply consistent, market-wide standards to financial transactions, regardless of a firm's legal classification. For example, post-crisis mortgage reforms subject residential loans to minimum underwriting standards, regardless of the originator's organizational form or charter. Market-wide activities-based regulation thus produces three distinct benefits. First, it limits the rewards to firms of moving activities to lesser regulated entities, and thus limits this type of regulatory arbitrage from occurring. Second, it limits the harm that can result when this type of arbitrage does occur. Finally, it discourages a race-to-the-bottom by regulators that would further inflame regulatory arbitrage.

In sum, when structured appropriately, an activities-based approach to nonbank systemic risk can enhance financial stability in several unique ways—by addressing systemic correlations, targeting systemically important activities, and preventing regulatory arbitrage. To achieve these benefits, however, the United States would need to dramatically reform its regulatory framework by consolidating authority for systemic risk regulation within a single financial stability agency. With such reforms, activities-based regulation could meaningfully complement an effective entity-based approach. In the absence of such reforms, however, proposals to rely primarily or exclusively on an activities-based approach to nonbank systemic risk are doomed to fail.

CONCLUSION

The 2008 financial crisis demonstrated unequivocally that, absent appropriate regulatory oversight, nonbank financial institutions can threaten the global economy. This Article has argued that to prevent a recurrence,

^{354.} See Schwarcz & Schwarcz, supra note 1, at 1584-85.

^{355.} See ENGEL & MCCOY, supra note 1, at 157–66.

^{356.} See, e.g., Steven L. Schwarcz, Regulating Financial Change: A Functional Approach, 100 MINN. L. REV. 1441, 1463–93 (2016).

^{357.} See McCoy, supra note 342, at 1213–16.

policymakers—both domestically and internationally—must use entity- and activities-based approaches as complements to mitigate nonbank systemic risk. Recent efforts to eliminate nonbank SIFI designations entirely or else saddle them with excessive and unrealistic procedural requirements ignore the unique ways in which entity-based regulation can prevent systemic insolvencies. Moreover, these efforts overlook the serious practical hurdles that activities-based regulation faces in fragmented regulatory systems such as the United States'. An effective approach to nonbank systemic risk would therefore retain entity-based designations while also empowering a unified systemic risk regulator to implement activities-based rules. By using entity-based and properly configured activities-based approaches as complements, rather than substitutes, policymakers could prevent the next AIG, Lehman Brothers, or Bear Stearns from destabilizing the global financial system.