Towards an Administrative Law of Central Banking

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A world in turmoil caused by Covid-19 has revealed again what has long been true: the Federal Reserve is arguably the most powerful administrative agency in government, but neither administrative-law scholars nor the Fed itself treat it that way. In this Article, we present the first effort to map the contours of what administrative law should mean for the Fed, with particular attention to the processes the Fed should follow in determining and announcing legal interpretations and major policy changes. First, we synthesize literature from administrative law and social science to show the advantages that an agency like the Fed can glean from greater openness and transparency in its interpretations of law and in its long-term policymaking processes. These advantages fall into two categories: (1) sending more credible signals of future action and thereby shaping the behavior of regulated parties and other constituents, and (2) increasing the diversity of incoming information on which to base decisions, thereby improving their factual and predictive accuracy. Second, we apply this framework to two key areas—monetary policy and emergency lending—to show how the Fed can improve its policy signaling and input diversity in the areas of its authority that are most expansive. The result is a positive account of what the Fed already does as an administrative agency and a normative account of what it should do in order to preserve necessary policy flexibility without sacrificing the public demands for policy clarity and rigor.

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Introduction

This Article articulates an administrative-law theory for arguably the most important administrative agency in the United States: the nation's central bank, the U.S. Federal Reserve. The Fed has the awesome power to regulate the value of money and determine the path of monetary policy, a policy base that brings it into the homes and businesses of nearly every American. It is the first responder in an economic crisis, deploying massive resources and aggressive legal interpretations to prevent national economic collapse, often with minimal oversight.

These are not instances of latent power, as the Fed's reaction to the Covid-19 pandemic has demonstrated. After almost immediately running out of its conventional tools of interest-rate regulation and bank lending,[1] the Fed has now announced almost $3 trillion in additional support for banks and other financial institutions;[2] corporations large and small, through commercial-debt purchase programs;[3] broker-dealers and their clients;[4] small businesses in need of financing that banks are unable or unwilling to provide;[5] cities, counties, and states, entailing value judgments about which regional governments to support;[6] foreign governments,

1. Press Release, Bd. of Governors of the Fed. Reserve Sys., Federal Reserve Issues FOMC Statement (Mar. 15, 2020), https://www.federalreserve.gov/newsevents/pressreleases/monetary20200315a.htm [https://perma.cc/9R9Z-VA32].

2. Press Release, Bd. of Governors of the Fed. Reserve Sys., Statement on Use of the Discount Window (Mar. 16, 2020), https://www.federalreserve.gov/newsevents/pressreleases/files/bcreg20200316a1.pdf [https://perma.cc/U2MQ-UDH4].

3. *Primary Market Corporate Credit Facility*, BOARD GOVERNORS FED. RESERVE SYS. (Sept. 8, 2020), https://www.federalreserve.gov/monetarypolicy/pmccf.htm [https://perma.cc/HLK5-3N9R].

4. *Primary Dealer Credit Facility*, BOARD GOVERNORS FED. RESERVE SYS. (Sept. 8, 2020), https://www.federalreserve.gov/monetarypolicy/pdcf.htm [https://perma.cc/2ZKQ-VZZR].

5. *Main Street Lending Program*, BOARD GOVERNORS FED. RESERVE SYS. (Sept. 8, 2020), https://www.federalreserve.gov/monetarypolicy/mainstreetlending.htm [https://perma.cc/CGJ2-8VBA].

6. *Municipal Liquidity Facility*, BOARD GOVERNORS FED. RESERVE SYS. (Sept. 8, 2020), https://www.federalreserve.gov/monetarypolicy/muni.htm [https://perma.cc/S6UN-KDWH].

including those engaged in trade disputes with the United States;[7] and other government agencies whose congressionally appropriated emergency responses have been slow and encumbered.[8]

Indeed, in an unprecedented move, the U.S. Congress, through the CARES Act of 2020, has given the Fed—not the U.S. Treasury, the usual instrument of fiscal policy—the driver's seat in administering financial support for the crisis. Congress appropriated $454 billion to the Treasury for the exclusive purpose of investing in *Fed* facilities.[9] This money cannot be spent under the President's own discretion; it may only go to emergency facilities created by the Federal Reserve.[10]

As a conceptual matter, the Fed's enormous exercises of power are no different from what all administrative agencies do: the Fed is interpreting its governing statutes and making policy choices about how to exercise the discretion left it by those statutes. The difference is in the breadth of impact: given the importance of these interpretations and policy choices for the global economy and for nearly every American, the Fed's exercise of administrative power is more momentous than nearly all other administrative agencies.

Despite the Fed's position at the apex of administrative power, administrative law, as an academic field, has largely ignored it.[11] The main reason for this historical neglect is that administrative law conventionally

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7. Press Release, Bd. of Governors of the Fed. Reserve Sys., FIMA Repo Facility FAQs, (Mar. 31, 2020), https://www.federalreserve.gov/newsevents/pressreleases/fima-repo-facility-faqs.htm [https://perma.cc/4CW5-VYHH].

8. *Paycheck Protection Program Liquidity Facility*, BOARD GOVERNORS FED. RESERVE SYS. (Sept. 8, 2020), https://www.federalreserve.gov/monetarypolicy/ppplf.htm [https://perma.cc/G9UU-P7FC].

9. Coronavirus Aid, Relief, and Economic Security Act, Pub. L. No. 116-136, § 4003, 134 Stat. 281, 470 (2020).

10. For more on the Fed-Treasury Fund, see Peter Conti-Brown, *Explaining the New Fed-Treasury Emergency Fund*, BROOKINGS, (Apr. 3, 2020), https://www.brookings.edu/research/explaining-the-new-fed-treasury-emergency-fund/ [https://perma.cc/C9FC-PZGB].

11. *See* Gillian Metzger, *Through the Looking Glass to a Shared Reflection: The Evolving Relationship Between Administrative Law and Financial Regulation*, 78 LAW & CONTEMP. PROBS. 129, 129, 131 (2015) (taking the Fed as an "archetype[]" of financial regulation and noting that "in many ways administrative law and financial regulation now stand poles apart," "divided not simply by their separation in law school curricula and faculty, but even more by opposite precepts and framing principles"). A disjunctive Westlaw search of article titles in the *Administrative Law Review*, on June 24, 2020, for "Federal Reserve," "the Fed," "Board of Governors," "Federal Open Market Committee," or "FOMC" produces one article, compared with higher totals for the full names or abbreviations of many other agencies, such as the FCC (20), FTC (13), FDA (13), SEC (14), EPA (10), FERC (7), OSHA (6), NLRB (5), and NRC (4). Separate from administrative law and its primarily institutional and procedural perspective, there is of course a legal literature on the Fed that takes the perspective of substantive law—that is, banking and financial regulation. *E.g.*, ERIC POSNER, LAST RESORT: THE FINANCIAL CRISIS AND THE FUTURE OF BAILOUTS 55-74 (2018).

centers itself on judicial review of agency action.[12] But the Fed rarely finds itself hailed into court, and it rarely must go to court to get what it wants. In the realm of monetary policy, the Fed operates either through uncontested uses of regulatory authority over banks or through voluntary buyer-seller transactions with impact that is profound, but also generalized and indirect—meaning nobody has standing to sue.[13] In emergency lending, the nature and timing of a crisis have made it difficult for litigation to play any practical role.[14] Overall, the rarity of Fed litigation is a testament to the Fed's nearly unique power and autonomy. Ironically, that same rarity renders the Fed invisible in the dominant, court-centered paradigm of administrative law. There has admittedly been some recent attention to the Fed in one legal field that overlaps with administrative law—constitutional separation of powers[15]—but the Fed continues to be neglected when it comes to matters in the heartland of administrative law: the agency's practices for interpreting law and its processes for making decisions. Conversely, interpretive and procedural issues at the Fed remain virtually ignored by the macroeconomists who pay most attention to the Fed.[16]

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12. For a classic text critiquing the court-centered view, see JERRY L. MASHAW, BUREAUCRATIC JUSTICE: MANAGING SOCIAL SECURITY DISABILITY CLAIMS 1-16 (1983).

13. For cases holding that plaintiffs lack standing to challenge Fed open-market operations because plaintiffs' economic injuries are indirectly caused and generalized, see *Melcher v. Fed. Open Mkt. Comm.*, 836 F.2d 561 (D.C. Cir. 1987); *Comm. for Monetary Reform v. Bd. of Governors of the Fed. Reserve Sys.*, 766 F.2d 538, 541-43 (D.C. Cir. 1985); and *Reuss v. Balles*, 584 F.2d 461, 468-71 (D.C. Cir. 1978).

14. See *infra* Section III.F.

15. This literature has done much to analyze and evaluate Congress's broad delegations of power to the Fed and the Fed's relationships to and independence from Congress and the President. *See, e.g.*, SARAH BINDER & MARK SPINDEL, THE MYTH OF INDEPENDENCE: HOW CONGRESS GOVERNS THE FEDERAL RESERVE (2017); PETER CONTI-BROWN, THE POWER AND INDEPENDENCE OF THE FEDERAL RESERVE 179-217 (2016); LAWRENCE R. JACOBS & DESMOND KING, FED POWER: HOW FINANCE WINS 62-91, 131-160 (2016); GARY B. MILLER & ANDREW B. WHITFORD, ABOVE POLITICS: BUREAUCRATIC DISCRETION AND CREDIBLE COMMITMENT 103-17, 201-12 (2017); PAUL TUCKER, UNELECTED POWER: THE QUEST FOR LEGITIMACY IN CENTRAL BANKING AND THE REGULATORY STATE 294-300, 308-16, 334-42, 550-56 (2018); Neil H. Buchanan & Michael C. Dorf, *Don't End or Audit the Fed: Central Bank Independence in an Age of Austerity,* 102 CORNELL L. REV. 1, 63-79 (2016); Metzger, *supra* note 11, at 131-37; Edward Rubin, *Hyperdepoliticization*, 47 WAKE FOREST L. REV. 631, 665-72 (2012); David T. Zaring, *Law and Custom at the Federal Open Market Committee*, 78 LAW & CONTEMP. PROBS. 157, 171-75, 180-84 (2015). For a review of work by economists on central banks' independence, mandates, and powers, see Ricardo Reis, *Central Bank Design*, 27 J. ECON. PERSP. 17, 18-33 (2013).

16. Another factor that contributes to the lack of interest in law amongst macroeconomists and the dearth of Fed scholarship in administrative law is the underdeveloped nature of law and macroeconomics. YAIR LISTOKIN, LAW AND MACROECONOMICS: LEGAL REMEDIES TO RECESSIONS 3-6 (2019); Yair Listokin, *Law and Macro: What Took So Long?*, 83 LAW & CONTEMP. PROBS. 141 (2020) (explaining why law and economics has historically been dominated by microeconomics rather than macroeconomics). Legal scholars often lack

This lack of attention leaves unanswered some of the most basic questions of administrative law as applied to the Federal Reserve: How do Fed officials interpret the statutes that give them so much power? What process, if any, constrains them in the momentous policy choices they make? Do they listen (or explain their choices) to anybody on the outside?

The Fed's recent history is marked by a level of secrecy, an absence of comprehensible legal process, and an institutional closure utterly foreign to most federal regulation, making these questions difficult to answer. Take the two examples that will be the focus of this Article. First, the Fed's explanation for its historic and non-obvious 2012 interpretation that its statutory mandate to promote "maximum employment" and "stable prices"[17] justified the announcement of a two-percent inflation target, but not a similar target for employment—what then-Vice Chair Janet Yellen called a "constitution" for the Fed[18]—ran to a single page.[19] (The Fed's explanation of the 2020 revision of this constitution was similarly confined to a single page.) Second, its claim that law compelled its refusal to rescue Lehman Brothers in 2008—resulting in what former Fed Chair Ben Bernanke admitted was a "catastrophe"[20]—has been discussed only in shifting explanations offered by either retired officials or in testimony and memos that the Fed disclosed only in response to a congressional investigation.

In this Article, we begin the project of articulating what the administrative law of the Federal Reserve should be. We focus particularly on the policies and procedures suitable for the Fed when it develops and announces major policy changes. In this account, we demonstrate that the Fed's interpretive methods, procedural constraints, and institutional openness or closure can be greatly illuminated by the field of administrative law.[21] A huge amount of scholarship in that field has

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rudimentary macroeconomic expertise, making them understandably reluctant to focus on the Fed. And without a core of legal scholars producing relevant scholarship, macroeconomists have been able to avoid confronting many of the legal aspects of their policies.

17. 12 U.S.C. § 242 (2018).

18. Transcript of Meeting of the Federal Open Market Committee on January 24-25, 2012, at 46-47, Bd. of Governors of the Fed. Reserve Sys., https://www.federalreserve.gov/monetarypolicy/files/FOMC20120125meeting.pdf [https://perma.cc/RZ2X-CSCF] [hereinafter Transcript of Jan. 24-25].

19. BD. OF GOVERNORS OF THE FED. RESERVE SYS., STATEMENT ON LONGER-RUN GOALS AND MONETARY POLICY STRATEGY (Jan. 24, 2012), https://www.federalreserve.gov/monetarypolicy/files/FOMC_LongerRunGoals.pdf [https://perma.cc/4ZSF-U5PG].

20. FIN. CRISIS INQUIRY COMM'N, FINAL REPORT OF THE NATIONAL COMMISSION ON THE CAUSE OF THE FINANCIAL AND ECONOMIC CRISIS IN THE UNITED STATES 435 (2011) (quoting testimony of Ben Bernanke).

21. For the work that has done the most thus far to make these types of connections, by a political scientist, see PHILIP A. WALLACH, TO THE EDGE: LEGALITY, LEGITIMACY, AND THE

explored these questions indirectly in asking how courts should review agency interpretation and process. A growing number of studies further examine agency interpretation and process in their own right, casting aside the judicial lens altogether.

Our thesis is that an administrative law of central banking would drive the Fed to take more seriously the advantages of transparency and openness in the agency's adoption of generally applicable interpretations of law and in its procedures for originating and updating its general long-term policies. We emphasize two related advantages, both drawn from the larger literatures on administrative law and administrative governance. First, transparency and openness can strengthen the Fed's capacity to signal credible commitments in a way that will help control inflation, limit unemployment, and avert or mitigate financial crises. Second, transparency and openness increase the diversity of input into Fed

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RESPONSES TO THE 2008 FINANCIAL CRISIS (2015). This work considers how the crisis-response agencies' compliance with and stretching of law, and their varying levels of opacity and transparency, affected the legitimacy of their work in 2008-2010. Our project has a different focus than Wallach's. Whereas his subject is crisis response, covering all agencies engaged in it (including the Fed), our focus is on the Fed as an institution in two of its principal functions: crisis response and monetary policy. More importantly, our argument is fundamentally different from Wallach's. His book is a moderate defense of the idea that legitimacy—public acceptance of governmental decisions—is a goal that agencies can meaningfully seek to achieve through, among other things, the legality of their outcomes and transparency of their processes. We are skeptical that any predictions can be made about the effect of Fed interpretive practices or procedures on public acceptance of what the Fed does, given that such acceptance depends so much on other factors like the state of the economy, political partisanship, and the quality of information presented to society about Fed actions. We argue instead that transparency and openness have more immediate, instrumental, and functional advantages, apart from whatever effects they may have on legitimacy. These are in the form of better, more credible signaling to shape regulated-party incentives and richer input from more diverse sources to improve the accuracy of the agency's factual and predictive judgments. For more on our view of legitimacy, see *infra* note 80 and accompanying text. Besides Wallach's work on crisis response, there is some prior legal literature on transparency of communications in monetary policy. *See, e.g.*, Robert B. Ahdieh, *From Fedspeak to Forward Guidance: Regulatory Dimensions of Central Bank Communications*, 50 GA. L. REV. 213, 240-44 (2015) (arguing that most Fed communications about monetary policy are a "species of regulation" that should be subject to "some regulatory review" since the communications are "binding" much in the way that regulatory actions are binding); Benjamin W. Cramer & Martin E. Halstuk, *Crash and Learn: The Inability of Transparency Laws to Penetrate American Monetary Policy*, 25 WM. & MARY BILL RTS. J. 195, 214-32 (2016) (reviewing doctrine on the applicability of FOIA and FACA to monetary policy); Reis, *supra* note 15, at 33-36 (reviewing work by economists on monetary policy communications). Also, in some of the works cited earlier that focus on delegation and constitutional structure, there are brief discussions of transparency, outside participation, and reason giving. TUCKER, *supra* note 15, at 352-66; Buchanan & Dorf, *supra* note 15, 30-35; Metzger, *supra* note 11, at 140-42; Zaring, *supra* note 15, at 184-85. For an argument that Fed leaders and especially the Chair are conscious of how certain audiences judge them according to certain intellectual norms (which are admittedly evolving and malleable), and are thereby constrained in a manner that partly substitutes for legal constraint, see Kathryn Judge, *The Federal Reserve: A Study in Soft Constraints*, 78 LAW. & CONTEMP. PROBS. 65, 67-82 (2015).

interpretations and policies. Diversity of input improves these decisions' factual and predictive accuracy, their legal thoroughness and stability, and thus their effectiveness in carrying out the Fed's statutory mission.

To be sure, transparency and openness can also have negative consequences that sometimes offset its advantages. We do not mean to fetishize the high levels of transparency and participation that have come to prevail—often by judicial pressure—at other agencies. The Fed is exceptional, and it should, in some ways, remain so. The argument is that administrative law offers the possibility of important cost-beneficial improvements in some areas. In particular, we think the net benefits of transparency and openness are clear when it comes to the Fed's development of generally applicable legal interpretations and in its procedures for setting general long-term policy, such as the 2012 adoption of a "long-term monetary policy goal" of two-percent inflation and the revision of this goal in 2020 to allow for "average inflation targeting" across years.[22]

We therefore focus our argument on those aspects of the Fed's work. We do *not* advocate for more transparency and openness when it comes to the more numerous, narrow, and short-term decisions on how to implement prior, more general interpretations or policies. These implementational decisions tend to be relatively more time-sensitive, rendering process delays more costly. They also have short-term political consequences that make them less appropriate objects of public debate than longer-term, generally applicable agency choices. For example, we argue for opening up the Fed's process for choosing its long-run inflation target, but not its process for making the individual month-by-month interest-rate decisions by which the Fed tries to keep to that target.

This Article proceeds in three parts. Part I provides a new synthesis of the literature in administrative law and administrative governance on the advantages and costs of transparency and openness as relevant to central banking. First, we discuss the importance of agencies' signaling how they plan to interpret law and exercise discretion in the future so as to shape the expectations and behavior of regulated parties and third parties—especially in contexts not subject to judicial review. Second, we discuss how agencies can make better factual and predictive judgments when basing those judgments on input from intellectually diverse players, whose errors and biases offset one another. An essential, though not always cost-effective, means of obtaining diverse input and countering

22. To compare the original 2012 FOMC Statement on Longer-Run Goals and Monetary Policy Strategy with the 2020 revision, see *Review of Monetary Policy Tools, Strategies, and Communications*, BD. OF GOVERNORS OF THE FED. RESERVE SYS. (Aug. 27, 2020), https://www.federalreserve.gov/monetarypolicy/guide-to-changes-in-statement-on-longer-run-goals-monetary-policy-strategy.htm [https://perma.cc/V3B4-ZVBF].

groupthink is to solicit information from outside the agency, such as public comments and outside advisory-committee recommendations. While we articulate a theory for greater participation for Fed decision-making, we do not argue for extremes. Where public participation introduces challenges to administrative efficacy—and it often does—we identify techniques for mitigating these problems.

Part II moves to the Fed's monetary policymaking. It describes how legal transparency and openness can improve monetary-policy outcomes during monetary regime change.[23] While scholars and central bankers have long noted the essential role of central-bank transparency and communications, they have virtually ignored the roles for law and process—and the absence of both—in adopting long-run policies.[24] The key example explored in Part II is perhaps the most important monetary-policy decision in a generation: the Fed's 2012 adoption of a numerical interpretation of its statutory mandate, the first such interpretation in the Fed's history. A closed, internal Fed process produced the announcement of a numeric target for inflation alone (ignoring unemployment), set at two percent. Only eight years later, in August 2020, the two-percent target was significantly altered. Instead of targeting annual inflation of two percent, the Fed will now target an *average* inflation rate of two percent, meaning that it will now offset a deviation from the target in one direction in one year (say, inflation of 1.7% rather than two percent) with a similar deviation in the opposite direction in subsequent years (inflation of 2.3%, rather than two percent, in the next year). The rapid regime shift for the Fed's "constitution" of longer-run monetary policy suggests a flawed 2012 interpretative process.[25] By adopting a more open and transparent interpretation process, the Fed likely would have produced a more robust monetary-policy goal.

In Part III, we discuss the Fed's use of its power to make emergency loans in the event of a crisis. The Federal Reserve Act confers this power in language that suggests sweeping discretion, but it uses a few obscure terms that may be read as imposing legal constraints. Using this authority in 2008, the Fed effected the bailout of Bear Stearns, but not Lehman Brothers, but then AIG and much of the rest of the financial system. Part

23. The Fed has undergone a review of its monetary-policy regime culminating in the 2020 change to its operational framework. See *id.*

24. For an overview of discussions of transparency in monetary policy, see ALAN BLINDER, THE QUIET REVOLUTION: CENTRAL BANKING GOES MODERN 5-34 (2004); and N. Nergiz Dincer & Barry Eichengreen, *Central Bank Transparency: Where, Why, and with What Effects* 2-11 (Nat'l Bur. Econ. Research, Working Paper No. 13003, 2007).

25. *See, e.g.*, Lawrence H. Summers, David Wessel, & John David Murray, *Rethinking the Fed's 2 percent Inflation Target*, BROOKINGS (June 7, 2018), https://www.brookings.edu/wp-content/uploads/2018/06/ES_20180607_Hutchins-FedInflationTarget.pdf [https://perma.cc/V5D7-7BBE].

III traces the shifting explanations of what legal understanding underlay these seemingly zigzagging decisions. After tracing this history, we argue that a more transparent and open process for formulating and announcing the Fed's understanding and planned use of the Act would be better for the Fed, market participants who might anticipate dependence on the Fed during a crisis, and the public who will later demand explanations for invocations of emergency authority after the fact. Transparency would have assisted the Fed regardless of one's preferred interpretation of the Fed's emergency-lending powers under the Federal Reserve Act.

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Before we dive into our analysis, some background on the byzantine structure of the Federal Reserve System is necessary to orient readers. The Fed's "Board of Governors" sits in Washington, D.C. and is composed of seven members appointed by the President, and confirmed by the Senate, for staggered, nonrenewable fourteen-year terms.[26] The Board is formally an agency of the U.S. government. The System also includes twelve quasi-private Federal Reserve Banks whose functions and authorities have evolved since their creation in 1914.[27] Each Reserve Bank is led by a President appointed by that bank's board of directors[28] and approved by the Fed's Board of Governors.[29]

For monetary policy, the most important component of the Federal Reserve System is the Federal Open Market Committee (FOMC). The FOMC sets a target rate for an important short-term interest rate, the Federal Funds rate.[30] The Fed's monetary policy is then directed towards achieving this target rate by changing the rate of interest the Fed pays on reserve balances that banks hold at the Fed.[31] The Committee consists of twelve voting members and seven nonvoting "alternate members," who still actively participate in the FOMC's meetings. The seven members of

26. 12 U.S.C. § 241 (2018).

27. See CONTI-BROWN, *supra* note 15, at 103-27 (discussing the historical evolution of the Federal Reserve Banks).

28. The boards of directors of the Federal Reserve Banks are divided into three classes: A, B, and C. Class A directors are bankers selected by the member banks in the relevant Federal Reserve District; Class B directors are non-bankers—although they can be and often are former bankers—also selected by the member banks; Class C directors are non-bankers—although, again, they can be and sometimes are former bankers—selected by the Fed's Board of Governors to represent the public. 12 U.S.C. § 302 (2018).

29. *Id.* § 341.

30. *See Monetary Policy Principles and Practice*, BOARD GOVERNORS FED. RESERVE SYS. (Mar. 8, 2018), https://www.federalreserve.gov/monetarypolicy/monetary-policy-what-are-its-goals-how-does-it-work.htm [https://perma.cc/U3RH-Y94H].

31. *Id.*

the Board of Governors and the President of the Federal Reserve Bank of New York serve on the FOMC as permanent voting members, along with a rotating group of four of the remaining eleven presidents of the Federal Reserve Banks, a rotation that is defined by statute.[32] The FOMC chooses its own leadership. By convention, it always chooses the Chair of the Board of Governors as its Chair and the President of the Federal Reserve Bank of New York as its Vice Chair. Neither of these choices is required by statute.[33]

Different combinations of the Board of Governors, the Federal Reserve Banks, and the FOMC use the Fed's statutory authority as discussed in this Article. The FOMC is responsible for conducting the Fed's monetary policy, although it also relies on authority granted to the Board of Governors to adjust its primary policy rate.[34] Emergency lending must be authorized by a supermajority of the Board of Governors, and the security for each loan must be approved by whichever of the twelve Federal Reserve Banks actually makes the loan.[35]

I. The Advantages of Central Bank Transparency and Openness

This Part discusses two advantages that transparency and openness offer to agencies in their interpretation of law and in their procedures for long-term policymaking. First, transparency and openness enhance the agency's capacity to signal credible commitments. Second, they diversify the input that goes into an agency's interpretive and policy choices and can thereby make those choices more accurate and effective.

A. Signaling Credible Commitment

In implementing legislation, every agency has the power to interpret the ambiguities of that legislation and to exercise the discretion left it by the legislation. The agency can interpret law and exercise discretion in direct, coercive actions against regulated parties, such as by imposing penalties, or by denying approvals for licenses or benefits. But imposing penalties and denying approvals is costly, both for the regulated firms and the agency itself. It is more efficient for the agency to signal in advance how it interprets the relevant law and how it plans to exercise its discretion—and for the regulated firms to follow that signal accordingly, and to shape their own primary conduct and write their applications in a

32. 12 U.S.C. § 263(a).
33. CONTI-BROWN, *supra* note 15, at 113.
34. 12 U.S.C. § 461 (2018).
35. *Id.* § 343.

manner that anticipates the agency's interpretations and policies. Agencies, in fact, have published oceanic volumes of such guidance to make themselves more predictable to regulated parties and to shift regulated parties' behavior in the direction of compliance with minimal friction.[36]

Audiences for agency signaling go well beyond the regulated parties themselves. For example, they include the potential counterparties of those who are regulated. In some industries, agencies are in a position to give consumers and investors more credible signals about the safety and efficacy of firms' products or services than would be feasible in an unregulated market.[37] Conversely, agencies can credibly signal that a firm's products or services have previously unseen problems, with the result, in some industries, that the firm suffers more from lost counterparty trust than from any direct agency sanctions.[38]

In the Fed's case, the audiences for signaling can be especially far-reaching. The Fed's open-market operations for conducting monetary policy entail signaling not only to the banks that transact with the Fed and those banks' customers and counterparties, but to all actors in the economy who form expectations about inflation and economic growth based on what they expect the Fed to do. Similarly, the Fed's handling of emergency lending entails signaling not just to regulated banks but to all actors in the financial system who could start or worsen a bank run if they lost confidence in the financial system.

For matters like inflation and bank runs, which can be caused by changes in expectations, expectation management itself can determine regulatory success or failure, and credible signaling becomes even more crucial.[39] Deft management of expectations can also be decisive when it comes to emergency lending. Such lending aims to stave off a crisis, yet its very availability may encourage firms to take excessive risks that bring on the crisis. Conversely, a credible signal that the central bank will not bail out such firms can induce them to be more careful ex ante, such that a crisis

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36. NICHOLAS R. PARRILLO, FEDERAL AGENCY GUIDANCE: AN INSTITUTIONAL PERSPECTIVE, REPORT TO THE ADMINISTRATIVE CONFERENCE OF THE UNITED STATES 28-37 (2017).

37. Daniel Carpenter, *Confidence Games: How Does Regulation Constitute Markets?*, *in* GOVERNMENT AND MARKETS: TOWARD A NEW THEORY OF REGULATION 181 (Edward J. Balleisen & David A. Moss eds., 2010) (arguing that Food and Drug Administration regulation was necessary to the emergence of a market for high-investment drugs).

38. Jonathan M. Karpoff, *Does Reputation Work to Discipline Corporate Misconduct?*, *in* THE OXFORD HANDBOOK OF CORPORATE REPUTATION 372-73 (Timothy G. Pollock & Michael L. Barnett eds., 2012).

39. On inflation and signaling, see Reis, *supra* note 15, at 33-36.

never comes.[40] Managing expectations, then, in an important sense defines the work of central banking.

How can the Fed credibly signal its future action? At first glance, one might think that "law" connotes stability, so that if an agency wants to signal credible commitment to do (or not do) some act, it should simply announce that it interprets its statute to require (or prohibit) the act. But it is not so simple. Interpretations of law can change. If an agency says it reads its statute a certain way, whether in deciding an individual matter or in a more general announcement (known as an "interpretive rule"), the agency will not be bound by that interpretation indefinitely. It can renege on that reading so long as (1) the new reading is reasonable (whether or not the old interpretation was also reasonable) and (2) the agency gives enough of a reason for shifting to the new reading that its departure is not arbitrary or capricious.[41] There is no per se bar to reneging, and some agencies are famous for doing it. "It is a fact of life in [National Labor Relations Board] lore," says one eminent judge, "that certain substantive provisions of the [National Labor Relations Act] invariably fluctuate with the changing compositions of the Board."[42]

Even if agency legal interpretation were stickier than it is, there would still be the problem that much agency action is not driven by interpretation at all, but instead consists of the agency's choices of how to exercise discretion left it by law. The Federal Reserve Act is filled with such grants of discretionary authority in both monetary policy and emergency lending. This is not uncommon in the administrative state: when an agency publishes guidance, it frequently includes both interpretations of law and projections for how it will exercise discretion, often imperceptibly mixed.[43]

An agency's commitments, whether they involve legal interpretation or projections about exercising discretion, are strongest when the agency

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40. Charles W. Calomiris, Douglas Holtz-Eakin, R. Glenn Hubbard, Allen H. Meltzer & Hal S. Scott, *Establishing Credible Rules for Fed Emergency Lending*, 9 J. FIN. ECON. POL'Y 260, 261 (2017).

41. Perez v. Mortg. Bankers Ass'n, 135 S. Ct. 1199, 1209 (2015) (recognizing agency power to rescind an interpretive rule without notice and comment); FCC v. Fox Television Stations 556 U.S. 502, 513-14 (2009) (applying the arbitrary-or-capricious standard to an agency shift between two interpretations of a statute). Agencies must consider reliance on the old view but need not give it dispositive weight. DHS v. Regents of the Univ. of Cal., 140 S. Ct. 1891, 1914 (2020); Fox Television, 556 U.S. at 515-16. Note the shift may be more difficult if the previous interpretation was challenged and upheld in a court that is a proper venue for challenges to the new interpretation. Nat'l Cable & Telecomm. Ass'n v. Brand X Internet Servs., 545 U.S. 967, 982 (2005).

42. Epilepsy Found. of Ne. Ohio v. NLRB, 268 F.3d 1095, 1097 (D.C. Cir. 2001).

43. BLAKE EMERSON & RONALD M. LEVIN, AGENCY GUIDANCE THROUGH INTERPRETIVE RULES: RESEARCH AND ANALYSIS, REPORT TO THE ADMINISTRATIVE CONFERENCE OF THE UNITED STATES 9-12 (2019).

makes reneging costly for itself. Scholars of administrative law have identified two principal mechanisms for doing this.[44] The first is for the agency to have its legal interpretation challenged and upheld in litigation, giving it the status of *judicial* precedent that can be invoked in litigation against any future departure.[45] The second is for the agency to commit to certain interpretations or plans for exercising discretion by enshrining them in a legislative rule, adopted through notice and comment.[46] A legislative rule is binding law. A plaintiff with standing can sue to force the agency to follow it.[47] And such a rule can be rescinded only by a subsequent legislative rule that must itself go through notice and comment. The legislative rulemaking process is prolonged: typically five years to develop the proposal prior to the notice, then typically one year to receive comments and promulgate the final rule.[48] Also the process is extremely costly in funding and staff, meaning an agency can only make so many rules in a given period. Announcing an approach through a legislative rule is a credible commitment to stick with that approach for at least a few years and likely indefinitely.

While these two mechanisms may be effective for many agencies in many contexts, they are unlikely to be the right option for the Fed in most of its big-ticket activities. Note that both mechanisms depend on there being judicial review. The first mechanism simply *is* judicial review, applied to legal interpretations. And the second mechanism depends on judicial review indirectly: judicial review is the means to ensure that an agency follows its own legislative rules. More subtly, the threat of judicial review

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44. Besides studies discussing how an *agency* can credibly commit, many studies analyze the separate question—not a focus of this Article—of how a legislature's delegation of power to an agency can serve as a means for the *legislature* to credibly commit. Indeed, many of these studies discuss Congress and the Fed and are cited in our earlier references on the Fed and separation of powers. *See supra* note 15 and accompanying text. Separately, Nou considers the credibility of an agency head's commitment to subordinate officials that certain powers will remain subdelegated to those officials. Jennifer Nou, *Subdelegating Powers*, 117 COLUM. L. REV. 473, 496-511 (2017).

45. Jonathan Masur, *Judicial Deference and the Credibility of Agency Commitments*, 60 VAND. L. REV. 1021 (2007). But as Masur emphasizes, this commitment mechanism is diminished by *Brand X*, which allows agencies to depart from statutory interpretations adopted by courts if the statute is ambiguous and if the agency adopts its new interpretation through procedures deserving of deference. 545 U.S. at 982.

46. Nina A Mendelson, *Agency Burrowing: Entrenching Policies and Personnel Before a New President Arrives*, 78 N.Y.U. L. REV. 557, 589-99 (2003); Aaron L. Nielson, *Sticky Regulations*, 85 U. CHI. L. REV. 85, 116 (2018).

47. Elizabeth Magill, *Agency Self-Regulation*, 77 GEO. WASH. L. REV. 859, 872-82 (2009).

48. RACHEL AUGUSTINE POTTER, BENDING THE RULES: PROCEDURAL POLITICKING IN THE BUREAUCRACY 33, 137-38 (2019).

of a rule is also what forces the agency to go through such a laborious process in adopting one.[49]

As we discuss elsewhere, the Fed—in contrast to most agencies—is unlikely to face judicial review for its highest-stakes activities or for general legal interpretations or policymaking concerning those activities. This is due to standing problems in the case of monetary policy[50] and timing and other problems in the case of emergency lending.[51]

Can an agency make credible commitments regarding matters for which it is not subject to judicial review and judicially enforced legislative-rulemaking requirements? Empirically, yes. Industry lawyers consider "no action" letters from the Securities and Exchange Commission—issued in the thousands since the mid-twentieth century—to be highly valuable sources of "law." The Commission has apparently *never* proceeded against a party who acted in good faith on a letter's advice, even though it is likely no court could stop the agency from doing so.[52] Notice-and-comment processes have been institutionalized at the Department of Health and Human Services and at the Department of Housing and Urban Development since the 1970s. It was during this time that those two agencies adopted procedures for taking comment from stakeholders on all legislative rules, at much cost, even though both agencies are statutorily exempt from any requirement to follow such procedures for rules relating to benefits or grants and could lawfully rescind the procedures anytime.[53]

At the Department of Justice, advice on the legality of executive-branch action has been internally vested since the 1950s in the Office of Legal Counsel (OLC). The Carter Administration established a norm of treating OLC as independent and court-like and deferring to its view on high-stakes questions as "a signaling mechanism" to broadcast its

49. When agencies voluntarily undertake notice and comment in adopting nonbinding guidance, their process is formally similar to legislative rulemaking but far less time-consuming and costly because the absence of judicial review means they do not feel the need to build up a mountain of evidence and defenses for the document. Nicholas R. Parrillo, *Should the Public Get to Participate Before Federal Agencies Issue Guidance? An Empirical Study* 71 ADMIN L. REV. 57, 82-84 (2019) [hereinafter Parrillo, *Should the Public Get to Participate*].

50. See *supra* note 13 and accompanying text.

51. See *infra* Section III.F.

52. Nicholas R. Parrillo, *Federal Agency Guidance and the Power to Bind: An Empirical Study of Agencies and Industries* 36 YALE J. REG. 165, 267 (2019) [hereinafter Parrillo, *Power to Bind*].

53. JERRY L. MASHAW ET AL., ADMINISTRATIVE LAW: THE AMERICAN PUBLIC LAW SYSTEM: CASES AND MATERIALS 684-85 (7th ed. 2014). Indeed, another agency with a similar procedure dating to 1971 (the Department of Agriculture) did rescind it in 2013. *Id.* at 685. Rescission of an agency-created procedure could be subject to judicial review, but that review is unlikely to be searching like it is for legislative rules, as the agency need not take comments or respond to comments when adopting or rescinding a procedure. 5 U.S.C. § 553(b)(A) (2018).

"commitment to comply with law."[54] This norm remained strong in the Bush Administration, when numerous high DOJ officials were prepared to resign if the President defied OLC's view,[55] even though there was no legal requirement that he adhere to it.[56]

These examples suggest that an agency *can* credibly commit to an approach absent judicial review and legislative rulemaking, but the question remains: *how* does the agency do it? Here we identify three possible aspects of an agency communication—whether an interpretation of law or a plan for exercising discretion—that can make it more costly for the agency to renege on the communication and therefore more credible that the agency's future conduct will match what the communication said. Agency officials can deliberately strengthen and leverage all these aspects to make their commitments stronger.

1. Realistic Contingency Planning

Other things equal, a commitment stated in objective, rigid terms is more credible than one stated in vague, loose terms. The reason is that violations of an objective, rigid commitment are easier to identify and harder to obfuscate, meaning that whatever bad consequences other parties can impose on the agency for violations (more on those later) will hit more certainly when the commitment's terms are objective and rigid.[57] There is a tradeoff, though: as a commitment grows more objective and rigid, it tends to become cruder and less realistic, against the background of uncertainty about future challenges the agency may face. The crudeness—and the lack of candor, integrity, and intellectual seriousness it connotes—diminishes credibility. A statement that says "we will never bail out another bank, *ever*" is clear, objective, crude, and noncredible.

To reap credibility from objective terms, an agency should engage in specific contingency planning: it should identify possible future states of the world and assign to each state a plan of action that is as rigid and

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54. Daphna Renan, *The Law Presidents Make*, 103 VA. L. REV. 805, 866 (2017).

55. OFFICE OF INSPECTOR GENERAL OF THE DEPARTMENT OF DEFENSE ET AL., UNCLASSIFIED REPORT ON THE PRESIDENT'S TERRORIST SURVEILLANCE PROGRAM 27 (2009). However, the credibility of OLC and of the executive branch's commitment to follow OLC diminished over the course of the Bush and Obama administrations. Renan, *supra* note 54, at 842-46, 866-67.

56. JACK GOLDSMITH, THE TERROR PRESIDENCY: LAW AND JUDGMENT IN THE BUSH ADMINISTRATION 79 (2007).

57. In the context of inflation targeting, see Alberto Alesina & Andrea Stella, *The Politics of Monetary Policy*, *in* 3B HANDBOOK OF MONETARY ECONOMICS 1001, 1007 (2011). In jurisprudence, see Frederick Schauer, *Official Obedience and the Politics of Defining "Law,"* 86 S. CAL L. REV. 1165, 1190, 1192 (2013).

objective as possible without seeming overly crude or unrealistic.[58] When an agency knows more about a possible future state, it can provide more evidence and arguments for why a specific course of action will be suitable for it. For other future states, about which less is known, the agency is justified in adopting a looser approach, as a more rigid one would not be credible anyway.

To remain realistic, an agency must update its contingency plans to take account of new information. This includes the discovery of new possible future states, as well as new information about which approaches are best-suited to known possible future states.[59] To be sure, the periodic revision of the plans diminishes their perceived stability. However, a stated intellectual framework for the use of new evidence can mitigate that problem by showing that plans are evolving in a rational and understandable manner.

2. Staking the Reputations of Officials and the Agency

Officials in many agencies are members of professions, including law, economics, medicine, and the sciences. A profession's training requirements and career patterns are structured to give each member a lifelong stake in the profession.[60] While we stereotypically think of advancement within a career as being vertical (up the ladder of a hierarchical organization), advancement within a professional career is often, to a large degree, horizontal, in the sense of "an increase in reputation or prestige based on expertise" judged by one's peers.[61] To a professional, reputation is therefore a prized asset. Professionals tacitly lend their reputations as hostages for the accuracy of judgments they make.[62] This dynamic operates powerfully within agencies. According to one leading study, an agency tends to make more accurate predictive judgments (notwithstanding political pressure for inaccurately optimistic judgments) if it has less personnel turnover, apparently because low turnover makes inaccurate judgments easier to trace back to the

58. Two recent analyses of central-bank emergency lending contain brief discussions along the same lines. TUCKER, *supra* note 15, at 512; Calomiris, Holtz-Eakin, Hubbard, Meltzer & Scott, *supra* note 40, at 261. For a more in-depth discussion in the context of monetary policy, see Alesina & Stella, *supra* note 57, at 1007-13.

59. TUCKER, *supra* note 15, at 120 ("Good (within-regime) contingency planning shift out the boundary between the normal and the exceptional, and the period following a crisis should be used to fill in gaps in those plans as lessons are learned.").

60. ELIOT FREIDSON, PROFESSIONALISM: THE THIRD LOGIC 101-02 (2001).

61. *Id.* at 76.

62. Miguel Alzola, *Beware of the Watchdog: Rethinking the Normative Justification of Gatekeeper Liability*, 140 J. BUS. ETHICS 705, 707 (2017) (citing Oliver Williamson, *Credible Commitments: Using Hostages to Support Exchange*, 73 AM. ECON. REV. 519 (1983)).

individuals who made them.[63] Staking one's reputation has a disciplining effect on behavior.

Now imagine that an official publicly originates or endorses a certain agency approach to a problem, such as a contingency plan or set of such plans, or an intellectual framework for developing those plans. In doing so, the official stakes his or her reputation on it. If that official later abandons the approach, it amounts to an admission of error, with a corresponding reputational hit. Ex ante, observers who know that officials have staked their reputations on a certain approach will view the officials' commitment to that approach as more credible.

Officials wishing to commit credibly to an approach can do so by endorsing it, transparently and openly, in a manner that stakes their professional competence. For instance, officials might offer their expert evaluation of the arguments and evidence for or against the approach. This can be done in venues like congressional testimony, public meetings, speeches, academic papers, or signed agency publications, including responses to public comments.

We have explained these dynamics in terms of an individual official, but they can also operate at the level of a whole agency, or one of its components. A group that has staked its reputation on a decision is loath to reverse itself. Contrary to the widespread perception of the Food and Drug Administration (FDA) as risk-averse, the agency is slow and skittish in deciding not only whether to approve drugs but also whether to pull them *from* the market after approval. This pattern does not make sense if the agency is risk-averse about safety, but it does make sense if the agency is protecting against risk to its own reputation.[64] As one FDA official told the Senate in 2004, the FDA office "that approved the drug in the first place and that regards it as its own child, typically proves to be the single greatest obstacle to effectively dealing with serious drug safety issues."[65] Agencies concerned about reputation tend to "keep their options open" and "avoid commitment to a hypothesis that can be publicly falsified," but then, when they do bite the bullet and make decisions, they often treat those decisions as "irreversible."[66] Relatedly, officials risk-averse about their reputations will tend to follow approaches already adopted by the

63. George A. Krause & J. Kevin Corder, *Explaining Bureaucratic Optimism: Theory and Evidence from U.S. Executive Agency Macroeconomic Forecasts*, 101 AM. POL. SCI. REV. 129 (2007).

64. DANIEL CARPENTER, REPUTATION AND POWER: ORGANIZATIONAL IMAGE AND PHARMACEUTICAL REGULATION AT THE FDA 626-27 (2010).

65. *Id.* at 630 (quoting the testimony of one agency official before Congress).

66. Daniel P. Carpenter & George A. Krause, *Reputation and Public Administration*, 72 PUB. ADMIN. REV. 26, 29 (2012).

agency; this is because following established protocol diffuses blame for bad consequences that might arise from any given action.[67] Blame falls not only on the official taking action but on all prior officials who originated or maintained the protocol.

When the commitment is to a certain interpretation of law, the primary professional reputation at stake is that of agency lawyers. But it is not lawyers' reputations alone: nonlawyer officials with substantive program expertise are and should be involved in interpreting the agency's statutes. That is because agencies should interpret their statutes to fulfill the broad policy objectives for which Congress enacted them, not necessarily follow the most ordinary meaning of statutory text. According to one classic work on this method, the interpreter should read a statute "so as to carry out [its] purpose as best it can," so long as the interpreter does "not give the words . . . a meaning they will not bear."[68] While scholars of statutory interpretation have fought bitterly with one another over whether this policy-driven approach (as opposed to a literalist approach) is right for *courts*, those same scholars have achieved strikingly wide agreement that policy-driven interpretation is right for agencies.[69] And if interpretation is driven by policy, then policy experts (and not just lawyers) should be involved.

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67. CHRISTOPHER HOOD, THE BLAME GAME: SPIN, BUREAUCRACY, AND SELF-PRESERVATION IN GOVERNMENT 93-100 (2011).

68. HENRY HART & ALBERT SACKS, THE LEGAL PROCESS: BASIC PROBLEMS IN THE MAKING AND APPLICATION OF LAW 1374 (William Eskridge & Philip Frickey eds., Foundation Press 1994) (1958).

69. William N. Eskridge Jr., *Expanding Chevron's Domain: A Comparative Institutional Analysis of the Relative Competence of Courts and Agencies to Interpret Statutes*, 2013 WIS. L. REV. 411; Michael Herz, *Purposivism and Institutional Competence in Statutory Interpretation*, 2009 MICH. ST. L. REV. 89; Jerry L. Mashaw, *Norms, Practices, and the Paradox of Deference: A Preliminary Inquiry into Agency Statutory Interpretation*, 57 ADMIN. L. REV. 501 (2005); Kevin M. Stack, *Purposivism in the Executive Branch: How Agencies Interpret Statutes*, NW. U. L. REV. 871 (2015); Peter L. Strauss, *When the Judge Is Not the Primary Official with Responsibility to Read: Agency Interpretation and the Problem of Legislative History*, 66 CHICAGO-KENT L. REV. 321 (1990). Prominent academic proponents of the literalist (textualist) approach for courts do not seek to impose that method on agencies. On the contrary, some of them wholeheartedly accept the alternative, policy-driven approach for agencies. Frank H. Easterbrook, *Judicial Discretion in Statutory Interpretation*, 57 OKLA. L. REV. 1, 3-4 (2004); ADRIAN VERMEULE, JUDGING UNDER UNCERTAINTY: AN INSTITUTIONAL THEORY OF LEGAL INTERPRETATION 207-15 (2006). Another has come near to the question a couple of times only to reemphasize his commitment to judicial textualism without pronouncing on agency methods. John F. Manning, *Why Does Congress Vote on Some Texts but Not Others?* 51 TULSA L. REV. 559, 573 n.84 (2015); John F. Manning, *Chevron and Legislative History*, 82 GEO. WASH. L. REV. 1517, 1548 (2014). The most developed dissenting view is that of Richard Pierce, who warns that, insofar as the judiciary is relatively textualist, a different agency method will lead to conflict, in which agencies will end up losers. Richard J. Pierce Jr., *How Agencies Should Give Meaning to the Statutes They Administer: A Response to Mashaw and Strauss*, 59 ADMIN. L. REV. 197 (2007). But that warning becomes less applicable when agency action is reviewed less by courts.

3. Building a Coalition of External Interests

An agency's commitment to its approach is more credible when external actors support it and can be expected to resist if the agency tries to renege.[70] Such external actors can include congressional overseers,[71] international regulatory bodies,[72] and interest groups. There are many possible reasons for interest groups to get behind a particular agency approach. They may be direct beneficiaries of the approach. They may have made specific investments in reliance on the approach's continuance.[73] Or they may view the approach as creating a level playing field among themselves and their competitors, meaning they will resist any variation as putting them at an unfair competitive disadvantage.[74]

The agency can harness these diverse pressures as commitment devices by inviting support and reliance from external actors, and also by identifying external actors who benefit from the agency's approach, notifying them about it, and helping them organize.[75] It may be especially possible to build a coalition of diverse interests if the agency is adopting a process or an intellectual framework for choosing policies; groups of political actors have been known to stick by a common process even when each of them dislikes some of the particular outcomes that result from it.[76]

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We close this Section by noting that there is a tradeoff between the good incentive effects of agency credible commitment on regulated entities

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70. This is a central point of the literature on "policy feedback," which mostly concerns legislatively enacted policies but also applies to agency-chosen policies. *See* Suzanne Mettler & Mallory Sorelle, *Policy Feedback Theory*, *in* THEORIES OF THE POLICY PROCESS 103, 110-12 (Christopher M. Weible & Paul A. Sabatier eds., 4th ed. 2018); ERIC PATASHNIK, REFORMS AT RISK: WHAT HAPPENS AFTER MAJOR POLICY CHANGES ARE ENACTED 29-30, 176-77 (2008).

71. Michael Herz, *The Attorney Particular: Governmental Role of the Agency General Counsel*, *in* GOVERNMENT LAWYERS: THE FEDERAL LEGAL BUREAUCRACY AND PRESIDENTIAL POLITICS 143, 150-56 (Cornell W. Clayton ed., 1995) [hereinafter Herz, *Attorney Particular*]; Tess Bridgeman & Ryan Goodman, *Unpacking the State Dept Acknowledgment that 2001 and 2002 AUMFs Don't Authorize War Against Iran*, JUST SECURITY (July 3, 2019), https://www.justsecurity.org/64807/unpacking-the-state-dept-acknowledgment-that-2001-and-2002-aumfs-dont-authorize-war-against-iran/ [https://perma.cc/NBQ7-F5WQ].

72. Daryl Levinson & Benjamin I. Sachs, *Political Entrenchment and Public Law*, 125 Yale L.J. 400, 453-54 (2015) (citing, inter alia, the Fed and the Basel Accords).

73. PATASHNIK, *supra* note 70, at 177.

74. Parrillo, *Power to Bind*, *supra* note 52, at 232-37.

75. See Nou, *supra* note 44, at 502-03 (discussing how agency transparency about internal policies can help mobilize external actors against those policies' rescission).

76. Daryl J. Levinson, *Parchment and Politics: The Positive Puzzle of Constitutional Commitment*, 124 HARV. L. REV. 657, 692-97.

and third parties, on the one hand, and the loss of agency flexibility to adjust to unforeseen circumstances, on the other. The more predictable the agency's approach, the more inflexible it is, and vice versa. The exact balance for navigating this tradeoff will be context specific. For now, we simply caution that the discourse on governance tends to assign too much value to flexibility and too little value to advance planning, with the opportunities it provides for calmer and better deliberation and greater stability.[77]

B. Diversity of Input

For most federal agencies, openness manifests primarily as *public participation*—a variety of procedures for members of the public to provide input on agency decisions. The most elaborate of these procedures, and the most analyzed in the scholarship, is notice and comment for adopting legislative rules, complete with an agency response to comments upon adopting the final rule. In addition, agencies frequently establish advisory committees with members from outside the agency, including interest-group representatives and academics. These committees help agencies make decisions by holding public meetings and hearings, publishing committee reports, and soliciting agency responses. Less formally, an agency may organize one-shot events for seeking input, like stakeholder meetings, listening sessions, workshops, and webinars, or it may communicate one-on-one with selected stakeholders, openly or privately. All these techniques can be employed in the process for legislative rulemaking, on top of notice and comment. Agencies can also use each for lesser agency decisions, like nonbinding guidance. Indeed, agencies adopting guidance sometimes go through "rulemaking lite" beforehand, which is like the notice-and-comment process for legislative rulemaking, except the agency does not produce as much explanation or evidence.[78]

1. Advantages of Public Participation

The academic literature offers two main reasons why public participation can be good. The first is epistemic: outside input helps the agency make more instrumentally rational decisions by providing it better

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77. David A. Super, *Against Flexibility*, 96 CORNELL L. REV. 1375, 1411-17, 1445-52 (2011).

78. Parrillo, *Should the Public Get to Participate*, *supra* note 49, at 270. The White House recently required this procedure for a large category of guidance documents at all executive agencies, a group that does not include the Fed. Exec. Order No. 13891, 84 Fed. Reg. 55,235 (Oct. 9, 2019).

information on which to base factual and predictive judgments. The second reason is that public participation increases agency action's legitimacy as a social fact: participation makes the action more acceptable to the regulated industry and the public.[79] We are agnostic about whether greater openness to public participation will increase the legitimacy of the Fed's actions.[80] But there is a strong case that such openness benefits the Fed epistemically. More outside input can help the Fed make more accurate factual and predictive judgments and thus be more effective in carrying out its mission.

A large body of research in psychology, management, and related disciplines finds that diversity in the information and intellectual perspectives that individuals hold regarding a problem makes them more capable of addressing that problem as a collective. "[A]lthough individuals are prone to error," says a recent review of this literature, "multiple perspectives yield diverse errors that statistically offset each other."[81] Further, "the more diverse knowledge of the group as opposed to any given individual . . . allows for a fuller understanding of a given decision." The research finds that "individuals tend to hold a narrow but overconfident view of their judgments," and "[s]pecialization and expertise add an additional obstacle."[82] Expertise "draws attention to certain features of a problem, but can blind someone to other features."[83] There is thus an advantage to having "different, complementary areas of expertise, all of which are relevant and necessary to making the best decisions" for organization-level outcomes.[84]

Consistent with this, the most comprehensive meta-analysis of studies of the diversity of work groups in industry workplaces finds that job-

79. For a recent articulation of these two justifications, see Michael A. Livermore, Vladimir Eidelman & Brian Grom, *Computationally Assisted Rulemaking Participation*, 93 NOTRE DAME L. REV. 977, 982-86 (2018).

80. Although it is well documented that a government decision-maker can use procedure (including transparency, participation, and reason giving) to increase the acceptance of targeted adjudicatory and enforcement decisions among directly affected individuals, there is much less research and more uncertainty on the question of whether the government can use procedure to increase the public's acceptance of generally applicable policy decisions. For a review of literature on both types of acceptance, see generally E. Allan Lind & Christiane Arndt, *Perceived Fairness and Regulatory Policy* (OECD, Regulatory Policy Working Paper No. 6, 2016). For a forceful critique of the administrative-law field's tendency to think procedure universally increases social-fact legitimacy, including the point that legitimacy has multiple determinants only some of which are legal, see Nicholas Bagley, *The Procedure Fetish*, 118 MICH. L. REV. 345, 369-89 (2019).

81. Richard P. Larrick, *The Social Context of Decisions*, 3 ANN. REV. PSYCHOL. ORG. BEHAV. 441, 445 (2016).

82. *Id.*

83. *Id.*

84. *Id.* For another review of this literature, reaching similar conclusions, see CASS R. SUNSTEIN & REID HASTIE, WISER: GETTING BEYOND GROUPTHINK TO MAKE GROUPS SMARTER 21-102 (2014).

related diversity in work groups relates positively to the group's performance in complex tasks. The authors think this result is most likely explained by "the nature of the informational differences with which job-related diversity . . . is associated"—that is, people doing different jobs can offer different kinds of information.[85]

An organization seeking diversity's advantages faces a variety of challenges,[86] of which the most relevant for the Fed is the danger that agreement will be too easy and premature, leading to bad decisions. This danger in group decision-making was originally identified by Irving Janis in his studies of "groupthink" in the 1970s and 1980s. Drawing from case studies of high-level U.S. national-security decision-making, Janis found that, under certain conditions, members of a group would overestimate the group's likelihood of success in making decisions. They would rationalize away and conceal their private doubts.[87] Thus the organization would fail to consider the downsides of their choice, fail to identify and analyze enough alternatives, and fail to take seriously incoming information counseling against that choice.[88] All this raises the risk of wrong judgments.

Subsequent work has clarified and reinforced the dangers of groupthink. Reviewing experimental research in the generation since Janis, Robert Baron finds groupthink's irrationally close-minded process can operate whenever members (a) identify with the group, (b) face a highly complex problem, and (c) receive a signal, early in the decision-making process, of some outcome toward which the group might gravitate. Such a signal could arise from a preexisting paradigm or value system shared among the members, or from a leader who, early in the deliberation process, suggests what conclusion she wants.[89]

Janis's essential and enduring insight is that decision-makers often irrationally incline toward consensus, and they thereby fail to find and exploit diverse information that could lead to more accurate predictions

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85. Hans Van Dijk et al., *Defying Conventional Wisdom: A Meta-analytical Examination of the Differences Between Demographic and Job-Related Diversity Relationships with Performance*, 119 ORG. BEHAV. & HUM. DECISION PROCESSES 38, 49 (2012).

86. These include organizational insiders' emotional attachments to preexisting ideas in the face of challenge. *See* Larrick, *supra* note 81, at 448-49; Katherine J. Klein & David A. Harrison, *On the Diversity of Diversity: Tidy Logic, Messier Realities*, 21 ACAD. MGMT. PERSP. 26, 28, 31 (2007).

87. IRVING L. JANIS, GROUPTHINK: PSYCHOLOGICAL STUDIES OF POLICY DECISIONS AND FIASCOES 244 (1982).

88. *Id.* at 9-10, 245.

89. Robert S. Baron, *So Right It's Wrong: Groupthink and the Ubiquitous Nature of Polarized Group Decisionmaking*, 37 ADVANCES IN EXPERIMENTAL SOC. PSYCHOL. 219, 228-33, 238-44 (2005). *See also* Larrick, *supra* note 81, at 448 (discussing the topic of common information); SUNSTEIN & HASTIE, *supra* note 84, at 57-88 (discussing the topics of cascades and polarization).

and judgments. Skepticism and dissent—and organizational norms and procedures to ensure dissenting views are not prematurely quashed—are important to guard against this. As one literature review says, "Teams are much more likely to find the correct solution if they have a group norm to be critical rather than to seek consensus."[90] According to another review, groups with "norms of critical dissent" are "less likely to fall in the trap of focusing on shared information at the expense of unshared information," leading to "improved decision quality."[91]

Groupthink at the Fed has been recognized as a risk. Two former Fed Governors—Democrat-appointed Alan Blinder and Republican-appointed Kevin Warsh—have each suggested that Janis's work is applicable to the FOMC. In particular, Blinder has said the FOMC should be designed to take advantage of "different methods of analysis," "different ways of processing information," and "different decision heuristics."[92] He notes that former Fed Chair Alan Greenspan's autocratic leadership encouraged groupthink and that "having only PhD macroeconomists on the [FOMC] may not be the best recipe."[93] These macroeconomists rely on a single dominant methodology, "dynamic stochastic general equilibrium" (DSGE) modeling,[94] making groupthink more likely. Similarly, Warsh says "diverse experiences" are helpful for the Committee; he also believes that the FOMC has "certain institutional aspects" that "differ somewhat from best practice," including members' disinclination to dissent.[95] That said, Blinder and Warsh both confine their discussions narrowly to the FOMC: its size, meeting style, voting procedures, and membership. Neither discusses the Fed more broadly—including the Board staff composition and the Reserve Bank structure—

90. Larrick, *supra* note 81, at 451.

91. Jolanda Jetten & Matthew J. Hornsey, *Deviance and Dissent in Groups*, 65 ANN. REV. PSYCHOL. 461, 471 (2014).

92. Alan S. Blinder, *Making Monetary Policy by Committee*, 12 INT'L FIN. 171, 175 (2009).

93. *Id.* at 174, 176, 182.

94. Olivier Blanchard, *Do DSGE Models Have a Future?*, PETERSEN INST. FOR INT'L ECON. 1 (2016), https://www.piie.com/system/files/documents/pb16-11.pdf [https://perma.cc/9UE5-86DT] (explaining that "DSGE models have come to play a dominant role in macroeconomic research").

95. Kevin M. Warsh, *Institutional Design: Deliberations, Decisions, and Committee Dynamics*, *in* CENTRAL BANK GOVERNANCE AND OVERSIGHT REFORM 183, 187-88 (John H. Cochrane & John B. Taylor eds., 2016); *see also* Charles W. Calomiris, *Reforming the Rules that Govern the Fed*, 38 CATO J. 109, 120 (2018) (suggesting that to combat "groupthink" the FOMC should be reformed in favor of business-centered diversity); Brett McDonnell & Daniel Schwarcz, *Regulatory Contrarians*, 89 N.C. L. Rev. 1629, 1665-67 (2011) (discussing the Minneapolis Fed as a sometime regulatory contrarian); Anne Sibert, *Central Banking by Committee*, 9 INT'L FIN. 145, 162-63 (2006) (discussing groupthink's potential relevance to central-bank committee decision-making).

the Fed's activities beyond monetary policy, or the FOMC's exchanges with anyone outside the Committee.[96]

While more diverse intellectual backgrounds within the FOMC—or the Fed more generally—might be salutary, a larger shift in that direction depends on the vagaries of Presidential appointment, Senate confirmation, and the opaque selection process for the Reserve Bank presidents (who are now frequently long-serving Fed career officials subject to the slow civil-service pipeline).[97] But greater *outside* input has advantages of its own and may, in any event, be the Fed's only feasible way of immediately countering groupthink. This is consistent with Janis's recommendations in the national-security context. Janis believed the decision-making group should receive input from as far outside its own boundaries as possible, bringing in "outside experts" who are "not core members of the policy-making group" to "challenge the views of the core members."[98]

In fact, agency processes for public participation—for soliciting, receiving, and considering input from outside the agency—can be a powerful means to increase the agency's diversity of information and counteract groupthink. Administrative-law scholar Cynthia Farina and psychologist Jeffrey Rachlinski have made this point about the notice-and-comment process for rulemaking, which they argue can counter "expert myopia and overconfidence."[99] Political scientist Susan Moffitt makes a similar point with regard to advisory committees, finding that such committees can and do provide "task-specific diverse expertise," such that "diverse perspectives and diverse cognitive heuristics render suboptimal policy decisions less likely."[100] And while the law sometimes requires agencies to use advisory committees, agencies often use them voluntarily to improve their understanding and strengthen their credibility with congressional and stakeholder audiences.[101]

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96. Blinder refers to the Bank of England's "outside" members and asks whether the FOMC should have anything similar, but he does not specify how this might work. Blinder, *supra* note 92, at 183-84.

97. Calomiris, *supra* note 95, at 120; Peter Conti-Brown, *Restoring the Promise of Federal Reserve Governance* 25-27 (Mercatus Ctr., Geo. Mason Univ., Working Paper, 2020), https://www.mercatus.org/system/files/conti-brown-fed-governance-mercatus-working-paper-v1.pdf [https://perma.cc/BG3E-HM22].

98. JANIS, *supra* note 87, at 266-67.

99. Jeffrey J. Rachlinski & Cynthia R. Farina, *Cognitive Psychology and Optimal Government Design*, 87 CORNELL L. REV. 549, 560-62, 568-89 (2002); *see also* Mark Seidenfeld, *Cognitive Loafing, Social Conformity, and Judicial Review of Agency Rulemaking*, 87 CORNELL L. REV. 486, 546 (2002) (describing how judicial review of rulemaking, which ensures agency consideration of public input, can help combat intra-agency groupthink).

100. SUSAN L. MOFFITT, MAKING POLICY PUBLIC: PARTICIPATORY BUREAUCRACY IN AMERICAN DEMOCRACY 49-52, 172 (2014).

101. *E.g.*, CARPENTER, *supra* note 64, at 307-08; R. SHEP MELNICK, REGULATION AND THE COURTS: THE CASE OF THE CLEAN AIR ACT 270-71, 277 (1983).

Scholarship applying the psychology of group decision-making to public participation within agencies, however, has focused less on the effects of diverse perspectives coming from *outside* agencies than on diverse perspectives *within* agencies. In some ways, extra-agency diversity might be less helpful than intra-agency diversity, in that groups have a tendency to be more hostile to criticism coming from outside than from within.[102] Yet this hostility can diminish if the inside officials and the outside critics share some common identity—for example, if the critics are not Fed officials but still members of the same profession—a common objective, or simply a norm of openness.[103] And even if diversity from outside is inferior to diversity from within, it may be the agency's only chance at diversity's benefits if the officials inside are intellectually homogeneous. While there are various means of promoting critical thought even among homogeneous officials—Janis suggested designating a devil's advocate[104]—later research has shown that people facing a devil's advocate do not think as hard or generate as many alternatives as those facing someone who has been motivated to come forward by genuine disagreement.[105]

Moreover, in other ways, diverse information held on the outside may be *more* beneficial than internal diversity. First, insiders may care more about respecting an organization's hierarchy or maintaining its cohesion than about disclosing doubts.[106] Outsiders, or those sitting on outside committees, would not have these qualms. Second, a key downside to diversity is that it can produce personal conflict; organizations need to keep differences from getting personal.[107] If disagreement simultaneously provides valuable information and provokes officials' anger or insecurity, it may be easier for officials to get usable information from a disagreement if they do not work with dissenters on a daily basis.[108]

Though our discussion above focuses on the benefits of diverse input for factual or predictive questions (e.g., how announcing an inflation target will affect prices), we contend that these benefits also extend to legal interpretation (e.g., whether an inflation target is consistent with the

102. Larrick, *supra* note 81, at 457; Jetten & Hornsey, *supra* note 91, at 473-76.

103. Larrick, *supra* note 81, at 457.

104. *Id.* at 267-68.

105. CHARLAN NEMETH, IN DEFENSE OF TROUBLEMAKERS: THE POWER OF DISSENT IN LIFE AND BUSINESS 182-92 (2018).

106. Larrick, *supra* note 81, at 448-49; Klein & Harrison, *supra* note 86, at 31.

107. Larrick, *supra* note 81, at 448-49.

108. *Cf. id.* at 449-50 (suggesting that one way of eliciting diverse information is to get it from among group members by making them feel secure, but that another is to get it from complete outsiders who have "nothing to lose").

Federal Reserve Act's dual mandate).[109] When federal agencies answer general high-stakes legal questions, taking outside input is common and arguably the norm. In the notice-and-comment process required for legislative rulemaking, it is "common if not routine for comments to address purely interpretive issues and for agencies to consider [those comments] seriously" in deciding upon the final rule.[110] Even when adopting "interpretive rules"—rules that *only* interpret preexisting law but create no new legal obligations, and therefore need not go through notice and comment—eight of eleven federal agencies recently surveyed *voluntarily* took public comment "on at least some" of their interpretive rules, and for at least six of these, the process took the form of seeking comments before adopting their rules.[111]

Agencies have excellent reasons to take input on legal questions. One, of course, is that they anticipate judicial review. When facing a possible court challenge, agency counsel's analyses are the kind of predictive judgments on which psychology literature focuses: the judgments assess the risk that a future event will occur—that is, a court ruling invalidating the agency's action.[112]

Even when judicial review is absent, as it often is for the Fed, agency legal interpretations still benefit from outside input. While there is an unfortunate dearth of scholarship on the duty of agency counsel, especially where courts do not tread,[113] we contend that the duty has two main elements: agency counsel should interpret law (1) to carry out the agency's statutory mission but (2) according to some understanding of the relevant legal sources (including the enabling act) that falls within some broad mainstream of what members of the legal profession examining those sources would consider reasonable.[114] Each of these two elements can benefit from diverse input.

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109. Seidenfeld's in-depth analysis of judicial review of agency policy reasoning expressly excludes review of the agency's *legal* judgments. Seidenfeld, *supra* note 99, at 490.

110. EMERSON & LEVIN, *supra* note 43, at 30.

111. *Id.* at 13-14 nn.84, 88, 89.

112. Herz, *Attorney Particular*, *supra* note 71, at 157-59 (discussing agency counsel's role as primarily in the shadow of judicial review).

113. Herz is largely focused on judicially reviewed agencies. Herz, *Attorney Particular*, *supra* note 71, at 157-59. For notable exceptions, see Rebecca Ingber, *Interpretation Catalysts and Executive Branch Legal Decisionmaking*, 38 Yale J. Int'l L. 359 (2013); and Oona A. Hathaway, *National Security Lawyering in the Post-War Era: Can Law Constrain Power?*, SSRN (Jan. 21, 2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3530588 [https://perma.cc/AA5J-G8AU].

114. On how far government counsel should go in conforming to a judge-like "neutral expositor" view of the law, as opposed to something more client friendly, see Cornelia T. Pillard, *The Unfulfilled Promise of the Constitution in Executive Hands*, 103 Mich. L. Rev. 676, 717-28 (2005). For a similar dichotomy in the national-security context, see Hathaway, *supra* note 113, at 59-64.

As to the first, agency statutory interpretation should be, to a large extent, policy implementation. As noted earlier, there is a striking level of agreement among otherwise divided scholars of statutory interpretation that agencies can and should interpret their enabling acts to carry out Congress's broad policy objectives, even if that means not always following the text's most ordinary meaning.[115] Thus, the agency must understand the statute's broad objectives and reason instrumentally toward the best means of achieving those goals. This imports much policy and factual analysis into the interpretive task. It also means that interpretation is the province not only of the agency's lawyers but also its program officials—and by extension, all outside parties who possess diverse knowledge about how actors will respond to the agency's actions.

The second element of agency counsel's interpretive duty—to follow an analysis of the legal sources that is "mainstream" broadly defined—is more purely legal and less policy-oriented. The values served are not Congress's melioristic policy objectives but instead "rule-of-law" values, especially predictability,[116] which operates at two levels. One is predictability as to what the agency can or cannot do, which is important for firms and individuals making decisions whose consequences the agency can affect. The other level of predictability is more general. It is the assurance that Congress's stated choices about the allocation of power to agencies will be honored,[117] which in turn allows participants in the political and electoral system to discern which decisions are made by whom, strengthening government actors' political accountability.[118]

Given the importance of this purely legal, predictability-enhancing element of the agency's interpretive duty, how is it to be carried out? The relevant sources may be different from those needed for the policy-oriented element. They are more likely to consist of statutory text and structure, terms of art, legislative history, administrative precedent, or canons of construction, and they are less likely to be scientific theory and data. Yet openness to diverse input is no less crucial for finding, analyzing, and integrating these distinctly legal sources. This is because the *raison*

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115. See *supra* text and accompanying note 69.

116. Predictability is central to conceptions of the rule of law applied by scholars of administrative law. *E.g.*, Kevin M. Stack, *An Administrative Jurisprudence: The Rule of Law in the Administrative State*, 115 COLUM. L REV. 1985, 2002-09 (2015); Cass R. Sunstein & Adrian Vermeule, *The Morality of Administrative Law*, 131 HARV. L. REV. 1924 (2018). Some conceptions of the rule of law incorporate justification and argumentation as a constitutive element, for example, Stack, *supra*, at 1992-93, 2009-12, which makes the need for diverse input even clearer.

117. Stack, *supra* note 116, at 1994-2002.

118. On the need for a relatively stable constitutional allocation of power to facilitate collective political action in a democracy, see Daryl J. Levinson, *Parchment and Politics: The Positive Puzzle of Constitutional Commitment*, 124 HARV. L. REV. 657, 675 (2011) (citing STEPHEN HOLMES, PASSIONS AND CONSTRAINT 161-75 (1995)).

d'etre, predictability, depends on keeping the agency's interpretation within the broad mainstream of collective professional understanding—of what firms, individuals, and their lawyers think these legal sources mean. If law's function is partly to foster predictability, then agency interpretation should be social, in the sense of engaging with the community enough to avoid reading the agency's authority unreasonably broadly or narrowly. Community engagement fosters predictability directly, by letting outsiders identify for the agency what they consider the provisions, precedents, history, and arguments relevant to interpretation. This prevents the agency from forming its conclusion while missing or ignoring something important. Engagement also ensures predictability indirectly, in that it has a disciplining effect on agency officials ex ante. If officials know their legal analysis will be publicly scrutinized, they will feel reputational incentives to make their analyses broadly acceptable to wide professional audiences. As one scholar notes, "[D]isclosure protects against fringe [legal] views."[119]

These two factors—diverse predecision input and wide public scrutiny—essentially describe the mechanism of accountability that our system employs for unelected judges on courts of last resort, who occupy a position conceptually similar to agency counsel whose decisions will not be reviewed in litigation.[120] This accountability mechanism requires that high-court judges receive adversary input ex ante, take public responsibility for their reasoning, and subject it to public scrutiny ex post.[121]

2. Pitfalls of Public Participation and Ways to Mitigate Them

Despite these benefits, there are several ways public participation can go wrong, either failing to serve its epistemic purpose or imposing unjustified costs on the agency. Some of these pitfalls are inherent to agencies; they need to be mitigated through institutional design or, if unavoidable, must be included in the calculus of whether and how to seek participation. Others are caused or aggravated by certain perversities of judicial review, meaning that an agency relatively insulated from litigation should worry about them less.

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119. Peter Margulies, *Reforming Lawyers into Irrelevance? Reconciling Crisis and Constraint at the Office of Legal Counsel*, 39 PEPP. L. REV. 809, 844-45 (2012). On how the insularity of agency lawyering in national security can lead to adoption of views the public would consider idiosyncratic, see Hathaway, *supra* note 113, at 56-57. Hathaway relatedly notes that a consensus-seeking norm among governmental national-security lawyers can lead to groupthink. *Id.* at 58.

120. On elite legal-professional reputation as the essential constraint on Supreme Court Justices, see NEAL DEVINS & LAWRENCE BAUM, THE COMPANY THEY KEEP: HOW PARTISAN DIVISIONS CAME TO THE SUPREME COURT 8-12, 39-57 (2019).

121. MITCHEL LASSER, JUDICIAL DELIBERATIONS: A COMPARATIVE ANALYSIS OF JUDICIAL TRANSPARENCY AND LEGITIMACY 313-15 (2004).

a. The Agency Opens Itself to Outside Input but Only from Familiar Sources

There is a natural temptation to hide from feedback that makes decision-making more complex and difficult, even if it promises greater accuracy in the end. The notice-and-comment process that the APA and the judiciary have imposed on legislative rulemaking does not let officials hide. Officials must solicit ideas from the general public and "take all comers"—that is, receive and respond to all significant comments anybody sends.

Notice and comment has many costs, however, and agencies may reasonably prefer to rely upon a select group of outsiders, such as an advisory committee. Yet relying upon a select group of outsiders may allow the agency to choose only the "outsiders" who think like each other and think like the agency. Indeed, an advisory committee lacking intellectual diversity can suffer from its own internal groupthink.[122]

The Federal Advisory Committee Act (FACA) regulates the use of advisory committees at most agencies. The Federal Reserve System is not one of these agencies,[123] but FACA and agency practices operating under FACA can serve as possible models for the Fed. The statute requires a committee's membership to be "fairly balanced in terms of the points of view represented."[124] At EPA's Science Advisory Board (SAB)—an overarching committee that creates and reviews offshoot committees advising the EPA[125]—board members themselves must have "ability to integrate and cross-connect disciplines."[126] The SAB's offshoot committees should further "[c]ollectively . . . include a wide range of scientific and technical disciplines," such that the "mix of such committees" will "foster diverse perspectives."[127]

Another model for using outside committees can be found in the National Academies of Science, Engineering, and Medicine. The National Academies form ad hoc "study committees" of experts to write reports synthesizing the literature on questions posed by agencies or Congress.

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122. Adrian Vermeule, *The Parliament of the Experts*, 58 DUKE L.J. 2231, 2254-56 (2009).

123. Federal Advisory Committee Act, 5 U.S.C. app. 2 § 4(b)(2) (2018).

124. *Id.* §§ 5(b)(2), 5(c).

125. Mark A. Brown, *Federal Advisory Committees in the United States: A Survey of the Political and Administrative Landscape*, *in* SCIENTIFIC ADVICE TO POLICY MAKING: INTERNATIONAL COMPARISON 17, 30 (Justus Lentsch & Peter Weingart eds., 2009).

126. ENVTL. PROT. AGENCY, IMPLEMENTATION PLAN FOR THE NEW STRUCTURAL ORGANIZATION OF THE EPA SCIENCE ADVISORY BOARD: A REPORT OF THE EPA SCIENCE ADVISORY BOARD STAFF OFFICE 7 (2003) [hereinafter EPA IMPLEMENTATION PLAN].

127. *Id.*

These committees' studies have been recognized by both Democratic and Republican administrations as "the gold standard"[128] and "quite rigorous."[129]

National Academies study committees are governed by a relaxed version of FACA that requires the Academies to "make best efforts to ensure that . . . the committee membership is fairly balanced as determined by the Academy to be appropriate for the functions to be performed."[130] According to National Academies policy, a study committee needs not only interdisciplinary diversity but *intra*disciplinary diversity. "Even within a particular discipline," says the National Academies policy, "there may be very important differences and distinctions within the field, or regarding the particular subject matter to be addressed, that require careful consideration in the committee composition and appointment process."[131]

There are ways to use public input to foster diversity in the selection of committee members, such as soliciting public nominations, as FDA[132] and EPA have done.[133] Another is for agencies to publish a list of committee candidates—either a proposed "final cut" of members, a "short list" of candidates before the final cut, or a more general list of all qualified candidates—and to solicit public comments on selections. EPA draws on these methods for SAB offshoot committees' outside members,[134] and the National Academies are required to by statute.[135] One last procedure is for an advisory committee to express its views publicly in draft before subjecting them to review by some other body of outside experts, as

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128. Peter D. Blair, *The Evolving Role of the US National Academies*, PALGRAVE COMM. 3 (June 7, 2016), https://www.nature.com/articles/palcomms201630 [https://perma.cc/B5ZH-UJRH] (quoting the Obama administration's EPA Director).

129. Final Information Quality Bulletin for Peer Review, 70 Fed. Reg. 2,664, 2,675-76 (Jan. 14, 2005).

130. Federal Advisory Committee Act, 5 U.S.C. app. 2 § 15(b)(1) (2018).

131. *Policy on Committee Composition and Balance and Conflicts of Interest for Committees Used in the Development of Reports*, NAT'L ACADS. SCI., ENGINEERING & MED. 3 (May 12, 2003), https://www.nationalacademies.org/_cache_9122/content/bi-coi_form-0-4885770000079783.pdf [https://perma.cc/6SKN-V6US] (emphasis omitted).

132. 82 Fed. Reg. 9,383, 9,383-84 n.1 (Feb. 6, 2017).

133. EPA IMPLEMENTATION PLAN, *supra* note 126, at 8, 15; *see also, e.g.*, Request for Nominations of Candidates for EPA's Science Advisory Board Economic Guidelines Review Panel, 84 Fed. Reg. 27,327 (June 12, 2019).

134. EPA IMPLEMENTATION PLAN, *supra* note 126, at 8, 12, 15.

135. 5 U.S.C. app. 2 § 15(b)(1); Peter D. Blair, *Scientific Advice for Policy in the United States: Lessons from the National Academies and the Former Congressional Office of Technology Assessment*, *in* THE POLITICS OF SCIENCE ADVICE: INSTITUTIONAL DESIGN FOR QUALITY ASSURANCE 297, 302 (Justus Lentsch & Peter Weingart eds., 2011); *Our Study Process*, NAT'L ACAD. SCI., ENGINEERING & MED., https://www.nationalacademies.org/about/our-study-process [https://perma.cc/TAV7-YSGW].

committees advising EPA[136] and committees of the National Academies[137] do.

FACA's stringent requirements for committee meetings to be public may prevent candid deliberation. But the Fed might follow the National Academies' practice of holding public meetings "to gather data" but closing all other meetings,[138] allowing a "safe space for deliberations."[139]

FDA provides a model of workable and salutary committee diversity. Econometric studies suggest that FDA achieves diversity within its committees,[140] as well as between those committees and agency staff.[141] Research also shows more favorable committee votes in favor of a drug strongly increase the likelihood of a fast, favorable agency decision on that drug.[142] Controlling for other factors, a drug that FDA sends through the advisory-committee process is also less likely to be found to have problems after approval.[143]

b. The Agency Receives Diverse Input but Is Close-Minded Toward It

Even if officials formally receive diverse input, they may not have an open mind toward it. This can occur during the notice-and-comment process. In that process, the agency develops a proposed version of the rule (the "preproposal phase"), then publishes the proposed rule, takes official public comments, processes comments, and finally publishes a final rule with responses to the comments. According to one leading interview-based study, "change during the [official] comment phase is difficult" and "occurs within relatively narrow bounds."[144] Another study reaches a similar

136. EPA IMPLEMENTATION PLAN, *supra* note 126, at 18.

137. Blair, *supra* note 135, at 305.

138. 5 U.S.C. app. 2 §§ 15(b)(3), (4).

139. Michael J. Feuer & Christina J. Maranto, *Science Advice as Procedural Rationality: Reflections on the National Research Council*, 48 MINERVA 259, 270 (2010).

140. After a rule change in 2007 that required voting to be simultaneous, about two-thirds of votes were not unanimous, and about one-third had more than one-quarter of voters dissent. Philippe Urfalino & Pascaline Costa, *Secret-Public Voting in FDA Advisory Committees*, *in* SECRECY AND PUBLICITY IN VOTES AND DEBATES 165, 194 (Jon Elster ed., 2015).

141. Kathleen M. Doherty, Seeking Experts: Advisory Committees and the Politics of Bureaucratic Expertise 84-85 (Aug. 10, 2013) (unpublished Ph.D. dissertation, University of Virginia) (on file with authors).

142. *Id.* at 88; Stephane Lavertu & David L. Weimer, *Federal Advisory Committees, Policy Expertise, and the Approval of Drugs and Medical Devices at the FDA*, 21 J. PUB. ADMIN. RES. & THEORY 211, 212-13 (2010).

143. MOFFITT, *supra* note 100, at 213-17.

144. William F. West, *Formal Procedures, Informal Processes, Accountability, and Responsiveness in Bureaucratic Policy Making: An Institutional Policy Analysis*, 64 PUB. ADMIN. REV. 66, 71 (2004) [hereinafter West, *Formal Procedures*].

result.[145] Other studies do find that agencies change proposed rules during notice and comment in the direction participants seek, but only some of these studies demonstrate a meaningful *degree* of change or influence, as distinct from the *direction* of change.[146]

Thus, significant change in response to official comments is uncertain and possibly even the exception. Further, studies examining input during the *preproposal* phase—when agencies receive input informally through in-person meetings, phone calls, and written submissions—uniformly find that such input is influential, the reason being that it occurs at an earlier and more plastic stage in the agency's thinking.[147]

The very act of collectively formulating, drafting, and publishing a proposed rule has a tendency to make officials feel committed to that proposal. They have had to come to agreement with each other about it, and after proposal, they are associated with it before a public audience.[148]

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145. Marissa Martino Golden, *Interest Groups in the Rule-Making Process: Who Participates? Whose Voices Get Heard?*, 8 J. PUB. ADMIN. RES. & THEORY 245, 259-60 (1998).

146. For studies accounting for direction but not degree, see Amy McKay & Susan Webb Yackee, *Interest Group Competition and Federal Agency Rules*, 35 AM. POL. RES. 336 (2007); Jason Webb Yackee & Susan Webb Yackee, *A Bias Toward Business? Assessing Interest Group Influence on the U.S. Bureaucracy*, 68 J. POL. 128 (2006); and Stuart Shapiro, *When Will They Listen? Public Comment and Highly Salient Regulations* (George Mason Univ. Mercatus Center, Working Paper No. 13-15, 2013). For studies accounting for degree, see Susan Webb Yackee, *Sweet-Talking the Fourth Branch: The Influence of Interest Group Comments on Federal Agency Rulemaking*, 16 J. PUB. ADMIN. RES. & THEORY 103, 111 (2005) (describing "moderate" versus "weak" shifts); and Stuart Shapiro, *Does the Amount of Participation Matter? Public Comments, Agency Responses and the Time to Finalize a Regulation*, 41 POL'Y SCI. 33, 40 (2008) (discussing degrees of change ranging from "significant" to "minor" to "no" change). A recent study, innovatively measuring regulated firms' favorable influence by gauging those firms' stock-price changes in response to regulatory announcements, finds some influence at the stage of announcing the final rule after public comment, but much less than in the pre-proposal phase. Brian Libgober, *Meetings, Comments, and the Distributive Politics of Rulemaking*, 15 Q. J. POL. SCI. 1, 20-24 (2020).

147. *See* Jeffrey J. Cook, *Crossing the Influence Gap: Clarifying the Benefits of Earlier Interest Group Involvement in Shaping Regulatory Policy*, 42 PUB. ADMIN. Q. 466, 481-82 (2018); Libgober, *supra* note 146, at 20-24; West, *Formal Procedures*, *supra* note 144, at 72-74. Others in this line include Jeffrey J. Cook, *Framing the Debate: How Interest Groups Influence Draft Rules at the United States Environmental Protection Agency*, 28 ENVTL. POL'Y & GOVERNANCE 183 (2018); Keith Naughton, Celeste Schmid, Susan Webb Yackee & Xueyong Zhan, *Understanding Commenter Influence During Agency Rule Development*, 28 J. POL'Y ANALYSIS & MGMT. 258 (2009); Shu-Yi Oei & Leigh Osofsky, *Legislation and Comment: The Making of the Section 199A Regulations*, 69 EMORY L.J. 209, 253-55 (2019); Sara R. Rinfret, *Frames of Influence: U.S. Environmental Rulemaking Case Studies*, 28 REV. POL'Y RES. 231 (2011); Wendy E. Wagner, *Administrative Law, Filter Failure, and Information Capture*, 59 DUKE L.J. 1321, 1366-69, 1380-83 (2010); and Susan Webb Yackee, *The Politics of Ex Parte Lobbying: Pre-Proposal Agenda Building and Blocking during Agency Rulemaking*, 22 J. PUB. ADMIN. RES. & THEORY 373 (2011).

148. Stephanie M. Stern, *Cognitive Consistency: Theory Maintenance and Administrative Rulemaking*, 63 U. PITT. L. REV. 589, 621-30 (2002); West, *Formal Procedures*, *supra* note 144, at 73.

Besides these psychological effects, the prospect of judicial review (when present) tends to commit officials further. Courts do not permit agencies to depart too far from the proposed rule when writing the final one, since too great a departure detracts from the objectives of notice.[149]

When soliciting comments, officials' best strategy, epistemically, is to avoid committing to any one option, even informally, until after outside input enriches their thinking. To do this, the agency could publish an open-ended solicitation that simply asks questions without proposing a solution.[150] Another possibility is to publish a "menu" of two or more policy options and ask outsiders for comparative evaluations, or for other options altogether.[151] The Fed itself followed this menu format for its 2010 rulemaking on debit-card interchange fees.[152]

Another way for officials to keep open minds is to promise—in a manner that would be professionally embarrassing to break—to respond to outside input in explaining their final decision. Even absent judicial review, professional commitments to provide a *reasonable* response can push officials to consider diverse input on the merits. Knowing that you must explain yourself—to the public and professional communities—causes you to engage in preemptive self-criticism, search harder for new information, and reduce cognitive rigidities.[153]

c. The Agency Receives Outside Input from an Environment Where Information Is Concentrated in One Interest

The epistemic value of outside information depends largely on its diversity. But as industry complexity increases, the agency becomes more dependent on industry for information necessary to instrumental reasoning, which gives industry more leverage over agency decision-making.[154] When relevant information is more concentrated within industry, and industry is more unified (or less diverse) in its perspectives and objectives, industry can start to monopolize policy development. In

149. E. Donald Elliott, *Re-Inventing Rulemaking*, 41 DUKE L.J. 1490, 1494 (1992).

150. On advance notices of proposed rulemaking, which can take this format, see Stern, *supra* note 148, at 633-37; and William F. West, *Inside the Black Box: The Development of Proposed Rules and the Limits of Procedural Controls*, 41 ADMIN. & SOC'Y 576, 589 (2009) [hereinafter West, *Black Box*].

151. West, *Black Box*, *supra* note 150, at 580 (noting this format but finding it uncommon).

152. 75 Fed. Reg. 81,722 (Dec. 28, 2010).

153. PAUL BREST & LINDA HAMILTON KRIEGER, PROBLEM SOLVING, DECISION MAKING, AND PROFESSIONAL JUDGMENT: A GUIDE FOR LAWYERS AND POLICYMAKERS 628-29 (2010).

154. Nolan McCarty, *The Regulation and Self-Regulation of a Complex Industry*, 79 J. POL. 1220 (2017); Wagner, *supra* note 147, at 1365-66, 1379-83.

other words, it can force the agency to choose between (i) taking industry-preferred actions grounded in industry information or (ii) adopting alternative policies with little informational grounding, whose real-world outcomes are uncertain.[155]

Consistent with this idea, studies of agency rulemakings provide several examples in which the lion's share of participation comes from industry,[156] including examples where agency adherence to industry wishes appears to follow from such participatory dominance.[157] And several studies find that agencies tend to shift policy in the preferred direction of participants when those participants are more uniform in their views.[158] When agencies face a nondiverse, industry-dominated information environment, they must weigh these costs of public participation.

Concentration of information in industry produces an additional perverse effect, at least at agencies facing judicial review. Because agencies are required by courts to answer all "significant" comments, and because generalist judges cannot tell which comments are truly significant from an expert perspective, industry might submit large amounts of superficially relevant comments—far beyond what genuinely helps agency policy judgments. The agency is legally obligated to answer these comments under penalty of judicial defeat. This eats up officials' time and resources.[159] In this way, an industry seeking to preserve the status quo can slow agency policy change and reduce the amount of change that a resource-constrained agency can achieve.[160] However, when not facing

155. Alexander V. Hirsch & Kenneth W. Shotts, *Policy-Development Monopolies: Adverse Consequences and Institutional Responses*, 80 J. POL. 1339 (2018).

156. Kimberly D. Kraweic, *Don't "Screw Joe the Plummer": The Sausage-Making of Financial Reform*, 55 ARIZ. L. REV. 53, 59 (2013); William F. West & Connor Raso, *Who Shapes the Rulemaking Agenda? Implications for Bureaucratic Responsiveness and Bureaucratic Control*, 23 J. PUB. ADMIN. RES. & THEORY 495, 508-10 (2012). *But see* Rinfret, *supra* note 147, at 242 (finding NGO involvement, even at preproposal stage, at Fish and Wildlife Service).

157. Libgober, *supra* note 146, at 20-24; Oei & Osofsky, *supra* note 147, at 253-55; Wendy Wagner, Katherine Barnes & Lisa Peters, *Rulemaking in the Shade: An Empirical Study of EPA's Air Toxic Emission Standards*, 63 ADMIN. L. REV. 99 (2011); Yackee & Yackee, *supra* note 146, at 133, 135-36.

158. McKay & Yackee, *supra* note 146; Yackee, *supra* note 146; Yackee & Yackee, *supra* note 146, at 135.

159. Wagner, *supra* note 147, at 1329-34.

160. The effect resonates with the much-discussed phenomenon of "ossification," or the process by which rulemaking at many agencies has grown less ambitious due to industry-driven process costs. JERRY L. MASHAW & DAVID HARFST, THE STRUGGLE FOR AUTO SAFETY 147-201 (1990); Thomas O. McGarity, *Some Thoughts on "Deossifying" the Rulemaking Process*, 41 DUKE L.J 1385, 1387-96 (1992). Although ossification has proven difficult to document at a quantitative level, this is in part because scholars have used metrics for rulemaking that do not capture whether the rule actually alters industry practice. Mashaw explains that, while the National Highway Traffic Safety Administration has continued to produce rules at a high rate, it has shifted dramatically away from rules that shift industry practice. Jerry L. Mashaw, *The Inside-*

judicial review, the agency can escape this dynamic and impose intellectually justified limits on how much information it will respond to.[161]

d. The Agency Receives Mass Nonsubstantive Input

In most public-comment processes, the bulk of information that is useful for factual, predictive, or legal judgments comes from industry representatives, other agencies, state and local governments, academics, or NGOs. Much of the rest comes from individuals. Those individuals sending comments fall into two categories: (a) people who are truly unconnected to organized interests and sending comments on their own and (b) people solicited to send form letters by advocacy groups.[162] Big form-letter campaigns affect only a tiny minority of all rulemakings,[163] but in those rare instances, they can cause the number of comments to rise into the millions.[164]

According to leading studies, the epistemic value of individual lay comments is mostly quite low. Mass form letters drummed up by advocacy organizations typically do little more than express value preferences, without providing new factual information.[165] Comments from unconnected individuals often are likewise relatively unsophisticated and focused on value preferences.[166] Such comments do not advance the deliberative and instrumentally rational approach agencies are supposed to adopt for executing their statutory missions. (An exception is that comments from unconnected individuals, in certain industry contexts, contain policy-relevant information that is hard to discover elsewhere, such as the experiences of disabled airline travelers.[167])

Out Perspective: A First-Person Account, *in* ADMINISTRATIVE LAW FROM THE INSIDE OUT 509-20 (Nicholas R. Parrillo ed., 2017).

161. Wagner, *supra* note 147, at 1419-22.

162. Rachel Augustine Potter, *More Than Spam? Lobbying the EPA Through Public Comment Campaigns*, BROOKINGS (Nov. 29, 2017), https://www.brookings.edu/research/more-than-spam-lobbying-the-epa-through-public-comment-campaigns/ [https://perma.cc/2XTX-XHBX].

163. Cynthia R. Farina, Mary Newhart & Josiah Heidt, *Rulemaking vs. Democracy: Judging and Nudging Public Participation that Counts*, 2 MICH. J. ENVTL. & ADMIN. L. 123, 130-31 (2012).

164. Livermore, Eidelman & Grom, *supra* note 79, at 988.

165. Farina, Newhart & Heidt, *supra* note 163, at 132-45.

166. Mariano-Florentino Cuellar, *Rethinking Regulatory Democracy*, 57 ADMIN. L. REV. 411, 430-32, 444, 451, 458 (2005); Nina A. Mendelson, *Rulemaking, Democracy, and Torrents of E-Mail*, 79 GEO. WASH. L. REV. 1343, 1360-61 (2011).

167. Farina, Newhart & Heidt, *supra* note 163, at 147-49. For more on the exceptional cases, see Cynthia R. Farina, Dmitri Epstein, Josiah Heidt & Mary J. Newhart, *Knowledge in the People: Rethinking "Value" in Public Rulemaking Participation*, 47 WAKE FOREST L. REV. 1185, 1196-1204 (2012).

Of course, agency policymaking involves not only factual and predictive judgments but also value choices, and therefore one can argue that laypersons' value-preference comments should be considered for that reason.[168] But there is an important counter: public comment is not meant to be an election, nor a representative survey of any underlying population.[169]

In keeping with this normative argument, agencies largely ignore individual comments.[170] With commenters unlikely to sue, and judges unlikely to deem their comments "significant," judicial review provides no incentive to engage. Thus, as pitfalls of participation go, the phenomenon of mass individual commenting is no big problem. However, it does create one downside risk for the agency. Because agencies taking public comment must formally receive such comments—and because the rare proceeding that draws millions of comments may garner media attention for this reason—the public may get the false impression that the agency proceeding is supposed to be plebiscitary.[171] In this case, the agency will have a political problem if it ends up defying a vast majority of millions of commenters. Therefore, in deciding between public comment and less open means of taking input, the agency must weigh the advantages of public comment against this downside political risk.

II. Monetary Policy, Inflation Targeting, and Transparency

In 2012, the FOMC issued a first *Statement on Longer-Run Goals and Monetary Policy Strategy* (Statement). This "momentous"[172] document formalized the Fed's assessment that "inflation at the rate of 2 percent . . . is most consistent over the longer run with the Federal Reserve's statutory mandate."[173] In discussions with the FOMC, Janet Yellen, then Vice-Chair

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168. Mendelson emphasizes the value-preference point and argues that individual value-preference comments should, at the very least, prompt further agency investigation of the issues raised. Mendelson, *supra* note 166, at 1375.

169. Farina, Newhart & Heidt, *supra* note 163, at 132-45.

170. Cuellar, *supra* note 166, at 476-82; Michael Herz, *"Data, Views, and Arguments": A Rumination*, 22 WM. & MARY BILL OF RTS. J. 351, 369 (2013); Mendelson, *supra* note 166, at 1346, 1362-64; Steven J. Balla, Alexander R. Beck, Elizabeth Meehan & Aryamala Prasad, *Lost in the Flood?: Agency Responsiveness to Mass Comment Campaigns in Administrative Rulemaking*, REGULATION & GOVERNANCE (May 20, 2020), https://onlinelibrary.wiley.com/doi/epdf/10.1111/rego.12318 [https://perma.cc/54BN-YLYY].

171. Herz, *supra* note 170, at 368-74.

172. Transcript of Jan. 24-25, *supra* note 18, at 46-47.

173. In the latter half of 2020, when this Article was nearly in print, the Fed issued the first significant revision of the Statement. While a full examination of the revision is beyond the scope of this Article, we examine the revision in Part I *supra*. The revision explains that the FOMC "seeks to achieve inflation that averages 2 percent over time, and therefore judges that, following periods when inflation has been running persistently below 2 percent, appropriate monetary

of the Fed, twice analogized the Statement to a "constitution" for the Fed's monetary policy.[174]

In this Part, we contrast this law-like presentation of the Statement with its insular and secretive development process. While a law-like statement should enhance the Fed's ability to credibly signal and maintain a commitment to low and stable inflation, the Fed's closed process for developing its Statement undermined these objectives. In particular, the Fed's process (a) failed to consider how the two-percent inflation goal could be enforced and later reevaluated; (b) left the Fed vulnerable to inflation-targeting groupthink, which has afflicted central bankers around the world; and (c) provided no formal process for revising the inflation target in light of future macroeconomic developments.

We then examine how greater openness, solicitation of outside input, and formalized process in the development of fundamental long-term targets can enhance the Fed's ability to achieve its statutory goals in the future.

A. Monetary Policy and the Fed: The Importance of Signaling

The Federal Reserve—both the Board of Governors and the FOMC—controls the nation's monetary policy, one of the most significant areas of federal policy and the principal basis for the claim that the Fed is the most important of governmental agencies.[175] Today, the Fed's regulation of the money supply is not bound by monetary-policy rules that would anchor the dollar to the value of gold or other commodities, as had

policy will likely aim to achieve inflation moderately above 2 percent for some time." BD. OF GOVERNORS OF THE FED. RESERVE SYS., STATEMENT ON LONGER-RUN GOALS AND MONETARY POLICY STRATEGY, (Aug. 27, 2020), https://www.federalreserve.gov/monetarypolicy/files/fomc_longerrungoals.pdf [https://perma.cc/E6ZL-2FQB]. The adoption of "average inflation targeting" rather than annual inflation targeting was the "seemingly preordained" conclusion of the Fed's listening tour described in Section II.F *infra*. *See* Doug Noland, *Weekly Commentary: It's About Jobs, Jobs, Jobs*, SEEKING ALPHA (August 30, 2020), https://seekingalpha.com/article/4371557-weekly-commentary-jobs-jobs-jobs [https://perma.cc/93CL-8BN8] (asserting that "[t]he Fed has been undertaking a policy review for the past year, with the outcome seemingly preordained"). The two-percent inflation target in effect between 2012 and 2020, by contrast, did not allow for catch-up inflation or deflation if the two-percent target had been missed in a previous year.

174. Transcript of Jan. 24-25, *supra* note 18, at 46-47.

175. For useful overviews of the Fed's monetary-policy powers, see STEPHEN AXILROD, THE FEDERAL RESERVE: WHAT EVERYONE NEEDS TO KNOW (2013); and Bd. of Governors of the Fed. Reserve Sys., *Conducting Monetary Policy*, *in* THE FEDERAL RESERVE SYSTEM: PURPOSES AND FUNCTIONS, 21 (10th ed. 2020), https://www.federalreserve.gov/aboutthefed/files/pf_3.pdf [https://perma.cc/9H3U-73T5]. We provide only the background necessary for the arguments we make.

been the case until 1973.[176] Instead, by fiat, the Fed can increase or decrease the amount of cash and bank reserves in the economy by buying or selling assets for newly created money. It can also adjust the rate of interest it pays to banks for bank cash reserves held at the Fed, which causes banks to inject more or less money into the financial system.

Congress gave the Fed broad authority over monetary policy in Section 2A of the Federal Reserve Act, sometimes called the Fed's "mandate." "Mandate" is an appropriate label for this legislative directive:

> The Board of Governors of the Federal Reserve System and the Federal Open Market Committee shall maintain long run growth of the monetary and credit aggregates commensurate with the economy's long run potential to increase production, so as to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates.[177]

Although Congress identified these goals clearly and emphatically—the Fed "shall" conduct monetary policy consistent with these objectives—Congress granted the Fed considerable discretion in implementing monetary policy consistent with these goals. The Fed thus enjoys what economists call "instrument independence"—it can choose what tools to use to pursue its goals—but not "goal independence," for Congress has clearly articulated what the goals of monetary policy must be.[178]

The exercise of monetary policy is anchored on this dual mandate. When the Fed perceives that the economy is sluggish and employment below its maximum, it expands credit by increasing the monetary base, buys bonds from banks with newly created cash, and lowers the interest rate it pays to banks for the reserves kept at the Fed. These maneuvers

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176. For a historical account of the gold standard, see generally BARRY EICHENGREEN, GOLDEN FETTERS: THE GOLD STANDARD AND THE GREAT DEPRESSION, 1919-1939 (1992).

177. 12 U.S.C. § 225(a) (2018). Over time, these three goals have come to be understood as a "dual mandate," balanced between maximizing employment and controlling inflation. *See, e.g.*, Frederic S. Mishkin, Governor, Bd. of Governors of the Fed. Reserve Sys., Speech at Bridgewater College (Apr. 10, 2007), https://www.federalreserve.gov/newsevents/speech/mishkin20070410a.htm [https://perma.cc/S72C-XXNF] ("According to this legislation, the Federal Reserve's mandate is 'to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates.' Because long-term interest rates can remain low only in a stable macroeconomic environment, these goals are often referred to as the dual mandate."). For more on the importance of the forgotten "third mandate," see Peter Conti-Brown, *Politics, Independence, and Retirees: Long-Term Low Interest Rates at the US Federal Reserve*, *in* HOW PERSISTENT LOW RETURNS WILL SHAPE SAVING AND RETIREMENT 11 (Olivia S. Mitchell et al. eds., 2017).

178. *See* Laurence H. Meyer, Governor, Bd. of Governors of the Fed. Reserve Sys., Remarks at the University of Wisconsin, Lacrosse (Oct. 24, 2000), https://www.federalreserve.gov/boarddocs/speeches/2000/20001024.htm [https://perma.cc/FWH7-VAU4].

decrease interest rates throughout the economy.[179] Lower interest rates lead to cheaper access to credit that encourages individuals, households, and businesses to spend more, which lowers unemployment.

Conversely, the Fed can decide that a growing economy is in fact an inflationary economy, meaning that wages and prices are rising independently of the productive optimization of economic resources. In that event, the Fed becomes more sensitive to the price-stability prong of its mandate. To combat these risks, the Fed takes money out of the financial system by selling bonds and raising the rate of interest it pays on bank reserves. The money that bond buyers pay to the Fed leaves the financial system, while higher interest rates on reserves keep banks from deploying reserves for lending. With money scarcer, interest rates in the economy rise. This can combat inflation, but also runs the risk of tipping the economy into recession, causing job losses and hardship, especially for those living at the economic margin.

This discussion reveals that effective monetary policy is not simply an exercise in balance-sheet management. If the Fed's interventions do not cause banks to change the quantity and price of credit that they make available, then monetary policy will not have its desired effect on the economy. Similarly, inflation rates depend on more than monetary policy. When people and firms expect inflation, they demand higher prices, turning their inflation expectations into reality.[180]

Signaling future intentions is key to monetary-policy success. As former Fed Chair Ben Bernanke pithily put it, "monetary policy is 98 percent talk and only two percent action."[181] Indeed, the importance of

179. *See* Jane Ihrig & Scott Wolla, *How Does the Fed Influence Interest Rates Using Its New Tools?*, FED. RESERVE BANK ST. LOUIS (Aug. 5, 2020), https://www.stlouisfed.org/open-vault/2020/august/how-does-fed-influence-interest-rates-using-new-tools [https://perma.cc/4FHU-TA3U]. More accurately, the Fed purchases bonds from financial institutions by crediting the accounts these institutions hold at the Fed. The credits are created out of nowhere, and there is no legal limit on how many the Fed can create. The credits represent an analogue of cash. They enable the Fed to purchase valuable assets in much the same fashion as cash. In addition, the additional credits with the Fed enable the banks to lend more, in much the same fashion as if the financial institutional had deposited cash with the Fed.

180. If everyone expects higher inflation, workers will demand higher nominal wages to maintain the purchasing power of their earnings. Firms, expecting higher prices for their products, will be more willing to grant the higher-wage demands because they expect inflation to diminish the value of these wages. Higher wage inflation thus follows high inflation expectations. And changes in wages are an important component of inflation. See DAVID ROMER, ADVANCED MACROECONOMICS 259-267 (4th ed. 2012) for a discussion of the role of inflation expectations in the determination of inflation and output.

181. Ben S. Bernanke, *Inaugurating a New Blog*, BROOKINGS (Mar. 30, 2015), https://www.brookings.edu/blog/ben-bernanke/2015/03/30/inaugurating-a-new-blog/ [https://perma.cc/KRS4-WU56].

credibly signaling intentions is perhaps the most important and debated aspect of monetary theory in the last four decades.[182]

Because signaling plays such a critical role in monetary policy, the Fed has an incentive to make promises that individuals, households, and firms will not accept at face value. The Fed wants to anchor low inflation expectations, which push inflation downwards, whatever happens to output and unemployment.[183] But once that expectation is locked in, the Fed will be tempted—sometimes by political pressures, explicit or implicit[184]—to take advantage of those expectations to ease policy and lower unemployment, at the expense of inflation. This incentive renders the Fed's promises of low inflation noncredible, leading households and firms to discount Fed promises.[185]

Lack of credibility in promising low inflation can be a fatal flaw for a central bank. If households and firms expect high inflation, then inflation will be higher than otherwise even if the Fed never prints money to temporarily lower unemployment.[186] When a central bank loses its inflation-fighting credibility entirely, a monetary-policy or even political regime change becomes necessary.[187]

To avoid these outcomes, the Fed enjoys significant "independence," or insulation from political pressures. Independence enables the Fed to focus on fixing inflation expectations free from political interference and, by implication, preserving freedom of movement for fighting unemployment. Some of these institutional features that promote independence are written into the Federal Reserve Act, including longer terms of service for members of the Board of Governors[188] and removal from the congressional appropriations process.[189] Other features are more informal, including politicians' (usual) restraint from commenting on

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182. For a treatise on central banking with a focus on signaling, see generally MICHAEL WOODFORD, INTEREST AND PRICES (2003).

183. This is precisely the approach taken, with controversy, by the Volcker Fed in the early 1980s. *See* ALLAN MELTZER, 2 THE HISTORY OF THE FEDERAL RESERVE SYSTEM 1008-1131 (2010).

184. *See* CONTI-BROWN, *supra* note 15, at 2.

185. For a similar account from a leading macroeconomics textbook, see N. GREGORY MANKIW, MACROECONOMICS 455 (7th ed. 2010).

186. Thomas Sargent, *The Ends of Four Big Inflations*, *in* INFLATION: CAUSES AND EFFECTS 41, 42 (Robert E. Hall ed., 1982).

187. *See id.* at 73-85 (discussing Brazil's monetary-policy experimentation); Andre Averbug, *The Brazilian Economy in 1994-1999: From the Real Plan to Inflation Targets*, 25 WORLD ECON. 925, 929-31 (2002).

188. 12 U.S.C. § 241 (providing that Governors serve "for terms of fourteen years").

189. *See* CONTI-BROWN, *supra* note 15, at 199-217 (describing the Fed's autonomy from the Congressional appropriations process).

monetary policy. Regardless, the Fed, like most central banks, enjoys remarkable independence for an administrative agency.[190]

Its independence notwithstanding, the Fed's mandate to fight both inflation and unemployment creates for it the basic problem of credible signaling—even without political pressures to abandon inflation commitments. The Fed itself may want to permit slightly higher inflation to bring down unemployment—raising inflation expectations. Research on monetary policy offers many solutions to this problem. One solution is to appoint central bankers who dislike inflation more than the typical person, perhaps because they come from a class with anti-inflation leanings.[191] When the public knows such a person is appointed, the central banker's professional reputation is staked on achieving low inflation.[192] Lower inflation follows.

Another proposed solution to the credible-commitment problem calls for mechanistic legal rules to limit central-bank discretion, preventing central bankers from succumbing to temptations to tolerate higher inflation.[193] These solutions depend on the availability of judicial enforcement—the simplest source of credible commitment by any agency.[194] In the Fed's case, the standing doctrine undermines this approach,[195] although this has not been discussed in the economics literature. If no one can sue the Fed over monetary policy, then even a strict monetary-policy rule enacted by Congress (such as the fixed annual monetary-growth rule favored by Milton Friedman[196]) could not be enforced.

A third possible solution to the credibility problem presented itself during the 1980s and 1990s. In this era, inflation expectations fell dramatically throughout the industrialized world. Theorists supporting the two solutions above have claimed vindication from this "Great Moderation"—Fed Chair Paul Volcker really was more anti-inflationary

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190. For a review of this effect, see Allan Drazen, *The Political Business Cycle After 25 years*, 14 NBER MACROECONOMICS ANN. 75, 80-81 (2000). For the mechanisms of insulation, formal and informal, that separate the Fed from Congress and the President, see CONTI-BROWN, *supra* note 15, at 179-217.

191. Kenneth Rogoff, *The Optimal Degree of Commitment to an Intermediate Monetary Target*, 100 Q. J. ECON. 1169, 1177-80 (1985).

192. See *supra* Section I.A.2.b for a description of the same phenomenon from an administrative-law perspective.

193. *See, e.g.*, Robert J. Barro & David B. Gordon, *Rules, Discretion and Reputation in a Model of Monetary Policy*, 12 J. MONETARY ECON. 101 (1983) (emphasizing the role of enforceable rules); Carl Walsh, *Optimal Contracts for Central Bankers*. 85 AM. ECON. REV. 150 (1995) (emphasizing the role of well-designed contracts for central bankers).

194. *See supra* Section I.A.

195. *See supra* note 13 and accompanying text.

196. MILTON FRIEDMAN, A PROGRAM FOR MONETARY STABILITY 85-92 (1960).

than the average person, and his FOMC did, for a time, follow basic rules of monetary restraint.[197] But theory did not predict the change in institutional design that had the most important impact: the rise of inflation targeting across the world.[198] In 1989, the New Zealand Parliament passed a law instructing its central bank to target a two-percent inflation rate. This single, specific charge substantially simplified the Reserve Bank of New Zealand's mandate by removing consideration of unemployment entirely.[199] Over time, inflation targeting spread throughout the globe. Today, central banks covering countries as diverse as Australia, Guatemala, and Romania all practice inflation targeting.[200]

Inflation targeting solved the central-bank credibility problem directly. A central banker evaluated exclusively on an inflation target has no incentive to tolerate higher inflation to increase employment, whatever their personal preferences. Their professional reputation depends upon hitting the target. As a result, inflation targeting credibly signals low inflation, reducing inflation expectations. Moreover, it does so without commanding the central bank to follow a rigid rule, which may specify inappropriate actions in unforeseen circumstances. By focusing on outcomes rather than methods, inflation targeting offers an objective and transparent target, which enhances credibility while retaining flexibility as to the instruments to be used in achieving this goal.

B. The Federal Reserve's Adoption of a Two-Percent Inflation Goal in 2012

Before the 2008 financial crisis, the Fed had built up a reputation as an effective inflation-fighting central bank. This reputation came largely from its successes at taming high inflation in the 1970s (at significant cost) and subsequently from preserving low inflation through periods of both increased economic productivity and some mild recessions. This success and the value of this reputation meant that the Fed continued to privilege inflation fighting up through the 2008 crisis, even as evidence mounted that

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197. WILLIAM SILBER, VOLCKER: THE TRIUMPH OF PERSISTENCE 165-89 (2013).

198. On isomorphism in institutional design, see generally Jens Beckert, *Institutional Isomorphism Revisited: Convergence and Divergence in Institutional Change*, 28 SOC. THEORY 150 (2010).

199. Canada adopted an inflation target shortly thereafter. For a discussion of Canada's inflation targeting regime, see YAIR LISTOKIN, LAW AND MACROECONOMICS: LEGAL REMEDIES TO RECESSIONS 84 (2019).

200. *See* Sarwat Jahan, *Inflation Targeting: Holding the Line*, 2018 FIN. & DEVELOPMENT: BACK TO BASICS 72, 72-73, https://www.imf.org/external/pubs/ft/fandd/basics/target.htm [https://perma.cc/BEC8-JRYU].

the crisis was leading to a major recession—a focus that former Fed Chair Ben Bernanke now regards as one of his biggest errors in office.[201]

The Fed had built this reputation, however, without ever explicitly endorsing a numerical inflation target. This changed in 2012. In that year, the FOMC issued a press release that specified its "longer-run goals and policy strategy" and announced a "goal" for inflation of two percent.[202] The announcement—the first time the FOMC publicly stated a quantitative interpretation of its statutory mandate—"mark[ed] a truly momentous occasion in the history of the FOMC . . . and a notable step in the history of central banking."[203] The Statement, with very slight amendments, was reaffirmed repeatedly by the FOMC from 2012-2019.[204]

The FOMC Statement began by affirming that "[t]he FOMC is firmly committed to fulfilling its statutory mandate from the Congress of promoting maximum employment, stable prices, and moderate long-term interest rates."[205] The press release then refined the FOMC's interpretation of the dual mandate. It announced a long-run goal for inflation but not unemployment, despite significant debates about a numerical target for unemployment as well.[206] A subsequent press release

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201. For a summary of the critique that the Fed has kept monetary policy too tight for over a decade, see David Beckworth, *Trump Has the Monetary-Policy Blues*, NAT'L REV. (Apr. 29, 2019), https://www.nationalreview.com/2019/04/federal-reserve-monetary-policy-trump-administration/ [https://perma.cc/96AU-QJHW]. For Bernanke's admission of error, see BEN S. BERNANKE, COURAGE TO ACT: A MEMOIR OF CRISIS AND ITS AFTERMATH 280 (2016).

202. Transcript of Jan. 24-25, *supra* note 18, at 42, 46; *see* Press Release, Bd. of Governors of the Fed. Reserve Sys., Federal Reserve Issues FOMC Statement of Longer-Run Goals and Policy Strategy (Jan. 25, 2012), https://www.federalreserve.gov/newsevents/pressreleases/monetary20120125c.htm [https://perma.cc/FSR4-US5C].

203. Transcript of Jan. 24-25, *supra* note 18, at 45 (comments of Janet Yellen).

204. For the most recent reaffirmation of the Statement, see BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, *supra* note 173. The Fed explained in June 2020 that "[t]he Committee did not reaffirm this statement in January 2020 in light of its ongoing review of its monetary policy strategy, tools, and communications practices. This statement is a reprint of the statement affirmed in January 2019." See BD. OF GOVERNORS OF THE FED. RESERVE SYS., MONETARY POLICY REPORT—JUNE 2020 (June 15, 2020), https://www.federalreserve.gov/monetarypolicy/2020-06-mpr-summary.htm [https://perma.cc/G7KV-E8FJ].

205. Press Release, Bd. of Governors of the Fed. Reserve Sys., Federal Reserve Issues FOMC Statement of Longer-Run Goals and Policy Strategy (Jan. 25, 2012), https://www.federalreserve.gov/newsevents/pressreleases/monetary20120125c.htm [https://perma.cc/FSR4-US5C].

206. This is not to say that the FOMC ceased caring about unemployment when it announced the inflation target. Indeed, after its last meeting of 2012, the FOMC issued a statement committing to relatively loose monetary policy "as long as the unemployment rate remains above 6-1/2 percent." Press Release, Bd. of Governors of the Fed. Reserve Sys., Federal Reserve Issues FOMC Statement (Dec. 12, 2012), https://www.federalreserve.gov/newsevents/pressreleases/monetary20121212a.htm [https://perma.cc/2MGC-8ADS]. This numerical employment target, however, was less salient

briefly explained how this asymmetry might be "most consistent with [the Fed's] dual mandate."[207] No numerical target is "appropriate" for unemployment because the "maximum level of employment is largely determined by nonmonetary factors that affect the structure and dynamic of the labor market" and thus does not lend itself to a "fixed goal."[208]

Estimates of "maximum employment" do fluctuate more often than estimates of the optimal inflation rate.[209] Nevertheless, the Fed could have announced its estimate of maximum employment alongside its inflation target and updated the employment target annually. By announcing a numerical goal for inflation but not employment in the FOMC Statement, the Fed fostered differential accountability. While an inflation rate well above or below the Fed's target provides clear evidence of policy failure, failure to achieve maximum employment is much less salient.

The FOMC's Statement provided little guidance for how the Fed would address conflicts between its two-percent inflation goal and its less-defined mandate to maximize employment. Instead, the Statement asserted that these objectives "are generally complementary."[210] As we will see below, however, this assertion is problematic. During periods of very low interest rates—conditions that prevailed during 2012—many observers believe there is a long-run tradeoff between inflation and unemployment. The FOMC Statement of 2019 hardly discussed this possibility, stating merely that "under circumstances in which the Committee judges that the

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than the two-percent inflation target along several dimensions. First, it was announced in an ordinary FOMC post-meeting statement rather than via a "long run statement of monetary policy goals." Second, the employment target was explicitly conditioned by inflation. The FOMC's commitment to loose monetary policy would end, even if unemployment exceeded 6.5%, if "inflation between one and two years ahead is projected to be no more than a half percentage point above the [C]ommittee's two-percent longer-run goal, and longer-term inflation expectations continue to be well anchored." *Id.* This rule, known as the Evans Rule, thus confirmed the Fed's prioritization of inflation over employment. If the pursuit of lower employment threatened even a slight (0.5%) deviation from its inflation target, the Fed signaled it would then stop its expansive monetary policy.

207. *Id.*

208. Press Release, Bd. of Governors of the Fed. Reserve Sys., Federal Reserve Issues FOMC Statement of Longer-Run Goals and Policy Strategy (Jan. 25, 2012), https://www.federalreserve.gov/newsevents/pressreleases/monetary20120125c.htm [https://perma.cc/FSR4-US5C]; *cf.* Review of Monetary Policy Tools, Strategies, and Communications, *supra* note 22 (showing that the quotation was deleted from the August 2020 Statement).

209. *Longer Run FOMC Summary of Economic Projections for the Civilian Unemployment Rate, Central Tendency, Midpoint*, FED. RESERVE BANK ST. LOUIS (2020), https://fred.stlouisfed.org/series/UNRATECTMLR [https://perma.cc/7NHK-2MDS] (showing the Fed's estimate of the lowest sustainable unemployment rate shifting from 5.6% in 2012 to 4.1% in late 2019).

210. BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, *supra* note 173.

objectives are not complementary, it follows a balanced approach in promoting them."[211]

Although the FOMC's Statement reaffirmed the Fed's commitment to its dual mandate, minimizing the tension between its inflation goal and its employment objective caused many to misinterpret the Fed's announcement to mean it was now targeting inflation as its primary goal. Headlines read, "In Historic Shift, Fed Sets Inflation Target,"[212] and asked "why the Fed targets [two-percent] inflation."[213] Indeed, the FOMC's internal communication themselves reflected this ambiguity. One member of the FOMC described the announcement as a "textbook statement on what flexible inflation targeting is."[214]

1. Signaling and the Federal Reserve's 2012 Announcement of an Inflation Goal

The FOMC's press release interpreting its statutory mandate to include a two-percent inflation target is best understood as a guidance document—an announcement of a plan that is not legally enforceable against the agency but may nonetheless powerfully shape the agency's behavior and other parties' expectations.[215] It is instructive to analyze that document, and its drafting process, under the two theoretical frames highlighted in this Article: credible signaling and diversity of inputs.

Although the Fed's two-percent inflation target created no legal obligations, its mere transparency did enhance the Fed's credibility as an inflation fighter. The target is both public and objective, meaning everyone can tell if the Fed misses. This means the Fed and its leaders are staking some of their reputational capital on hitting it, raising the public's confidence that they will try hard to do so.

Indeed, the FOMC's formal announcement of the two-percent goal was explicitly about signaling. As Fed Chair Ben Bernanke said to the FOMC on the eve of the announcement, "What [the announcement] is

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211. Review of Monetary Policy Tools, Strategies, and Communications*, supra* note 22 (showing that a portion of this quotation was deleted from the August 2020 Statement).

212. Jonathan Spicer, *In Historic Shift, Fed Sets Inflation Target*, REUTERS, (Jan. 26, 2012), https://www.reuters.com/article/us-usa-fed-inflation-target/in-historic-shift-fed-sets-inflation-target-idUSTRE80O25C20120126 [https://perma.cc/LD78-NUL3].

213. *Why the Fed Targets 2% Inflation*, ECONOMIST, (Sept. 13, 2015), https://www.economist.com/the-economist-explains/2015/09/13/why-the-fed-targets-2-inflation [https://perma.cc/S9V5-Z2BV].

214. Transcript of Jan. 24-25, *supra* note 18, at 49 (comments of Jim Bullard).

215. Because the inflation-target document does not contain hard mandatory language committing the Fed to particular actions (and instead states a "goal" to be pursued), it probably would not be considered a legislative rule. Even if it were, it is unlikely anyone has standing to sue regarding open-market operations.

trying to do is increase our transparency and our accountability by making our communication clearer to the public. There is a lot of evidence that communication and transparency are valuable to monetary policy in the long term."[216]

In addition to the reputational threat of missing its inflation goal, formally announcing its two-percent goal made it harder for the Fed to change its goal opportunistically shortly thereafter. As then-Vice Chair Janet Yellen explained to the FOMC, the announcement of a two-percent goal meant the following:

> "[A]ll of us will have the same 2 percent inflation goal in mind when we have those discussions around the FOMC table, and on occasions where inflation deviates from that goal, the public will clearly understand our intention to bring inflation back to that goal over time, rather than wondering whether the Committee might allow inflation to drive upward indefinitely, as occurred in the 1970s."[217]

The Fed's announcement of a two-percent goal, therefore, demonstrates how transparency can enhance the signaling value of central-bank decisions.[218] Based on this outcome alone, the Fed's administrative-law procedures might, at first glance, seem successful. Unfortunately, however, the law-like nature of the 2012 announcement was preceded by almost no process. This weakened the announcement's credibility and made the Fed susceptible to factual and predictive mistakes arising from groupthink.

2. Process and Credibility

Ironically, the FOMC's 2012 embrace of transparency surrounding its objectives excluded transparency about its process for developing and changing the two-percent inflation goal. The FOMC Statement says essentially nothing about these procedural considerations. The two-percent goal itself comes from the FOMC's "judgment," without further elaboration.[219] As for reconsidering the two-percent figure, the Statement

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216. Transcript of Jan. 24-25, *supra* note 18, at 43 (comments of Ben Bernanke).

217. *Id.* at 46 (comments of Janet Yellen).

218. The average inflation target of two percent adopted by the Fed in 2020, *see supra* note 173 and accompanying text, makes evaluating the Fed's performance more difficult. With an annual inflation target, the Fed, or any other central bank, can be evaluated at the end of each year. With an average inflation target, by contrast, failing to hit the target in one year can be compensated for by missing the target in the other direction in subsequent years. Without an explicit timeframe for the averaging, the average inflation target complicates the evaluation of the Fed's success in meeting its inflation targets.

219. *See* BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, *supra* note 173.

explains only that "[t]he Committee intends to review [the two-percent inflation target] and to make adjustments as appropriate at its annual organizational meeting each January."[220] This is a remarkably open-ended account of how to amend a "constitution" of monetary policy. The inflation target is highly transparent but derived from an opaque process.

This secrecy about process partially undermines the credibility gained from announcing the target. If the two-percent goal can be changed easily, then workers, businesses, and investors have less reason to trust the FOMC's commitment than if the FOMC adopted a formal reconsideration process. In fact, in confidential internal deliberations, FOMC members contemplated a "high bar for such adjustments [to the formal two-percent inflation goal] roughly similar to making an amendment to a constitution."[221] Yet the FOMC did not explain what this "high bar" was, or how it would think through adjustments. It was silent on the policy tradeoffs, value judgments, and other discussions that would point toward that reevaluation.

The tension between the Fed's dual mandate and an inflation target's prioritization of price stability over maximizing employment also undermines the announcement's credibility gains. Downplaying the possibility of conflict between the inflation target and employment maximization made the Fed's commitment less transparent. And expansive agency interpretations like the Fed's (which privileged one part of the dual mandate relative to the other), even if defensible, inevitably enjoy less long-term credibility than others, regardless of the prospect for judicial review.

C. Intellectual Homogeneity and Groupthink at the Fed

A major reason for the procedural errors surrounding the inflation target is the Fed's susceptibility to groupthink. To appreciate why, it is important to see that monetary policy has a peculiar political environment, surprisingly free from lobbying by concentrated economic interest groups. An owner of capital may have conflicting interests about inflation—it makes the economy run hotter but reduces the value of debt.[222] Organized labor's consistent opposition to tight monetary policy has become less important as labor's influence has faced a secular decline.[223] Banks and

220. *Id.*

221. Transcript of Jan. 24-25, *supra* note 18, at 47 (comments of Janet Yellen).

222. To appoint a central banker with a credible dislike of inflation, it is therefore necessary to choose a person with a background in *credit* finance rather than equity finance. *See supra* note 191 and accompanying text.

223. For a graphic illustration of the decline in unionization, see Quoctrong Bui, *50 Years of Shrinking Union Membership, In One Map*, NAT'L PUB. RADIO (Feb. 23, 2015),

mutual funds might have some stake in lowering inflation, but they care much more about the direct regulation of their businesses. And the worst aspect of inflation—the risk of *hyper*inflation—is like accidental nuclear war: it would be disastrous for everyone, but nobody has a *concentrated* interest in preventing it.

As a result, Fed leaders, when conducting monetary policy, have historically interacted mainly with a narrow, technocratic community. This group includes agency staff, conventional macroeconomists, and officials of foreign central banks and international organizations, like the International Monetary Fund and Bank for International Settlements, in Basel, Switzerland. Though elite and multinational, this community is small and club-like, putting the Fed at risk of groupthink.

This insularity begins with education and personal relationships. Many prominent central bankers obtained Ph.Ds. in macroeconomics at elite universities. Indeed, many of them, including Ben Bernanke (former Chair at the Fed) and Mario Draghi (former head of the ECB), among others, shared the same dissertation adviser at MIT—Stanley Fischer, who is himself a prominent central banker as both the Governor of the Bank of Israel and later Vice Chair of the Fed's Board of Governors.[224] Central bankers and their research staffers meet multiple times a year to discuss the latest developments and trends in macroeconomics. In addition to talking shop, central bankers often form close professional friendships as a result of their frequent meetings.[225]

Epistemically, mainstream macroeconomics provides the frame for monetary policy at central banks worldwide, including the Fed. (A vast academic literature examines inflation targeting, for example.[226]) Conventional macroeconomics uses a standard set of tools, dynamic stochastic general equilibrium (DSGE) models, which attempt to derive macroeconomic phenomena from equations specifying the behavior of individual consumers and firms.[227] Even though there are other

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https://www.npr.org/sections/money/2015/02/23/385843576/50-years-of-shrinking-union-membership-in-one-map [https://perma.cc/7MZS-QQTW].

224. *See* Jon Hilsenrath, *MIT Forged Activist Views of Central Bank Role and Cinched Central Banker'' Ties*, WALL ST. J. (December 11, 2012), https://www.wsj.com/articles/SB10001424127887323316804578161324169068746 [https://perma.cc/FST4-HXLQ].

225. *See* Annelise Riles, *The Secret Lives of Central Bankers*, N.Y. TIMES (Oct. 20, 2018), https://www.nytimes.com/2018/10/20/opinion/sunday/fed-central-banks.html [https://perma.cc/MYH9-P9M4].

226. For a review of this literature, see generally THE INFLATION-TARGETING DEBATE (Ben S. Bernanke & Michael Woodford eds., 2007).

227. *See* Olivier Blanchard, *Do DSGE Models Have a Future?*, PETERSON INST. INT'L ECON. 16-11 (Aug. 2016), https://www.piie.com/publications/policy-briefs/do-dsge-models-have-future [https://perma.cc/22JA-4RYG] (discussing the dominance of DSGE modeling within

"heterodox" schools of academic macroeconomics and monetary policy, such as the post-Keynesian and Austrian traditions,[228] these schools do not use the modeling conventions of mainstream macroeconomics. They are therefore excluded from the bastions of the mainstream such as the National Bureau of Economic Research (NBER) and the Fed.

Conventional mainstream macroeconomics has proven unreliable in its factual and predictive judgments. For one thing, conventional macroeconomics has taken little account of the risk of financial crisis and counseled against using monetary policy to address asset bubbles.[229] Accordingly, as sociologist Neil Fligstein and coauthors show through an analysis of FOMC transcripts, the Committee's preoccupation with macroeconomics (to the near exclusion of thinking about finance and banking) prevented it from seeing the impending financial collapse and its consequences for the economy as late as mid-September 2008. A few FOMC members who happened to specialize in finance and banking expressed a far better sense of the looming risk, but those members were peripheral to the Committee's discussions.[230]

More generally, conventional macroeconomics, and the institutions that embrace it, rely upon a narrow and stylized set of models, which some of the worldwide central-banking community's top insiders (though not Fed officials) now see as dangerous. The IMF's Independent Evaluation Office in 2011 attributed the IMF's failure during the crisis partly to "groupthink," including a collective failure to link macroeconomics with financial-sector analysis.[231] The OECD since 2012 has started a New Approaches to Economic Problems initiative built around "pluralism" and

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mainstream economics); Clay Halton, *Mainstream Economics*, INVESTOPEDIA https://www.investopedia.com/terms/m/mainstream-economics.asp [https://perma.cc/72PA-RQJJ].

228. *See* Peter Boettke, *Is Austrian Economics Heterodox Economics?*, COORDINATION PROBLEM (May 21, 2008), https://austrianeconomists.typepad.com/weblog/2008/05/is-austrian-eco.html [https://perma.cc/H8JL-5DNY]; Halton, *supra* note 227.

229. *See, e.g.*, Ben S. Bernanke, Chairman, Bd. of Governors of the Fed. Reserve Sys., Speech Before the New York Chapter of the National Association for Business Economics: Asset Price Bubbles and Monetary Policy 1 (Oct. 15, 2002), https://www.bis.org/review/r021018e.pdf [https://perma.cc/W3DC-YRK3] (arguing that "as a general rule, the Fed will do best by focusing its monetary policy instruments on achieving its macro goals—price stability and maximum sustainable employment—while using its regulatory, supervisory, and lender-of-last-resort powers to help ensure financial stability").

230. Neil Fligstein, Jonah Stuart Brundage, & Michael Schultz, *Seeing Like the Fed: Culture, Cognition, and Framing in the Failure to Anticipate the Financial Crisis of 2008*, 82 AM. SOC. REV. 879, 881, 900, 903 (2017); *see also* GILLIAN TETT, THE SILO EFFECT: THE PERIL OF EXPERTISE AND THE PROMISE OF BREAKING DOWN BARRIERS 107-35 (2015).

231. Indep. Evaluation Office of the Int'l Monetary Fund, *IMF Performance in the Run-Up to the Financial and Economic Crisis: IMF Surveillance 2004-07*, ORG. ECON. CO-OPERATION & DEV. 17 (2011), https://www.oecd.org/derec/imf/48154717.pdf [https://perma.cc/2N2S-GL6A].

aiming, in the words of its Secretary General, "to revisit models and theories to question conventional wisdoms and 'established truths.'"[232]

Andrew Haldane, the chief economist of the Bank of England, has said the DSGE models that dominate macroeconomics amount to an intellectual "mono-culture."[233] Haldane says "these models said nothing about the probability of a serious crisis arising endogenously at any time, or about the downstream consequences for the economy of a crisis once it had struck." [234] "A single model framework," warns Haldane, "is unlikely to best serve the needs of macroeconomists in every state of nature"; "it is likely that a patchwork of models will be more resilient than a single methodology."[235] He further notes that in "forecasting, there is evidence that combining two or more models leads to greater predictive power than using one model alone."[236] He explains that a "'zoo of models' approach has . . . been adopted at the Bank of England" and advocates for modeling inspired partly by physics and ecology.[237] Paul Romer, who won the Nobel Prize in 2018 for his work in macroeconomics, wrote in 2016 that macroeconomics had suffered a "regression into pseudoscience."[238] He compared macroeconomics to string theory in particle physics, with its "unusually monolithic community," its "strong sense of the boundary between the group and other experts," and its "disregard for and disinterest in ideas, opinions, and work of experts who are not part of the group."[239]

Intellectual monocultures intolerant of gadflies raise the risk of hubris. And academic macroeconomics before the Great Recession displayed remarkable hubris. In his presidential address to the American Economic Association in 2003—four years before the Great Recession—Robert Lucas asserted that the "central problem of depression prevention has been solved, for all practical purposes, and has in fact been solved for many decades."[240] Such absolute confidence is more likely to arise in a field with a single, hegemonic paradigm than ones applying heterodox methods.

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232. Lucie Cerna & William Hynes, *A Pluralistic Approach to Public Policy: The Case of the OECD's New Approaches to Economic Challenges Initiative*, 9 INT'L J. PLURALISM & ECON. EDUC. 376, 378, 382 (2018).

233. A.G. Haldane & A.E. Turrell, *An Interdisciplinary Model for Macroeconomics*, 34 OXFORD REV. ECON. POL'Y 219, 229 (2018).

234. *Id.* at 229.

235. *Id.*

236. *Id.*

237. *Id.*

238. Paul Romer, *The Trouble with Macroeconomics*, N.Y.U. STERN SCH. BUS. 20 (Sept. 14, 2016), https://paulromer.net/trouble-with-macroeconomics-update/WP-Trouble.pdf [https://perma.cc/854A-DYVW].

239. *Id.* at 15.

240. Robert E. Lucas, *Macroeconomic Priorities*, 93 AM. ECON. REV. 1, 1 (2003).

In total, many pieces of evidence suggest that reliance on mainstream macroeconomics leaves the Fed exposed to the risks of groupthink.

As for inflation targeting specifically, its rapid diffusion across countries, along with the target of two percent, provides further evidence of intellectual homogeneity and a dearth of institutionalized skepticism. For idiosyncratic reasons, the two-percent inflation target has become "global economic gospel."[241] After New Zealand adopted the first inflation target in 1990, choosing a "figure [that] was plucked out of the air"—two percent—it succeeded in taming inflation.[242] The central banks following New Zealand simply copied New Zealand's somewhat arbitrary target of two percent. Today, about 40 countries explicitly target inflation (though not all target two percent) as their primary central-bank objective and are often encouraged to do so by outside experts such as the IMF.[243]

What explains this rapid spread? It cannot simply be inflation targeting's success at taming inflation. Many central banks succeeded in controlling inflation during the 1990s and 2000s, regardless of their adoption of an inflation target. Instead, inflation targeting's success was intellectual. Inflation targeting offered a clear anchor for inflation expectations, solving the credibility problem of central bankers without unduly constraining central-bank operations. Since fashionable ideas diffuse quickly through the tight network of central banking, the two-percent inflation target's rapid spread is perhaps unsurprising. As one Nobel Prize winner in economics described, "[A]s it was widely adopted, the 2 percent [inflation] target also, of course, acquired the great advantage of conventionality: central bankers couldn't easily be accused of acting irresponsibly when they had the same inflation target as everyone else."[244]

Two-percent inflation targeting's grip was so tight that even central banks with legislatively mandated goals *in tension with* inflation targeting tried to "fit in," at least in part. Consider the FOMC's Statement described above. The Fed's gestures toward a two-percent inflation target demonstrate the power of two-percent norm within the central-banking community. The Fed came as close to adopting a two-percent inflation target as its dual mandate allowed, a path likely facilitated by its desire to follow central-banking orthodoxy. Alternative views—and they abound—

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241. Neil Irwin, *Of Kiwis and Currencies: How a 2% Inflation Target Became Global Economic Gospel*, N.Y. TIMES (Dec. 19, 2014), https://www.nytimes.com/2014/12/21/upshot/of-kiwis-and-currencies-how-a-2-inflation-target-became-global-economic-gospel.html [https://perma.cc/9R66-ADR5].

242. *Id.*

243. *See* Jahan, *supra* note 200, at 1-2.

244. Paul Krugman, *Inflation Targets Reconsidered*, ECB F. CENT. BANKING 1 (May 26, 2014), https://www.ecb.europa.eu/pub/conferences/ecbforum/shared/pdf/2014/52rugman_paper.pdf [https://perma.cc/AU3S-3ZW2].

could have made the decision to pursue an inflation target at all, never mind setting it at two percent, a much sounder one.

D. The Flawed Economics of a Two-Percent Inflation Target When Interest Rates Are Constrained by the Zero Lower Bound

The timing of the FOMC's public adoption of a two-percent inflation goal is peculiar on the intellectual merits and suggestive of groupthink. The superiority of inflation targeting as a goal for central banks relies on the assumption that there is no long-run tradeoff between inflation and employment. If this proposition, sometimes called the "divine coincidence,"[245] is true, then inflation targeting, it is argued, "delivers the best unemployment rate policy can deliver."[246]

Unfortunately, the divine coincidence was never a well-established empirical reality but rather a "special feature" of "standard" DSGE macroeconomic models (hence the tongue-in-cheek term "divine coincidence").[247] In a field as monolithic as macroeconomics, however, DSGE modeling conventions assumed a powerful role. The divine coincidence's prevalence was problematic because it took for granted contingent macroeconomic conditions that happened to hold true before the Great Recession. Before 2008, with interest rates well above zero, central banks enjoyed considerable scope for adjusting interest rates to fine-tune the economy regardless of the inflation target. Targeting inflation therefore seemed to produce both good employment outcomes and low, stable inflation.

The divine-coincidence framework, however, ignores the "zero lower bound" on nominal interest rates.[248] Nominal interest rates measure the

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245. *See* Olivier Blanchard & Jordi Galí, *Real Wage Rigidities and the New Keynesian Model*, 39 J. MONEY, CREDIT & BANKING 35, 39 (2007) (explaining that "the standard new Keynesian framework implies no such trade-off. In that framework, stabilizing inflation is equivalent to stabilizing the welfare-relevant output gap. In this paper, we argue that this property of the new Keynesian framework, which we call the divine coincidence . . . .").

246. *See* Olivier Blanchard, *The US Phillips Curve: Back to the 60s?*, PETERSEN INST. INT'L ECON. 1 (Jan. 2016), https://www.piie.com/publications/pb/pb16-1.pdf [https://perma.cc/3EMC-CZ2D].

247. *See* Olivier Blanchard, *Distortions in Macroeconomics*, 32 NBER MACROECONOMICS ANN. 547, 549 (2018); Blanchard & Galí, *supra* note 245, at 35.

248. There is no technological barrier to nominal interest rates falling below zero. If it is more convenient to hold an account with a negative return rather than an asset (such as cash) with a fixed zero nominal return, then some savers will accept a negative nominal return. In these conditions, assets can have a negative nominal return equal to their convenience value. Because this convenience value is limited, assets cannot have a significantly negative nominal return. Because of this condition, some observers refer to an "effective lower bound" on interest rates, rather than a "zero lower bound". We prefer to use the term zero lower bound as an effective approximation. For a description of negative interest rates, see Ruchir Agarwal & Miles Kimball,

return of an asset in currency terms, unadjusted for the inflation of prices of over time, while real rates of interest measure the return of an asset in purchasing-power terms. Nominal interest rates in general cannot go below zero percent because there are some assets (for example, cash, gift cards, and tax prepayments) that always offer a positive nominal return. The zero lower bound on nominal interest rates means that central bankers cannot lower interest rates indefinitely. If the nominal interest rate hits zero but the economy is still stuck in recession, then central bankers cannot easily stimulate the economy. Long recessions with high unemployment follow.

The choice of an inflation target affects the risk of hitting the zero lower bound. A higher inflation target (and higher expected inflation) raises the typical nominal interest rate, as savers demand a higher nominal interest return to compensate for higher expected inflation. As a result, a higher inflation target reduces the risk of nominal interest rates being constrained by the zero lower bound. And having fewer recessions with monetary-policy stimulus constrained by the zero lower bound results in higher overall employment. If a higher inflation target means higher average employment when nominal rates are near zero, then the divine coincidence fails; there is a tradeoff between expected inflation and employment.[249]

In January 2012, when the Fed formally adopted its two-percent inflation goal, the U.S. short-term nominal interest rate equaled zero. The policy case for the two-percent target, therefore, was weaker when the Fed adopted the two-percent goal than when other central banks did in the 1990s. Events since 2008 put the divine-coincidence model underpinning inflation targeting on much weaker ground in 2012 than before the Great Recession. This is not merely hindsight speaking. In 2010—well before the Fed announced its two-percent inflation goal—the chief economist of the IMF broke from central banking orthodoxy to ask "[h]ow [l]ow [s]hould the [i]nflation [t]arget [b]e?" in response to the Great Recession's evidence that the zero lower bound constrained macroeconomic policy.[250] Many

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Enabling Deep Negative Interest Rates to Fight Recessions: A Guide 5-9 (Int'l Monetary Fund, Working Paper No. 19/84, 2019), https://www.imf.org/en/Publications/WP/Issues/2019/04/29/Enabling-Deep-Negative-Rates-A-Guide-46598 [https://perma.cc/D9UY-XZR9].

249. *See* Simon Wren-Lewis, *The Divine Coincidence in a Parallel Universe*, MAINLY MACRO (Feb. 8, 2015), https://mainlymacro.blogspot.com/2015/02/the-divine-coincidence-in-parallel.html#:~:text=The%20Divine%20Coincidence%20in%20a%20parallel%20universe%20The,point%20in%20another%20%28and%20perhaps%20more%20effective%29%20way. [https://perma.cc/AM2L-3EJZ].

250. See Olivier Blanchard, Giovanni Dell'Ariccia & Paolo Mauro, *Rethinking Macroeconomic Policy*, 42 J. MONEY, CREDIT & BANKING SUPP. 199, 207 (2010).

other once-fringe ideas about central-bank targets, such as nominal GDP targeting, also rose in prominence during this period for the same reason.[251] The FOMC's announcement, however, betrays no hint of this intellectual ferment.[252]

E. The Possibly Flawed Economics of Inflation Targeting Outside of the Zero Lower Bound

Beginning in December 2015, U.S short-term interest rates targeted by the Federal Reserve started to exceed zero percent for the first time since 2008. Even in these circumstances, however, the Fed's two-percent inflation targeting did not fare well. First, inflation consistently fell slightly below two percent during this period, even though the economy grew robustly.[253] More importantly, the Fed's predictions for maximum employment during this period were inaccurate. The Fed consistently predicted that inflation would rise when unemployment fell below a certain rate. But the unemployment rate kept falling below these estimates without causing inflation, suggesting flaws in the models underlying the Fed's inflation goal. These flaws were highlighted by a remarkable admission by Fed Chair Jerome Powell in response to questions from Congresswoman Alexandria Ocasio-Cortez.

> Ocasio-Cortez: In early 2014, the Federal Reserve believed that the long run unemployment rate was around 5.4 percent. In early 2018, it [w]as estimated that this was now lower, around 4.5 percent. Now, the estimate is around 4.2 percent. What is the current unemployment rate today?
>
> Powell: 3.7 percent.
>
> Ocasio-Cortez: 3.7 percent . . . Unemployment has fallen about three full points since 2014 but inflation is no higher today than it was five years ago. Given these facts, do you think it's possible that the Fed's estimates of the lowest sustainable unemployment rate may have been too high?

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251. *See* Free Exchange, *Understanding NGDP Targeting,* ECONOMIST (Oct. 25, 2011), https://www.economist.com/free-exchange/2011/10/25/understanding-ngdp-targeting [https://perma.cc/59ZH-QQQU].

252. At best, an average inflation target of two percent raises long-term inflation expectations slightly from an annual inflation target of two percent (because the central bank now pursues catch-up inflation in excess of two percent annually if inflation has fallen short of its target in earlier years). The difference is marginal, however.

253. *See* Ann Saphir, *Muted Inflation One More Reason for Fed's Patience: Daly,* REUTERS, (Mar. 26, 2019, 3:13 PM), https://uk.reuters.com/article/us-usa-fed-daly/fed-is-falling-short-on-inflation-goal-u-s-central-banker-warns-idUKKCN1R72FL [https://perma.cc/63XU-Z242].

Powell: Absolutely.[254]

If the Fed kept monetary policy inappropriately tight from 2016-2019 in a flawed effort to keep inflation at the two-percent goal, as this dialogue suggests, then this target needs rethinking. Moreover, the failure of the Fed's models, which justify its inflation target, points to legal tension between the Fed's statutory dual mandate and its inflation goal. Recall that Congress commanded the Fed to pursue maximum employment as well as stable prices.[255] The FOMC Statement justified an inflation target by asserting that the two "objectives are generally complementary."[256] But recent history disputes that assertion. The Fed has performed acceptably from an inflation-targeting standpoint—only narrowly undershooting the two-percent target. It has performed poorly, however, from a maximum-employment perspective. It has overestimated the "maximum unemployment rate consistent with stable inflation" by an average of more than a percentage point—over twenty-five percent of that rate's value—over the last five years. Targeting two-percent inflation thus did not complement maximum employment.[257] Indeed, it likely led the Fed to tolerate unnecessarily low employment. As a result, the FOMC's goal may no longer be consistent with the dual mandate.

F. Rethinking the Two-Percent Inflation Goal: Opening up the Process

To its credit, the Fed has recognized the need to adjust its approach. In 2019, it announced it was "[e]mbark[ing] on a [r]ethink of [i]ts [i]nflation [t]arget" to help it "confront[] the constraints that come with interest rates that are still historically low."[258] As Chair Powell said, "my colleagues and I on the FOMC are undertaking a year-long review of the Federal Reserve's monetary policy strategy, tools, and communication practices."[259] But the Fed's real commitment to open-mindedness was

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254. Eric Levitz, *AOC is Making Monetary Policy Cool and Political Again*, N.Y. MAG. (July 10, 2019), http://nymag.com/intelligencer/2019/07/aoc-is-making-monetary-policy-cool-and-political-again.html [https://perma.cc/AE6A-SF5B].

255. 12 U.S.C. § 225A (2018).

256. BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, *supra* note 173.

257. The August 2020 revision of the Fed's goals to embrace average inflation targeting may offer an improvement on this dimension. If the Fed falls short of its inflation target in the future, it can allow the economy to run hotter subsequently, enabling higher employment.

258. Nick Timiraos, *Fed Embarks on a Rethink of Its Inflation Target*, WALL ST. J. (Feb. 24, 2019, 9:00 AM EST), https://www.wsj.com/articles/fed-embarks-on-a-rethink-of-its-inflation-target-11551016801 [https://perma.cc/K5GD-XR9L].

259. Jerome Powell, Chairman, Bd. of Governors of the Fed. Reserve Sys., Speech Before the Stanford Institute of Economic Policy Research: Monetary Policy: Normalization and

unclear. Powell added, "[c]onsistent with the experience of other central banks with these reviews, the process is more likely to produce evolution rather than revolution. We seek no changes in law and we are not considering fundamental changes in the structure of the Fed, or in the 2 percent inflation objective."[260] The leader's articulation of an expected outcome before the decision-making process begins is a classic cause of groupthink.

The Fed's rethink culminated in the announcement of an average inflation target of two percent in a revised Statement in August 2020. The revised Statement explained that the FOMC now "seeks to achieve inflation that averages [two] percent over time, and therefore judges that, following periods when inflation has been running persistently below [two] percent, appropriate monetary policy will likely aim to achieve inflation moderately above [two] percent for some time."[261] The revised Statement did not define the time horizon over which the Fed will seek to bring average inflation to two percent if it has deviated from this number.[262] The Statement therefore allows for a wide range of possible policies. Before this revision, by contrast, the Fed let inflation "bygones be bygones" and did not allow past failures to hit two-percent inflation to affect its inflation target moving forward. The Statement (like its 2012 predecessor) ran to only a single page, with no further explanation nor any express engagement with any interlocutors—though the Statement did anticipate that the Fed will "undertake roughly every [five] years a thorough public review of its monetary policy strategy, tools, and communication practices."[263]

The Fed's process for producing the 2020 Statement indicates that the agency has begun to see that it needs a more open process for developing policies like the inflation target. As Powell explained in starting the review in 2019, it would "involve a series of 'Fed Listens' events around the country," including "town-hall-style meetings and a conference where academic and nonacademic experts will share their views."[264] This was

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the Road Ahead (Mar. 8, 2019), https://www.federalreserve.gov/newsevents/speech/powell20190308a.htm [https://perma.cc/EYZ9-ZSL4].

260. *Id.*

261. BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, *supra* note 173.

262. *See The Fed's New Framework*, U.S. ECONOMICS ANALYST (Goldman Sachs, New York, N.Y.), Aug. 30, 2020, https://www.gspublishing.com/content/research/en/reports/2020/08/31/85cbfe5b-08da-4124-b48e-9851529a64e6.html [https://perma.cc/K8P7-S2DN].

263. BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, *supra* note 173.

264. Powell, *supra* note 259.

unprecedented—"the first time the Fed has opened itself up in this way."[265] In addition, two of the New York Fed's outside academic advisory committees have discussed inflation targeting in the last two years; for each committee, the discussion took up one part of one of its semiannual meetings.[266]

But the Fed must go further in opening its process to outside input if it is to overcome groupthink's risks. The Fed would make better decisions about inflation targeting if it took public comment on the matter—as agencies often voluntarily do on guidance documents—and, as either a complement or substitute, took full advantage of advisory-committee input. Such reforms would improve the process by which the Fed contemplates "undertak[ing] … a public review" of its monetary policy strategy every five years, exposing the Fed regularly to outside opinion.[267]

The Fed's 2019 "town-hall-style meetings," cited by Powell, were really a series of twelve conferences, usually a day or half-day each, organized by each of the Reserve Banks and attended by that bank's president and one Fed Governor. They consisted mainly of presentations and discussions with community leaders, business leaders, and a few academics—who were apparently invited by the Reserve Bank—with some time for Q&A with whatever audience showed up.[268] The centerpiece "conference" cited by Powell was a two-day event in Chicago in June 2019 at which seven economists presented papers (with commentators), and economists took part in two panels with speakers including business and labor representatives.[269] In other words, the whole initiative was a series of one-off meetings, where participants were either Fed invitees or others who showed up to ask questions during the limited Q&A.

Public comment taking on inflation targeting—coupled with a reputation-staking promise by the Fed to publish comment responses—

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265. U.S. ECONOMICS ANALYST, *supra* note 262.

266. *Minutes of the Economic Advisory Panel Meeting November 17, 2017*, FED. RESERVE BANK N.Y. (Nov. 17, 2017), https://www.newyorkfed.org/medialibrary/media/research/advisory_panel/eap/eapminutes_nov2017.pdf [https://perma.cc/3JK3-PPPN]; Research & Statistics Grp., *Monetary Policy Advisory Panel: Meeting of March 30, 2018 Minutes*, FED. RESERVE BANK N.Y. (Mar. 30, 2018), https://www.newyorkfed.org/medialibrary/media/research/advisory_panel/mpap/mpap_20180330_minutes.pdf [https://perma.cc/UBQ7-Q537].

267. BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, *supra* note 173.

268. *See Review of Monetary Policy Strategy, Tools, and Communications: Fed Listens*, BOARD GOVERNORS FED. RESERVE SYS. (Aug. 27, 2020), https://www.federalreserve.gov/monetarypolicy/review-of-monetary-policy-strategy-tools-and-communications-fed-listens-events.htm [https://perma.cc/3JN4-N4VT] (displaying links to materials used for the Fed Listens initiative).

269. *Conference on Monetary Policy Strategy, Tools, and Communication Practices (A Fed Listens Event)*, BOARD GOVERNORS FED. RESERVE SYS. (Oct. 3, 2019), https://www.federalreserve.gov/conferences/conference-monetary-policy-strategy-tools-communications-20190605.htm [https://perma.cc/26GD-G8TC].

would be way to test and strengthen the Fed's understanding. Public comment is formally open and impersonal, which means the agency cannot choose its interlocutors, and the promise of a response forces the agency to engage with ideas it did not invite. The written nature of both the comments and the response allows for fully researched debate, as opposed to conferences with arbitrary time limits. The invitation-centered format of "Fed Listens," in short, will not help the Fed transcend conventional macroeconomics paradigms—as urged by the OECD, Haldane, and Romer.

To be sure, the *interest-group representatives* invited to the Fed events came from diverse sectors, and the Fed deserves credit for that, but it is *academics* who are uniquely positioned to influence technocratic officials, coming as they do from the same epistemic community. Unfortunately, the academics invited to "Fed Listens" were not intellectually diverse. All seven of the papers presented at the Chicago conference were authored by economists firmly entrenched in conventional academic macroeconomics, finance, or labor economics. Eleven out of the thirteen co-authors (including at least one co-author of each paper) are members of the National Bureau of Economic Research (NBER), a position that signals mainstream success in academic economics. The conference included no papers by post-Keynesian macroeconomists, a heterodox school of macroeconomics very much outside the mainstream.[270] Nor were any papers written by economists who come from the Austrian tradition, who favor nominal GDP targeting, or who follow other heterodox schools of economics (such as Modern Monetary Theory) that have produced provocative insights about monetary policy.[271] Both the Post-Keynesian and Austrian schools, for

270. Post-Keynesian economics holds that economic output is determined by aggregate demand in both the short and long run. It also holds that government policy is essential for avoiding high unemployment. Adam Aboobaker, Karsten Köhler, Franz Prante & Ruben Tarne, *Post-Keynesian Economics*, EXPLORING ECON. (Dec. 18, 2016), https://www.exploring-economics.org/en/orientation/post-keynesian-economics/ [https://perma.cc/5FCB-S9GZ].

271. The Austrian School of Economics emphasizes the importance of prices in coordinating economic activity and generally recommends laissez faire policy. *See* Friedrun Quaas, *Austrian Economics*, EXPLORING ECON. (Dec. 18, 2016), https://www.exploring-economics.org/en/orientation/austrian-economics/ [https://perma.cc/9ZVJ-3LEJ]. Modern Monetary Theory (MMT) is an outgrowth of the post-Keynesian school. *See* Scott Fullwiler, Stephanie Kelton & L. Randall Wray, *Modern Monetary Theory: A Response to Critics*, SSRN (Jan. 15, 2012), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2008542 [https://perma.cc/P3SF-AE45 [https://perma.cc/P3SF-AE45] (explaining that "[w]e have never tried to separate our 'MMT' approach from the heterodox tradition we share with Post Keynesians, Institutionalists and others"). For more information about NGDP Targeting, see David Beckworth, Mercatus Ctr.., *Facts, Fears, and Functionality of NGDP Level Targeting: A Guide to a Popular Framework for Monetary Policy*, GEO. MASON U. 7-17 (Sept. 2019),

instance, have developed important insights on the tight linkages between financial markets and business cycles, a subject only recently emphasized by the academic mainstream.[272] While the Fed would benefit from hearing such perspectives, for instance when considering how monetary policy should respond to rapid asset-price changes, these voices were absent from "Fed Listens."

The ultimate outcome of the Fed's rethink of the inflation goal—an average inflation target of two percent announced with no more than a single page of explanation or justification—did little to assuage these concerns about groupthink. Average-inflation was perceived by observers as the "widely anticipated"[273] or even "preordained"[274] outcome of the rethink. It is impossible to know if the Fed Listens campaign materially informed the Fed's rethink or served as window dressing to an internal re-evaluation along the lines of the original 2012 Statement.

1. Notice and Comment on Monetary Regime Change

The Fed should consider a robust, notice-and-comment process to complement measures like its "Fed Listens" campaign to ensure that it is open to feedback that will differ from the mainstream approaches it has already undertaken. A more intellectually open process would also help the Fed address the full range of questions implicated by inflation targeting, which go beyond economics. Inflation targeting implicates what the dual mandate means *legally*—and whether it permits the Fed to set a target for inflation but not employment. In part, this *is* a factual and predictive question, in that the answer may depend on whether a long-run tradeoff between inflation and employment actually exists. But this question also goes to the Fed's broader charge from Congress and whether the agency is honoring both halves of it—and relatedly, to the stability and predictability of the constitutional order. It implicates constitutional law, statutory interpretation, and political economy, as well as

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https://www.mercatus.org/system/files/beckworth-ngdp-targeting-mercatus-special-study-v1.pdf [https://perma.cc/SB63-4N86].

272. Consider, for example, the work of post-Keynesian economist Hyman Minsky. During his long career, Minsky, who studied financial crises and their effects on the overall economy using informal methods rather than the mathematical models favored by macroeconomists, was "on the margins of economics, but his ideas suddenly gained currency with the 2007-08 financial crisis. To many [mainstream economists], it seemed to offer one of the most plausible accounts of why it had happened. His long out-of-print books were suddenly in high demand." Duncan Weldon, *Did Hyman Minsky Find The Secret Behind Financial Crashes?*, BBC (Mar. 24, 2014), https://www.bbc.com/news/magazine-26680993 [https://perma.cc/B5LL-YNXF].

273. James Molony, *What Does Average Inflation Targeting Mean for Investors?*, SCHRODERS (Sept. 8, 2020), https://www.schroders.com/en/insights/economics/what-does-average-inflation-targeting-mean-for-investors/ [https://perma.cc/CJ3M-45XB].

274. Noland, *supra* note 173.

macroeconomics. The Chicago conference had no scholars who could speak professionally to these matters.

While public comment on inflation targeting entails certain risks and costs, some can be avoided and the others are worth the benefits. First, to obtain the real value of notice and comment discussed in Part I, the Fed needs to avoid prejudging comments. Rather than invest in devising a single course of action, the Fed can spark more productive debate by laying out divergent options and inviting comment on their relative merits, or perhaps even taking comment on an open-ended basis. Agencies sometimes choose to avoid this open approach because judicial doctrine penalizes them for not giving clear notice of their proposals. But the remote chance that any plaintiff has standing to challenge open-market operations—or general guidance thereon, like an inflation target—gives the Fed more latitude.

Second, there is some risk that public comment could become a forum for political theater by advocacy groups drumming up large volumes of non-substantive, "vote-like" comments. But this risk is not very high, given that Fed rulemaking in 2015 on an even more politically momentous subject—bailouts—did not produce such a circus.[275]

Third, taking comment and responding will unavoidably entail some delay and expenditure of resources. But an inflation target is by definition a long-term goal, not a time-sensitive one. Because it is unlikely to face judicial review, the Fed can keep its response to what is intellectually reasonable and profitable, instead of the excessive type of response that courts have regrettably forced other agencies to make. And expenditures the Fed does incur would have offsetting benefits in both improving the Fed's factual and predictive judgments, and also rendering Fed's ultimate policy commitment more credible. If the Fed shows that it alters its goals only after costly deliberation, it signals that its goals will not shift on a whim or without warning.

2. Diverse Advisory Committees

Besides public comment, advisory committees are another useful device to overcome the risk of agency groupthink,[276] but they are one the Fed has yet to fully tap. Such committees can be used in conjunction with notice and comment or—if the agency fears that public comment will be too circus-like or expensive—can serve as a valuable, if imperfect,

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275. 80 Fed. Reg. 78,959 (Dec. 8, 2015) (noting that the agency had received only a small number of comments on its proposed emergency-lending rule).

276. See *supra* Section I.B.2 for a discussion of the use of advisory committees in administrative law.

substitute. Compared to one-off conferences, advisory committees have a stronger public identity and relationship to the agency; this makes it hard for the agency to ignore the committee. Already, the Fed has a long tradition of using advisory committees of bankers and business leaders to monitor economic conditions.[277] Such committees provide valuable information but are problematically one-sided in highlighting only the views of mainstream capitalists, and especially bankers.

To its credit, the Fed has been diversifying its advisory committees. The Board created a Community Advisory Council in 2015, including many NGO and civic leaders, to advise "on the economic circumstances and financial services needs of consumers and communities, with a particular focus on the concerns of low- and moderate-income consumers and communities."[278] Several Reserve Banks have established similar bodies, most quite recently.[279] Yet the Board's Community Advisory Council has barely discussed monetary policy and *never* discussed inflation targeting in its eleven meetings since inception.[280] Besides these panels of bankers, businesspersons, and community leaders, the Fed has a few panels that have no interest-representation component but simply analyze facts and make predictions. Of these committees, staffed almost entirely with academics, one that covers stress-test models is housed at the Board. The other three, which respectively cover the economy generally, monetary policy, and finance, are housed at the New York Fed. But while the members of these academic committees are illustrious, and diverse in party affiliation, they have done little to fundamentally test the Fed's thinking about inflation targeting. In 2012, two committees discussed the two-percent target after the FOMC announced it, and the minutes show

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277. *See Advisory Councils*, BOARD GOVERNORS FED. RESERVE SYS. (Jan. 25, 2019), https://www.federalreserve.gov/aboutthefed/advisorydefault.htm [https://perma.cc/BR4F-AFUQ] (referring to the Community Depository Institutions Advisory Council; the Federal Advisory Council, which represents banks; and the Insurance Policy Advisory Committee).

278. *See* Press Release, Bd. of Governors of the Fed. Reserve Sys., Federal Reserve Board Accepting Applications for its Community Advisory Council (Apr. 8, 2019), https://www.federalreserve.gov/newsevents/pressreleases/other20190408a.htm [https://perma.cc/9KLP-WAS2].

279. For example, the San Francisco Fed's Community Advisory Council was established in 2017. *Twelfth District Community Advisory Council*, FED. RESERVE BANK S.F. (Dec. 2019), https://www.frbsf.org/our-district/governance/advisory-councils/community-advisory-council/ [https://perma.cc/E5GH-RS6N]. The Philadelphia Fed first formed its Economic and Community Advisory Panel in 2008 and enhanced the panel in 2016. *Economic and Community Advisory Council*, FED. RESERVE BANK PHILA. (July 27, 2020), https://www.philadelphiafed.org/about-the-fed/directors-and-councils/councils/economic-advisory-council [https://perma.cc/BL4W-BXYZ].

280. The Fed has posted online eleven sets of minutes for its Community Advisory Council, *see Community Advisory Council*, BOARD GOVERNORS FED. RESERVE SYS. (July 3, 2020), https://www.federalreserve.gov/aboutthefed/cac.htm [https://perma.cc/E5YD-5QBH], and there is no mention of inflation targeting in any of these minutes.

that no member of either committee questioned the idea of an inflation-only target or the two-percent number.[281] Minutes of the committees on the economy and monetary policy in fall 2017 and spring 2018 respectively reflect continued discussion of the two-percent inflation target with no questioning of its fundamentals.[282] (The New York Fed also terminated the committee on monetary policy in July 2019 with no explanation.)[283]

The Fed could take better advantage of its advisory committees if it consulted a wider range of them on monetary policy—such as the Community Advisory Council—and if it added greater intellectual diversity to its committees. It could do so either by turning over membership on existing ones or creating a new committee devoted entirely to inflation targeting. As noted in Part I, various devices are available to promote this diversity, including public nominations, public comment on the "short list" of candidates (perhaps with a Fed response explaining the final selection), and establishment of a separate committee of peer reviewers to evaluate the main committee's work product. (The Board already takes applications from the public for membership on the Community Advisory Council.[284]) Plus, diversifying the Fed's academic committees offers the prospect of positive change within the field of economics. Agencies and their corresponding academic disciplines can mutually influence each other;[285] by broadening participation, therefore,

281. *Minutes of the Monetary Policy Panel: Meeting of February 17, 2012*, FED. RESERVE BANK N.Y. 1 (Feb. 17, 2012), https://nyf-prod.frswebservices.org/medialibrary/media/aboutthefed/pdf/MPP_120217_minutes_final.pdf [https://perma.cc/3PFF-GL2G] (noting some incremental suggestions); *Minutes of the Economic Advisory Panel: Meeting of May 11, 2012*, FED. RESERVE BANK N.Y. 3 (May 11, 2012), https://www.newyorkfed.org/medialibrary/media/aboutthefed/EAP_20120511_minutes_final.pdf [https://perma.cc/R9HQ-KHGB] (noting no suggestions, only support). *But see Minutes of the Monetary Policy Panel: Meeting of September 21, 2012*, FED. RESERVE BANK N.Y. 2 (Sept. 21, 2012), https://nyf-prod.frswebservices.org/medialibrary/media/aboutthefed/pdf/MPP_Sept21_minutes.pdf [https://perma.cc/5VSB-VN9S] (observing that "nominal GDP targeting better reflects the FOMC's dual mandate" than an inflation target).

282. *Monetary Policy Advisory Panel: Meeting of March 30, 2018 Minutes*, FED. RESERVE BANK N.Y. 2 (Mar. 30, 2018), https://nyf-prod.frswebservices.org/medialibrary/media/research/advisory_panel/mpap/mpap_20180330_minutes.pdf [https://perma.cc/HC2H-J9BF] (concluding that "nominal GDP or price level targeting . . . likely would not be superior to a flexible inflation targeting framework"); *Minutes of the Economic Advisory Panel Meeting November 17, 2017*, FED. RESERVE BANK N.Y. 1 (Nov. 17, 2017), https://www.newyorkfed.org/medialibrary/media/research/advisory_panel/eap/eapminutes_nov2017.pdf [https://perma.cc/9NUP-VC6U].

283. On the committee's termination, see *Monetary Policy Advisory Panel*, FED. RESERVE BANK N.Y. (last visited Dec. 25, 2020), https://www.newyorkfed.org/aboutthefed/ag_monetary.html [https://perma.cc/LQV4-RBC6].

284. 84 Fed. Reg. 13,666 (2019).

285. CARPENTER, *supra* note 64, at 118-228.

the Fed itself could drive general intellectual expansion in the intellectual horizons of macroeconomics.

Finally, public comment and advisory-committee proceedings often draw the attention of Congress to the agency decisions at issue.[286] In the case of the FOMC's selection of its long-term goals, this would be entirely appropriate. A central bank needs "instrument independence": it should be "free to choose the settings for its instruments in order to pursue its ultimate objectives."[287] It should not have "goal independence" that enables the bank itself "to set the final objectives for monetary policy."[288] If a more open process reduces the Fed's "goal independence," then this result may enhance the Fed's legitimacy without substantially compromising its effectiveness.

III. Crisis Response: Emergency Lending

Central banks have not always had a very strong interest in transparency. But "[w]hereas central bankers once believed in secrecy and even mystery, greater openness is now considered a virtue."[289] This emphasis on transparency, however, is limited mostly to the processes and outcomes associated with conventional monetary policy—especially the Fed's practice since 1994 of formally announcing target interest rates. For another key component of the Fed's extraordinary powers—its ability to make emergency loans that provide liquidity throughout the financial system and, increasingly, the entire economy—the Fed's experience with transparency is much more limited.

In this Part, we discuss emergency lending and how the Fed explained—and did not explain—its legal authority for emergency lending in the 2008 crisis, its first major use of this power since the Great Depression. We argue that the failure to engage in a more transparent legal process around emergency-lending decisions impaired the Fed's public communications about its policy intentions. This harmed the Fed's ability to signal its intentions to affected parties and raised the cost of the crisis. In addition, the absence of legal process weakened the Fed's legal analysis by cutting it off from debate and feedback. This shut out voices within the fragmented financial industry, from others who rely on robust lending markets, and from those disconnected from the financial system

286. On Congress and public comment, see West, *Formal Procedures, supra* note 144, at 72-73. On advisory committees as "whistleblowers," see Thomas O. McGarity & Wendy E. Wagner, *Deregulation Using Stealth "Science" Strategies*, 68 DUKE L.J. 1719, 1778-79 (2019).

287. Meyer, *supra* note 178.

288. *See id.*

289. ALAN BLINDER, THE QUIET REVOLUTION: CENTRAL BANKING GOES MODERN (2004) (from the book's abstract), https://collaborate.princeton.edu/en/publications/the-quiet-revolution-central-banking-goes-modern [https://perma.cc/JK36-WX6G].

altogether. Better legal process, therefore, would have produced better outcomes.

In 2020, the COVID-19 pandemic has changed the world in striking ways, including in how the Fed reengaged emergency lending to stabilize the financial system and the economy as the virus swept the nation. Although we use 2008 as the anchoring example of the Fed's secrecy in emergency lending, the policy prescriptions we offer—a guidance structure that invites the public into the Fed's conception of its legal authorities—would help the Fed accomplish its lending goals amid a growing chorus of legal critics.[290]

A. Why the Fed Lends in an Emergency

When many financial institutions fail simultaneously, monetary policy alone, no matter how decisive, cannot prevent recessions and depressions. To prevent financial panics, Section 13(3) of the Federal Reserve Act, originally added during the 1930s, authorizes the Fed to engage in emergency lending, unlimited in amount, in "unusual and exigent circumstances."[291] This emergency authority is an important tool for a central bank to have. Banking, by its very nature, is fragile: traditional banks hold assets (loans) of long duration that cannot be turned into cash easily, while their liabilities (customer deposits) can walk out the door in a moment. This is true for even the best-managed of banks, and in a crisis, well-managed banks facing liquidity constraints can fail just as easily as poorly managed banks that are in fact insolvent. Even sorting them from each other becomes very difficult in a crisis.[292]

The financial benefits notwithstanding, emergency lending interventions are political disasters, seen as they are as sops to industry and the consequence of regulatory capture.[293] Indeed, perhaps no events in the Fed's history have prompted more public scrutiny than its extraordinary

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290. The most important legal critic of the Fed's COVID-19 emergency lending is Lev Menand. Lev Menand, *Unappropriated Dollars: The Fed's Ad Hoc Lending Facilities and the Rules That Govern Them* (European Corp. Governance Inst., Law Working Paper No. 518, 2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3602740 [https://perma.cc/Q9VT-KUWQ].

291. 12 U.S.C. § 343 (2018).

292. For an overview of banking crises, see CARMEN M. REINHART & KENNETH S. ROGOFF, THIS TIME IS DIFFERENT: EIGHT CENTURIES OF FINANCIAL FOLLY 646-900 (2010).

293. Ironically, emergency lending is arguably less susceptible to the corrupting influences of bank lobbying because the prospect of emergency loans is so remote and uncertain that the vested interests for emergency lending are mostly nonexistent: the lobby for banks in liquidation is not a very strong one.

actions to save the financial system in 2008.[294] Interestingly, the Fed's most controversial decision involved a failure to engage in emergency lending. Lehman Brothers was not rescued, became the largest bankruptcy in U.S. history, and substantially exacerbated the 2008 financial crisis. Rather than initiating an era of Fed passivity, however, Lehman's failure was followed quickly by Fed emergency loans first to AIG and eventually more than $700 billion in loans to thousands of entities,[295] including money market mutual funds;[296] major banks;[297] and many other individuals, corporations, and partnerships.[298]

These decisions have remained among the most hotly debated in the political discussions of the crisis and its aftermath. More than a decade later, scholars and policymakers still debate the meaning of Lehman Brothers.[299] What is less well understood is the legal basis for these actions.[300] This confusion is particularly curious given how often policymakers pointed to law as the limiting factor in their approach to wielding their emergency lending powers.

B. The Fed's Emergency Lending in 2008-2009

The Fed's emergency lending in the crisis of 2008-09 was opaque in rationale and, partly because of that, unpredictable in execution, meaning it arguably exacerbated the crisis. It began with the use of Section 13(3) for the emergency rescue of Bear Stearns in early 2008. The Fed gave little

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294. For two recent analyses of these lending actions, see TUCKER, *supra* note 15, at 525-46; and ADAM TOOZE, CRASHED: HOW A DECADE OF FINANCIAL CRISES CHANGED THE WORLD 166-202 (2018).

295. For a detailed overview of the Fed's emergency lending programs, see generally OFFICE OF INSPECTOR GEN., BOARD GOVERNORS FED. RESERVE SYS., THE FEDERAL RESERVE'S SECTION 13(3) LENDING FACILITIES TO SUPPORT OVERALL MARKET LIQUIDITY: FUNCTION, STATUS, AND RISK MANAGEMENT (2010).

296. *See Money Market Investor Funding Facility (MMIFF)*, BOARD GOVERNORS FED. RESERVE SYS. (Feb. 12, 2016), https://www.federalreserve.gov/regreform/reform-mmiff.htm [https://perma.cc/38C6-VD39].

297. *See, e.g.*, U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-11-696, FEDERAL RESERVE SYSTEM: OPPORTUNITIES EXIST TO STRENGTHEN POLICIES AND PROCESSES FOR MANAGING EMERGENCY ASSISTANCE 188-90 (2011).

298. *Id.* at 219-23.

299. For two recent and thorough discussions of the events surrounding Lehman Brothers, see TOOZE, *supra* note 294, at 171-92; and LAURENCE M. BALL, THE FED AND LEHMAN BROTHERS: SETTING THE RECORD STRAIGHT ON A FINANCIAL DISASTER (2018).

300. Although many scholars have alluded to the legal contours of this debate, almost none have engaged the question fully. There are some exceptions, however. *See, e.g.*, Alexander Mehra, *Legal Authority in Unusual and Exigent Circumstances: The Federal Reserve and the Financial Crisis,* 13 U. PA. J. BUS. L. 221 (2010); John De Vito, Note, *Discretion to Act: How the Federal Reserve's Decisions Whether to Provide Emergency Loans During the Financial Crisis Were Discretionary and Why Dodd-Frank Falls Short of Preventing Future Bailouts,* 10 J. BUS. ENTREPRENEURSHIP & L. 295 (2017).

public explanation of how it understood Section 13(3) and of why it deemed Bear to meet the requirements of that provision.[301] As reporters at the Wall Street Journal put it in the week after this extraordinary intervention, the Fed "more or less threw its rule book out the window" in order to save Bear. [302] "The question now looming over the transaction," the journalists wrote, was, "Has the government set a precedent for propping up failing financial institutions at a time when its more traditional tools don't appear to be working?"[303]

The very act of the rescue, absent some framing rationale to cabin the apparent precedent, struck observers as legally creative and aggressive. In a stunning departure from central banking decorum, former Fed Chair Paul Volcker gave a speech shortly after the Bear decision arguing that the Bernanke Fed went to "the very edge" of their legal authority to save Bear.[304] "Out of perceived necessity," Volcker argued, "sweeping powers have been exercised in a manner that is neither natural nor comfortable for a central bank."[305] The New York Times interpreted those comments as "chiding," a rare rebuke from the ex-Fed Chair to the current one.[306]

In the words of one Financial Crisis Inquiry Commission (FCIC) Commissioner, giving voice to a widespread criticism, "[t]he lesson taught by the rescue of Bear was that all large financial institutions—and especially those larger than Bear—would be rescued" if facing collapse.[307] This signal of Fed support invited more risk-taking on the part of firms like Lehman Brothers, which turned away buyers in the summer of 2008 in hunting for better terms.[308]

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301. WALLACH, *supra* note 21, at 45-56 (discussing in depth the legal debate surrounding the Fed's action with no reference to any explanation of that action by the Fed itself, except for officials' appearance at a subsequent congressional hearing in which "[t]he legal nature of the Fed's actions was only lightly touched on").

302. Robin Sidel, Greg Ip, Michael M. Phillips & Kate Kelly, *The Week that Shook Wall Street: Inside the Demise of Bear Stearns*, WALL ST. J. (Mar. 18, 2008, 11:59 PM ET), https://www.wsj.com/articles/SB120580966534444395 [https://perma.cc/673K-GKZ5].

303. *Id.*

304. Paul A. Volcker, Chairman, Bd. of Governors of the Fed. Reserve Sys., Remarks before the Economic Club of New York 5 (Apr. 8, 2008), https://www.econclubny.org/documents/10184/109144/2008VolckerTranscript.pdf [https://perma.cc/AT5G-NCQZ].

305. *Id.*

306. Michael M. Grynbaum, *Ex-Fed Chairman Chides Current One*, N.Y. TIMES (Apr. 9, 2008), https://www.nytimes.com/2008/04/09/business/09fomc.html [https://perma.cc/QT5T-DFAP].

307. FIN. CRISIS INQUIRY COMM'N, *supra* note 20, at 482 (dissenting statement of Peter Wallison).

308. For a detailed account of Lehman's mishandling of the summer of 2008, see ANDREW ROSS SORKIN, TOO BIG TO FAIL: THE INSIDE STORY OF HOW WALL STREET AND WASHINGTON FOUGHT TO SAVE THE FINANCIAL SYSTEM—AND THEMSELVES 109-14 (2009).

Lehman, a broker-dealer primarily regulated by the SEC, failed on September 15, 2008.[309] The Fed did use its emergency lending authority under Section 13(3) to provide tens of billions of dollars to Lehman through the Primary Dealer Credit Facility, but it made the decision that it would not, or could not, provide sufficient funds to prevent Lehman's bankruptcy.[310] The Fed thus allowed Lehman to collapse, even though, as Bernanke later testified, "we were very, very confident that Lehman's demise was going to be a catastrophe."[311] The Fed issued no formal explanation for its Lehman decision. The day after Lehman's failure, after seeing just how great a catastrophe it was, the Fed changed course and lent $85 billion to AIG—an amount that eventually ballooned, with funds from the Treasury, to $182 billion.[312] Over the course of the months that followed the emergency infusions to AIG, the Fed lent over $700 billion to many different borrowers.[313]

Why did the Fed lend to support Bear, retreat in the face of Lehman, and then intervene so aggressively thereafter? Richard Fuld, the CEO of Lehman who rejected the private solution that the Fed pushed on him during the summer of 2008, responded with exasperation to congressional questioning. "Until the day they put me in the ground, I will wonder" why Lehman was allowed to fail but AIG was not.[314]

C. The Indeterminate Text of Section 13(3)

The Fed's leaders blamed the law for its failure to rescue Lehman.[315] At the time of the crisis, the relevant language in Section 13(3) was as follows:

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309. Andrew Ross Sorkin, *Lehman Files for Bankruptcy; Merrill is Sold*, N.Y. TIMES (Sept. 16, 2008, 6:52 PM), https://www.wsj.com/articles/SB122145492097035549 [https://perma.cc/5F4J-GWED].

310. For more on this confusing and uneven provision of emergency funds to only one of Lehman's subsidiaries, see BALL, *supra* note 299, at 151-58 (discussing the range of collateral—including "very toxic" assets, in Lehman's terms—that the Fed was willing to accept after the holding company filed for bankruptcy).

311. FIN. CRISIS INQUIRY COMM'N, *supra* note 20, at 435.

312. Timothy G. Massad, *Infographic: Overall $182 Billion Committed to Stabilize AIG During the Financial Crisis is Now Fully Recovered*, TREASURY NOTES (Sept. 11, 2012), https://www.treasury.gov/connect/blog/Pages/aig-182-billion.aspx [https://perma.cc/793S-SUZX].

313. Parinitha Sastry, *The Political Origins of Section 13(3) of the Federal Reserve Act*, 24 ECON. POL'Y REV. 1, 2 (2018).

314. Rachelle Younglai & Kim Dixon, *Lehman's Fuld: Where Was Our U.S. Bailout*, REUTERS (Oct. 7, 2008, 1:07 AM) https://www.reuters.com/article/us-financial-lehman/lehmans-fuld-where-was-our-u-s-bailout-idUSTRE4954DL20081007 [https://perma.cc/5QG7-4BBA].

315. Ben S. Bernanke, Chairman, Bd. of Governors of the Fed. Reserve Sys., Speech at the National Association for Business Economics: Current Economic and Financial Conditions (Oct. 7, 2008), https://www.federalreserve.gov/newsevents/speech/bernanke20081007a.htm [https://perma.cc/6W6X-NFAJ].

> In unusual and exigent circumstances, the Board of Governors of the Federal Reserve System, by the affirmative vote of not less than five members, may authorize any Federal reserve bank… to discount for any individual, partnership, or corporation, notes, drafts, and bills of exchange when such notes, drafts, and bills of exchange are indorsed or otherwise secured to the satisfaction of the Federal reserve bank. Provided, that before discounting any such note, draft, or bill of exchange for an individual or a partnership or corporation, the Federal reserve bank shall obtain evidence that such individual, partnership, or corporation is unable to secure adequate credit accommodations from other banking institutions.[316]

Much of the text of 13(3) is indeterminate and undefined. Because Lehman was clearly "unable to secure adequate credit accommodations from other banking institutions," the key question, as interpreted by the Fed in rejecting Lehman's funding requests, is the phrase "secured to the satisfaction."[317] It bears several plausible understandings. The locution was unusual at the time of Sections13(3)'s enactment in the 1930s and has only become more so with the passage of time. In all of Westlaw's federal and state court databases, the phrase "secured to the satisfaction" appears in 212 state and federal cases. In each instance, the use of the phrase focused on "satisfaction," with no clear quantity of security implied.[318]

Given that the phrase is not some familiar term of art, we may look to the ordinary meaning of "secured to the satisfaction of the Federal Reserve Bank." This phrase seems to emphasize the subjective judgment of the Federal Reserve Bank about the probability of repayment. It could suggest that some non-zero quantum of "security" has to be present, but it might not. If the Federal Reserve Bank is "satisfied" by no security at all, then perhaps the standard itself is satisfied.[319] Certainly, the text indicates that an "indorse[ment]"[320]—which would entail no collateral at all—could satisfy the statute.

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316. 12 U.S.C. § 343 (2006). For a good history of Section 13(3), see generally Parinitha Sastry, *supra* note 313. Subsequent amendments to this text in 2010 will be addressed below; they do not resolve the fundamental ambiguity discussed here.

317. For a discussion of the potential legal meaning of what he calls the "credit availability proviso," see Menand, *supra* note 290, at 35-37.

318. Author's Westlaw search of the phrase "secured to the satisfaction" in U.S. state and federal courts.

319. Although we do not think interpreting "secured to the satisfaction of the Federal Reserve Bank" to mean "complete Fed discretion" is the best reading of the statute, we think it is a plausible interpretation of extremely ambiguous language.

320. An indorsement under Section 13(3) can mean a third-party guarantee. *See infra* text accompanying notes 320-40.

Ultimately the whole provision is ambiguous. Must the "indorse[ment]" that would meet the standard be of a certain quality? Must the "security" that would satisfy the Reserve Bank be defined objectively or subjectively? (In a crisis, the market value of any asset may itself be a function of the Fed's emergency-lending decisions, meaning that even objective asset valuations can have multiple meanings.) The text is silent on these questions. It can be read to give the Fed complete discretion in using this crisis-averting power,[321] or not. And because of the ambiguity, there is real risk of both failures to credibly signal policy intentions and failures to receive diverse inputs on the appropriate course of action for the Fed in an emergency.

D. The Fed's Shifting and Largely Unexplained Interpretations of 13(3)

In practice, the Fed's interpretations of Section 13(3) since 2008 provide a very weak signal of its future behavior and reflect little to no engagement with constructions of the statute outside the agency. Fed leaders and other insiders since 2008 have given strikingly divergent interpretations of the meaning of "indorsed or otherwise secured to the satisfaction of the Fed" under Section 13(3), often without spelling out how they arrived at their favored interpretation.

1. One Interpretation: 13(3) Requires Full Security

While the Fed gave no public statutory interpretation at all in the moment of letting Lehman fail, Bernanke and other Fed and Treasury officials suggested soon after that Section 13(3) imposed a stringent standard that precluded Lehman's rescue. "The difficulties at Lehman and AIG raised different issues," Bernanke said in a speech to the Economic Club of New York in October 2008.[322] "A public-sector solution for Lehman proved infeasible," he stressed, "as the firm could not post sufficient collateral to provide reasonable assurance that a loan from the Federal Reserve would be repaid."[323] Two months later, Bernanke repeated that message:

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321. It remains true, however, that even if the Fed had such broad substantive discretion, the need for agreement from five out of seven Board members would still subject it to a procedural check. And if the Fed actions involved issuing a security, it would need the additional consent of one Reserve Bank.

322. Ben S. Bernanke, Chairman, Bd. of Governors of the Fed. Reserve Sys., Speech at the Economic Club of New York: Stabilizing the Financial Markets and the Economy (Oct. 15, 2008), https://www.federalreserve.gov/newsevents/speech/bernanke20081015a.htm [https://perma.cc/7MCT-5UEV].

323. *Id.*

> The available collateral fell well short of the amount needed to secure a Federal Reserve loan sufficient to pay off the firm's counterparties and continue operations. The firm's failure was thus unavoidable, given the legal constraints, and the Federal Reserve and the Treasury had no choice but to try instead to mitigate the fallout from that event.[324]

Law, and not policy, caused the wreckage, according to Bernanke.

In 2011-2015, Bernanke, Paulson, and former New Yok Fed President Timothy Geithner retired from government and published their respective memoirs, each of which asserted that law prevented the Fed from saving Lehman.[325] These were legal conclusions, however, not legal analysis. The closest analytical exercise the public received from one of the three key decision-makers was in 2018. In an interview reflecting on the crisis ten years later, Geithner explained the legal analysis that prevented a Fed bailout of Lehman: "[I]n practice [13(3)] limited the amount the Fed could lend to the amount of collateral available. . . . [T]here had to be a reasonable expectation that the collateral would fully cover the value of the loan."[326]

Geithner reads two constraints into the text of "indorsed or otherwise secured to the satisfaction of the Federal Reserve bank."[327] First, "secured to the satisfaction" meant that the security had to be full (or reasonably expected to be so).[328] Second, the security had to be collateral, rather than, for example, noncollateralized securities such as guarantees or endorsements.

324. Ben S. Bernanke, Chairman, Bd. of Governors of the Fed. Reserve Sys., Speech at the Greater Austin Chamber of Commerce, Austin, Texas: Federal Reserve Policies in the Financial Crisis (Dec. 1, 2008), https://www.federalreserve.gov/newsevents/speech/bernanke20081201a.htm [https://perma.cc/7S8S-CP2A].

325. BERNANKE, *supra* note 201, at 263 ("As a central bank, we had the ability to lend against a broad range of collateral, but we had no legal authority to overpay for bad assets or otherwise absorb Lehman's losses."); TIMOTHY F. GEITHNER, STRESS TEST: REFLECTIONS ON FINANCIAL CRISES 186 (2014) ("We didn't believe we had the legal authority to guarantee Lehman's trading liabilities, even using our 'unusual and exigent' powers under 13(3)."); HENRY M. PAULSON, JR., ON THE BRINK: INSIDE THE RACE TO STOP THE COLLAPSE OF THE GLOBAL FINANCIAL SYSTEM 209 (2010) ("The Fed could not legally lend to fill a hole in Lehman's capital.").

326. Timothy F. Geithner & Andrew Metrick, *Ten Years After the Financial Crisis: A Conversation with Timothy Geithner* 4 (Yale Sch. of Mgmt., Working Paper No. 1, 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3246017 [https://perma.cc/9FHR-H4MN].

327. 12 U.S.C. § 343(3)(A) (2018).

328. A "full" security is a loan for which the value of assets securing the loan equals or exceeds the loan's value.

Geithner's analysis is echoed and expanded by Scott Alvarez, Thomas Baxter, and Robert Hoyt—at the time of crisis the general counsels of the Board of Governors, Federal Reserve Bank of New York, and Treasury Department, respectively—in a ten-year retrospective paper presented in September 2018.[329] The Alvarez et al. analysis acknowledges that "the statute sets no specific level [of security] that must be obtained, instead leaving the determination to the Reserve Bank."[330] It emphasizes, however, that 13(3) does not authorize the Fed to extend credit expecting to take a loss. As a result, they write,

> Every statute must be interpreted in harmony with its purpose, and the purpose of Section 13(3) (as exhibited both in its wording and in its legislative history) was to authorize the Fed to extend credit with the expectation of full repayment, not to make grants or inject capital. Funds extended without the expectation of full repayment may be a credit in part, but they are a grant or capital injection to the extent repayment is not reasonably expected—and are not consistent with the language or purpose of the section… In the case of lending to a troubled firm during a time of economic stress, repayment depends largely on the amount and quality of the security backing the credit. To be consistent with the purpose of the statute, the security required to satisfy the lending Reserve Bank needed to be at a level sufficient for the bank to reasonably believe it would be fully repaid.[331]

There might be good practical and historical reasons for the Fed to adopt this reading of 13(3). "Fully collateralized" offers a standard that protects the central bank from losses, which in turn may have downstream protections to the public fisc. Requiring loans to be fully secured also offers a standard that is easier to implement consistently than other interpretations. Both the value of a loan and the value of its underlying collateral are easier to measure than more subjective valuations of collateral and ability to repay.[332]

The interpretation of 13(3) offered by the Fed officials in these retrospective analyses, however, is far from the only available interpretation. Contrary to the suggestions of Alvarez et al., under-secured or even unsecured loans are not the equivalent of "grants" or capital injections. Lenders have a variety of ways to manage default risk: the

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329. Scott G. Alvarez, Thomas C. Baxter, Jr. & Robert F. Hoyt, *The Legal Authorities Framing the Government's Response to the Global Financial Crisis*, 2 J. FIN. CRISES 3 (2020).

330. *Id.* at 15.

331. *Id.*

332. In a crisis, however, determining the market value of collateral may also be difficult. Ball, for example, asserts that Lehman Brothers had adequate collateral, measured at market values, for the loans it was asking for. BALL, *supra* note 299, at 98.

provision of recourse collateral is only one of these. Lenders may also seek guarantees, whether by third parties or from borrowers (as the "indorsement" language of Section 13(3) explicitly acknowledges).[333] Lenders may lend on an under-secured basis, as is common in underwater mortgages.[334] Or lenders may adjust the level of interest to reflect the default risk, as occurs commonly in, for example, the credit card industry.[335] The variety of lending strategies is not peculiar to the private sector: the government also regularly lends on an under- and unsecured basis, as in Small Business Administration loans[336] or to finance education.[337]

2. Alternative Interpretation: 13(3) Imposes Minimal Security Requirements

The stringent interpretation of 13(3) emphasized by Fed officials with respect to Lehman, however, was not the only interpretation applied by the Fed during the financial crisis. Months after Lehman Brother's failure, the Board's own General Counsel Scott Alvarez and his associates drew up a starkly contrasting interpretation. This was a confidential memo that was later disclosed only when requested by Congress's FCIC.[338] The memo is a remarkable document, as it explains with great creativity the mechanisms by which the Fed could lend money indirectly to corporations throughout the economy, including those on the brink of failure. It begins by focusing on the disjunctive, two-pronged authority the statute gives to the Fed, noting that the language requires that a loan be "indorsed *or otherwise secured* to the satisfaction of the Federal reserve bank."[339] This disjunction was intentional: it did not exist in the original 1932 language, which originally required loans to be both indorsed *and* secured to the Reserve Bank's satisfaction.[340] Three years later, in 1935, Congress changed the language to permit indorsement or security to the Fed's

333. *See, e.g.*, U.C.C. § 5-117 (AM. LAW INST. & UNIF. LAW COMM'N 2020).

334. For a summary of the legal effect of these underwater mortgages, see *Bank of America v. Caulkett*, 135 S. Ct. 1,995, 1,999-2,000 (2015).

335. *See, e.g.,* Madden v. Midland Funding, LLC, 786 F. 3d. 246, 250 (2d Cir. 2015).

336. *7(a) Loan Program: Terms and Conditions*, U.S. SMALL BUS. ADMIN. https://www.sba.gov/partners/lenders/7a-loan-program/terms-conditions-eligibility [https://perma.cc/H8Y2-VXKA] (describing noncollateralized loan terms).

337. Fed. Student Aid, *Subsidized and Unsubsidized Loans*, U.S. DEP'T EDUC., https://studentaid.ed.gov/sa/types/loans/subsidized-unsubsidized [https://perma.cc/3UZT-JQ2R].

338. Memorandum from Legal Div. of the Fed. Reserve Bank of N.Y. (Mar. 9, 2009), http://fcic-static.law.stanford.edu/cdn_media/fcic-testimony/2010-0901-2009-Memo-to-Scott-Alvarez.pdf [https://perma.cc/2A29-M7NC].

339. *Id.* at 3 (quoting 12 U.S.C. § 343(3)(A)).

340. Pub. L. 72-203, § 210, 47 Stat. 709, 715 (July 21, 1932).

satisfaction.[341] The Fed's lawyers concluded that, on this basis, "indorsement alone serves a function that is similar to that of collateral: an additional security of repayment."[342]

Even more remarkable than this conclusion the memo's separate conclusion about the quantity and quality of collateral that the Federal Reserve Act required in an emergency. "Under the extraordinary pressures currently existing in financial markets, it is possible that at certain points in time the current value of the assets pledged in support of" the Fed's emergency lending programs "may not be equal in value to the face amount" of the loans offered.[343] In other words, market conditions were sufficiently in flux such that a loan might be only partially secured.

This was of no moment, according to the Fed's lawyers. "The language of Section 13(3) imposes no requirements on the amount or type of security obtained by a Reserve Bank."[344] This "absence of any objective criteria in the statutory language for the sufficiency of collateral leaves the *extent* and *value* of the collateral within the discretion of the Reserve Bank."[345] Later, the lawyers concluded, after noting that Congress had only ever broadened emergency lending authority under 13(3), that "the scope of the Reserve Bank's discretion in deciding what will be 'satisfactory' to it in connection with section 13(3) lending is extremely broad."[346]

This expansive interpretation supported the Fed's expansive emergency lending programs of 2009. The primary compensation the Fed received for its emergency loans to AIG, for example, was AIG stock, a seemingly unnecessary form of compensation if AIG collateral fully secured the Fed's loan.[347] The Fed memo's interpretation also enjoys some statutory support. As Alvarez et al. point out in their retrospective exercise in statutory interpretation, older statutes governing emergency lending by other entities "required [emergency] credit [to] be 'fully and adequately' secured, terms that do not appear in section 13(3)."[348] Finally, it also enjoys a strong policy rationale. The volatility of asset prices during financial crises, along with the possibility of complete market failure in some asset classes, makes a requirement of full and adequate security for emergency lending very difficult to achieve. The more flexible standard offered by the Fed's memo, by contrast, makes emergency lending practical.

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341. Pub. L. 74-305, § 322, 49 Stat. 714 (Aug. 23, 1935).
342. Memorandum, *supra* note 338, at 5.
343. *Id.*
344. *Id.*
345. *Id.* at 6-7 (emphasis added).
346. *Id.* at 9.
347. BAIRD WEBEL, CONG. RESEARCH SERV., R42953, GOVERNMENT ASSISTANCE FOR AIG: SUMMARY AND COST (2017), https://fas.org/sgp/crs/misc/R42953.pdf [https://perma.cc/L56D-AWJF].
348. Memorandum, *supra* at note 338, at 11.

Whatever the merits of the expansive interpretation of 13(3) developed by the Fed in 2009, though, it sits in obvious tension with the exacting interpretation that some of the same Fed officials offered to explain the legal barriers to bailing out Lehman.

3. Lehman Brothers Was Different

Fed officials are aware of the tension between the legal interpretation of 13(3) applied to Lehman Brothers and the interpretation applied later in the crisis. In testimony and unofficial legal analysis, prominent Fed counsel have cast Lehman's legal questions in a different light. They assert that, unlike the other institutions supported by the Fed's emergency lending, Lehman was seeking a "naked guarantee" of all its legal obligations, not an emergency loan secured by collateral.[349] As a result, the Fed could not provide the credit Lehman needed in spite of the significant discretion afforded by 13(3) described in the Fed's 2009 internal memo.

Thomas Baxter, the long-serving general counsel of the Federal Reserve Bank of New York, put the legal question as follows while testifying before the Financial Crisis Inquiry Commission: "Could the Fed issue a naked guarantee, a guarantee unlimited in amount . . . ? And the answer to that question is: As a matter of law, that cannot be done by the Federal Reserve."[350] In Baxter's view, such a guarantee would not be "secured to the satisfaction of the Federal reserve bank," and a naked guarantee "does not meet that statutory requirement."[351] Alvarez et al. similarly describe the Lehman loan as a request for an "open-ended" guarantee.[352] According to these interpretations, loans to Lehman were not legal, even under the expansive interpretation of 13(3).

The consistency or inconsistency of the Fed's interpretations of 13(3) split the FCIC itself. A six-member majority essentially accepted the confidential memo's assertion of "very broad" lending authority; they accused the Fed of using Section 13(3)'s supposed constraints as an ex post justification for what was really its mistaken policy judgment not to save

349. *"Too Big to Fail: Expectations and Impact of Extraordinary Government Intervention and The Role of Systemic Risk in the Financial Crisis." Before the Financial Crisis Inquiry Commission* 153 (2010), https://fcic-static.law.stanford.edu/cdn_media/fcic-testimony/2010-0901-Transcript.pdf [https://perma.cc/NBW8-39J8].

350. *Id.* at 163.

351. *Id.* at 164.

352. Alvarez, Baxter & Hoyt, *supra* note 329, at 17.

Lehman.[353] Three dissenting members said there was nothing the Fed could lawfully have done.[354]

4. Signaling When Statutes are Ambiguous

The variation in these interpretations not only confirms the indeterminacy of Section 13(3)'s text. It also shows why there was so much confusion about why the Fed rescued Bear, but not Lehman—especially when emergency lending exploded in Lehman's aftermath to support companies like AIG, money market mutual funds, commercial paper markets, and even shopping malls.[355] The Fed had legitimate reasons for the legal interpretations it made. But those reasons neither reflected the full set of potentially viable legal options, nor were they explained with sufficient clarity for market participants to plan accordingly.

The statutory indeterminacy just described—and the potential for opaque, unpredictable, and suboptimal decision-making that it creates—remains with us, even after Congress's revision of Section 13(3) in the Dodd-Frank Act of 2010. In particular, the Fed's power to lend still turns on the same two key conditions: that circumstances be "unusual and exigent" and that the loan be "indorsed or otherwise secured to the satisfaction of the Federal reserve bank."[356] These terms remain in the statute, undefined, although the statute makes more explicit the need to "ensure protection for the taxpayer" and for Reserve Banks to assign all loan collateral "a lendable value."[357] Indeed, in enacting Dodd-Frank Congress considered but rejected proposals that would have imposed substantially more specific requirements on the nature of the collateral required in an emergency.[358]

E. Process-Oriented Emergency Lending: The Solution

To improve the Fed's signaling of its emergency-lending intentions, and increase the diversity of input into this power's proper scope, the Fed

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353. FIN. CRISIS INQUIRY COMM'N, *supra* note 20, 339-43. Some have argued that, even if the Fed were constrained to lending on full collateral, Lehman in fact possessed it. *See, e.g.*, BALL, *supra* note 2999, at 95-113.

354. FIN. CRISIS INQUIRY COMM'N, *supra* note 20, at 433-35.

355. See sources cited *supra* notes 295 and 313. For more information about the shopping mall, see Chana Joffe-Walt, *Why the Fed Owns a Mall in Oklahoma City*, NAT'L PUB. RADIO (Apr. 9, 2010), https://www.npr.org/templates/story/story.php [https://perma.cc/E4EB-YDJR].

356. 12 U.S.C. § 343 (2018).

357. *Id.* § 343(B)(i).

358. Financial Stability Improvement Act, H.R. 4173, 111th Cong. § 1701 (2010), https://www.govinfo.gov/content/pkg/BILLS-111hr4173rfs/pdf/BILLS-111hr4173rfs.pdf [https://perma.cc/GK2A-5EW9].

should issue public guidance documents interpreting its emergency-lending authority and projecting how it may exercise this power. These guidance documents would supplement the new process requirements imposed by the Dodd Frank Act, making them more effective.

Although we propose a specific guidance regime, our broader point is that guidance and rulemaking regarding 13(3) improves signaling and increases the robustness of the Fed's legal analysis. Indeed, the Dodd-Frank Act's requirements represent a significant step towards process-oriented emergency lending. Dodd-Frank requires that "the Board shall establish, by regulation . . . the policies and procedures governing emergency lending."[359] This notice-and-comment rulemaking provides better opportunities for feedback and signaling than the muddle preceding the financial crisis, in which the Fed issued no rules or guidance. Dodd-Frank also instructs the Fed to provide less formal emergency lending guidance during a crisis. Within seven days of Fed emergency lending, the amended Section 13(3) requires that the Fed provide the Senate and House with "justification for the exercise of authority to provide such assistance."[360]

Dodd-Frank, however, creates an incomplete regulatory regime. Regulations issued during ordinary times cannot anticipate the market failures that bring about the next crisis. Moreover, the regulations that the Fed has in fact issued pursuant to Dodd-Frank risk a repeat of the emergency-lending muddle and exacting definition of security that characterized the last crisis.[361] Given that, even as amended, Section 13(3) leaves to the Fed's interpretation the meaning of key phrases, the Fed should increase clarity by issuing guidance on these questions and others that naturally emerge as financial crises unfold. Dodd-Frank's repeated invocations of protecting taxpayers remain too vague a standard on which banks facing liquidity or solvency constraints can base their crisis-related planning.

The guidance regime we describe is not a perfect solution: there are real risks that the Fed would prematurely commit to a lending regime later revealed to be deeply flawed. To resolve these concerns, the key feature of this guidance regime is flexibility. The Fed must articulate the broadest outlines of its authority and identify as best it can the nodes of discretion that might be exercised differently under different circumstances. We describe how this regime works in roughly four stages of a crisis: periods

359. Federal Reserve Act, 12 U.S.C. § 343(3)(B)(i) (2018).

360. *Id.* § 343(3)(C)(i)(I).

361. Financial Stability Improvement Act, H.R. 4173, 111th Cong. (2010), https://www.govinfo.gov/content/pkg/BILLS-111hr4173rfs/pdf/BILLS-111hr4173rfs.pdf [https://perma.cc/GK2A-5EW9].

of calm, periods of heightened concern, the moment of triggering emergency authority, and the end of a crisis.

1. Guidance During Periods of Calm

The statute and implementing regulations in 12 C.F.R. § 201 commit the Fed to follow "sound risk management practices,"[362] an appropriate, if bland commitment that adds a modicum of clarity about how the Fed will evaluate emergency-loan requests. The Fed's next challenge will be to determine how it will follow the statutory requirement to "assign a lendable value" to the collateral offered.[363]

During periods of calm, a guidance document to supplement the interpretations of "lendable value," "unusual and exigent circumstances", and "secured to [the] satisfaction"[364] of the Fed must be general. It would preserve flexibility but also describe the outer bound of the Fed's interpretation of its legal authority. As for "lendable value," the Fed could explain that the requirement means assigning such a value to collateral as an input to lending decisions rather than requiring that this value exceed the value of emergency loans extended. This interpretation preserves the Fed's flexibility during a crisis.

When explaining "unusual and exigent circumstances," the Fed could clarify that recessionary pressures would not qualify as unusual, but that the failure of a systemically important financial institution would. The Fed could also, during a calm period, describe the kinds of market volatility that it will watch to determine whether circumstances have become "unusual and exigent," without committing itself to a particular threshold. Here, the necessity of broad, diverse input is essential. As noted in Part II, one of the Fed's principal blind spots has been a failure to understand threats outside their traditional epistemic framing. The Fed should clarify—and determine—whether it will be focused on leading indicators of market volatility,[365] and alternatives,[366] including the separate traditions

362. 12 U.S.C. § 343(3)(B)(i) (2018).

363. 12 C.F.R. § 201.4(d)(6)(ii) (2020).

364. *Id.* § 201.4(d)(1), (6)(ii).

365. For example, the Fed paid significant attention to interest-rate spreads such as "the gap between the rate banks charge one another for three-month loans and the expected Federal Funds rate." *See* Wessel, *Obama Can No Longer Pass the Buck on the Economy*, WALL ST. J. (Aug. 27, 2009), https://www.wsj.com/articles/SB125131495330361389 [https://perma.cc/6CGC-YVH5].

366. For a discussion of many different such indicators, see Iñaki Aldasoro, Claudio Boro & Mathias Drehmann, *Early Warning Indicators of Banking Crises: Expanding the Family*, 2018 BIS Q. REV. 29, 30-33.

of finance that have grown substantially in the wake of the crisis (for example, those writing in a Minskian tradition).[367]

As an alternative or addition to these principles, during a period of calm, guidance might identify how the Fed will decide whether it can lend on an under-secured basis, what kinds of non-collateral "indorsements" might or might not qualify, and how these considerations affect collateral's "lendable value."[368] The Fed need not commit itself to any specific course of action in discussing these principles, but at least this will permit market participants and others to understand better the outer limits of security or collateral that will be acceptable. The Fed can also describe more concretely what it means by "sound risk management practices".[369] The principal question will be the accounting standards that are appropriate in an emergency, given that "mark-to-market" accounting methods are likely to undervalue assets in a panic and "historical cost" accounting lends itself so well to manipulation.[370]

2. Guidance During Initial Instability

When periods of calm end, the Fed can and should issue additional guidance that gives more detail into how it will evaluate "unusual and exigent circumstances" and what constitutes appropriate indorsements or collateral. Dodd Frank, however, provides no mechanism for such guidance.

Given the Fed's posture in August 2007, the month that many observers identify as the beginning of the last financial crisis,[371] it would have been appropriate to issue a guidance document indicating that volatility in the mortgage markets was *not* sufficient to trigger "unusual and exigent circumstances." This would have sent the signal that the Fed

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367. For an overview of Minsky's contributions to understanding crisis prediction, see L. RANDALL WRAY, WHY MINSKY MATTERS: AN INTRODUCTION TO THE WORK OF A MAVERICK ECONOMIST 138-63 (2016).

368. Even though the regulations require the Fed to establish a lendable value for collateral, they do not foreclose undersecured lending. Instead, they state that "Federal Reserve Banks [may] also consider the financial strength of the borrower, the presence of any indorsement, and other factors, in determining whether the credit is satisfactorily secured." 80 Fed. Reg. 78,959, 78,962 (Dec. 18, 2015).

369. Federal Reserve Act, 12 U.S.C. § 343(3)(B)(i) (2018).

370. For a good description of the accounting debates for banks in the crisis, see David Min, *Keep Marking to Market*, CTR. AM. PROGRESS (Apr. 1, 2009, 9:00 AM), https://www.americanprogress.org/issues/economy/news/2009/04/01/5938/keep-marking-to-market/ [https://perma.cc/97KN-7LLU]. For more on how disputes about valuation methods can have a significant impact on emergency-lending decisions, see BALL, *supra* note 299, at 81-113.

371. For a summary of the relevant discussions on August 2007, see Peter Conti-Brown, *A Proposed Fat-Tail Risk Metric: Disclosures, Derivatives, and the Measurement of Financial Risk*, 87 WASH. U. L. REV. 1461, 1463-67 (2010).

would not intervene with emergency-lending authority. Doing so might have pushed weaker banks and broker-dealers to find better private-sector solutions—bankruptcy, acquisition, capital increases—ahead of the March 2008 crisis.

Alternatively, the Fed could have issued guidance suggesting the opposite conclusion, similar to its responses to previous crises (such as the 1987 market crash). This type of guidance would have aimed to reassure the public that major financial institutions' inability to clear markets would constitute unusual and exigent circumstances, triggering massive Fed support. Striking the balance between market discipline and market reassurance will be a question for the central bankers of the day, in the face of economic and political constraints. What a guidance document will do, however, is permit the rest of society to hear the Fed explore that question, even if it preserves some leeway for providing the specific answers.[372]

3. Guidance at (or Soon After) Emergency

Central-bank behavior in a crisis is necessarily tentative, urgent, immediate. There is little time to offer the best rationale for interventions because market circumstances are changing at such a rapid clip. Even so, the Fed should not view the "justification" of emergency lending required by the Dodd-Frank Act[373] as a mere hoop to jump through. In addition to explaining its actions to Congress, the justification required by Dodd-Frank sends a signal to potential future borrowers and offers an avenue for critics to provide concrete feedback to the Fed.

A "justification" issued at the time of 13(3) invocation should explain what, specifically, was unusual and exigent about the contemporaneous account. Here, the level of specificity will serve as policy tool: the more specific the description, the sterner the warning to market participants to seek private solutions; the more general the terms, the stronger the signal that there will be more emergency support along the way. This guidance should also consider the feedback that the Fed receives at the time of the action, including, for example, Paul Volcker's unusual critique of Fed interventions in March 2008.

Guidance around the quality and requirements of collateral and other securities will have the strongest punch here. The Fed's justification will explain how it is applying its pre-existing emergency-lending regulations in the specific context of the crisis. If there is a change in the accounting

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372. For the Fed's response to the 1987 Crash, see SEBASTIAN MALLABY, THE MAN WHO KNEW: THE LIFE AND TIMES OF ALAN GREENSPAN 345-63 (2016).

373. Federal Reserve Act, 12 U.S.C. § 343(3)(C)(i)(I) (2018).

standards that relate to evaluating collateral and other securities—as would be expected during a crisis—this would be the time to announce it.[374]

Crisis-period guidance issued by the Fed need not be limited to the justifications mandated by Dodd-Frank. Dodd Frank requires the Fed to issue timely justifications of its actions when the Fed invokes its Section 13(3) powers. It says nothing about denials of Section 13(3) lending. Dodd Frank would thus have required justification from the Fed for Bear Stearns, AIG, etc., but not for Lehman, even though its Lehman decision was equally momentous. This asymmetry may impede signaling to other market participants, who only hear the Fed explain itself when it makes a loan. The Fed should rectify this asymmetry by voluntarily issuing guidance explaining its most important denials of emergency lending.[375]

4. Guidance in Calm: Status Quo Ante

After the crisis subsides, the Fed would then issue guidance returning to something approximating a status quo ante. The reason for this return is to ensure that the Fed's statutory flexibility is preserved to fight the next crisis on its own terms, rather than restricted to circumstances that were "unusual and exigent" in the past but may not be in the future. It also permits flexibility around expectations for the public about how stern or flexible the Fed prefers to be in a time of calm.

F. Policy Tradeoffs of Emergency Lending Guidance

Besides making diverse input possible, announcing the agency's plans, once selected, can serve a credible-commitment function that improves the incentives and behavior of market actors. The key for the Fed is not to rewrite the legislative rule on emergency lending it has already put in place, but to take advantage of flexible guidance documents, which avoid legislative rules' high judicial and procedural barriers to modification. Guidance documents that outline the Fed's sense of key provisions in Section 13(3) can embody a credible commitment that gains clarity and specificity over time, before, during, and after a crisis unfolds. Guidance documents that provide contingent and partial answers (rather than non-credible sweeping ones), allow officials both to stake their reputations on the reasoning behind the guidance and to receive input from a variety of actors. That diversity of input will not only increase the

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374. For an accusation that there was such a change following the collapse of Lehman's holding company, see BALL, *supra* note 299, at 154-55.

375. Dodd-Frank should not be amended to make such justification mandatory. Requiring an explanation for a failure to act could expose the Fed to excessive litigation. Voluntary guidance explaining inaction, by contrast, helps the Fed explain its most important decisions without imposing excess requirements on the Fed.

probability that the Fed will get the policy right. It will also underscore the agency's intellectual seriousness about those policies and diffuse blame for any official who follows the guidance that a diverse set of actors agreed was best. These factors provide a virtuous cycle that increases the agencies' incentives for soliciting input, articulating reasons, and following those policies.

If the Fed signals its plans for emergency lending, it faces three tradeoffs. First, the Fed loses some of the flexibility that it would enjoy if it sent no signal at all. Still, it retains much flexibility is retained by using guidance as the vehicle and by giving partial and contingent answers when information is incomplete. Moreover, the option of "sending no signal"—and thus maintaining total flexibility—does not really exist, as the emergency lending experiences in 2008 illustrated so abundantly. In a crisis that warrants emergency interventions on policy and social-welfare grounds, the Fed's very actions—even if it acts without explanation—will create a narrative about official policy. Market actors will observe this narrative and use it to draw inferences about future agency behavior. The rescue of Bear Stearns shaped expectations notwithstanding the Fed's opacity: firms like Lehman took greater risks, raising the risk of a crisis, and market actors in general assumed the Fed would intervene, meaning they were not prepared for crisis conditions. "Markets demand absolute certainty," former Secretary of the Treasury Hank Paulson wrote in the aftermath of 2008.[376] When actions inevitably send some signal of future behavior, the Fed is responsible for that signal, however noisy or even incorrect. It is thus better for the Fed to state expressly which inferences about its actions are appropriate, which are not, and how market participants and other observers should know the difference.

The second tradeoff is that signaling may cause moral hazard. But this only happens if what the Fed signals is indulgence. If the Fed signals stringency, that can *prevent* moral hazard, a fact that loomed large over discussions about government actions in September 2008.[377] The interpretation of Section 13(3) that Bernanke, Geithner, and Paulson say forced Lehman's failure could—if announced earlier—have altered Lehman's incentives and behavior ex ante and averted or mitigated the crisis. (As Dr. Strangelove says, upon learning the Soviet enemy has built an irrevocable nuclear trigger for deterrence but failed to inform the United States about it, "The whole point of the Doomsday Machine is lost if you keep it a secret! Why didn't you tell the world?"[378]) Going forward, if the Fed gives contingent and partial answers regarding its emergency-

376. PAULSON, JR., *supra* note 325, at 209.

377. *Id.* at 193-222.

378. DR. STRANGELOVE OR: HOW I LEARNED TO STOP WORRYING AND LOVE THE BOMB (Columbia Pictures & Hawk Films 1964).

lending plans, it might focus on identifying knowable scenarios and conditions under which it plans *not* to lend, while leaving this possibility open in other scenarios. And even if the Fed projects the conditions under which it *will* lend, that need not create moral hazard if the Fed accurately specifies the conditions of a true liquidity crisis—that is, conditions that market-actor mismanagement alone does not precipitate.

The third tradeoff is that guidance entails some risk that courts may get involved, diminishing the Fed's autonomy. When the Fed made emergency-loan decisions during the financial crisis in 2008-2009, it appears that no firm sued the Fed either to force it to make a certain loan or to prevent it from doing so.[379] This absence of litigation may be explained partly by the fact that Fed decision-making was so opaque that nobody had any legal basis for a challenge. But it may also be due to the practicalities of financial-crisis conditions. A financial firm denied a bailout may collapse very quickly, leaving no time to litigate, and even if denied a bailout may want to stay in the Fed's good graces (especially if transferred to the control of its creditors).[380] Meanwhile, competitors may contemplate needing bailouts of their own and may likewise want to avoid antagonizing the Fed mid-crisis,[381] or may simply view the rescue of their rivals as

379. On the absence of traditional challenges to agency action during the crisis, see David Zaring, *Litigating the Financial Crisis*, 100 VA. L. REV. 1405, 1420-33 (2014). There was litigation, but it took the form of ex-post efforts to get compensation. Given that statutory government tort law allows no compensation for injury from how a federal agency exercises a discretionary function, 28 U.S.C. § 2680(a) (2018), which surely includes emergency loans, plaintiffs' theories had to be (and were) quite extraordinary. Most prominent was AIG shareholders' suit against the Fed over the terms of its bailout of their company, on a Fifth Amendment takings theory premised on the fact that the Fed demanded equity in exchange for AIG's rescue (which the plaintiffs said the Fed lacked statutory authority to demand). So long as the Fed serves as lender rather than owner, this theory will be unavailable. And in any event, the plaintiffs (while winning on the merits) got zero damages, since their company would have been worse off absent the rescue. POSNER, *supra* note 11, at 88-102. More recently, the Second Circuit held that Federal Reserve Banks are agents of the federal government and that it is therefore possible to bring a False Claims Act suit against a firm that made misrepresentations to such a Bank in obtaining an emergency loan. United States ex rel. Kraus v. Wells Fargo & Co., 943 F.3d 588 (2d Cir. 2019). Any such suit would have potential to find unlawful a firm's representation of facts to the Fed, but not the Fed's own criteria for how to make decisions as to given sets of facts. Further, any such suit would presumably occur well after the liquidity crisis had passed.

380. The story may be different when firms seeking emergency relief are not in the financial industry. Non-financial firms may not be subject to the rapid and irrevocable collapse that comes with a run. Thus, during the Covid-19 economic crisis, firms denied emergency relief by the Small Business Administration have litigated against that agency, seeking to challenge its eligibility criteria. *E.g.*, *In re* Hidalgo Cty. Emergency Service Found., 962 F.3d 838, 840 (5th Cir. 2020).

381. For a similar point, see Steven Davidoff Solomon & David Zaring, *Transactional Administration*, 106 GEO. L.J. 1097, 1103 n.27 (2018).

preferable to the risk of broader industry collapse.[382] But if the Fed announces an approach through guidance *in advance of a crisis*, and that guidance seems to disadvantage certain firms, those firms will have time to try to seek judicial review of that approach before it is applied intra-crisis, through making actual emergency loans.[383]

Even with our proposal to provide continually increasing clarity on the principal ambiguities that Section 13(3) leaves in place, the risk of litigation by financial firms—though real—is limited in various ways. First, financial firms have a market incentive not to look like they contemplate needing a bailout (though perhaps a trade association could sue on their behalf). Second, insofar as firms are challenging the guidance before a crisis occurs and before they are actually applying for emergency loans, the ripeness doctrine presents an obstacle to reaching the merits.[384] Third, if

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382. One analogy may be the auto industry. *See, e.g.*, Michelle Hartman, *What Did America Buy with the Auto Bailout, and Was It Worth It?*, MARKETPLACE (Nov. 13, 2018), https://www.marketplace.org/2018/11/13/what-did-america-buy-auto-bailout-and-was-it-worth-it/ [https://perma.cc/NT3B-L88B] ("Ford supported the GM and Chrysler bailouts to protect its supply chain and dealer network.").

383. The Board of Governors can litigate independently of the presidentially controlled Department of Justice, though there may be ambiguity regarding the matters to which this authority applies and how far up the judicial hierarchy it extends. 12 U.S.C. § 248(p) (2018). But the Fed's precrisis guidance would need to be coordinated with the executive branch in any event, given the role that Dodd-Frank mandates for Treasury. And if precrisis Fed guidance suggests the Fed is unlikely to bail out certain firms who then challenge the guidance in court, the White House would normally have political incentives to seem antibailout and thus to back the Fed.

384. The ripeness doctrine constrains challenges to legislative rules, and any constraint on challenging a legislative rule would apply a fortiori to challenging a guidance document. Under *Abbott Laboratories v. Gardner*, a court deciding whether a facial challenge to an agency rule, prior to the rule's application to particular parties, is ripe for review must consider (a) the fitness of the issues for judicial resolution, including whether the agency action is final and whether the issues are purely legal or would instead benefit from additional factual development; and (b) the hardship to the parties of not allowing review of the rule prior to its application. 387 U.S. 136, 149 (1967). *Abbott Labs* was immediately concerned with rules that banned or required conduct under some kind of penalty (as opposed to rules governing benefits); it found the requisite hardship where "a regulation requires an immediate and significant change in the plaintiffs' conduct of their affairs with serious penalties attached to noncompliance." *Id.* at 153. The Supreme Court has continued to suggest that facial challenges are appropriate for rules demanding changed behavior under penalties and has further suggested that they are appropriate *only* for such rules. Nat'l Park Hosp. Ass'n v. DOI, 538 U.S. 803, 808 (2003). Consistent with this, the Court, in *Reno v. Catholic Social Services, Inc.*, 509 U.S. 43 (1993), adopted reasoning that "seems sufficiently broad to preclude pre-application judicial review of any rule that purports to describe criteria for obtaining any form of government benefit," 2 KRISTIN E. HICKMAN & RICHARD J. PIERCE JR., ADMINISTRATIVE LAW TREATISE 1650 (6th ed. 2019). In *Reno*, the challenged legislative rules purported to render certain undocumented immigrants ineligible for the statutory benefit of amnesty, and the Court held that those immigrants could not challenge the rules unless they had first applied for amnesty and been denied on the basis of the rules, even though such denial was certain with the rules in place, and even though the statute contained a special provision precluding lawsuits against the agency to challenge individual denials of amnesty (that is, immigrants who did apply and were denied would *not* have thereby gained an opportunity to go

the agency carefully drafts the guidance to refrain from purporting to block off future contestation and reconsideration of the plans and interpretations it lays out, there is a good chance that courts will consider the guidance "non-final," which likewise blocks a pre-application challenge to the document from reaching the merits.[385] Fourth, even if the plaintiffs did

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to court to get amnesty granted; they would only gain the opportunity to raise the unlawfulness of their denial as a defense if and when the agency put them into deportation proceedings). *Reno*, 509 U.S. at 57-61. If the Fed invoked *Reno* to block preapplication judicial review of guidance pertaining to emergency lending, plaintiffs might argue that, if they are forced to wait to sue until after they actually apply for a loan midcrisis and are denied it, the result may be that they simply go under and practically *never* get any judicial review of the challenged guidance—a result that might seem inconsistent with *Abbott Labs*' solicitude for plaintiffs suffering hardship and with administrative law's general presumption in favor of judicial review. But this argument appears doubtful under *Reno*. In that case, the Court refused to find that immigrants suffered sufficient hardship from delaying review even though many immigrants had in fact refrained from applying for amnesty because the challenged rules purporting to render them ineligible deterred them (quite understandably) from applying, meaning that—given the unavailability of preapplication judicial review—these immigrants practically *never* got any judicial review of the challenged legislative rules. *See* 2 HICKMAN & PIERCE, *supra*, at 1650 (discussing how the deterrent effect in *Reno* meant that "many eligible aliens had no practical opportunity to change their status"). In other words, *practical* foreclosure of *all* postapplication judicial review of a rule governing benefits is insufficient to render ripe a preapplication challenge. And although the Ninth Circuit has interpreted *Reno* (perhaps wrongly) to mean that a challenge to a rule governing benefits is ripe if "[i]t is inevitable that the challenge rule with operate to the plaintiff's disadvantage—if the court can make a firm prediction that the plaintiff will apply for the benefit, and that the agency will deny the application by virtue of the rule," Freedom to Travel Campaign v. Newcomb, 82 F.3d 1431, 1436 (9th Cir. 1996) (citations and internal quotation marks omitted), we think it unlikely that a court in a precrisis challenge could make such a prediction.

385. Though the case law on exactly what sorts of guidance documents are "final" is subject to much confusion, nobody seems to think that such documents are generally final; rather, opinion ranges from considering them categorically nonfinal to believing that their finality depends on the circumstances. For a recent survey, see Steven J. Lindsay, *Timing Judicial Review of Agency Interpretations in* Chevron's *Shadow*, 127 YALE L.J. 2448, 2456-74 (2018). There is prominent authority for the idea that a policy statement—that is, an agency's officially tentative plan for how to exercise its discretion in future adjudications—is always nonfinal, even if regulated parties reading the statement think "the writing is on the wall" about what the agency will do. *See, e.g.*, Nat'l Mining Ass'n v. McCarthy, 758 F.2d 243, 251, 253 (D.C. Cir. 2014) (Kavanaugh, J.). Also, recent D.C. Circuit cases suggest that an interpretive rule—even one presenting the agency's reading of a statute quite clearly—can nonetheless be nonfinal if the agency does not rely upon the rule as independent authority in subsequent adjudications, if parties in those adjudications can still challenge agency decisions therein to adopt the interpretive rule's reasoning, and if the rule does not put parties at risk of a penalty or liability for ignoring the rule—a risk that would arise in the context of enforcement but apparently not in contexts like applications for permits or benefits. *See* Cal. Cmtys. Against Toxics v. EPA, 934 F.3d 627, 636-40 (D.C. Cir. 2019); Valero Energy Corp. v. EPA, 927 F.3d 532, 536-39 (D.C. Cir. 2019). To be sure, the Supreme Court did find reviewable the rescission of a guidance document in *DHS v. Regents of the University of California*, 140 S. Ct. 1891, 1907 (2020), but the government there did not raise—and the Court did not consider—finality, perhaps because the rescission had indicia of finality that were relatively unique to the case (i.e., the document rescinded had arguably been a legislative rule to begin with, and even if not, the document had provided an elaborate process for making explicit individual grants of benefits to the very plaintiffs in the case, the renewal of which benefits was foreclosed by the rescission). We thank Ron Levin for a helpful exchange about this case.

reach the merits, the subject of emergency lending is so technical and reviewed so little by courts that judges would be quite likely to follow the agency's view.[386] And if the agency gets its approach upheld in court, that would only increase the strength of the signal.[387]

G. The Fed's Emergency Lending and COVID-19

As described in the Introduction, the Fed has reactivated its emergency-lending authorities in response to the Covid-19 pandemic.[388] Others have more fully documented the Fed's facilities than we have,[389] but the Fed's responses have exposed it once again to criticism of unlawful action and inadequate explanations.

One issue is relevant: the Fed's interpretations of insolvency and the Fed's clarity on eligibility for its novel emergency-lending facilities. The

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386. This kind of deference is based on information asymmetry and operates regardless of whether the *Chevron* doctrine applies or is even abandoned. ADRIAN VERMEULE, LAW'S ABNEGATION: FROM LAW'S EMPIRE TO THE ADMINISTRATIVE STATE 31 (2016). Prior to *Chevron*, and also prior to many of the Supreme Court case-law developments on ripeness and finality cited in notes 384 and 385 *supra*, the Second Circuit treated an ex post challenge to Fed emergency lending in a manner that arguably involved reaching the merits, but with great deference to the agency: "Absent clear evidence of grossly arbitrary or capricious action on the part of either or both of [the Fed and the Office of the Comptroller of the Currency] . . . it is not for the courts to say whether or not the actions taken were justified in the public interest, particularly where it vitally concerned the operation and stability of the nation's banking system." Huntington Towers Ltd. v. Franklin National Bank, 559 F.2d 863, 868 (2d Cir. 1977).

387. Masur, *supra* note 45, at 1030. An additional litigation risk to Fed autonomy is if a firm that is denied an emergency loan during a crisis sues to force the Fed to make such a loan, on the ground that the guidance requires the loan. But unlike legislative rules, "agency policy statements do not bind an agency," "[i]nterpretive rules ordinarily do not bind an agency," and the "occasional cases holding an agency bound by its own interpretive rules can be explained on constitutional grounds," 1 KRISTIN E. HICKMAN & RICHARD J. PIERCE JR., ADMINISTRATIVE LAW TREATISE 437-38 (6th ed. 2019), which grounds we think have no application to emergency loans (e.g., such loans are not a statutory entitlement and thus not a property right subject to due process). To be sure, it is possible that the Fed, in order to depart from a guidance document with respect to particular loan decisions during a crisis, would need to give an explanation sufficient to satisfy a court that its departure from the guidance is not arbitrary or capricious. Indian River Cty., Fla. v. DOT, 348 F. Supp. 3d 17, 56 (D.D.C. 2018) (collecting relevant cases). But the Fed can write the guidance in the first place to allow for downstream flexibility, and besides, the Fed *should* think twice about departing from its plans during a crisis and should be able to provide a public explanation if it does so. (The White House, if facing an actual crisis and wishing for a bailout, might theoretically try to use the Department of Justice to prevent the Board of Governors from contesting such a challenge, given possible statutory ambiguities in 12 U.S.C. § 248(p) (2018), discussed in note 383 *supra*. But the relevant Reserve Bank would be a necessary defendant, and the Reserve Banks are quasi-private entities that can litigate independently.)

388. *See supra* text accompanying notes 2-8.

389. *See* Menand, *supra* note 290; Jeffrey Cheng, David Skidmore & David Wessel, *What's the Fed Doing in Response to the Covid-19 crisis? What More Could It Do?*, BROOKINGS (July 17, 2020), https://www.brookings.edu/research/fed-response-to-covid19/ [https://perma.cc/DB6X-Z5YH].

Federal Reserve Act, as amended by the Dodd-Frank Act of 2010, prohibits the Fed from using its emergency lending authority to support "insolvent" institutions.[390] Although the statute provides some definitional content to the term "insolvent"—an institution that has formally entered bankruptcy proceedings, for example, is insolvent for the statute's purposes[391]—it also instructs the Fed to provide by regulation more clarity still. The Fed's Regulation A, amended in 2013, defines an insolvent institution, in part, as one that is "generally not paying its undisputed debts as they become due during the 90 days preceding the date of borrowing" from the emergency facility.[392]

This definition of insolvency is not required by statute. It is also remarkably ill-suited to the economic conditions associated with COVID-19. There have been countless examples of otherwise solvent businesses that have decided not to pay "undisputed debts" during these periods of macroeconomic uncertainty.[393] But the Fed has extended several emergency-lending facilities to these companies without verifying whether they fall into this category.

The Fed may have a legal explanation that can rationalize Regulation A with its financing of firms that are ostensibly "insolvent," but if so, it has not offered these explanations. The guidance regime we describe above will require the Fed to revisit Regulation A—whether through conventional notice-and-comment rulemaking or (in the midst of the COVID-19 pandemic) via an emergency rule under the appropriate provisions of the Administrative Procedure Act.[394] In either case, the Fed should reserve much more flexibility in Regulation A than the guidance system we describe can specify flexibly in the face of changing circumstances.

Conclusion

Many of the points here about the pros and cons of openness and transparency on Fed legal matters echo earlier discussions about Fed transparency on economic matters. Under the leadership of Fed Chair Alan Greenspan and many of his predecessors, the Fed was known for its

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390. 12 U.S.C. § 343 (2018).

391. *See id.* § 343(3)(B)(ii).

392. 12 C.F.R. §201.4(d)(5) (2020).

393. *E.g.*, Leticia Miranda, *What Happens to Main Street When Even the Biggest Retailers Can't Pay Rent?*, NBC (May 6, 2020), https://www.nbcnews.com/business/business-news/what-happens-main-street-when-even-biggest-retailers-can-t-n1200781 [https://perma.cc/XS3Z-GJZV] (listing large firms that have refused to pay landlords during pandemic shutdown).

394. 5 U.S.C. § 553(b)(3)(B) (2018).

Delphic pronouncements that gave little if any indication of the Fed's intentions. Such opacity was believed to preserve the Fed's freedom of action.[395]

This is no longer the case. The new mantra is transparency, not secrecy. In one sense, this Article seeks to extend this transparency revolution from exclusively economic matters to the closely linked questions of the central bank's generally applicable legal interpretations and its procedures for general, long-term policymaking, improving outcomes in monetary policy and emergency lending.

Transparency is not an unmitigated virtue that central banks must simply maximize. Values of transparency must be optimized against other important goals, such as maintaining the integrity of internal deliberations or preventing outside strategic interests from hijacking regulatory processes. One context in which this tradeoff might disfavor transparency is that of "stress tests," in which the Fed uses confidential models to decide whether large banks have taken sufficient precautions against adversity and forces them to act more conservatively if not.[396] Compared with monetary policy or emergency lending, stress testing is an area where useful and relevant information is highly concentrated in a single, politically unified, self-interested group—that is, the large banks. As the Fed invites more participation in devising stress-test models, banks can increasingly dominate the agency's modeling.[397] But the more the Fed keeps its process for devising models confidential, the more it can develop those models independently, with less of the bias that arises from reliance upon bank-provided information. This builds up its own capacity for public-regarding autonomous judgment. Though full analysis of stress-test transparency is beyond the scope of this Article, we raise it as a potential example to illustrate that our call for Fed transparency has limits that depend on context.

Our claim is that the Federal Reserve is an administrative agency whose legal interpretations and policy processes can and must be treated as such. The earlier transparency revolution on economic matters in central banking did not benefit from administrative law's intense

395. For an overview of these tensions, see Ben S. Bernanke, Chairman, Bd. of Governors of the Fed. Reserve Sys., Remarks at the Bank of Japan, Tokyo: Central Bank Independence, Transparency, and Accountability (May 25, 2010), https://www.federalreserve.gov/newsevents/speech/bernanke20100525a.pdf [https://perma.cc/Z6HY-GNVE].

396. For an overview of transparency issues in stress testing, see Mark J. Flannery, *Transparency and Model Evolution in Stress Testing,* FED. RESERVE BANK BOS. (July 9, 2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3431679 [https://perma.cc/638X-2M2B].

397. In our general discussion of the pitfalls of public participation, we noted the problem of environments dominated by a self-interested "policy development monopolist." *See supra* Section I.B.2.c. Stress testing may be an instance of that.

engagement with the virtues and tradeoffs of transparency. By considering administrative law's insights, central banking may develop better procedures for transparency about economic matters. And administrative law is similarly impoverished by the paucity of attention paid to central banks—perhaps the most powerful government agencies ever created. This Article invites more dialogue between these two academic and policy traditions, to consider what is (and ought to be) common and what is (and ought to be) idiosyncratic about central banking in an administrative law context—and doing the same for administrative law from a central banking perspective.