LEAD ARTICLE

LAWMAKING WITHOUT LAW: HOW OVERRELIANCE ON ECONOMICS FAILS FINANCIAL REGULATION (AND WHAT TO DO ABOUT IT)

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This Article examines a fundamental failure of process in lawmaking: the overreliance of lawmakers on economists and economic scholarship when designing and implementing financial regulation, to the virtual exclusion of lawyers and legal scholarship. This overreliance leads to regulation that often is based on theoretical models and assumptions that are poorly informed by experience and may not withstand real-world testing. The Article examines how to improve financial regulation by better integrating legal scholarship and lawyerly insights into the lawmaking process. Among other things, that will require law professors to gain the attention, and earn the respect, of lawmakers by writing more reality-based articles and publishing them not only in traditional law reviews but also in more accessible formats and policy-oriented forums.

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INTRODUCTION

Economists dominate financial regulation.[1] During the past several decades, they have relegated lawyers and legal scholars to supporting roles in designing and implementing financial regulatory policy.[2] Indeed, economists seem to have adopted a philosophy inspired by Shakespeare: "The first thing we do, let's [ignore] all the lawyers."[3] The consequence is that financial regulation often is poorly informed by

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1. *See, e.g.*, PETER CONTI-BROWN, THE POWER AND INDEPENDENCE OF THE FEDERAL RESERVE 86–87 (2016) (discussing the "select group of economists that profoundly influences the [Federal Reserve's] entire policy-making apparatus").

2. Margaret E. Tahyar, *First Thing We Do, Let's Exclude All the Lawyers*, AM. BAR ASS'N (Sept. 17, 2019), https:// www.americanbar.org/ groups/business_law/ publications/blt/2019/10/first-thing [https://perma.cc/4YNR-6G3C].

3. *See* WILLIAM SHAKESPEARE, SECOND PART OF KING HENRY THE SIXTH act 4, sc. 2, l. 78 ("The first thing we do, let's kill all the lawyers.").

experience and based on theoretical models and assumptions that may not withstand real-world testing.[4]

To some extent, this ascendency of economists in the regulatory process may be cyclical. In his Pulitzer Prize-winning study *Prophets of Regulation*, the Harvard business historian, Thomas K. McCraw, observed that "the fundamental controversy underlying the history of [commercial and financial] regulation has been an ongoing need to work out the inevitable tradeoffs between the good of the whole society, on the one hand, and the rights of the individual, on the other."[5] Economists and lawyers came to represent, respectively, efficiency for the polity and due process for the individual.[6] For most of American history, lawyers led the regulatory state and imposed quasi-judicial procedures that prioritized due process over economic efficiency.[7]

However, in the 1970s and 1980s, "stagflation"—high inflation and unemployment, coupled with slowing economic growth[8]—convinced the American public that "the economist's hour lay at hand."[9] The result was a decades-long deregulatory drive led by the economists who increasingly staffed powerful regulatory agencies.[10] These economists ignored complex legal procedures and implemented competitive policies to remove price controls and allow new entrants in oligopolistic industries.[11] "[T]he requirements of *legal* due process, interposing the heavy hand of government between an idea and its application in the market, are directly antithetical to competition," the economist-turned-

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4. *See* Dan Awrey & Kathryn Judge, *Why Financial Regulation Keeps Falling Short*, 61 B.C. L. REV. 2295, 2311–12 (2020) (warning that reliance on economists and policymakers for financial regulation is misplaced because of the inherent dynamism, complexity, and unknowns of modern finance).

5. THOMAS K. MCCRAW, PROPHETS OF REGULATION: CHARLES FRANCIS ADAMS, LOUIS D. BRANDEIS, JAMES M. LANDIS, ALFRED E. KAHN 302 (1984).

6. *Id.*

7. *Id.*

8. Kimberly Amadeo, *What is Stagflation?*, THE BALANCE, https://www.thebalance.com/what-is-stagflation-3305964 (last updated Oct. 29, 2021).

9. MCCRAW, *supra* note 5, at 236-37.

10. *Id.* at 304.

11. *See, e.g.*, *id.* at 251–52 (describing how Alfred Kahn simplified and ignored procedural requirements to hold generic public utility rate hearings in New York State during the 1970s).

regulator Alfred Kahn declared.[12] Growth soon resumed.[13] The economists triumphed.

Several trends aided this deregulatory drive, the first trend being methodological. As economics grew more specialized and mathematical, economists claimed that they could predict policy outcomes with astonishing precision.[14] A national fetish for quantitative precision, with its appearance of certainty,[15] contrasted with and discredited "the prevalent (and disgraceful) math-block that afflicts the legal profession."[16]

The second trend was political. Although federal deregulation began under President Jimmy Carter,[17] President Ronald Reagan popularized and accelerated it in response to stagflation.[18] "[T]he nine most terrifying words in the English language," he jibed, are "I'm from the

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12. *Id.* at 284.

13. *See GDP Growth (Annual %) — United States*, THE WORLD BANK, https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=US [https://perma.cc/DST5-JHB3] (comparing 7.2% GDP growth in 1984 to a 0.5% GDP decline in 1974).

14. *See* Ronald H. Coase, *Economics and Contiguous Disciplines*, 7 J. LEGAL STUD. 201, 204 (1978) (discussing the increasing mathematical rigor of economic studies); DONALD MACKENZIE, AN ENGINE, NOT A CAMERA: HOW FINANCIAL MODELS SHAPE MARKETS 5 (2006) (discussing how economists are expanding their boundaries and the trend of economists moving into other social sciences).

15. *See* Richard A. Posner, *The Decline of Law as an Autonomous Discipline: 1962–1987*, 100 HARV. L. REV. 761, 772 (1987).

16. *Id.* at 778. The genre of law-and-economics scholarship spawned by Richard Posner, Guido Calabresi, and Robert Bork was an exception to that rule. *See generally* Richard A. Posner, *Some Uses and Abuses of Economics in Law*, 46 U. CHI. L. REV. 281, 281–84 (1979) (discussing the history of economic analysis in law); Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1092–93 (1972) (discussing the different rights and remedies under property and liability regimes); ROBERT H. BORK, THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF 90–91 (1993) (proposing that antitrust law should maximize efficiency). Government lawmakers nevertheless continued to rely on economists' quantitative methodology, with marginal regard for law-and-economics scholarship, except in the sphere of antitrust policy. *See* Anu Bradford, Adam S. Chilton, & Filippo Maria Lancieri, *The Chicago School's Limited Influence on International Antitrust*, 87 U. CHI. L. REV. 297, 298–99 (2020) (discussing the "profound influence" the law-and-economics movement had on U.S. antitrust policy).

17. *See* Thomas K. McCraw, *Regulation in America: A Review Article*, 49 BUS. HIST. REV. 159, 164 (1975) (arguing that by the 1970s the "public interest" no longer was a reason to defend regulatory behavior).

18. *See* Timothy A. Canova, *The Transformation of U.S. Banking and Finance: From Regulated Competition to Free-Market Receivership*, 60 BROOK. L. REV. 1295, 1318–19 (1995) (detailing how financial speculation was glorified during the Reagan era).

government, and I'm here to help."[19] Economics presented a possible solution: "to impose competition as a replacement for overregulation,"[20] thereby increasing efficiency and maximizing wealth.[21] In response, governments promoted economists to key policy positions in commercial and financial regulatory agencies.[22] This was successful: American gross domestic product grew at 7.2 percent in 1984 compared to a 0.5 percent contraction a decade earlier.[23]

The third trend was academic. Legal scholarship was becoming overly theoretical and, at times, unnecessarily interdisciplinary.[24] Swelling court dockets and rising litigation costs underscored a widening chasm between scholarship and practice,[25] shaking confidence in the ability of lawyers to provide meaningful solutions.[26] Even more terrifying words, Reagan might have quipped, are that "I'm [a lawyer], and I'm here to help."[27]

After, and perhaps because of, the economists' decades of dominance, however, the preponderance of economists in policy positions has become counterproductive. When designing and implementing financial regulation, regulators, government policymakers, and other lawmakers (collectively, "lawmakers") overrely on economists and economic scholarship, generally ignoring any valuable input from

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19. *Transcript of President Reagan's News Conference*, WASH. POST (Aug. 12, 1986), https://www.washingtonpost.com/archive/politics/1986/08/13/transcript-of-president-reagans-news-conference/bceaa7d7-a544-4c4e-8af1-51f303a00e25 [https://perma.cc/QW4E-UTA9].

20. MCCRAW, *supra* note 5, at 275.

21. *See generally* Richard A. Posner, *The Ethical and Political Basis for the Efficiency Norm in Common Law Adjudication*, 8 HOFSTRA L. REV. 487, 496–97 (1980) (advocating for wealth maximization as a guiding principle for leveraging the operations of a free market and maximizing utility-seeking behavior); Richard A. Posner, *The Value of Wealth: A Comment on Dworkin and Kronman*, 9 J. LEGAL STUD. 243, 247 (1980) (arguing further that a wealth maximization system benefits society because, unlike a utilitarian system, it efficiently provides for transfers of wealth from the more productive to the less productive, and it protects individual rights).

22. *See infra* Section I.B.

23. THE WORLD BANK, *supra* note 13.

24. *See* Posner, *supra* note 15, at 769 (describing how unlike other professions, lawyers feel their professional autonomy undermined by disciplinary structures).

25. *See id.* at 771 (noting how the rise in the amount of litigation in the United States occurred because traditional legal education was not preparing individuals to notice the increased demand for judicial services).

26. *See id.* at 769 (noticing that the "rise of other disciplines to positions where they can rival the law's claim to privileged insight into its subject matter" has caused lawyers to lose confidence in their ability to fix major problems of the legal system).

27. *See Transcript of President Reagan's News Conference*, *supra* note 19.

lawyers and legal scholarship. That overreliance impairs financial regulation.[28]

These failures suggest a new role for lawyers in financial regulation. McCraw posited that economists could best encourage competition to improve efficiency during periods of overregulation and slow growth.[29] In contrast, lawyers' emphasis on due process has best served the country by restoring confidence in markets after crippling crashes.[30] For example, the Great Depression-era task of Professor James Landis—his period's leading academic on administrative law and regulation[31]—and other New Dealers at the nascent Securities and Exchange Commission in the 1930s was "to impose a regulatory regime on an industry accustomed to laissez faire."[32]

Today, the failures of economists and deregulation in financial services suggest that we may have arrived at a "Landis moment" when lawyers should help to curb the excesses of economic theory embodied in law.[33] The endurance of the corporate filing regime created under the Securities Act of 1933[34] and the Securities Exchange Act of 1934[35]

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28. *See infra* Section I.A-I.B.

29. *See e.g.*, MCCRAW, *supra* note 5, at 275 (describing the success that economists from the Civil Aeronautics Board had when they allowed the airline industry, which had been heavily regulated, to offer more variable and discounted rates).

30. *See, e.g.*, Karen Freifeld, Aruna Viswanatha & David Henry, *JPMorgan Agrees $13 Billion Settlement with U.S. Over Bad Mortgages*, REUTERS (Nov. 19, 2013, 7:39 PM), https://www.reuters.com/article/us-jpmorgan-settlement/jpmorgan-agrees-13-billion-settlement-with-u-s-over-bad-mortgages-idUSBRE9AI0OA20131120 [https://perma.cc/A6UT-UFQH] (emphasizing how Department of Justice attorneys held banks like JP Morgan accountable for their role in the 2008 financial crisis by imposing the largest settlement in U.S. history).

31. *Cf.* MCCRAW, *supra* note 5, at 159 (describing Landis's prior career as the first professor of legislation in Harvard Law School's history as uniquely preparing him to draft the securities laws). Similarly, Karl Llewellyn was a distinguished legal theorist who also developed the eminently pragmatic and ubiquitous Uniform Commercial Code. Tamara R. Piety, *In Praise of Legal Scholarship*, 25 WM. & MARY BILL RTS. J. 801, 812 (2017).

32. MCCRAW, *supra* note 5, at 275.

33. *Cf.* Gramm-Leach-Bliley Act, Pub. L. No. 106–102, 113 Stat. 1338 (1999) (codified in scattered sections of 12, 15, 16, 18 U.S.C. (2018)) (granting consumers access to the financial services industry's information-sharing practices); Commodity Futures Modernization Act of 2000, Pub. L. 106-554, 114 Stat. 2763 (codified in scattered sections of 7 U.S.C., 11 U.S.C., 12 U.S.C., & 15 U.S.C.) (allowing over-the-counter derivatives to remain underregulated).

34. 15 U.S.C. § 77a *et seq*.

35. 15 U.S.C. § 78a *et seq*.

demonstrates the constructive role that lawyers and legal scholarship can play in emphasizing due process-related principles like disclosure.[36]

This Article analyzes how lawyers and legal scholars should reclaim their role in—and thereby improve—lawmaking. Section I of the Article reviews the federal government agencies and intergovernmental bodies that are primarily responsible for financial regulation to show that those agencies and bodies overrely on economists and economic scholarship. Section II explains why that overreliance impairs financial regulation, contending that it distorts rulemaking through excessive dependence on mathematical modeling and idealized free-market outcomes, ignores the importance of due process and legal analysis, and forfeits the benefit of the legal community's collective memory. Section II also provides limited empirical evidence that including lawyers and legal scholars in the regulatory process could improve financial regulation. Section III analyzes how the overreliance on economists and economic scholarship should be corrected and how, even without fully correcting that overreliance, some of the resulting regulatory failures could be at least partially corrected. Finally, Section IV concludes by suggesting that lawyers and legal scholars need to integrate themselves back into the economist-dominated regulation process and notes the role that both legal and economic scholarship should play in lawmaking.

I. LAWMAKERS OVERRELY ON ECONOMIC SCHOLARSHIP

The claim that lawmakers overrely on economists and economic scholarship turns, in the first instance, on identifying the officials who are responsible for designing and implementing financial regulation. As a Washington, D.C. cliché goes, "[p]ersonnel is policy."[37] In the United States, that responsibility is fragmented among officials at a handful of federal agencies, with state governmental entities playing a relatively minor role.[38] Within these federal agencies, professional staff often

36. *See* Alison Grey Anderson, *The Disclosure Process in Federal Securities Regulation: A Brief Review*, 25 HASTINGS L.J. 311, 315–19 (1974) (illustrating the history of disclosure and why the securities industry deemed it desirable regulation).

37. *See generally* Scot Faulkner, *Personnel Is Policy*, WASH. EXAM'R (Feb. 2, 2016, 12:02 AM), https://www.washingtonexaminer.com/personnel-is-policy [https://perma.cc/C9A5-3FZU] (using the example of Reagan's transition hiring decisions to show the importance of having the personnel in place to implement policy decisions).

38. *See generally* Elizabeth F. Brown, *E Pluribus Unum—Out of Many, One: Why the United States Needs a Single Financial Services Agency*, 14 U. MIA. BUS. L. REV. 1, 33–35

influence the agendas and research informing the decisions of appointed lawmakers, and economists predominate on those research staff.[39] Subsection A discusses the seven primary federal agencies that are responsible for financial regulation in the United States. Thereafter, Subsection B discusses how the overreliance on economists and economic scholarship, by lawmakers at intergovernmental regulatory bodies, is displayed by the prevalence of economists in influential positions in the Financial Stability Board ("FSB") and the Bank for International Settlements ("BIS").

A. Federal Lawmakers Overrely on Economists and Economic Scholarship

The primary federal agencies responsible for financial regulation are the Federal Reserve System ("the Fed"), the Office of the Comptroller of the Currency ("OCC"), the Federal Deposit Insurance Corporation ("FDIC"), the Securities and Exchange Commission ("SEC"), the Commodity Futures Trading Commission ("CFTC"), and the Consumer Financial Protection Bureau ("CFPB").[40] Although these agencies generally operate independently, the Financial Stability Oversight Council ("FSOC") is responsible for helping to coordinate an overall national macroprudential regulatory policy to mitigate systemic financial risk.[41]

This Subsection examines the prevalence of economists in influential positions at each of these agencies. Although lawyers sometimes occupy prominent public roles—for example, as of 2022, the Fed chair was a

(2005) (describing how state regulators cannot achieve uniformity through common consent, so federal oversight and intervention might be necessary to achieve a positive change and continuing improving state regulation of insurance).

39. *See* Anat R. Admati, *It Takes a Village to Maintain a Dangerous Financial System*, *in* JUST FINANCIAL MARKETS?: FINANCE IN A JUST SOCIETY 293, 303 (Lisa Herzog ed., 2017) (arguing that research conducted within the federal regulatory agencies "tends to promote [status quo economic policy], while research whose conclusions would contradict the preferred policy may be suppressed, possibly by the researchers themselves").

40. MARC LABONTE, CONG. RSCH. SERV., R44918, WHO REGULATES WHOM? AN OVERVIEW OF THE U.S. FINANCIAL REGULATORY FRAMEWORK 8–9 (2020).

41. *Financial Stability Oversight Council*, U.S. DEP'T OF THE TREASURY, https://home.treasury.gov/policy-issues/financial-markets-financial-institutions-and-fiscal-service/fsoc [https://perma.cc/76NT-RTEV].

lawyer[42]—economists dominate the influential staff of the Fed, as well as key positions at those other financial regulatory agencies.[43]

1. *The Fed*. The Federal Reserve System is the central banking organization of the United States and the dominant player in the country's financial regulation.[44] Created by the Federal Reserve Act of 1913,[45] the Fed serves five primary functions: conducting monetary policy; monitoring systemic financial risks; conducting prudential regulation of financial institutions; maintaining monetary payment and settlement systems; and administering consumer financial protection initiatives.[46]

The Fed's governance structure is complex. Its Board of Governors is comprised of seven governors appointed by the President and confirmed by the Senate to single fourteen-year terms.[47] Among the governors, the chair and vice chair is each appointed to a four-year term, with the possibility of an additional four-year appointment.[48] In addition to the Board of Governors, there are twelve regional Federal Reserve banks.[49] Together, the governors and the presidents of those regional banks make up the Federal Open Market Committee ("FOMC"), which sets monetary policy.[50] The chair of the Board of Governors

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42. *Board Members: Jerome H. Powell, Chair*, BD. OF GOVERNORS OF THE FED. RSRV. SYS., https://www.federalreserve.gov/aboutthefed/bios/board/powell.htm [https://perma.cc/3V7M-HWBH] (last updated May 23, 2022).

43. *See infra* Section I.A.1–7.

44. *See* Kathryn Judge, *The Federal Reserve: A Study in Soft Constraints*, 78 L. & CONTEMP. PROBS. 65, 65 (2015) (describing the Fed as "uniquely powerful" among federal agencies because of its ability to take unprecedented and influential actions that affect the health of the overall economy with relatively little oversight); *see also About the Fed*, BD. OF GOVERNORS OF THE FED. RSRV. SYS., https://www.federalreserve.gov/aboutthefed.htm [https://perma.cc/P6L2-4RFV].

45. 12 U.S.C. § 226.

46. *Structure of the Federal Reserve System: About the Federal Reserve System*, BD. OF GOVERNORS OF THE FED. RSRV. SYS., https://www.federalreserve.gov/aboutthefed/structure-federal-reserve-system.htm [https://perma.cc/Q32Y-96AB] (last updated Sept. 10, 2021).

47. *Board Members*, BD. OF GOVERNORS OF THE FED. RSRV. SYS., https://www.federalreserve.gov/aboutthefed/bios/board/default.htm [https://perma.cc/U78L-ZH3N] (last updated Jan. 18, 2022).

48. *Structure of the Federal Reserve System: Federal Reserve Board*, BD. OF GOVERNORS OF THE FED. RSRV. SYS., https://www.federalreserve.gov/aboutthefed/structure-federal-reserve-board.htm [https://perma.cc/TG9U-TDF2] (last updated Aug. 1, 2022).

49. *About the Federal Reserve System*, *supra* note 46.

50. *Structure of the Federal Reserve System: Federal Open Market Committee*, BD. OF GOVERNORS OF THE FED. RSRV. SYS., https://www.federalreserve.gov/

serves as FOMC chair, and the president of the Federal Reserve Bank of New York serves as vice chair.[51] In addition to the governors, five presidents of regional Fed banks vote on the FOMC at any time.[52] The twelve regional Fed banks regulate and examine state "member" banks, lend to those banks to provide liquidity, and offer them payment and clearing services.[53]

The leadership of the Federal Reserve System includes both lawyers and economists. Of the five current governors, three have law degrees while two hold doctorates in economics.[54] Furthermore, of the twelve current presidents of the regional Federal Reserve Banks, seven have doctorates in economics while only one holds a law degree.[55] The Federal Reserve Board also employs over 400 Ph.D. economists, who are "leading contributors at professional meetings" and "produce a wide variety of economic analyses and forecasts" for the Fed's leadership bodies.[56] Prominent Fed historian Professor Conti-Brown further observes that a "select group" of these economists "profoundly influences" Fed policy-making.[57] The Board of Governors' Division of

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aboutthefed/structure-federal-open-market-committee.htm [https://perma.cc/7U3U-PY3V] (last updated Oct. 28, 2016).

51. *Id.*

52. Peter Conti-Brown, *The Institutions of Federal Reserve Independence*, 32 YALE J. ON REGUL. 257, 261 (2015).

53. *See Structure of the Federal Reserve System: Federal Reserve Banks*, BD. OF GOVERNORS OF THE FED. RSRV. SYS., https://www.federalreserve.gov/aboutthefed/structure-federal-reserve-banks.htm [https://perma.cc/KT4G-TLDX] (last updated Oct. 10, 2021).

54. *Board Members: Board of Governors Members, 1914–Present*, BD. OF GOVERNORS OF THE FED. RSRV. SYS., https://www.federalreserve.gov/aboutthefed/bios/board/boardmembership.htm [https://perma.cc/8H94-38RJ] (last updated July 19, 2022).

55. *See Federal Reserve Banks: Boston*, BD. OF GOVERNORS OF THE FED. RSRV. SYS., https://www.federalreserve.gov/aboutthefed/federal-reserve-system-boston.htm [https://perma.cc/8367-8J7D] (last updated July 1, 2022).

56. *Meet the Economists*, BD. OF GOVERNORS OF THE FED. RSRV. SYS., https://www.federalreserve.gov/econres/theeconomists.htm [https://perma.cc/VQ88-W24J (last updated Aug. 10, 2022).

57. CONTI-BROWN, *supra* note 1, at 86. Professor Conti-Brown comments that "[t]hese senior economists aren't mere adjuncts to the Fed. As one former governor recalled, 'I often said when we were assembled together in a meeting that the governors work for the staff instead of the other way around.' Even their salaries reflect this prominence. Their salaries are, with other senior staffers, higher than those of the governors, including the Fed chair." *Id.* at 86–87.

Research and Statistics does not include any positions explicitly devoted to legal research or staffed by legal scholars.[58]

2. *OCC*. The Office of the Comptroller of the Currency is "an independent branch of the U.S. Department of the Treasury [that] charters, regulates, and supervises all national banks and federal savings associations as well as federal branches and agencies of foreign banks."[59] According to the OCC's website, "[t]he people who lead the OCC include experienced professionals with diverse backgrounds in bank examination, law, risk management, economics, finance and accounting, organizational management and governance, and human resources."[60] The Executive Committee of the OCC includes members with diverse financial backgrounds, but only three of its ten members hold law degrees.[61] The OCC's departments of Bank Supervision Policy, Large Bank Supervision, Midsize and Community Bank Supervision, and Supervision Risk and Analysis have the most direct policy-making roles.[62] Of the leaders of those four departments, only one has a law degree.[63]

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58. *Division of Research and Statistics*, BD. OF GOVERNORS OF THE FED. RSRV. SYS., https://www.federalreserve.gov/aboutthefed/files/RS-org-chart.pdf [https://perma.cc/TJJ4-824L] (last updated June 12, 2022).

59. *About Us*, OFF. OF THE COMPTROLLER OF THE CURRENCY, https://www.occ.treas.gov/about/index-about.html [https://perma.cc/DH6K-ZYP9].

60. *Leadership*, OFF. OF THE COMPTROLLER OF THE CURRENCY, https://www.occ.treas.gov/about/who-we-are/leadership/index-leadership.html [https://perma.cc/EQP8-US6F].

61. *See id.*

62. *See Organization,* OFF. OF THE COMPTROLLER OF THE CURRENCY, https://www.occ.gov/about/who-we-are/organizations/index-organization.html [https://perma.cc/5KLH-HKHT] (describing the roles of the OCC's departments and offices).

63. *See Grovetta Gardineer, Senior Deputy Comptroller for Bank Supervision Policy,* OFF. OF THE COMPTROLLER OF THE CURRENCY, https://www.occ.gov/about/who-we-are/leadership/bio-grovetta-gardineer.html [https://perma.cc/9WYM-XQKJ] (noting that the Senior Deputy Comptroller for Bank Supervision Policy has a law degree); *Greg Coleman, Senior Deputy Comptroller for Large Bank Supervision,* OFF. OF THE COMPTROLLER OF THE CURRENCY, https://www.occ.treas.gov/about/who-we-are/leadership/bio-greg-coleman.html [https://perma.cc/A2QS-NZFJ] (showing that the Senior Deputy Comptroller for Large Bank Supervision does not have a law degree); *Beverly F. Cole, Deputy Comptroller for Northeastern District,* OFF. OF THE COMPTROLLER OF THE CURRENCY, https://www.occ.gov/about/who-we-are/leadership/bio-beverly-cole.html [https://perma.cc/XWX7-RG8J] (showing that the Acting Senior Deputy Comptroller for Midsize and Community Bank Supervision does not have a law degree); *Jay Gallagher, Acting Senior Deputy Comptroller for Supervision Risk and Analysis,* OFF. OF THE

3. *FDIC*. Congress established the Federal Deposit Insurance Corporation to stabilize and preserve public confidence in the nation's financial system.[64] Among other responsibilities, the FDIC oversees various financial institutions to ensure there is significant oversight for consumer protection, manages receiverships, and assists in making financial institutions resolvable.[65] The FDIC is led by a board of directors comprised of three internal directors, including a chairman and vice chairman, as well as the Comptroller of the Currency and Director of the CFPB.[66] All four of the current board members have law degrees.[67] However, the twenty-six FDIC senior executives, only eight of whom are lawyers, influence the board's policies by submitting memoranda for board discussion.[68]

4. *SEC*. The Securities Exchange Act of 1934 created the SEC.[69] Today, "[t]he mission of the SEC is to protect investors; maintain fair, orderly, and efficient markets; and facilitate capital formation."[70] Notably, all current commissioners of the SEC are lawyers.[71] This may follow from the SEC's traditional leadership by lawyers and focus on disclosure, in the tradition of Justice Louis Brandeis.[72]

The SEC has six divisions: Corporation Finance, Investment Management, Enforcement, Trading and Markets, Economic and Risk Analysis, and Examinations.[73] The Division of Economic and Risk Analysis ("DERA") formed from the SEC's Office of Economic Analysis,

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COMPTROLLER OF THE CURRENCY, https://www.occ.treas.gov/about/who-we-are/leadership/bio-jay-gallagher.html [https://perma.cc/7AYB-7CQJ] (noting that the Acting Senior Deputy Comptroller for Supervision Risk and Analysis does not have a law degree).

64. *About*, FED. DEPOSIT INS. CORP., https://www.fdic.gov/about/ [https://perma.cc/NHQ8-TJQF].

65. *Id.*

66. *Board of Directors & Senior Executives*, FED. DEPOSIT INS. CORP., https://www.fdic.gov/about/leadership/ [https://perma.cc/Y4AU-QBKJ].

67. *See id.*

68. *See id.* 66

69. 15 U.S.C. § 78d (establishing the Securities Exchange Commission and that the first commissioners would assume their positions after June 6, 1934).

70. *About the SEC*, SEC, https://www.sec.gov/about.shtml [https://perma.cc/762M-UMTD].

71. *See Current SEC Commissioners*, SEC, https://www.sec.gov/Article/about-commissioners.html [https://perma.cc/P2Q9-63JL].

72. *See* MCCRAW, *supra* note 5, at 137; *see also id.* at 138-42 (mentioning that Justice Brandeis was one of the first American lawyers to discuss his cases in front of mass media to shape public opinion as he would with a jury).

73. *SEC Divisions Homepages*, SEC, https://www.sec.gov/divisions.shtml [https://perma.cc/U6Z4-BNA9].

Office of Risk Assessment, and Office of Interactive Data in September 2009.[74] DERA "is involved across the entire range of SEC activities, including policy-making, rule-making, enforcement, and examination."[75] DERA's staff is comprised primarily of economists.[76] Its website provides biographies for fifty-four economists, of whom at least forty-two have doctorates in economics or related areas; not one member of DERA's staff has a law degree.[77] Although DERA has a separate legal department, its attorneys merely provide "general legal support for the Division," without publishing scholarship or otherwise influencing policy direction.[78]

5. *CFPB*. Created under the Dodd-Frank Wall Street Reform and Consumer Financial Protection Act ("Dodd Frank Act"),[79] the CFPB "regulates the offering and provision of consumer financial products or services under the federal consumer financial laws and educates and empowers consumers to make better informed financial decisions."[80] The CFPB employs twenty-three PhDs with diverse backgrounds in social sciences to design and conduct research on consumer finance and household behavior that reflects and influences policy.[81] Of those twenty-three, all but three have doctorates in economics.[82] Only one of the twenty-three has a law degree, but that individual also holds a

74. Press Release, SEC, SEC Renames Division Focusing on Economic and Risk Analysis (June 6, 2013), https://www.sec.gov/news/press-release/2013-2013-104htm [https://perma.cc/S2GQ-Y37P].

75. *Economic and Risk Analysis*, SEC, https://www.sec.gov/dera [https://perma.cc/LF82-YALG].

76. *See Economists*, SEC, https://www.sec.gov/page/dera_economists [https://perma.cc/35ZR-L6DX].

77. *See id.*

78. *See DERA Careers*, SEC, https://www.sec.gov/dera/dera-careers [https://perma.cc/AH84-6QTV] (showing that attorneys at DERA "provide legal advice to management and staff" on DERA issues, including "integration of economic analysis into Commission rulemakings by facilitating DERA's relationship with attorneys in the other rulemaking offices," without any description of scholarship in DERA attorneys' mandate).

79. 12 U.S.C. § 5491; Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376, 1964 (2010).

80. *Consumer Resources*, FED. RSRV. BANK OF CHI., https://www.chicagofed.org/banking/consumer-banking/index [https://perma.cc/A228-NRLR].

81. *CFPB Researchers*, CONSUMER FIN. PROT. BUREAU, https://www.consumerfinance.gov/data-research/cfpb-researchers/ [https://perma.cc/WTH9-T4J9].

82. *Id.*

doctorate in economics and researches and publishes exclusively on economic topics.[83]

6. *CFTC*. Created in 1974, the Commodity Futures Trading Commission has a mandate "to promote the integrity, resilience, and vibrancy of the U.S. derivatives markets through sound regulation."[84] The CFTC is a bipartisan commission with five members appointed by the President with Senate confirmation to five-year terms.[85] Only two of the five current commissioners have law degrees.[86] However, of the fifteen executives comprising the CFTC's leadership, ten have law degrees.[87] Only one senior executive has a doctorate in economics or a related field.[88]

7. *FSOC*. The Dodd-Frank Act also created the Financial Stability Oversight Council.[89] The FSOC "is charged with identifying risks to the financial stability of the United States; promoting market discipline; and responding to emerging risks to the stability of the United States' financial system."[90] The FSOC's ten voting members are the leaders of the major federal financial regulators, including the Secretary of the Treasury (who chairs the FSOC), the Fed chair, and the chairman of the SEC.[91] Of ten current voting members, seven have law degrees.[92] There are also five non-voting members of the FSOC:

> the Director of the Office of Financial Research; the Director of the Federal Insurance Office; a state insurance commissioner designated

83. *See Erik Durbin*, CONSUMER FIN. PROT. BUREAU, https://www.consumerfinance.gov/data-research/cfpb-researchers/erik-durbin/ [https://perma.cc/EKB3-DLCB] (listing Erik Durbin's publications, all relating to economic topics).

84. *The Commission*, COMMODITY FUTURES TRADING COMM'N, https://www.cftc.gov/About/AboutTheCommission [https://perma.cc/8LZ9-JKLX].

85. *Chairman & Commissioners*, COMMODITY FUTURES TRADING COMM'N, https://www.cftc.gov/About/Commissioners/index.htm [https://perma.cc/RY5Z-QZZK].

86. *Id.*

87. *See Executive Leadership*, COMMODITY FUTURES TRADING COMM'N, https://www.cftc.gov/About/ExecutiveLeadership/index.htm [https://perma.cc/M942-5UM6].

88. *Scott Mixon*, COMMODITY FUTURES TRADING COMM'N, https://www.cftc.gov/About/ExecutiveLeadership/ScottMixon/index.htm [https://perma.cc/6YY3-KBBT].

89. 12 U.S.C. § 5321; Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 111, 124 Stat. 1376, 1392 (2010).

90. U.S. DEP'T OF THE TREASURY, *supra* note 41.

91. *About FSOC*, U.S. DEP'T OF THE TREASURY, https://home.treasury.gov/policy-issues/financial-markets-financial-institutions-and-fiscal-service/fsoc/about-fsoc [https://perma.cc/Y684-6NX8].

92. *See id.*

> by the state insurance commissioners; a state banking supervisor designated by the state banking supervisors; and a state securities commissioner (or officer performing like functions) designated by the state securities commissioners.[93]

Two of those five have law degrees.[94] The FSOC does not provide information about its professional staff on its website.[95] However, according to the FSOC's bylaws, the Secretary of the Treasury (as FSOC chair) has authority to manage the FSOC's staff, including by hiring and delegating authority to an executive director and coordinating the detailing of other government employees to the FSOC.[96] The predominance of economists within the Department of the Treasury suggests that staff economists would also strongly influence the FSOC.

B. Lawmakers at Intergovernmental Regulatory Bodies Overrely on Economists and Economic Scholarship

Lawmakers at the intergovernmental regulatory bodies responsible for financial regulation also overrely on economists and economic scholarship, as illustrated by the prevalence of economists in influential positions at the two leading such bodies: the Financial Stability Board and the Bank for International Settlements. Significantly, the FSB's deliberations also significantly influence the U.S. federal regulatory agencies previously discussed in Subsection A.[97]

1. *FSB*. The Financial Stability Board is an "international body" formed in 2009 by the G20 nations to "monitor[] and make[] recommendations about the global financial system."[98] To that end, the FSB coordinates the efforts of national financial authorities and international governing

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93. *Id.*

94. *See Steven E. Seitz*, LINKEDIN, https://www.linkedin.com/in/steven-e-seitz-a43579a/ (last visited Dec. 9, 2020); *Melanie Lubin*, SIFMA (June 6, 2022, 11:31 AM), https://www.sifma.org/people/melanie-lubin/ [https://perma.cc/6SGV-ULHP].

95. *See* U.S. DEP'T OF THE TREASURY, *supra* note 41.

96. *Rules of Organization of the Financial Stability Oversight Council*, U.S. DEP'T OF THE TREASURY, §§ XXX.2(a)(1), XXX.3(a)(2), https://home.treasury.gov/system/files/261/The%20Council%26%23039%3Bs%20Bylaws.pdf [https://perma.cc/692B-AKP5].

97. *See* Domenico Lombardi, *The Governance of the Financial Stability Board*, BROOKINGS INST. 8, 11 (Sept. 2011), https://www.brookings.edu/wp-content/uploads/2016/06/FSB_Issues_Paper_Lombardi.pdf [https://perma.cc/SH32-PXHK].

98. *About the FSB*, FIN. STABILITY BD., https://www.fsb.org/about/ [https://perma.cc/9XCX-2WSE]; *History of the FSB*, FIN. STABILITY BD., https://www.fsb.org/about/history-of-the-fsb/ [https://perma.cc/J825-QXWQ].

bodies to create financial policies that can be implemented across jurisdictions.[99]

The FSB is run through its Plenary,[100] most of whose members are economists.[101] Although the FSB publicly calls for papers to be submitted on topics to be discussed at some of its meetings,[102] such announcements do not go to legal scholars and are not made in media or other sources that legal scholars normally see, including law reviews and communications from their law schools or professional groups.[103]

The FSB has standing committees that may establish working groups, including non-FSB members.[104] During the course of a year, for example, FSB members interacted with numerous industry participants and academics at the FSB's thirty-three roundtables and workshops.[105] The FSB's chair, Randal K. Quarles, who is also vice chair of the Fed, has sought greater engagement between the FSB and academia.[106] However,

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99. *About the FSB*, *supra* note 98.

100. *Organisational Structure and Governance*, FIN. STABILITY BD., https://www.fsb.org/organisation-and-governance/ [https://perma.cc/6CNF-REJE] (describing the Plenary as the FSB's "sole decision-making body" that establishes working groups, standing committees, membership, standards, and approves the FSB program and budget).

101. *See Members of the FSB*, FIN. STABILITY BD., https://www.fsb.org/about/organisation-and-governance/members-of-the-financial-stability-board/ [https://perma.cc/ZDA9-FXYJ].

102. *See, e.g.*, Press Release, FIN. STABILITY BD., Call for Papers: 2020 Annual Meeting of the Central Bank Research Association (CEBRA) (Feb. 12, 2020), https://www.fsb.org/2020/02/call-for-papers-2020-annual-meeting-of-the-central-bank-research-association-cebra/ [https://perma.cc/A449-8XK6].

103. *But cf.* *Announcements*, FIN. STABILITY BD., https://www.fsb.org/press/announcements/ (last visited Nov. 30, 2020) (showing the FSB makes announcements calling for papers on its website). Anyone can subscribe to receive emails from the FSB. *Email Alert,* FIN. STABILITY BD., https://www.fsb.org/emailalert/ [https://perma.cc/Y3YL-7WXF]. However, subscribing requires knowledge that the FSB occasionally solicits papers that could be of interest to legal scholars.

104. FIN. STABILITY BD., FSB PROCEDURAL GUIDELINES §§ C.2, E.4 (2018), https://www.fsb.org/wp-content/uploads/FSB-Procedural-Guidelines.pdf [https://perma.cc/W9JR-NEYH] (outlining the establishment and composition of working groups).

105. FIN. STABILITY BD., FSB FINANCIAL STATEMENTS: 1 APRIL 2018 – 31 MARCH 2019 15 (Aug. 19, 2019), https://www.fsb.org/wp-content/uploads/P190819.pdf [https://perma.cc/8P9D-5Z7R].

106. Press Release, FIN. STABILITY BD., The Financial Stability Board in 2019: Remarks by Randal K. Quarles at Joint Conference of the European Central Bank and the *Journal of Money, Credit, and Banking* (Mar. 28, 2019), https://www.fsb.org/wp-

calls for nominations of academic experts emphasize economic backgrounds.[107]

2. *BIS*. Owned collectively by sixty-three central banks, the BIS is effectively an international central bank for national central banks.[108] It facilitates transactions among countries' central banks while serving as a research body and forum to influence monetary and financial regulation, notably by issuing the "Basel" banking regulatory standards.[109] Formally, it engages in five activities:

> fostering discussion and facilitating collaboration among central banks; supporting dialogue with other authorities that are responsible for promoting financial stability; carrying out research and policy analysis on issues of relevance for monetary and financial stability; acting as a prime counterparty for central banks in their financial transactions; [and] serving as an agent or trustee in connection with international financial operations.[110]

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content/uploads/S280319.pdf [https://perma.cc/DXC4-MZCT] ("I would like to see a greater and more direct contribution of academic subject-matter experts to our work.").

107. *See, e.g.*, Press Release, FIN. STABILITY BD., Call for Nominations: Appointment of Academic Advisors for the FSB Evaluation of "Too-Big-to-Fail" Reforms (Feb. 18, 2019), https://www.fsb.org/2019/02/call-for-nominations-appointment-of-academic-advisors-for-the-fsb-evaluation-of-too-big-to-fail-reforms/ [https://perma.cc/CG7L-X7MQ] (emphasizing "familiarity with the relevant literature, databases and econometric techniques"); Press Release, FIN. STABILITY BD., Call for Nominations: Academic Expert to the FSB Evaluation of the Effects of Financial Reforms on the Financing of Infrastructure Investment (Mar. 26, 2018), https://www.fsb.org/2018/03/call-for-nominations-academic-expert-for-infrastructure-investment-finance-study/ [https://perma.cc/S8UY-EXXQ] (calling for a publication record in "[e]mpirical analysis / financial econometrics"); Press Release, FIN. STABILITY BD., Call for Nominations: Appointment as Academic Subject Matter Expert to the Derivatives Assessment Team (Aug. 18, 2017), https://www.fsb.org/2017/08/call-for-nominations-academic-subject-matter-expert/ [https://perma.cc/N7HY-LCLC] (same).

108. *See About BIS – Overview*, BANK FOR INT'L SETTLEMENTS, https://www.bis.org/about/index.htm?m=1%7C1 [https://perma.cc/RUR2-HG8Z] ("Our mission is to support central banks' pursuit of monetary and financial stability through international cooperation, and to act as a bank for central banks.").

109. *Id.* (using research and analysis to support its stakeholders and achieve monetary and financial stability); *The Basel Process – Overview*, BANK FOR INT'L SETTLEMENTS, https://www.bis.org/about/basel_process.htm?m=2604 [https://perma.cc/HN77-FQ7Z] (stating that the BIS is a forum and platform for central banks to discuss and cooperate, and stating that the BIS uses what is known as the Basel Process, a two-pronged approach including routine meetings with senior officials and collaboration with international groups who work in the finance sector).

110. *About BIS*, UNJOBNET, https://www.unjobnet.org/organizations/BIS [https://perma.cc/3V68-9NME].

The BIS is governed by three bodies: its board of directors, member central banks convening at general meetings, and management.[111] The board of directors is comprised of up to eighteen central bankers, including the leaders of the central banks of the United States, United Kingdom, Germany, France, Italy, and Belgium.[112] A general manager directs four departments: Monetary and Economic Development (providing research, including for meetings of central bankers), Banking Department (offering banking services), BIS Innovation Hub (forming networks of innovators in financial technology), and General Secretariat (providing back-office support).[113] Of the fifteen leading managers of the BIS, only the general counsel has a law degree, while thirteen senior managers have doctorates in economics or similar graduate training.[114]

One committee of the BIS, "[t]he Basel Committee on Banking Supervision ("BCBS") is the primary global standard setter for the prudential regulation of banks and provides a forum for regular cooperation on banking supervisory matters."[115] Forty-five central banks and banking regulators representing twenty-eight jurisdictions form the BCBS.[116] The BCBS reports to the Group of Governors and Heads of Supervision, which is comprised of BIS members.[117] Led by a chair who is director of the BCBS, the BCBS has four divisions that conduct research to set banking standards: the Risks and Vulnerabilities Assessment Group, the Policy and Standards Group, the Supervisory and Cooperation Group, and the Basel Consultative Group.[118] None of these

111. *Governance and Organisation*, BANK FOR INT'L SETTLEMENTS, https://www.bis.org/about/orggov.htm?m=1%7C2%7C603 [https://perma.cc/T7QX-F7J7].

112. *Board of Directors*, BANK FOR INT'L SETTLEMENTS, https://www.bis.org/about/board.htm [https://perma.cc/R3CV-VWLB] (outlining the composition of the BIS Board of Directors).

113. *Governance and Organisation*, *supra* note 111 (describing BIS's four main departments); *Organisation of the BIS*, BANK FOR INT'L SETTLEMENTS (July 2022), https://www.bis.org/about/organigram.pdf [https://perma.cc/V8XP-3QY9] (breaking down the organization of the BIS Board of Directors through a flowchart).

114. *See Management of the BIS*, BANK FOR INT'L SETTLEMENTS, https://www.bis.org/about/officials.htm [https://perma.cc/D8S9-Q3LY].

115. *The Basel Committee – Overview*, BANK FOR INT'L SETTLEMENTS, https://www.bis.org/bcbs/index.htm [https://perma.cc/HQ44-MV4A].

116. *Id.*

117. *Basel Committee Organisation and Governance*, BANK FOR INT'L SETTLEMENTS, https://www.bis.org/bcbs/organ_and_gov.htm [https://perma.cc/Z2BP-SGLU].

118. *Id.*

groups appears to have a designated legal research team, focusing instead on economic issues.[119]

II. THAT OVERRELIANCE IMPAIRS FINANCIAL REGULATION

For several reasons, the overreliance on economists and economic scholarship has impaired, and is likely to continue to impair, financial regulation. Subsections A and B, respectively, discuss how that overreliance distorts rulemaking through excessive dependence on mathematical modeling and idealized free-market outcomes that ignore market failures. Subsection C discusses how that overreliance can ignore the importance of due process and legal analysis. Subsection D discusses how that overreliance can forfeit the benefit of the legal community's collective memory. Finally, Subsection E provides limited empirical evidence that including lawyers and legal scholars in the regulatory process could improve financial regulation.

A. Mathematical Modelling Distortions

Economists and economic scholarship focus on quantitative methodology.[120] Unfortunately, the purported "mathematical rigor and numerical precision of [its] risk-management and asset-pricing tools" has had a "tendency to conceal the weaknesses of [these economic] models and assumptions,"[121] creating a false optimism about their efficacy.[122] The resulting facade of mathematical precision can "do more

119. *See Basel Committee Groups*, BANK FOR INT'L SETTLEMENTS, https://www.bis.org/bcbs/mesc.htm?m=3074 [https://perma.cc/Q79B-8EBT].

120. *See, e.g.*, David Colander, Michael Goldberg, Armin Haas, Katarina Juselius, Alan Kirman, Thomas Lux et al., *The Financial Crisis and the Systemic Failure of the Economics Profession*, 21 CRITICAL REV. 249, 250 (2009) (observing that "most economists have developed and come to rely on [quantitative mathematical] models").

121. *Id.* at 254.

122. *Cf. id.* at 257–58 (describing "conceptual reductionism" among financial economists and "the growing separation of academic economics from issues relating to the real-world economy").

harm than good,"[123] creating a control illusion about economists' ability to understand and predict market cycles.[124]

The near-failure of the major hedge fund Long-Term Capital Management ("LTCM") exposes these weaknesses. LTCM employed Nobel Prize-winning economists to create and run its models.[125] In 1998, however, those models failed to predict collapses in emerging currency markets, forcing the hedge fund's bailout in order to avoid triggering a systemic economic collapse.[126] LTCM, its counterparties, and regulators should have been more aware of the limitations of economic models.[127] Around that time, Merrill Lynch's annual report even cautioned investors about those limitations: mathematical economic models "may provide a greater sense of security than warranted; therefore, reliance on these models should be limited."[128] Neither economists nor regulators who relied on economic scholarship observed that caution.[129]

The global financial crisis of 2007 to 2009 (the "global financial crisis") illustrates even more starkly how mathematical economic models can mislead.[130] These models not only failed to predict the global

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123. Anat Admati, *Political Economy, Blind Spots, and a Challenge to Academics*, PROMARKET BLOG (Nov. 15, 2019), https://promarket.org/2019/11/15/political-economy-blind-spots-and-a-challenge-to-academics/ [https://perma.cc/PL79-B2EY] (observing that "[a]pplying inadequate economic models to policy in the real world is akin to building bridges using flawed engineering models. Serious harm may follow").

124. *See* Colander et al., *supra* note 120, at 254 (describing the control illusions created by the tendency for risk management tools to "conceal the weaknesses of models" from the naïve user).

125. James K. Glassman, *Risk Without Reward*, HARV. MAG., (Jan. 1, 2001), https://www.harvardmagazine.com/2001/01/risk-without-reward.html [https://perma.cc/63U8-CZZS].

126. Steven L. Schwarcz, *Systemic Risk*, 97 GEO. L.J. 193, 201 (2008).

127. *Cf.* Jacqueline Best, *The Limits of Financial Risk Management: Or What We Didn't Learn from the Asian Crisis*, 15 NEW POL. ECON. 29, 35–36 (2010) (noting how banks did not pay enough attention to the risks of severe crisis by relying on and oversimplifying complex risk assessment models).

128. ROGER LOWENSTEIN, WHEN GENIUS FAILED: THE RISE AND FALL OF LONG-TERM CAPITAL MANAGEMENT 235 (2000) (citation omitted).

129. *Cf.* Best, *supra* note 127, at 29 (making that observation in the context of discussing parallels between the global financial crisis and the 1997-98 Asian financial crisis).

130. Jón Daníelsson, *Blame the Models*, 4 J. FIN. STABILITY 321, 321–22 (2008) (noting how reliance on economic models in the summer of 2007 was based on unrealistic expectations regarding their efficacy and complexity); David M. Driesen, *Legal Theory Lessons from the Financial Crisis*, 40 J. CORP. L. 55, 76 (2014) ("[C]omplexity makes reasonably reliable quantitative prediction impossible.").

financial crisis but also justified the lax regulatory oversight that exacerbated it. Prior to the global financial crisis, there was widespread acceptance of value-at-risk ("VaR") modelling for measuring investment-portfolio risk.[131] Based on its assumptions, the VaR model predicted that certain types of investments in highly-leveraged securities would generate high profits with low risks.[132]

Relying on this model, financial institutions favored investment products with low VaR risk profiles, like mortgage-related credit-defaults swaps ("CDSs") and collateralized debt obligations ("CDOs"), that calculations showed would generate reliable gains and only rarely have losses.[133] Problematically, though, the model failed to predict that any losses that might eventually occur would be huge.[134] Even where they knew the risk of large losses, mid-level managers were incentivized to pursue these investments, because their compensation depended on generating profits from investments with low VaR measurements.[135] The models themselves were so complex that senior managers often deferred to their subordinates' calculations and heuristics like VaR.[136] Equally problematic, once those huge losses started occurring, the significant increase in the VaR computation would "amplify the resulting volatility by triggering further sell-offs, which force[d] the [VaR] higher, creating a vicious cycle."[137] The 2007-2008 collapse of the housing market and mortgage-loan values caused many financial institutions that relied on the VaR model and its assumptions to fail or to need government bailouts.[138]

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131. *See* Steven L. Schwarcz, *Regulating Complacency: Human Limitations and Legal Efficacy*, 93 NOTRE DAME L. REV. 1073, 1081 (2018).

132. *See, e.g.*, *The Risks of Financial Modeling: VaR and the Economic Meltdown: Hearing Before the Subcomm. on Investigations & Oversight*, 111th Cong. 60 (2009) (prepared statement of Dr. Richard Bookstaber, Financial Author, Unaffiliated).

133. *See* U.S. FIN. CRISIS INQUIRY COMM'N, THE FINANCIAL CRISIS INQUIRY REPORT: FINAL REPORT OF THE NATIONAL COMMISSION ON THE CAUSES OF THE FINANCIAL AND ECONOMIC CRISIS IN THE UNITED STATES 189 (2011) (observing investment shifting to creating synthetic CDOs and CDs under the impression of straight-forward, low risk that Wall Street could handle).

134. STEVEN L. SCHWARCZ, *Conclusion: Closing Perspectives on Regulating Systemic Risk*, *in* SYSTEMIC RISK IN THE FINANCIAL SECTOR: TEN YEARS AFTER THE GREAT CRASH 272 (Douglas Arner eds., 2019).

135. Steven L. Schwarcz, *Conflicts and Financial Collapse: The Problem of Secondary-Management Agency Costs*, 26 YALE J. ON REGUL. 457, 460 (2009).

136. *Id.* at 463.

137. Best, *supra* note 127, at 36.

138. Schwarcz, *supra* note 131, at 1086.

B. Free-market Distortions

Economists' belief in the efficiency of free markets, augmented by the aforesaid "control illusion" about economists' ability to understand and predict market cycles,[139] inspired a trend toward deregulation in the last several decades of the 20th Century.[140] This led to the (at least partial) deregulation of such industries as airlines, telecommunications, and public utilities,[141] and spawned policies and laws such as the Commodity Futures Modernization Act of 2000,[142] which largely exempted financial markets from legal control.[143] Meanwhile, industry lobbying secured free-market-inspired loopholes, such as exempting derivatives from bankruptcy law.[144]

Viewing free markets as the solution to every problem obscures the normative purpose of financial regulation, which is to help correct market failures.[145] The global financial crisis revealed a host of these failures. Complexity "represents [such] a market failure insofar as it can distort information and impair disclosure as a means to reduce asymmetric information."[146] Complexity also undermines the "efficient market hypothesis," which posits that the prices of publicly traded financial assets encapsulate all public information.[147] The efficient market hypothesis itself depends on assuming that perfect information

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139. *See supra* note 124 and accompanying text.

140. *See supra* notes 9–27 and accompanying text (discussing the methodological, political, and academic trends which spurred deregulation).

141. MCCRAW, *supra* note 5, at 304.

142. Pub. L. 106-554, 114 Stat. 2763 (codified in scattered sections of 7 U.S.C., 11 U.S.C., 12 U.S.C., & 15 U.S.C.).

143. *Id.*

144. *See generally* Steven L. Schwarcz & Ori Sharon, *The Bankruptcy-Law Safe Harbor for Derivatives: A Path-Dependence Analysis*, 71 WASH. & LEE L. REV. 1715, 1717, 1724–31 (2014) (showing the evolution of the bankruptcy-law safe harbor provision).

145. Schwarcz, *supra* note 134, at 269.

146. *Id.*; *see also* Steven L. Schwarcz, *Regulating Complexity in Financial Markets*, 87 WASH. U.L. REV. 211, 242 (2009) (observing that complexity can create a "mutual misinformation" market failure, by which a seller's confidence in the value of securities convinces buyers to themselves be confident in the securities' worth).

147. *See* MACKENZIE, *supra* note 14, at 246–48 (describing the historic background of theoretical commitment to market efficiency by contrasting an options pricing focused Capital Asset Pricing Model and a hedged portfolio focused market efficient model); Alan Kirman, *The Economic Crisis is a Crisis for Economic Theory*, 56 ECON. STUD. 498, 512 (2010).

is transmitted rapidly to perfectly rational actors.[148] Under those assumptions, the market would maximize value without interference by regulators, thereby justifying deregulation and other free-market economic solutions.[149] If the efficient market hypothesis were correct, markets for publicly traded financial assets would not need disclosure regulation, for example, to help correct information asymmetries between issuers and investors.[150] By weakening the assumptions of perfect information and rationality, complexity undermines the efficient market hypothesis as a sound basis for financial regulatory policy.[151]

Complacency represents another market failure: a behavioral limitation that undermines economists' assumption that parties act rationally for their self-interest with perfect information.[152] This limitation caused economists to mistakenly assume that past conditions could be used to predict future economic conditions.[153] That mistake caused many accepted economic modelling techniques, like Monte Carlo simulations and Bayesian probability, to operate from unrealistic assumptions.[154] These "models were estimated on data from periods of

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148. *See* Kirman, *supra* note 147, at 512; *cf.* Colander et al., *supra* note 120, at 257 (describing how assuming perfect rationality starkly contrasts with the "bounded rationality" of actual human behavior).

149. Angelos Kotios & George Galanos, *The International Economic Crisis and the Crisis of Economics*, 35 WORLD ECON. 869, 874 (2012).

150. *See* Steven L. Schwarcz, *Controlling Financial Chaos: The Power and Limits of Law*, 2012 WIS. L. REV. 815, 821 (2012) (noting how even with perfect disclosure, participants would still contribute to the asymmetry by keeping important risk information to themselves without protecting the financial system as a whole).

151. *Cf.* Norma Cohen, '*Efficient Markets Hypothesis' Inefficient*, FIN. TIMES: FT TRADING ROOM (Jan. 24, 2012), https://www.ft.com/content/cb7e1b6e-46bc-11e1-bc5f-00144feabdc0 (describing a senior regulator at the United Kingdom's Financial Services Authority's belief that the weaknesses of the efficient market hypothesis meant that "the intellectual underpinning for regulation must now be turned on its head").

152. *See* Schwarcz, *supra* note 134, at 270.

153. *See* Schwarcz, *supra* note 131, at 1083–86 (demonstrating various examples of complacent behavior to illustrate how complacency effects market failures). Complacency may also help explain why the International Monetary Fund (IMF) and the Financial Stability Forum dropped efforts to monitor financial crises, inspired by the Asian financial crises of 1997 and 1998, which contributed to their failure to foresee the global financial crisis. *Cf.* Kotios & Galanos, *supra* note 149, at 879–80 (describing the failure to pursue reforms after the Asian crisis due to both lack of effective policy and political factors such as U.S. monetary expansion and lack of international intervention); Best, *supra* note 127, at 39 (detailing how reforms proposed after the global financial crisis by United Kingdom Prime Minister Gordon Brown and the European Commission mirrored previous proposals after the Asian crisis).

154. *See* Driesen, *supra* note 130, at 78–79.

low volatility and thus could not deal with the arrival of major changes."[155]

Similarly, the mistaken belief that past conditions could be used to predict future economic conditions caused a failure of models at some of the most sophisticated financial institutions, which never assumed that housing prices could decline on the order of the 2007 collapse.[156] Even the most conservative assumptions, like those of the rating agency Standard & Poor's which assumed a worst-case twenty percent drop in housing prices, turned out to be much lower than the actual price decline of thirty-three percent.[157] Similarly, the "Gaussian Copula" formula for calculating the correlation of derivatives based on historical data became a key metric for traders as it gave a final correlation of risk based on a large pool of derivatives before the financial crisis. Despite Wall Street's infatuation with the system, the model's data failed to predict the subsequent default of underlying assets.[158] Although the assumptions often were not clear in these models' output,[159] lawmakers deferred to the models, causing a "prudential lapse."[160]

Conflicts of interest also create financial market failures. At many financial institutions, highly-compensated traders and other secondary managers undertook risky bets.[161] Compensated based on short-term

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155. Colander et al., *supra* note 120, at 253–54.

156. *See* Christine Harper, *Death of VaR Evoked as Risk-Taking Vim Meets Taleb's Black Swan*, BLOOMBERG (Jan. 27, 2008, 7:12 PM), https://www.bloomberg.com/news/articles/2008-01-28/death-of-var-evoked-as-risktaking-vim-meets-talebs-black-swan [https://perma.cc/WW5Q-KX9D] (describing failures of financial models at UBS, Morgan Stanley, and Merrill Lynch).

157. Steven L. Schwarcz, *Systematic Regulation of Systemic Risk*, 2019 WIS. L. REV. 1, 40 n.256 (2019) (citing CORELOGIC, EVALUATING THE HOUSING MARKET SINCE THE GREAT RECESSION 4 (2018)); *cf.* S&P DOW JONES INDICES, S&P CASE-SHILLER 20-CITY COMPOSITE HOME PRICE INDEX, (May 31, 2016), https://perma.cc/J29T-4AMK (reporting a 35% decline in housing prices); Al Yoon, *Home Price Drops Exceed Great Depression: Zillow*, REUTERS (Jan. 11, 2011, 8:44 AM) https://www.reuters.com/article/us-usa-housing-prices-idUSTRE70961E20110111 [https://perma.cc/L9LB-LH5J] (reporting that home prices during the global financial crisis declined more than during the Great Depression).

158. William Spencer Topham, *Re-Regulating "Financial Weapons of Mass Destruction": Observations on Repealing the Commodity Futures Modernization Act and Future Derivative Regulation*, 47 WILLAMETTE L. REV. 133, 138 (2010).

159. Colander et al., *supra* note 120, at 254 ("Because researchers did not point out the difficulties with their models, the new derivatives markets were flawed in ways that contributed to the financial crisis.").

160. *Id.* at 254–55.

161. Schwarcz, *supra* note 135, at 460 (detailing how secondary managers used VaR risk profiles to make investments without disclosing the possibility of risk that they were aware of).

performance, they lacked incentives to consider the institution's longer-term success and survival.[162] Misaligned incentives also created moral hazard: employees at financial firms sometimes speculated with the firms' money to achieve individual financial gain notwithstanding risk to the firm.[163] Economists ignored these types of conflicts, focusing instead on shareholder-director conflicts.[164]

Other financial market failures include a type of tragedy of the commons. This occurs when individuals engage in individually rational conduct that imposes externalities on a larger group.[165] For example, one of us has argued that the "shareholder-primacy model of corporate governance causes [a tragedy of the commons] by encouraging firms to engage in risk-taking that has a positive expected value to the firm and its shareholders, regardless of the harm to third parties."[166] Economic models may ignore or underestimate the negative externalities associated with this tragedy of the commons, such as the "very large negative externalities associated with the disorderly failure of any systemically important financial institution."[167]

Change can result in regulatory lapses that are themselves a form of market failure.[168] Regulation normally lags changes in financial markets.[169] Deregulation based on economic models may have exacerbated this tendency, because faith in markets may have reduced regulators' engagement in the "continuous monitoring and updating" necessary for sound financial regulation.[170] One study by the Federal Reserve Bank of New York and the U.S. National Academy of Sciences found that, before the global financial crisis, economists focused on maximizing returns on specific investments and portfolios at the

162. Schwarcz, *supra* note 134, at 270.
163. Schwarcz, *supra* note 135, at 462.
164. *See, e.g.*, Admati, *supra* note 123.
165. *See* Schwarcz, *supra* note 134, at 273.
166. *Id.*
167. Daniel K. Tarullo, *Macroprudential Regulation*, 31 YALE J. ON REGUL. 505, 513 (2014); Schwarcz, *supra* note 150, at 821 (discussing tragedy of the commons). Particularly, those externalities may include the political rancor caused by a financial crisis, which may not be easily quantified. *See* Schwarcz, *supra* note 150, at 816 (discussing the political controversies surrounding the Dodd-Frank Act and other politically motivated responses to the global financial crisis); Colander et al., *supra* note 120, at 254 (describing the moral hazard associated with the idea that considering systemic risk was outside the purview of traders, researchers, and other market participants).
168. Schwarcz, *supra* note 134, at 272.
169. *Id.*
170. *Id.*

expense of observing and understanding changes at the systemic level.[171] That narrow focus contributed to the failure to protect against systemic risk.[172]

C. Ignoring Due Process and Legal Analysis

Economists also focus on improving efficiency, especially by encouraging competition.[173] Although that focus is certainly important during periods of slow growth,[174] it ignores due process and legal analysis.[175] The legal emphasis on due process can be especially valuable in restoring market confidence during recoveries from crippling financial crashes,[176] as epitomized by the federal securities laws that were enacted in response to the Great Depression.

During the Great Depression, Congress faced the task of creating "a regulatory regime [for] an industry accustomed to laissez faire."[177] Professor Landis, the country's leading scholar of administrative law and regulation,[178] was chosen to lead that task.[179] His focus on disclosure and other due process-related principles was fundamental to the structure of the Securities Act of 1933[180] and the Securities Exchange Act of 1934,[181] two of the most successful and enduring statutes in American history.[182]

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171. Kirman, *supra* note 147, at 505.

172. *Id.*

173. *See supra* notes 7, 21, 29 and accompanying text.

174. *See*, *e.g.*, MCCRAW, *supra* note 5, at 275 (describing the choice to encourage competition to reverse slow growth in the airline industry).

175. *Cf.* Gillian E. Metzger, *Through the Looking Glass to a Shared Reflection: The Evolving Relationship Between Administrative Law and Financial Regulation*, 78 L. & CONTEMP. PROBS. 129, 130, 133–34 (2015) (arguing that due process is of less concern in financial regulation than in administrative procedures such as public utility rate setting).

176. *See supra* note 30 and accompanying text; *cf.* Coase, *supra* note 14, at 210 ("[T]he administration of the regulatory agencies and antitrust policy, while part of the legal system and, as such, studied by lawyers, also provides the framework within which firms and individuals decide on their actions in the economic sphere.").

177. MCCRAW, *supra* note 5, at 275.

178. *See supra* note 31 and accompanying text.

179. *See* MCCRAW, *supra* note 5, at 159 (describing Landis's prior career as the first professor of legislation in Harvard Law School's history as uniquely preparing him to draft the securities laws).

180. Pub. L. No. 73–22, 48 Stat. 74 (codified at 15 U.S.C. § 77a (2018)).

181. Pub. L. No. 73–291, 48 Stat. 881 (codified at 15 U.S.C. § 78a (2018)); *see supra* note 69 and accompanying text.

182. *Cf.* MCCRAW, *supra* note 5, at 153–54 (noting that the SEC became the most successful regulatory agency because of these statutes).

Financial regulation ignores due process at its peril. For example, section 113 of the Dodd-Frank Act vests the FSOC with authority to designate non-bank financial institutions as "systemically important."[183] If so designated, these institutions become subject to rigorous prudential standards promulgated by regulatory agencies.[184] Critics of the regulation argue that because section 113 gives almost plenary designation authority to the FSOC, the FSOC's designation procedure has been riddled with due process concerns: among other things, the financial institutions under review have been given little guidance about the procedure, and the FSOC has not been transparent about its decision-making criteria.[185]

Those criticisms also reveal an irony: the overreliance of lawmakers on economists can even impair the ability to integrate economic theory into law. One of those criticisms is that the FSOC did not adequately apply cost-benefit analysis ("CBA") to its decision-making.[186] Grounded in economic theory, CBA is an analytical technique that assesses whether the economic benefits of a proposed decision would exceed its costs.[187] Greater attention to due process may have required the FSOC

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183. *See* Dodd-Frank Act, 12 U.S.C. § 5323 (authorizing such a designation where the company's failure or its activities "could pose a threat to the financial stability of the United States"); Designations, U.S. DEP'T OF THE TREASURY, https://home.treasury.gov/policy-issues/financial-markets-financial-institutions-and-fiscal-service/fsoc/designations [https://perma.cc/BM73-9DSS].

184. 12 U.S.C. § 5323.

185. *Id.*; *e.g.*, *Oversight of the Financial Stability Oversight Council: Due Process and Transparency in Non-Bank SIFI Designations Before the Subcomm. on Oversight & Investigations of the H. Comm. on Fin. Servs.* 114th Cong. 1–2 (2015) (statement of Rep. Sean P. Duffy, Chairman). *But see* Jeremy C. Kress, Patricia A. McCoy & Daniel Schwarcz, *Regulating Entities and Activities: Complementary Approaches to Nonbank Systemic Risk*, 92 S. CAL. L. REV. 1455, 1501–03 (2019) (arguing that criticisms of the FSOC's lack of transparency are overblown). To address these concerns, the FSOC voted to implement an "activities-based," rather than entity-specific, approach to designation. Authority to Require Supervision and Regulation of Certain Nonbank Financial Companies, 12 C.F.R. pt. 1310 (2021). Updated FSOC guidance explains that this approach is meant to increase transparency and aid entities by promoting due process.

186. *See, e.g.*, Frederick Matthew Norchi, *Deference Debate and the Role of Cost-Benefit Analysis in Financial Regulation:* MetLife v. Financial Stability Oversight Council, 21 N.C. BANKING INST. 253, 264–65 (2017) (noting the court's conclusion that the FSOC should have conducted CBA as part of its designation calculus).

187. MAEVE P. CAREY, CONG. RSCH. SERV., R41974, COST-BENEFIT AND OTHER ANALYSIS REQUIREMENTS IN THE RULEMAKING PROCESS 1 (2014) (observing that "[a] proposed regulatory requirement is judged to pass the 'cost-benefit test' if the sum of its anticipated benefits outweighs, or otherwise justifies, the sum of its present and future costs in present value terms").

to apply CBA to ascertain whether the benefits of designating a non-bank financial institution as systemically important would exceed its costs.[188]

Finally, we note that legal analysis complements economic efficiency. As Professor Driesen observes, "most law is neither efficient nor inefficient."[189] Rather, "[i]t simply provides the framework under which market actors seek to achieve efficient outcomes."[190] Professor Coase similarly observed that law provides a "framework within which firms and individuals decide on their actions in the economic sphere."[191] Under these formulations, legal analysis should provide the framework within which economic analysis maximizes efficiency.[192]

Legal analysis is valuable in originating frameworks for action because law is pragmatic. Lawyers are trained to look to precedent and to draw analogies between new problems and previously successful solutions, which provide valuable insights.[193] In that sense, law is also both retrospective and prospective. In contrast, by focusing primarily on modeling the future, economic analysis is more prospective and theoretical.[194] Joining legal and economic analysis together can provide a broader perspective for lawmaking by looking both retrospectively and prospectively and by joining pragmatism and theory.

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188. *Cf.* Richard L. Revesz, *Cost-Benefit Analysis and the Structure of the Administrative State: The Case of Financial Services Regulation*, 34 YALE J. ON REGUL. 545, 575 (2017) (proposing that the Office of Information and Regulatory Affairs require financial regulators to apply CBA). It should be noted, however, that the efficacy of cost-benefit analysis for financial regulation is the subject of debate. *Compare* Eric A. Posner & E. Glen Weyl, *Benefit-Cost Paradigms in Financial Regulation*, 43 J. LEGAL STUD. S1, S2 (2014) (calling for increased use of CBA in financial regulation), *with* John C. Coates IV, *Cost-Benefit Analysis of Financial Regulation: Case Studies and Implications*, 124 YALE L.J. 882, 999–1011 (2015) (critiquing efforts to conduct CBA in financial regulation).

189. Driesen, *supra* note 130, at 56.

190. *Id*.

191. Coase, *supra* note 14, at 210.

192. To the extent legal analysis helps to correct market failures, however, such frameworks should already be reasonably efficient. *See supra* notes 145–171 and accompanying text (discussing how legal analysis can help to correct market failures).

193. *See infra* notes 198–216 and accompanying text (discussing how knowledge of the post-Depression margin regulations could have valuably informed post-financial crisis lawmaking).

194. However, economics is also retrospective in that the mathematical economic models rely on assumptions that may be based on past data. *See supra* note 155 (discussing economic models that relied on past data).

D. Forfeiting Collective Memory

Overreliance on economists and economic scholarship also forfeits the benefit of the legal community's collective memory. This is starkly illustrated by the example of Regulations G, U, T, and X (the "margin regulations"),[195] promulgated in response to the margin-lending excesses that contributed to the Great Depression.[196] Those excesses closely paralleled the mortgage-lending excesses that contributed to the global financial crisis.[197] Yet economists were completely unaware of this similarity, and the financial regulation spurred by the financial crisis was not informed by the margin regulations,[198] which had successfully and elegantly curbed the margin-lending excesses.[199]

To understand this, first recognize why the margin-lending excesses that contributed to the Great Depression closely paralleled the mortgage-lending excesses that contributed to the global financial crisis.[200] Prior to the Great Depression, many banks engaged in margin lending—making loans to finance the purchase of shares of stock—to risky ("subprime") borrowers, who secured their loans by pledging the purchased stock as collateral.[201] An extended bull market led many, complacently,[202] to believe that the stock market would continue to rise and thus margin loans would be adequately secured.[203] In August 1929, however, a decline in stock prices caused some of these subprime margin loans to become undercollateralized.[204] Banks that were heavily

195. 12 C.F.R. pts. 220–21, 224 (2021); 17 C.F.R. pt. 244 (2021).

196. Robert J. Gareis & Jerome W. Jakubik, *The United States Securities Credit Regulations: How They Affect Foreign Borrowers and Foreign Lenders in Acquisitions of U.S. Companies*, 4 J. COMPAR. CORP. L. & SEC. REGUL. 291, 291–95 (1982).

197. Iman Anabtawi & Steven L. Schwarcz, *Regulating Systemic Risk: Towards an Analytical Framework*, 86 NOTRE DAME L. REV. 1349, 1356–57, 1359–60 (2011).

198. *See* e-mail from Laura M. Scott, Research Services Librarian & Senior Lecturing Fellow, Goodson Law Library, Duke University School of Law, to Prof. Schwarcz (Oct. 4, 2021) ("There are frequent general references to the Great Depression in Dodd-Frank rulemaking notices . . . . However, after several hours of research, I have not found any clear comparisons in Dodd-Frank rulemaking notices between the regulation of mortgage lending and the regulation of margin lending. It is, of course, difficult to prove a negative, but I am not seeing that connection expressly made in the notices.").

199. Greis & Jakubik, *supra* note 196.

200. *See* Anabtawi & Schwarcz, *supra* note 197.

201. *Id.* at 1356.

202. *See supra* note 153 and accompanying text (observing that complacency caused economists mistakenly to assume that past conditions could be used to predict future economic conditions).

203. Anabtawi & Schwarcz, *supra* note 200, at 1356.

204. *Id.* at 1356–57.

engaged in subprime margin lending lost so much money on the loans that they became unable to fulfill demands of depositors and, of more systemic importance, other banks.[205] Defaults by those margin lenders adversely affected other banks' abilities to meet their obligations to yet other banks, and "so on down the chain of banks and beyond."[206]

Similarly, prior to the global financial crisis, many banks engaged in mortgage lending to subprime borrowers, who secured their loans by mortgaging the purchased homes as collateral.[207] Decades of increasing housing prices led many, complacently, to believe that housing would continue to rise in value, and thus mortgage loans would be adequately secured.[208] In 2007, however, the decline in housing prices caused some of these subprime mortgage loans to become undercollateralized.[209] Financial institutions that were heavily invested in subprime mortgage loans through their investments in residential mortgage-backed securities, or RMBS, lost so much money that they became unable to fulfill demands of their counterparties.[210] Their resulting defaults triggered a systemic financial meltdown.[211]

The margin regulations were promulgated in response to, and successfully curbed, the margin-lending excesses that contributed to the Great Depression.[212] Those regulations, for example, require that margin lending by banks be secured by collateral worth significantly more than the loan amount[213] or else the lender must independently verify that the borrower can repay the loan.[214] Since their promulgation,

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205. *Id.* at 1357.

206. George G. Kaufman, *Bank Failures, Systemic Risk, and Bank Regulation*, 16 CATO J. 17, 20–21 (1996).

207. Anabtawi & Schwarcz, *supra* note 200, at 1359.

208. *Id.* at 1359–60.

209. *Id.* at 1360.

210. *Id.*

211. *Id.* at 1360–61.

212. *See* Gareis & Jakubik, *supra* note 196 (describing the purpose and implementation of the margin regulations).

213. This "overcollateralization" significantly increases the creditworthiness of loans. *See* Steven L. Schwarcz, *Empowering the Poor: Turning De Facto Rights into Collateralized Credit*, 95 NOTRE DAME L. REV. 1, 25 (2019) (explaining how overcollateralization greatly increases the likelihood of loan repayment).

214. 12 C.F.R. § 221 (2021). Subject to several regulatory exceptions, a bank loan falls under the margin regulations (in this case, Regulation U) if it (1) is secured by "margin stock," (2) is intended to finance the purchase of margin stock, and (3) does not otherwise qualify for an exemption. *Id.* § 221.1.

the margin regulations have been instrumental in avoiding problems from subprime margin lending.[215]

Sadly, economists were completely unaware of—and the financial regulation spurred by the global financial crisis was not informed by—the margin regulations. With collective memory of those regulations, legal scholars, including Professors Bubb, Krishnamurthy, Anabtawi, and one of the authors of this Article, argued that the post-global-financial-crisis financial regulation should (among other things) require risky mortgage loans to be secured by a minimum level of overcollateralization.[216] Lawmakers totally ignored their research.

E. A Limited Empirical Observation on the Foregoing

The foregoing discussion explains why overreliance on economists and economic scholarship impairs financial regulation. That discussion does not necessarily prove that greater involvement of lawyers and legal scholars would help to improve financial regulation. A comparison of financial and insurance regulation nonetheless provides limited empirical evidence that such greater involvement could improve financial regulation.[217]

Although there could be other explanations,[218] the relatively few insurer insolvencies—during the global financial crisis, only in the

215. *See, e.g.*, Gikas A. Hardouvelis, *Margin Requirements, Volatility, and the Transitory Component of Stock Prices*, 80 AM. ECON. REV. 736, 744–45 (1990) (finding a statistically significant negative relationship between margin levels and stock market volatility).

216. 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, 1610–18 (2015) (arguing that requiring higher down payments would generally make housing finance more robust); Anabtawi & Schwarcz, *supra* note 200, at 1409. We are not arguing that anything near the high level of 100% overcollateralization imposed on margin loans after the Great Depression could politically, or should socially, be imposed on mortgage lending. The impact of homeownership would be much too regressive. Unlike borrowing to purchase shares of stock, borrowing to purchase a home is seen not only as a public good but also, given the high cost of housing, a necessity.

217. We thank Lori Medders for suggesting this comparison. *See* e-mail from Lorilee A. Medders, Joseph F. Freeman Distinguished Professor of Insurance, Appalachian State University Walker College of Business, to Prof. Schwarcz (Aug. 22, 2021) (commenting that "the regulation and policy making surrounding insurance might make for a good discussion of complementary-collaborative 'reliance' between economics and law").

218. For example, the relatively few insurer insolvencies might simply reflect that insurers tend to be more risk averse than other financial institutions.

single digits yearly[219]—suggest that insurance regulation may be more successful than other forms of financial regulation.[220] The National Association of Insurance Commissioners ("NAIC"), the nation's standard-setting and regulatory support organization,[221] is governed by the state insurance commissioners,[222] half of whom hold law degrees.[223] The current Director of the Federal Insurance Office also holds a law degree.[224] The NAIC sponsors two research fellows: one holds a business doctorate and the other a law degree. Both fellows are full-time faculty at a U.S. University working on problems of interest to both the NAIC and state insurance commissioners.[225] The NAIC also publishes the *Journal of Insurance Regulation*, an academic journal that welcomes papers from J.D.s and Ph.D.s alike.[226] Insurance regulation and policy-

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219. CAN. INST. OF ACTUARIES, ACTUARIAL REVIEW OF INSURER INSOLVENCIES AND FUTURE PREVENTIONS 6 (2017) (reporting insurer insolvencies in the United States); *see also* Therese M. Vaughan, *The Economic Crisis and Lessons from (and for) U.S. Insurance Regulation*, 28 J. INS. REGUL. 3, 5 (2009) (observing that, compared to bank failures and bailouts, "the number of failures and bailouts in the insurance sector appear minimal").

220. *Cf.* Vaughan, *supra* note 219 (suggesting a regulatory explanation for the relatively few insurer insolvencies, although observing that different business models and culture might also help to provide an explanation).

221. *See generally* Susan Randall, *Insurance Regulation in the United States: Regulatory Federalism and the National Association of Insurance Commissioners*, 26 FLA. STATE U.L. REV. 625, 627–28 (1999) (describing the role of the NAIC in insurance regulation).

222. *Our Story*, NAT'L ASS'N OF INS. COMM'RS, https://content.naic.org/about [https://perma.cc/MFL8-Q6ZT].

223. *Insurance Department Directory*, NAT'L ASS'N OF INS. COMM'RS, https://content.naic.org/sites/default/files/publication-ins-ou-insurance-directory.pdf [https://perma.cc/SYL6-S5WR].

224. Jennifer Webb, *Federal Insurance Office Names New Director*, INDEP. AGENT (28 Feb, 2019), https://www.iamagazine.com/news/read/2019/02/28/federal-insurance-office-names-new-director [https://perma.cc/6TU5-MNCY].

225. *Dr. Parson Selected as '21–'22 NAIC Research Fellow*, APPALACHIAN STATE UNIV. (Apr. 15, 2021), https://insurance.appstate.edu/news/dr-parson-selected-21-22-naic-research-fellow [https://perma.cc/BX9C-W856]; *Jamie Anderson-Parson, J.D., Department of Finance, Banking and Insurance*, APPALACHIAN STATE UNIV., https://finance.appstate.edu/directory/jamie-anderson-parson-jd [https://perma.cc/SU68-DTPX]; Press Release, Le Moyne College, RMI Professor Luo Named Research Fellow for National Association of Insurance Commissioners (Feb. 26, 2021), https://www.lemoyne.edu/News/News-Article/ArticleId/308 [https://perma.cc/ZQ25-LSKW].

226. *See About the Journal of Insurance Regulation*, NAT'L ASS'N OF INS. COMM'RS, https://content.naic.org/research/journal-of-insurance-regulation [https://perma.cc/2968-QFKY] (stating that "[a]ll authors having articles that deal with insurance regulation are invited to submit manuscripts to the Journal for review").

making thus involves the interactive efforts of both economists and legal scholars.

III. CORRECTING THE OVERRELIANCE

Effectively, procedural failures cause the overreliance on economists and economic scholarship in financial regulation,[227] and that overreliance, in turn, causes a range of regulatory failures.[228] Subsection A next analyzes how those procedural failures should be corrected. Thereafter, Subsection B analyzes how some of the resulting regulatory failures could be at least partially corrected, even without fully correcting those procedural failures.

A. Correcting Procedural Failures

As discussed, the procedural failures stem from the fact that the government agencies and intergovernmental bodies that are responsible for designing and implementing financial regulation are predominantly staffed by economists. To correct these failures, these agencies and bodies should consider how more tailored legal staffing could help to improve financial regulation.

This dominance by economists is somewhat deceptive because lawyers hold prominent leadership positions at certain financial regulators.[229] Indeed, lawyers on Capitol Hill and at the White House also influence financial regulation by negotiating and drafting legislation. However, we distinguish drafting and winning Congressional votes for legislation from designing substantive financial regulatory policy, which economists dominate. As mentioned, economists staff the research divisions at the key financial regulatory agencies, which influence the direction and content of financial regulatory policies. For example, the Fed's research divisions are staffed almost entirely with Ph.D. economists.[230] These research divisions have significant influence over central bank policy by setting the agenda for discussion by the FOMC's members. Before meetings of the FOMC, the economist dominated FOMC Secretariat distributes to the FOMC

227. *See supra* Section I.
228. *See supra* Section II.
229. *See supra* notes 54, 67 & 71 and accompanying text (observing that lawyers hold a majority or more of the senior leadership positions at the Federal Reserve System, the FDIC, and the SEC).
230. *See supra* text accompanying notes 56–58.

research memos covering a range of subjects.[231] Likewise, the SEC's DERA employs sixty-four economists, while lawyers only assume supporting roles.[232] At the CFPB, eighty-four percent of the thirty-two researchers hold doctorates in economics, but only one of those researchers has a law degree.[233]

Limitations on staff lawyers' roles at lawmaking institutions structurally perpetuate this overreliance on economists. For example, the Fed's lawyers are mostly, if not all, operational.[234] When they do publish scholarship, which is relatively rare, they disclaim stating anything that might be seen as policy.[235] Likewise, lawyers at the SEC's DERA "support" lawmakers.[236] This supporting role ignores lawyerly insights from experience in implementing and enforcing laws.[237]

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231. *Federal Open Market Committee: FOMC Memos by Year*, BD. OF GOVERNORS OF THE FED. RSRV. SYS., https://www.federalreserve.gov/monetarypolicy/fomc-memos-by-year.htm (last updated Aug. 13, 2021); *Meet the Economists: FOMC Secretariat*, BD. OF GOVERNORS OF THE FED. RSRV. SYS., https://www.federalreserve.gov/econres/mafomc-staff.htm [https://perma.cc/N3PR-8SL3] (last updated May 31, 2021).

232. *See supra* text accompanying note 77.

233. *CFPB Researchers*, CONSUMER FIN. PROT. BUREAU, https://www.consumerfinance.gov/data-research/cfpb-researchers [https://perma.cc/AG7Y-TF4R].

234. The Federal Reserve's hiring policies, for example, reflect this. *Compare Economists*, BD. OF GOVERNORS OF THE FED. RSRV. SYS., https://www.federalreserve.gov/careers-economists.htm [https://perma.cc/YQP3-YAZN] (last updated Aug. 10, 2022) (calling for applications from Ph.D. economists and finance experts to "conduct cutting edge research on a broad range of topics in economics and finance and contribute substantive policy analyses used by the Board of Governors and the Federal Open Market Committee"), *with Jobs by Category: Attorneys*, BD. OF GOVERNORS OF THE FED. RSRV. SYS., https://www.federalreserve.gov/careers-jobs-by-category.htm [https://perma.cc/N67W-A2ZL] (last updated June 30, 2022) (offering "attorneys a unique opportunity to work on challenging and significant legal issues related to banking and finance [and to] counsel the Board on commercial, corporate, antitrust, administrative, and banking law and administer the Board's statutory responsibilities in consumer credit protection").

235. *See, e.g.*, Jess Cheng & Joseph Torregrossa, *A Lawyer's Perspective on U.S. Payment System Evolution and Money in the Digital Age*, FEDS NOTES: BD. OF GOVERNORS OF THE FED. RSRV. SYS. (Feb. 4, 2022), https://www.federalreserve.gov/econres/notes/feds-notes/a-lawyers-perspective-on-us-payment-system-evolution-and-money-in-the-digital-age-20220204.htm [https://perma.cc/J6SF-YTHQ] (emphasizing a "lawyer's perspective" and "legal standpoint" repeatedly in describing the Federal Reserve's position in the American payments system, without offering policy prescriptions).

236. *See supra* text accompanying note 78.

237. *Cf.* Coase, *supra* note 14, at 208 ("It seems to me probable that an ability to discern and understand [the purposes which men seek to achieve in different fields] and the character of the institutional framework (how, for example, the political and legal

Furthermore, economists inherently rely on their colleagues and their training. Assessing the spread of economics into other disciplines, including law, Coase reviewed the set of common traits that "binds together a group of scholars so that they form a separate profession": "common techniques of analysis, a common theory or approach to the subject, or a common subject matter."[238] He concluded that "the great advantage which economics has possessed is that economists are able to use the 'measuring rod of money.'"[239] This apparent precision gave economics "considerable explanatory power."[240] The flip-side of apparent precision is that economists may be less willing to consider normative or procedural arguments from lawyers that do not depend on quantitative analysis.

The following recommendations could address these failures: (1) requiring economists who work in the research divisions of government agencies and intergovernmental bodies that design and implement financial regulation to take legal research into action; and (2) hiring legal scholars to also work in those research divisions.

A somewhat related procedural failure is that economists may be unwilling, or may feel unqualified, to consider legal arguments.[241] This failure could be addressed in varying ways depending on its cause. For example, to the extent economists feel unqualified to consider legal arguments because law-review articles are daunting in length,[242] the solution would be to make legal research more accessible, as later discussed.[243]

Economists also may feel unqualified, however, by reason of training. Recently, one of the authors of this Article asked a leading economics-and-finance chaired professor at one of this nation's preeminent universities why his forthcoming paper on financial regulation did not reference legal sources. That author also expressed concern that "finance and economics scholars almost never cite to, or attempt to learn from, the work of legal scholars—especially when the former are

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systems actually operate) will require specialized knowledge not likely to be acquired by those who work in some other discipline.").

238. *Id.* at 204.

239. *Id.* at 209.

240. *Id.*

241. *Cf. supra* notes 229–233 and accompanying text (discussing how economists dominate the research divisions at these agencies).

242. *See infra* notes 276–277 and accompanying text (discussing the length of law-review articles).

243. *See infra* notes 283–295 and accompanying text (arguing that legal scholars should draft articles that are more accessible to non-lawyers).

addressing inherently legal topics, like regulation."[244] The economics-and-finance professor replied as follows:

> You are correct: we definitely did not attempt to survey . . . the legal literature on these topics so our paper was restricted to the finance/economics literature. We should have made that more clear right up front, which was our mistake. Overall, I feel that I lack the legal knowledge to perform such a survey, so it would need to be done by more capable hands.[245]

That response suggests several possible solutions. One could be to incorporate some legal training as part of the economics curriculum. Another could be to encourage—and provide university and other relevant incentives for—more interdisciplinary financial regulatory work involving economics, finance, and law.[246] Indeed, a recent survey found that seventy-nine percent of economists believe that economic scholarship should be more interdisciplinary.[247] Still another solution could simply entail legal scholars trying to make the relevant portions of their research more accessible to sophisticated scholars whom they wish to reach, including economic scholars.[248]

B. Correcting Regulatory Failures

Subsection A above has analyzed how to correct the procedural failures that cause overreliance in financial regulation. Correcting those failures, however, would involve governmental institutional change,[249]

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244. These quotations are from September 9, 2018, and September 26, 2018, correspondence between the aforesaid economics and finance professor and Prof. Schwarcz, on file with Prof. Schwarcz.

245. September 9, 2018, and September 26, 2018, correspondence on file with Prof. Schwarcz.

246. *See* Admati, *supra* note 123 (suggesting that "[a]cademic silos" exacerbate blind spots in policymaking, which can be remedied by developing interdisciplinary economics courses).

247. Peter Andre & Armin Falk, *What's Worth Knowing in Economics? A Global Survey Among Economists*, VOXEU CEPR (Sept. 7, 2021), https://voxeu.org/article/what-s-worth-knowing-economics-global-survey-among-economists [https://perma.cc/Q987-VLSY].

248. This Article raises the possibility, but does not investigate the prevalence, that some economists might review legal scholarship to survey possible topics and ideas for their own research on financial regulation, which they would then publish in economics journals without sufficient attribution.

249. *See supra* Section III.A (examining the change in staffing at government agencies and intergovernmental bodies that are responsible for designing and implementing financial regulation).

which could be a slow and uncertain process riddled with politics.[250] This Subsection B analyzes how, even without fully correcting those procedural failures, some of the resulting *regulatory* failures could be at least partially corrected.

This Article identified several categories of regulatory failures: mathematical modelling and free-market distortions, failures caused by ignoring due process and legal analysis, and failures caused by losing collective memory.[251] Next, this Article considers how to try to correct some of these regulatory failures.

1. Correcting mathematical modelling and free-market distortions

As discussed, the appearance of mathematical rigor and numerical precision has concealed the weaknesses of mathematical modelling, creating the illusion that economists can control financial markets.[252] To help correct mathematical modelling distortions, lawmakers should become better informed about the limits of such modelling.

Mathematical models are explicitly adopted simplifications of reality that allow us to make decisions in spite of our limited ability to process information.[253] Without reliance on these models, financial markets could not operate.[254] Our point, however, is that lawmakers should recognize that mathematical models are simplifications, "built in part on quite heroic assumptions" and thus, "at best, [are] only approximations to real-world dynamics."[255] Therefore, lawmakers should be circumspect of their predictive ability. Even simple reminders may be sufficient to encourage more critical reflection, like the *memento mori*, an ancient Roman tradition designed to increase a victorious general's self-awareness of his human limitations. During the victory parade, an

250. *Cf.* CONTI-BROWN, *supra* note 1, at 90–91 (describing the political influence of economists on the federal reserve's innerworkings, including hiring and scholarship).

251. *See supra* Section II.

252. *See supra* notes 121–124 and accompanying text.

253. Steven L. Schwarcz & Lucy Chang, *The Custom-to-Failure Cycle*, 62 DUKE L.J. 767, 768 & n.2 (2012).

254. *Id.* at 769; *see also* Manuel A. Utset, *Complex Financial Institutions and Systemic Risk*, 45 GA. L. REV. 779, 799–803 (2011) (discussing the need for mathematical modelling to process and analyze complex financial information); Markus K. Brunnermeier & Martin Oehmke, Complexity in Financial Markets 4, 7–8 (Sept. 10, 2009) (unpublished manuscript) (on file with Princeton University) (noting that because financial community members have bounded rationality, they must simplify complex financial markets by using (among other things) mathematical models).

255. Colander et al., *supra* note 120, at 254.

enslaved person would repeatedly whisper "*memento mori*" to the general, translated as "remember you will die."[256]

The mechanisms by which officials at government agencies and intergovernmental bodies responsible for designing and implementing financial regulation should become better informed about the limits of mathematical modelling would be agency-specific, and thus beyond this Article's scope. Responsible senior officials at those agencies should consider how best to accomplish that.

Lawmakers also could become better informed about the limits of mathematical modelling if economists translated their models and calculations into more comprehensible language. For example, "the advanced approaches of Basel II are 'too complex' for anyone to understand, and the mathematical formulas in various drafts of the framework can look like a foreign language to some readers."[257] That the Basel rules are byzantine should not be surprising; economists control the body propagating them. After all, the Basel Committee is "an international body of supervisors that includes the U.S. banking agencies,"[258] and U.S. banking agencies are themselves staffed by economists.[259] American lending limit regulations are equally Kafkaesque.[260]

Similarly, lawmakers should become better informed of the market failures that can impair the purported efficiency of free markets. This

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256. *Memento Mori: It's Time We Reinvented Death*, NEW SCIENTIST (Oct. 17, 2012), https://www.newscientist.com/article/mg21628872-900-memento-mori-its-time-we-reinvented-death/ [https://perma.cc/96B3-C8LA] (emphasis omitted). Regulation itself has been used to require financial firms to recognize the limitations of mathematical models. *E.g.*, Schwarcz, *supra* note 131, at 1094–95 (discussing how the Basel III capital-adequacy guidelines require banks to engage in "periodic financial 'stress test' scenarios, in order to motivate them to consider the possibility of, and to better prepare for, future periods when previously adequate liquidity and capital resources might prove inadequate"; and how the Dodd-Frank Act "requires certain systemically important firms to prepare so-called living wills, which are resolution plans that 'describe the company's strategy for rapid and orderly resolution in the event of material financial distress or failure of the company'").

257. Schwarcz, *supra* note 126, at 224 (internal quotation marks omitted) (quoting Susan Schmidt Bies, Governor, Bd. of Governors of the Fed. Rsrv. Sys., Remarks Before the Institute of International Bankers (Sept. 26, 2005), http://www.federalreserve.gov/boarddocs/speeches/2005/20050926/default.htm [https://perma.cc/YQN4-5H9Y]).

258. Tarullo, *supra* note 167, at 513.

259. *See supra* Section I and accompanying text.

260. *E.g.*, 12 U.S.C. § 84(b) (2018) (defining "loan and extensions of credit" and "derivative transaction" in abstract terms); 12 C.F.R. § 32.9 (2021) (detailing mathematical methods for calculating one party's credit exposure to another party).

Article already has discussed some of these market failures.[261] For example, complexity represents a market failure insofar as it can distort information and impair disclosure as a means to reduce asymmetric information.[262] Furthermore, complexity can undermine the efficient market hypothesis.[263] Complacency represents a behavioral limitation that undermines economists' assumption that parties act rationally for their self-interest with perfect information.[264] Conflicts create financial market failures by misaligning incentives and creating moral hazard.[265]

2. *Correcting regulatory failures caused by ignoring due process and legal analysis*

These failures cannot be fully corrected without re-inserting lawyers and legal scholars back into the lawmaking process. Nonetheless, the failures might be at least partially corrected by economists and legal scholars engaging in more collaborative research on financial regulation.[266]

The global financial crisis showed that regulation should address not only efficiency considerations but also the very stability of the financial system. Failures are inevitable in complex systems.[267] Therefore, designers or regulators of complex systems should focus on limiting damage when breakdowns inevitably (and unpredictably) occur.[268] The global financial system is a complex system.[269] Complexity can reduce the efficacy of financial models, which represent simplifications of

261. *See supra* notes 145–171 and accompanying text.
262. *See supra* note 146 and accompanying text.
263. *See supra* notes 147–151 and accompanying text.
264. *See supra* notes 152–155 and accompanying text.
265. *See supra* notes 161–164 and accompanying text.
266. Such collaborative research would be interdisciplinary, a goal currently favored by the overwhelming majority of economists. *See supra* note 247 and accompanying text.
267. Schwarcz, *supra* note 146, at 215 ("Because failures are almost inevitable in complex systems, successful systems are those in which the consequences of a failure are limited.").
268. *See id.*
269. *See id.* at 214-15 (describing the "complexities of modern financial markets").

reality.[270] Legal scholars can play a meaningful role in proposing regulation that realistically addresses that system.[271]

Economists rightly focus on maximizing economic efficiency. However, as Thomas McCraw showed, good lawyers succeed as regulators by "matching the sanctions to the problems."[272] Being familiar with the nature of legislation and enforcement, they can understand "the necessity of using all the incentives potentially inherent in the [regulated] industry to give every person involved . . . a stake in helping to enforce the law."[273] Further, lawyers are trained to negotiate and compromise, which are important skills in winning support for practical financial regulation from disparate stakeholders. Lawyers thus fill "the obvious gap between legislation and administration" by "institutionalizing the linkages between ends and means."[274]

3. Correcting regulatory failures caused by forfeiting collective memory

Again, these failures cannot be fully corrected without re-inserting lawyers and legal scholars back into the lawmaking process. Nonetheless, the failures might be at least partially corrected by informing lawmakers, and ideally also economists, of the legal scholarship that records this collective memory. Achieving that will require legal scholars to overcome at least two impediments: that their scholarship is both too lengthy and too theoretical.[275]

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270. *See supra* notes 253–255 and accompanying text.

271. Regulation that more realistically addresses the financial system might also help to counter the "pro-business and pro-finance bias within economics and finance." *See* Admati, *supra* note 123 (referencing the pro-business and pro-finance bias, with attribution to Professor Luigi Zingales of the University of Chicago Booth School of Business).

272. *See* MCCRAW, *supra* note 5, at 175 (discussing Landis' "professional knowledge of the arsenal of sanctions" that could be used in designing the securities acts).

273. *Id.* at 172.

274. *Id.* In that way, lawyers help to ensure that legal enforcement matches the intent of the regulation.

275. Also, there may well be a more human impediment: that lawmakers, like people generally, tend to follow preconceived notions. Pierre Schlag, *Pre-Figuration and Evaluation*, 80 CAL. L. REV. 965, 972–73 (1992) ("[N]either judges nor any other bureaucratic decisionmakers are listening to academic advice that they are not already prepared to believe.").

Lawmakers tend to disregard law review articles because they are too long,[276] having a typical length of fifty or sixty pages.[277] Even the legal community recognizes this excessive length: in 2006, for example, the leading law schools issued a joint statement calling for shorter articles.[278] Law review articles also have become overly theoretical. Lawmakers perceive that legal scholars produce relatively little that helps them "think through the bridge between concept/theory and policy."[279] Judge Harry T. Edwards of the United States Court of Appeals for the District of Columbia Circuit has most vocally decried "abstract scholarship that has little relevance to concrete issues, or addresses concrete issues in a wholly theoretical manner."[280] He contends that "the 'practical' scholar always integrates theory with doctrine," using legal sources such as statutes and cases in a way that judges and other practitioners will find helpful.[281] Judge Edwards has argued that even law-and-economics scholars too often ignore the relevant doctrine and legal sources.[282]

To overcome these impediments, legal scholars must make their scholarship more grounded and accessible. Legal scholarship itself can often be divorced from real life: "[t]oo little effort is made to connect law to life by assessing the real world consequences of analytic frameworks."[283] As Deborah Rhode has observed, "[t]he result is that, on many key legal issues, we are glutted with theory and starved for

276. Conversation between Prof. Schwarcz and a former senior federal regulator who requested anonymity (Mar. 15, 2020) [hereinafter Mar. 15, 2020, Conversation]; Deborah L. Rhode, *Legal Scholarship*, 115 HARV. L. REV. 1327, 1336 (2002) (observing that the "offputting length and style of much contemporary legal scholarship carries substantive costs" because "their format discourages reading by busy judges, practitioners, and policymakers with influence over solutions.").

277. *See* Dennis J. Callahan & Neal Devins, *Law Review Article Placement: Benefit or Beauty Prize?*, 56 J. LEGAL EDUC. 374, 381 (2006).

278. *Id.* at 374–75 n.4. By contrast, economic journal articles generally are more concise, although they too have inflated in length in recent years. Ben Leubsdorf, *Economists Can't Write Economically, Driving Demand for Brevity*, WALL ST. J. (July 23, 2018), https://www.wsj.com/articles/economists-cant-write-economically-driving-demand-for-brevity-1532373648 [https://perma.cc/45QQ-453M].

279. Mar. 15, 2020, Conversation, *supra* note 276.

280. Harry T. Edwards, *The Growing Disjunction between Legal Education and the Legal Profession*, 91 MICH. L. REV. 34, 35 (1992).

281. *Id.*

282. *Id.* at 47. To avoid excessive theory, authors should remember a simple guideline: "If only a brilliant person can think of doing something, it is unlikely that most people will adopt that course of conduct. Most people, after all, are not brilliant." Daniel A. Farber, *The Case against Brilliance*, 70 MINN. L. REV. 917, 919–20 (1986).

283. Rhode, *supra* note 276, at 1340.

facts."[284] To connect law to life, legal scholars will need to more actively engage with participants in financial markets. The Fed, for example, relies on business school finance scholars,[285] many of whom actively engage with traders and other participants in financial markets[286] and have a good feel for how banks, traders, and regulators function.[287]

To this end, legal scholars should be invited to events held by the Fed, FSB, and other regulators.[288] Invitations also should appear in media and other sources that legal scholars normally see. Reciprocally, law schools should make greater efforts to invite economists, financiers, regulators, and practicing attorneys to their own events.

To make their scholarship more accessible, legal scholars should consider writing, or at least redacting for lawmaker and economists' review, articles that are much shorter.[289] As discussed,[290] lawmakers (if not also economists) regard law reviews as too long. Increasingly, however, there are opportunities to redact and republish shorter (and more accessible) papers. The *Harvard Law School Forum on Corporate Governance* provides a helpful model.[291] Founded in 2006, the *Forum*

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284. *Id.*

285. *See Seminars and Workshops*, BD. OF GOVERNORS OF THE FED. RSRV. SYS., https://www.federalreserve.gov/econres/seminars.htm (last updated Dec. 9, 2021) (listing numerous seminars and workshops at the Fed led by business school economists).

286. *See, e.g.*, *The Second New York Fed Research Conference on FinTech*, FED. RSRV. BANK OF N.Y., https://www.newyorkfed.org/research/conference/2020/fintech2 [https://perma.cc/FMJ8-RYNC] (last updated Sept. 29, 2020) (listing the industry leaders who attended a conference on financial technology).

287. *See* John Geanakoplos, *Leverage Caused the 2007-2009 Crisis*, *in* SYSTEMIC RISK IN THE FINANCIAL SECTOR: TEN YEARS AFTER THE GREAT CRASH, *supra* note 134, at 238 (describing how the author "never heard the word 'collateral'" during graduate school but learned its importance while working with fixed income traders). The structure of the regional Federal Reserve Banks, with directors who are members of private industry, also ensures that lawmakers at the Fed regularly interact with business leaders. *See Structure of the Federal Reserve System*, BD. OF GOVERNORS OF THE FED. RSRV. SYS., https://www.federalreserve.gov/aboutthefed/structure-federal-reserve-banks.htm [https://perma.cc/UFR8-BBKM] (last updated Oct. 1, 2021) ("Directors serve as a link between the Federal Reserve and the private sector.").

288. *See supra* note 103 and accompanying text.

289. *See* Rhode, *supra* note 276, at 1347 (observing that "[a] final problem with legal scholarship is that even work that suffers least from the deficiencies noted above, and that could be most useful in public policy debates, is seldom calculated to reach the public").

290. *See supra* note 276 and accompanying text.

291. Other valuable models include the Columbia Law School Blue Sky Blog, the Oxford Business Law Blog, the Harvard Law School Bankruptcy Roundtable, and Duke Law School's The FinReg Blog.

describes itself as "the top online resource for discourse on corporate governance," and it has published over 6,400 posts from over 5,000 contributors.[292] While many of the posts are summaries of law review articles or client alerts from law firms, the Forum itself has become a source for more than 800 law review articles and sources of regulations. Retired Delaware Chief Justice Leo Strine has described the *Forum* as "required reading among the intelligentsia . . . of corporate governance."[293] Notably, the *Forum*'s Advisory Board includes prominent investors, such as Carl Icahn and William Ackman, as well as practicing lawyers from prominent firms.[294] These practitioners supplement the *Forum*'s distinguished faculty and fellows from academia, who include the *Forum*'s founder, Professor Lucian Bebchuk, and other leading scholars like Howell Jackson and Mark Roe.[295]

If legal scholars seek a broader audience, they also must engage in a more cross-disciplinary dialogue by learning to speak the language of economics and policy. To that end, law schools should better educate legal scholars in economic terminology and methodology. Lawyers also should write for a wider audience. The economist Alfred Kahn colorfully captured the public's distaste for "legalese" when he wrote to a staff member at the Civil Aeronautics Board:

> One of my peculiarities, which I must beg you to indulge if I am to retain my sanity (possibly at the expense of yours!) is an abhorrence of the artificial and hyper-legal language that is sometimes known as bureaucratese or gobbledygook . . . [.] May I ask you, please, to try very hard to write Board orders and, even more so, drafts of letters for my signature, in straightforward, quasi-conversational, humane prose—as though you are talking to or communicating with real people. I once asked a young lawyer who wanted us to say "we deem it inappropriate" to try that kind of language out on his children—and if they did not drive him out of the room with their derisive laughter, to disown them.[296]

To avoid such reactions from readers, workshops at law schools should center on how to make legal scholarship more accessible to lawmakers, as well as to economists. Already, legal writing courses

292. *About the HLS Forum on Corporate Governance*, HARV. L. SCHOOL FORUM ON CORP. GOV., https://corpgov.law.harvard.edu/about/ [https://perma.cc/B2S9-7MJB].

293. *Id.*

294. *Home*, HARV. L. SCHOOL FORUM ON CORP. GOV., https://corpgov.law.harvard.edu [https://perma.cc/JJ7Z-MACF].

295. *Id.*

296. MCCRAW, *supra* note 5, at 271.

teach first-year law students to write in a practical, concise style. For instance, students learn to begin pieces by stating a conclusion and summarizing arguments with headings. Even distinguished legal scholars should remember these basic lessons.

CONCLUSION

Writing in 1978, Ronald Coase predicted that lawyers and social scientists would displace economists when they became more familiar with economic techniques and theories.[297] He also argued that lawyers would necessarily influence economic scholarship. For example,

> it is hardly possible to discuss the functioning of a market without considering the nature of the property right system, which determines what can be bought and sold and which, by influencing the cost of carrying out various kinds of market transactions, determines what is, in fact, bought and sold, and by whom.[298]

Indeed, law provides the "framework" for economics.[299]

Incongruously, at least in the area of financial regulation, economics effectively has been shoehorned into providing the framework for law. The resulting overreliance of lawmakers on economic scholarship to the virtual exclusion of legal scholarship and lawyerly insights represents a fundamental failure of process. This failure imperils society because economic scholarship often is poorly informed by experience, being based on theoretical models and assumptions that may not withstand real world testing.

We are not suggesting that economists should be displaced. As Coase posited, economists have an important contribution to make because they are trained to "study the economic system as a unified and interdependent system and . . . to uncover the basic interrelationships within a social system."[300] Rather, we argue that lawmakers should take into account both legal and economic scholarship. "Economic analysis . . . will always remain directly relevant to regulatory policy," Thomas McCraw concluded, because the structures of regulated industries will influence the "context" of regulation.[301] Yet McCraw was circumspect about economists' future roles:

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297. *See* Coase, *supra* note 14, at 205 ("To the extent that this movement is based on technique or approach, we can expect a gradual displacement of economists from their newly-won ground.").

298. *Id.* at 210.

299. *Id.*; Driesen, *supra* note 130, at 84.

300. Coase, *supra* note 14, at 209.

301. MCCRAW, *supra* note 5, at 305.

> [T]he economist's hour in the history of regulation came relatively late, long after other notably different hours during which the muckraker and the lawyer alternately held center stage. This history makes it seem unlikely that any single approach to regulation will ever triumph. Therefore, although we may live in the golden years of regulatory economics and its practitioners, we should be in no hurry to crown the economist as permanent king of the regulatory hill.[302]

Although economists have continued to dominate regulation since McCraw wrote in the 1980s, this situation need not be permanent. After the dislocations of a global pandemic,[303] the stage may be set for lawyers to again assume a greater role in financial regulation, as they did so successfully in reforming the securities industry in response to the Great Depression.[304] To accomplish that, lawyers and legal scholars must engage with lawmakers to provide practical advice and win trust.[305] Among other things, this engagement will require legal scholars to write more reality-based articles and publish them not only in traditional law reviews but also in more accessible formats and policy-oriented forums. Lawyers and legal scholars also must learn to speak the language of economists without undermining confidence in their own legal discipline. Only when they do so will they again gain the attention and respect needed to influence, and thereby improve, financial regulation.

302. *Id.*

303. *See generally* Howell E. Jackson & Steven L. Schwarcz, *Protecting Financial Stability: Lessons from the COVID-19 Pandemic*, 11 HARV. BUS. L. REV. 193 (2021) (comparing the ways in which financial regulators responded to the COVID-19 and the global financial crisis).

304. *See, e.g.*, MCCRAW, *supra* note 5, at 303–05 (describing how regulatory responses correspond to business cycles); *see supra* Section II.C.

305. *See supra* Section III.B.2 (encouraging collaboration between lawyers and economists to fill gaps between legislation and administration); Edwards, *supra* note 280, at 35 (calling for practical legal scholarship that responds to present social issues); MCCRAW, *supra* note 5, at 248 (describing American regulatory processes as "desultory in character" and, too often, unresponsive to change); Schwarcz, *supra* note 126, at 213 ("To identify regulatory approaches, it is useful to think not only conceptually but also in concrete terms.").