

The Center for Law and Economic Studies
Columbia University School of Law
435 West 116th Street
New York, NY 10027-7201
(212) 854-3739

Guarantor of Last Resort
Kathryn Judge
Working Paper No. 589
February 11, 2019

97 Texas Law Review ____ (forthcoming 2019)

Please do not quote or cite without author's permission.

To view other articles in the Columbia Law & Economics
Working Paper Series, see:

<http://web.law.columbia.edu/law-economic-studies/working-papers>

Guarantor of Last Resort

Kathryn Judge

The optimal response to a financial crisis entails addressing two, often conflicting, demands: stopping the panic and starting the clock. When short-term depositors flee, banks can be forced to sell assets at fire-sale prices, causing credit to contract and real economic activity to decline. To reduce these adverse spillover effects, policymakers routinely intervene to stop systemic runs. All too often, however, policymakers deploy stopgap measures that allow the underlying problems to fester. To promote long-term economic health, they must also ferret out the underlying problems and allocate the losses that cannot be avoided. A well-designed guarantor of last resort can help address these conflicting demands. Just-in-time guarantees keep private capital in the system, providing policymakers the time that they need to develop a viable plan to address deficiencies. A strict time limit on those guarantees ensures that policymakers and market participants remain motivated to devise such a plan, avoiding the alternative pitfall of excessive forbearance.

* Professor of Law, Columbia University; Research Member, ECGI. The author is grateful for comments and conversations with numerous colleagues, including workshop participants at the University of Chicago Law & Economics Workshop, the Regulatory Law & Policy Seminar at the University of Pennsylvania, the St. John's Faculty Workshop, and the ETH/NYU/House of Finance Law & Finance Workshop in Germany, the BU Law School Financial Regulation Workshop, the University of Toronto Law & Economics Workshop, the Vanderbilt Conference on Market Structure and Financial Markets, and numerous other friends and colleagues for helpful comments and suggestions. Elizabeth Brandt and Rhick Bose provided exceptional research assistance.

Table of Contents

I.	FROM LENDER OF LAST RESORT TO GUARANTOR OF LAST RESORT..	111
A.	Bagehot	111
B.	The Reasons for Runs and the Limits of a Lender of Last Resort	114
C.	How a Guarantor of Last Resort is Different.....	119
D.	Ongoing Relevance: Action and Creativity	125
E.	The EGA in Relation to Other Recent Proposals.....	131
II.	THE PRACTICE: GUARANTEES IN THE 2007–2009 FINANCIAL CRISIS	135
A.	Guarantees in the Crisis	136
1.	<i>The FDIC</i>	136
2.	<i>The Federal Reserve</i>	139
3.	<i>The Treasury</i>	145
4.	<i>A Brief Look Abroad</i>	147
B.	Putting These Actions in Context	148
III.	THE PROPOSAL: THE EGA.....	153
A.	The EGA in a Nutshell.....	154
B.	Comparing the EGA to Past Practice.....	158
1.	<i>Scope of Coverage</i>	158
2.	<i>Decision-making and Accountability</i>	161
IV.	SOME BENEFITS	166
A.	Stopping the Run While Starting the Clock.....	166
B.	Time	171
C.	Allocation of Authority.....	174
1.	<i>Executive v. Congress</i>	174
2.	<i>Within the Executive</i>	181
D.	Dynamism	186
E.	Creativity and Risk Taking	188
V.	SOME COUNTER-ARGUMENTS.....	190
A.	Moral Hazard	190
B.	Fairness	193
C.	Credit Risk	195
D.	Funding and Other Implementation Challenges	198
	CONCLUSION	201

In wild periods of alarm, one failure makes many, and the best way to prevent the derivative failures is to arrest the primary failure which causes them.

Walter Bagehot¹

How best to fight financial panics is a matter of ongoing debate. On the one hand, concerns about moral hazard abound. When bank depositors and other short-term creditors anticipate government protection, they have little incentive to undertake costly monitoring. This reduces market discipline and can lead to excessive risk taking. On the other hand, the government cannot credibly commit to a no-bailout policy.² As Walter Bagehot recognized nearly 150 years ago, once panic sets in, the resulting harm extends far beyond the fleeing creditors and the institutions issuing their claims. Panics can lead to market dysfunction, credit contraction, and recession.³ The Great Depression vividly illustrates how ordinary Americans suffer when the government tries to force bankers to stew in

1. WALTER BAGEHOT, *LOMBARD STREET: A DESCRIPTION OF THE MONEY MARKET* 51 (1874).

2. See Anthony J. Casey & Eric A. Posner, *A Framework for Bailout Regulation*, 91 NOTRE DAME L. REV. 479, 482 (2015) (“Bailouts are socially desirable because Congress cannot anticipate the contingencies that would make possible an ex ante insurance system that regulates behavior and charges firms in advance for liquidity support or other transfers.”); Adam J. Levitin, *In Defense of Bailouts*, 99 GEO. L.J. 435, 439 (2011) (“Bailouts are an inevitable feature of modern economies, in which the interconnectedness of firms means that the entire economy bears the risk of an individual firm’s failure.”); see also Jeremy Stein, *Monetary Policy as Financial Stability Regulation*, 127 Q.J. ECON. 57, 58 (2012) (showing that unregulated banks can issue too much short-term debt, setting the stage for runs and fire sales and that “the potential for such fire sales may give rise to a negative externality”).

3. See *infra* subpart I(A).

their own juices.⁴

The macroeconomic cost of financial panics helps to explain the massive system of *ex ante* regulation imposed on banks and standing government-guarantee programs like deposit insurance. These costs and imperfections in the current regulatory regime have also inspired a range of ambitious reform proposals. Some favor significantly expanding deposit insurance to cover virtually all short-term debt in the financial system.⁵ Others favor a system that allows institutions that issue short-term debt to hold only the safest of assets, eliminating the traditional dual function of banks as takers of deposits and makers of loans.⁶ Each of these proposals is

4. Ben S. Bernanke, *Nonmonetary Effects of the Financial Crisis in the Propagation of the Great Depression*, 73 AM. ECON. REV. 257, 257 (1983) (showing that allowing banks to fail played a central role in depressing credit creation and magnifying the size of the recession known as the Great Depression); Gene Smiley, *Great Depression*, LIBR. ECON. & LIBERTY, <http://www.econlib.org/library/Enc/GreatDepression.html> [https://perma.cc/M3N7-PZ22] (explaining that “[b]etween 1929 and 1933, 10,763 of the 24,970 commercial banks in the United States failed” and this contributed to “plummeting production,” soaring unemployment, and a decline in real GNP of 30.5%); see also THEODORE ROSENOF, *ECONOMICS IN THE LONG RUN: NEW DEAL THEORISTS AND THEIR LEGACIES, 1933–1993*, 5 (1997) (ebook) (explaining that the Great Depression undermined assumptions of efficient markets without government intervention and “led to the New Deal’s enhanced role for government”).

5. E.g., MORGAN RICKS, *THE MONEY PROBLEM: RETHINKING FINANCIAL REGULATION* 241 (2016); Gary Gorton & Andrew Metrick, *Regulating the Shadow Banking System*, BROOKINGS PAPERS ON ECON. ACTIVITY, Fall 2010, at 261, 284 (quoting GRP. OF THIRTY, *FINANCIAL REFORM: A FRAMEWORK FOR FINANCIAL STABILITY* 29 (2009), https://www.brookings.edu/wp-content/uploads/2010/09/2010b_bpea_gorton.pdf [https://perma.cc/7988-FUJ4]); see also ALAN S. BLINDER & MARK ZANDI, *CTR. ON BUDGET & POLICY PRIORITIES, THE FINANCIAL CRISIS: LESSONS FOR THE NEXT ONE* 1 (2015) (calculating that without government intervention, twice as many Americans would have lost their jobs as a result of the Crisis and gross domestic product would have declined by 14% rather than 4%).

6. E.g., IRVING FISHER, *100% MONEY* 8–9, 12–13 (City Printing 3d ed. 1945) (proposing the conversion of banks into cash-only entities to stabilize the global economy); MILTON FRIEDMAN, *A PROGRAM FOR MONETARY STABILITY* 65–76 (Fordham Univ. Press 1959); Adam J. Levitin, *Safe Banking: Finance and Democracy*, 83 U. CHI. L. REV. 357, 403–07 (2016); see also Martin Wolf, *Banking Remains Far Too Undercapitalised for Comfort*, FIN. TIMES (Sept. 21, 2017), <https://www.ft.com/content/9dd43a1a-9d49-11e7-8cd4-932067fbf946?desktop=true&conceptId=0f07d468-fc37-3c44-bf19->

motivated by the inherent fragility of institutions funded with short-term debt and the government's inability to commit not to intervene when that fragility becomes manifest. Nonetheless, because these proposals would entail sweeping changes in the structure of the financial system and would work only if they bucked history and successfully constrained financial dynamism, they have been rejected time and again as too costly and infeasible.⁷

This Article proposes a more modest, and thus more viable, step forward: authorizing an “Emergency Guarantee Authority” (EGA). An EGA is a crisis-management system that complements the existing financial regulatory regime. The proposed EGA would empower the Treasury Secretary to provide emergency guarantees in order to halt a financial panic long enough to give policymakers the time they need to devise a longer term solution. The Treasury Secretary would have significant discretion to determine what claims to guarantee and on what terms. This discretion is critical to enabling the Secretary to respond quickly and to strike at the

a81f2aae9f36&segmentId=dd5c99e9-30be-ddd0-c634-ff3a0c2b738f#myft:notification:daily-email:content:headline:html [https://perma.cc/HEL3-Z7JS] (noting that since the Crisis “[a] number of serious people have proposed radical reforms” in financial intermediation and describing some of the other proposals).

7. See Morgan Ricks, *Safety First? The Deceptive Allure of Full Reserve Banking*, 83 U. CHI. L. REV. ONLINE 113, 114, 118–19 (2017) (explaining why narrow banking proposals are not likely to work as hoped); see also Kathryn Judge, *The Importance of “Money,”* 130 HARV. L. REV. 1148, 1155–56 (2017) (reviewing MORGAN RICKS, *THE MONEY PROBLEM: RETHINKING FINANCIAL REGULATION* (2016)) (explaining why Morgan Ricks’s innovative proposal to limit the issuance of short-term debt and have the government guarantee all such debt is unlikely to panic-proof the financial system).

heart of the problem even when a threat arises outside the regulated banking sector. This discretion would be constrained by procedural constraints, reporting requirements, a prohibition on repeat protection, and a strict time limit. The EGA and any guarantees extended pursuant to that authority would expire in two years from the time the EGA is first invoked.

In contrast to many recent reforms and reform proposals, the EGA does not purport to prevent or solve the challenge of financial fragility. Its aim, instead, is resilience—reducing the macroeconomic costs of financial crises and preserving the accountability that so often is compromised when panic takes hold.

The banking literature provides a number of explanations for why short-term creditors run, with some focused on coordination challenges and others on information dynamics.⁸ Guarantees are one of the only government interventions that can stop a run irrespective of the reasons for it.⁹ Experience further affirms the distinct value of guarantees. Regulators in the United States and abroad regularly used guarantees during the Crisis, even when they had to stretch their legal authority to do so.¹⁰ Creating an

8. *See infra* Part I.

9. *See infra* Part II (showing that each of the major U.S. financial regulators used guarantee-like interventions during the Crisis); Franklin Allen et al., *Moral Hazard and Government Guarantees in the Banking Industry*, 1 J. FIN. REG. 30, 34, fig.1 (2015) (showing that nine countries provided unlimited deposit insurance during the crisis and virtually all others, including the United States, increased those limits significantly when the crisis hit).

10. *See infra* Part II (showing that each of the major U.S. financial regulators used guarantee-like interventions during the Crisis); Franklin Allen et al., *Moral Hazard and Government Guarantees in the Banking Industry*, 1 J. FIN. REG. 30, 34, fig.1 (2015) (showing that nine

EGA would provide financial regulators the tool they need to contain a growing financial crisis while also institutionalizing constraints to ensure that they remain motivated to address the underlying problems underlying a panic. By enabling policymakers to act quickly to contain a systemic crisis while also deterring forbearance, the EGA can help mitigate the most significant mechanisms through which problems in the financial sector can harm the real economy.

A second but no less important function of the proposed EGA is to preserve the democratic legitimacy that is so often compromised when a crisis strikes. By expanding the capacity of the executive branch to act quickly to contain a crisis while also institutionalizing a role for Congress, the EGA sets up an infrastructure through which elected officials can preserve and promote values beyond economic health. The political unrest and lack of trust in public and private institutions since the Crisis attest to the need to address fairness and other concerns alongside trying to protect the real economy from harm.¹¹

Examining crises through an informational lens illuminates how the EGA can help address so many of the challenges crises can pose. The key is to start with a realistic set of assumptions regarding what elected officials,

countries provided unlimited deposit insurance during the crisis and virtually all others, including the United States, increased those limits significantly when the crisis hit).

¹¹ [Pew]

regulators, market participants, and others actually know when a crisis first hits.¹² When bank depositors and other short-term creditors run, they are often running because they have good reason to question the safety of the claims they are holding.¹³ To achieve lasting stability, policymakers must understand, address, and convince market participants that they understand and have addressed the underlying weaknesses triggering the runs. As former Federal Reserve official Donald Kohn explains: “The key to turning the situation around [in the 2007-2009 financial crisis] was identifying all the problems and coming up with detailed and credible plans for dealing with them across their many dimensions.”¹⁴ Empirical work examining a broader set of crises supports Kohn’s assessment.¹⁵ Developing a comprehensive plan, however, and getting feedback from elected officials

12. FIN. CRISIS INQUIRY COMM’N, THE FINANCIAL CRISIS INQUIRY REPORT xvi–xvii (2011) <https://www.gpo.gov/fdsys/pkg/GPO-FCIC/pdf/GPO-FCIC.pdf> [<https://perma.cc/P7M2-VGQM>] [hereinafter FINANCIAL CRISIS INQUIRY REPORT] (observing that “[t]echnology has transformed the efficiency, speed, and complexity of financial instruments and transactions”); VOLCKER ALLIANCE, UNFINISHED BUSINESS: BANKING IN THE SHADOWS 39–40 (2016) [hereinafter VOLCKER ALLIANCE REPORT], http://www.volckeralliance.org/sites/default/files/attachments/VolckerAlliance_UnfinishedBusinessBankingInTheShadows.pdf [<https://perma.cc/L9CR-C5XS>]; Kathryn Judge, *The First Year: The Role of a Modern Lender of Last Resort*, 116 COLUM. L. REV. 843, 843 (2016).

13. Charles W. Calomiris & Gary Gorton, *The Origins of Banking Panics: Models, Facts, and Bank Regulation*, in NAT’L BUREAU ECON. RES., FINANCIAL MARKETS AND FINANCIAL CRISES 109, 121 (R. Glenn Hubbard ed., 1991). If the challenge triggering the panic truly is just a coordination game, the guarantee itself might enable order to be restored.

14. Donald Kohn, Senior Fellow, Brookings Inst., *The European Crises—Banking Challenges* (July 12, 2012), <https://www.brookings.edu/on-the-record/the-european-crises-banking-challenges/> [<https://perma.cc/7DLC-SW4G>].

15. Luc Laeven & Fabian Valencia, *The Use of Blanket Guarantees in Banking Crises*, 31 J. INT’L MONEY & FIN. 1220, 1221 (showing that “the provision of liquidity support responds more strongly to the announcement and implementation of comprehensive bank restructuring policies than to the announcement of blanket guarantees” and explaining that clear and credible policies negate the need for blanket guarantees).

and other constituencies takes time. The EGA buys that time. It allays the panic long enough for policymakers to gather and analyze pertinent information, weigh competing values, and devise a viable plan for addressing deficiencies and addressing the fairness and other issues that might be at stake.

The EGA will not prevent the next panic. And, given the inevitable vagaries of any crisis and the messiness of politics, there can be no assurances of how the EGA will be used when the time comes.¹⁶ Acknowledging institutional and informational realities, however, reveals the modesty of the proposal to be a virtue, not a bug. Rather than purporting to answer in advance all of the difficult questions a crisis presents, the EGA creates a framework that aligns accountability with authority, facilitates the information generation and the exercise of informed judgments, and enables different types of policymakers to play roles consistent with their distinct competencies. And the EGA makes crisis containment more likely and excessive forbearance less so, even if it cannot assure any particular outcome. This is significant improvement over the status quo.

The Article proceeds in five parts. Part I lays the foundation. It examines the origins, utility, and limits of having a central bank serve as a lender of last resort, the most well recognized crisis-fighting tool. It also

16. See *infra* subpart V(A).

introduces the literature on why short-term creditors run and financial dynamism and explains how each helps explain the value of a guarantor of last resort. Part II addresses the use of emergency guarantees during the Crisis. Part III presents the proposal and considers how it compares to what happened during the Crisis. Part IV examines the virtues of the proposed EGA using different frameworks to highlight the different challenges it can help overcome. Part V addresses some drawbacks.

I. From Lender of Last Resort to Guarantor of Last Resort

A. *Bagehot*

Walter Bagehot's *Lombard Street: A Description of the Money Market*, originally published in 1873, continues to be “the bible” for how central banks should respond during periods of systemic distress.¹⁷ In *Lombard Street*, Bagehot describes the inherently cyclical and fragile nature of the British financial system of his time.¹⁸ As he explains: “The peculiar essence of our banking system is an unprecedented trust between man and man: and when that trust is much weakened by hidden causes, a small

17. TIMOTHY F. GEITHNER, *STRESS TEST: REFLECTIONS ON FINANCIAL CRISES* 118 (2014); Peter Conti-Brown, *Misreading Walter Bagehot: What Lombard Street Really Means for Central Banking*, *THE NEW RAMBLER* (Dec. 14, 2015), <https://newramblerreview.com/book-reviews/economics/misreading-walter-bagehot-what-lombard-street-really-means-for-central-banking> [<https://perma.cc/88FQ-W6GV>] (reviewing WALTER BAGEHOT, *LOMBARD STREET: A DESCRIPTION OF THE MONEY MARKET* (1873)); see also Vincent Bignon et al., *Bagehot for Beginners: The Making of Lender-of-Last-Resort Operations in the Mid-Nineteenth Century*, 65 *ECON. HIST. REV.* 580, 582 (2012); Kathryn Judge, *The Federal Reserve: A Study in Soft Constraints*, 78 *LAW & CONTEMP. PROBS.* 65, 79–82 (2015).

18. See generally, BAGEHOT, *supra* note 1, at 122–59.

accident may greatly hurt it, and a great accident for a moment may almost destroy it.”¹⁹ Thus, in the face of a panic, the central bank ought not stand idly by. Rather, it should use its unique position to counteract the panic and the dramatic loss of liquidity that arises when depositors and other short-term claimants refuse to accept anything but cash or specie as money-like. They should follow the approach used by the Bank of England in 1825, when it loaned money by “every possible means and in modes [it] had never adopted before.”²⁰

Central bank intervention is critical, Bagehot explains, because “managing a panic” is not “mainly a ‘banking’ problem. It is primarily a mercantile one,” which can have serious and adverse effects on trade if not addressed appropriately.²¹ Bagehot also laid out a vision for how a central bank ought to help quell a panic, emphasizing the importance of having a central bank make clear in advance that it would serve as a lender of last resort during times of systemic distress.²²

Bernanke and other leading policymakers regularly invoked a set of principles collectively known as “Bagehot’s dictum” to explain and defend

19. *Id.* at 158–59.

20. *Id.* at 51.

21. *Id.* at 52.

22. *Id.* at 51; *see also* Conti-Brown, *supra* note 20 (suggesting that the “failure of the Bank of England . . . to *acknowledge* . . . that they were the lender of last resort . . . set Bagehot off” and the book is largely “an argument about why this acknowledgment is so important”).

their actions during the Crisis.²³ The dictum has come to stand for the proposition that during times of systemic distress, a central bank should lend freely, against good collateral, to solvent banks, at a penalty rate.²⁴ Economic historians have pointed out that this precise formulation cannot be located in the original text and that differences between the financial system that motivated Bagehot's work and finance today increase the wedge between Bagehot's initial contribution and the ways in which his dictum gets invoked today.²⁵ Few disagree, however, that Bagehot's *Lombard Street* played a definitive role in cementing the notion that central banks ought to act as lenders of last resort to calm and help avert financial crises.

23. BEN S. BERNANKE, THE FEDERAL RESERVE AND THE FINANCIAL CRISIS: LECTURES BY BEN S. BERNANKE 7, 29, 74, 83, 97 (2013) (repeatedly invoking Bagehot's dictum, including in defense of the decision not to bail out Lehman Brothers); NEIL IRWIN, THE ALCHEMISTS: THREE CENTRAL BANKERS AND A WORLD ON FIRE 10 (2013) (noting that Trichet (the head of the European Central Bank), Bernanke, and King (the head of the U.K.'s central bank) "often invoked Bagehot's words as a model for their own crisis response almost 150 years" after he wrote them); John L. Walker, *Emergency Tools to Contain a Financial Crisis*, 35 REV. BANKING & FIN. L. 669, 711 (2016) ("In explaining this governmental authority to intervene in times of financial crisis, commentators traditionally rely on the principles developed by Walter Bagehot in 1873.").

24. E.g., Stephen J. Lubben, *Failure of the Clearinghouse: Dodd-Frank's Fatal Flaw?*, 10 VA. L. & BUS. REV. 127, 154 (2015); Eric A. Posner, *What Legal Authority Does the Fed Need During a Financial Crisis?*, 101 MINN. L. REV. 1529, 1532–33 (2017); Walker, *supra* note 23, at 714–16, 715 n.150; Robert F. Weber, *Post-Crisis Reform of the Supervisory System and High Reliability Theory*, 50 GA. L. REV. 249, 275–76 (2015); Brian F. Madigan, Dir., Div. of Monetary Affairs, Speech at the Federal Reserve Bank of Kansas City's Annual Economic Symposium: Bagehot's Dictum in Practice: Formulating and Implementing Policies to Combat the Financial Crisis (Aug. 21, 2009), <http://www.federalreserve.gov/newsevents/speech/madigan20090821a.htm> [<https://perma.cc/2MLC-D3FN>].

25. E.g., Bignon et al., *supra* note 20, at 580–81, 603; Conti-Brown, *supra* note 20; see also Posner, *supra* note 27, at 1538–41 (explaining the evolution of Bagehot's principles in light of the evolution of banking).

B. The Reasons for Runs and the Limits of a Lender of Last Resort

The literature on the reasons for bank runs sheds light on the utility and limits of a lender of last resort (LOLR) in fighting panics. There are two types of theories about the reasons that short-term creditors run.²⁶ Some suggest that runs are largely a byproduct of coordination challenges.²⁷ Most of a bank's assets are long-term and relatively illiquid, while much of its funding takes the form of short-term liabilities like demand deposits. If a large proportion of short-term creditors demand their money back at the same time, a bank can be forced to sell assets at discounted "fire-sale" prices, reducing the aggregate value of those assets. As a result, short-term creditors who are late to demand their money back may get less than the full value of their claims, even if the bank was solvent prior to the run. This gives short-term creditors an incentive to be among the first to withdraw in a run, even if they believe their bank is otherwise healthy. That runs can be self-fulfilling prophecies was most famously modeled by Douglas Diamond and Philip Dybvig in 1983, well over a century after Bagehot's insights regarding the value of having a LOLR and half a century after the United States implemented a deposit-insurance scheme that can be rationalized on the same basis.²⁸ There are now numerous formal models demonstrating

26. Franklin Allen et al., *Financial Crises: Theory and Evidence*, 1 ANN. REV. FIN. ECON. 97, 99–100 (2009).

27. *E.g.*, Calomiris & Gorton, *supra* note 12, at 121.

28. Douglas W. Diamond & Philip H. Dybvig, *Bank Runs, Deposit Insurance, and Liquidity*,

how coordination challenges among short-term creditors can explain bank runs and why it can be rational for short-term creditors to make withdrawals even from solvent institutions.²⁹

The second set of theories focuses on information. Most of these models focus on information asymmetries between bank managers and holders of the short-term debt a bank issues.³⁰ The core idea is that bank depositors run when they have reason to suspect a bank may not be able to make good on all of its outstanding claims. Some of these models highlight the capacity of short-term debt to discipline bank managers, inducing good behavior and helping to surmount commitment challenges.³¹ More recent work suggests that as the financial system has become more complicated and interconnected, uncertainty³² and information gaps³³ may also be important sources of fragility.

Although sometimes cast as competing explanations for bank runs, coordination and information-based theories can also be seen as

91 J. POL. ECON. 401, 402 (1983).

29. For an overview of this work, see HAL SCOTT, *CONNECTEDNESS AND CONTAGION: PROTECTING THE FINANCIAL SYSTEM FROM PANICS* (2016).

30. See, e.g., Allen et al., *supra* note 26, at 99–100 (explaining that the literature generally falls into two camps, one which “maintains that panics are undesirable events caused by random deposit withdrawals unrelated to changes in the real economy” and a second that “describes banking crises as a natural outgrowth of the business cycle”).

31. E.g., Charles W. Calomiris & Charles M. Kahn, *The Role of Demandable Debt in Structuring Optimal Banking Arrangements*, 81 AM. ECON. REV. 497, 509–10 (1991); Douglas W. Diamond & Raghuram G. Rajan, *Liquidity Risk, Liquidity Creation, and Financial Fragility: A Theory of Banking*, 109 J. POL. ECON. 287, 289 (2001).

32. Ricardo J. Caballero & Arvind Krishnamurthy, *Collective Risk Management in a Flight to Quality Episode*, 63 J. FIN. 2195, 2197 (2008).

33. Judge, *Information Gaps*, *supra* note 18, at 443.

complements—with the various dynamics contributing to the magnitude of the run triggered by a particular shock. These theories also help to explain the inherent fragility of any institution that relies on short-term debt to fund longer term, less liquid assets, irrespective of whether that institution is a bank or merely bank-like. With the rise of market-based intermediation, often referred to as “shadow banking,” the institutions in question may look quite different than a traditional bank, and short-term creditors may exit by failing to roll over short-term debt when it matures rather than making a “withdrawal,” but the nature of the inherent fragility is quite similar to the threat long posed by a potential run on the bank.³⁴

Understanding the reasons that short-term creditors run illuminates the value of having a lender of last resort. If short-term creditors are running solely because they are worried that other creditors will run—as the coordination theory predicts—the presence of a lender of last resort can theoretically stop a run before it even starts.³⁵ When a bank can readily obtain fresh liquidity by posting illiquid assets as collateral, and thus can avoid costly fire sales, short-term creditors have no reason to run on healthy institutions. A lender of last resort can thus play an important role in

34. See Gary Gorton & Andrew Metrick, *Securitized Banking and the Run on Repo*, 104 J. FIN. ECON. 425, 426, 445–46 (2012) (arguing that the 2008 financial crisis resembled nineteenth century banking panics with the demand for higher “repo haircuts” having a comparable economic effect as runs by bank depositors).

35. SCOTT, *supra* note 29, at 137 (“The beauty of the power of a strong lender of last resort is the power would never have to be used because runs would be deterred by the knowledge that the Fed would do what it took.”).

enhancing stability.

At the same time, understanding why short-term creditors run also reveals the limits on when a lender of last resort alone can forestall panic. A lender of last resort that adheres to Bagehot's dictum will provide fresh liquidity only to healthy institutions and only when that institution can provide sufficient, acceptable collateral. The capacity of this type of facility to stop a run depends critically on both the financial health of the institution receiving the loan and what short-term creditors know about its health.³⁶ As Charles Calomiris and Urooj Khan have explained: "Collateralized lending does not work . . . when bank illiquidity is a symptom of substantially increased default risk of the bank. In such circumstances, the use of collateralized lending can actually exacerbate the liquidity problems of a bank by effectively subordinating the bank's depositors to the central bank or government lender . . ." ³⁷ As a result, when a run is triggered by concerns about a bank's health, "a collateralized loan . . . might even cause a depositor run rather than prevent one."³⁸ A lender of last resort is thus most effective when short-term creditors are running because of concerns about the behavior of other creditors, and far less so when they are running because of concerns about the health of the bank issuing their claim.

36. See *infra* subpart IV(A).

37. Charles W. Calomiris & Urooj Kahn, *An Assessment of TARP Assistance to Financial Institutions*, 29 J. ECON. PERSP. 53, 62 (2015).

38. *Id.*

Another condition that must be satisfied for a lender of last resort alone to bring about calm is that short-term creditors must have credible information about the health of their bank and the mix of assets it holds. More concretely, in the face of a panic, a lender of last resort will deter short-term creditors from running only if those short-term creditors know that their institution is solvent and that it has enough collateral in forms that the central bank will accept to address the liquidity demands it is facing, taking into account the haircut the central bank will impose.³⁹ Without such information, it can still be rational for short-term creditors to run, even from institutions subsequently revealed to be solvent.

Adding historical and institutional context suggests that both conditions will rarely be satisfied. First, history suggests that runs and banking crises usually arise at times when depositors have legitimate reasons to be concerned about bank health, even if coordination challenges play a meaningful role in exacerbating a run.⁴⁰ Second, short-term creditors often possess—and want to possess—minimal information about the actual value of the collateral underlying their claims.⁴¹ Short-term creditors choose

39. A haircut refers to the discount resulting from the difference between the face value of the assets that a bank is posting as collateral and the amount of fresh liquidity that the central bank will provide against that collateral. Haircuts help protect a lender from the credit risk of collateral.

40. History suggests that bank health is important in explaining runs, even if coordination challenges play a meaningful role exacerbating a run. Calomiris & Gorton, *supra* note 13, at 112, 143–45.

41. Bengt Holmstrom, *Understanding the Role of Debt in the Financial System* 12–13 (Bank for Int'l Settlements, Working Paper No. 479, 2015), <https://www.bis.org/publ/work479.htm> [<https://perma.cc/3D8A-9EPQ>].

to hold such claims because they desire a safe asset about which they need do little due diligence.⁴² The relatively information-insensitive nature of short-term debt is one of the reasons that holders are willing to pay a premium for these instruments, and this debt is often structured specifically to enable a short-term creditor to walk away rather than undertake meaningful diligence should questions arise.⁴³ Guarantees operate to maintain the information-insensitive nature of this short-term debt, allowing holders to substitute the creditworthiness of the government for the need to have any information about the private assets underlying their claims.

C. How a Guarantor of Last Resort is Different

Putting this together: When short-term creditors have incomplete information and questions about the value of their claims, a lender of last resort alone cannot stop a run. The capacity of a central bank to provide collateralized loans to mitigate system-wide liquidity crunches may be a useful complement to other tools when seeking to contain a financial crisis.

42. *Id.*; see also Gary Gorton et al., *The Safe-Asset Share*, AM. ECON. REV., May 2012, at 101, 101 (discussing the value of information-insensitive, or “safe,” debt as collateral).

43. See Gary Gorton, *The Development of Opacity in U.S. Banking*, 31 YALE J. ON REG. 825, 827 (2014) (stating that a financial claim operating as “money,” the primary function of short-term debt, requires “eliminating informative financial markets”); Arvind Krishnamurthy & Annette Vissing-Jorgensen, *The Aggregate Demand for Treasury Debt*, 120 J. POL. ECON. 233, 235 (2012) (finding that Treasuries enjoyed a monetary premium that averaged seventy-three basis points between 1926 and 2008); Gary B. Gorton, *The History and Economics of Safe Assets* 1–2, 9, 20 (Nat’l Bureau of Econ. Research, Working Paper No. 22210, 2016), <http://www.nber.org/papers/w22210> [<https://perma.cc/6ZVE-JX8M>] (providing an overview of the literature showing there is a “convenience yield,” that is, the willingness of holders of money-like claims to pay a premium for the money-like qualities); Holmstrom, *supra* note 41, at 3 (“Opacity is a natural feature of money markets . . .”).

The presence of a lender of last resort may also deter pure coordination-based runs. But a lender of last resort that truly adheres to the modern formulation of Bagehot's dictum, and thus is lending only to institutions that the central bank knows to be solvent and only against collateral it knows to be good, cannot stop a run when short-term creditors are running because of doubts about the health of banks or the value of the assets they hold. When one moves beyond the regulated banking sector to domains not subject to prior oversight, the likelihood that a central bank will have sufficient information to make accurate determinations regarding the health of institutions and the value of collateral declines further, further reducing the adequacy of a Bagehot-style lender of last resort.⁴⁴

A guarantor of last resort, by contrast, obviates the need for the holders of short-term debt to know anything about the health of the institution issuing a claim or the value of collateral backing it. The reason for a run no longer matters. A guarantee will work regardless of whether the run is the byproduct of coordination issues, information dynamics, or some combination thereof.⁴⁵

This is because a properly designed guarantee renders all of these

44. As I explain in other work, the purpose of Bagehot's dictum has evolved over time. No longer does it aim merely to address the moral hazard that arises from access to a lender of last resort. It is also used to justify continuing to house lender-of-last-resort authority in a central bank, even as central banks have become clear government actors, but ones largely immune from direct political accountability.

45. See *infra* subpart IV(A) (providing a more detailed account of the benefits of institutionalizing a guarantor of last resort).

issues effectively irrelevant. Assuming market participants trust the government to make good on its guarantees (which can be a real limit), a government guarantee protects the claimant even if other claimants run, and even if short-term creditors have good reason to be worried about the health of the institution issuing their claims. Guarantees, whether provided through a standing deposit insurance scheme or through an emergency measure like the EGA, can render the claims “information insensitive.” It can restore that special characteristic that makes short-term claims so useful and pervasive, even if also a source of so much fragility. Restoring this feature can be critical when the aim is to get private short-term creditors to stick around even when it is cheap to run and without such an assurance it would be the rational path for them to take.

None of this rebuts that the Fed played a critical role in containing the Crisis. Systemic liquidity shortages were a major challenge throughout, and the Fed’s interventions helped to mitigate these effects.⁴⁶ The efficacy of many of the Fed’s interventions, however, was dependent on the fact that it regularly deviated from Bagehot’s dictum in the policies it adopted. From its willingness to support institutions of questionable creditworthiness, like

46. *E.g.*, MARK J. FLEMING, FED. RESERVE BANK OF N.Y., FEDERAL RESERVE LIQUIDITY PROVISION DURING THE FINANCIAL CRISIS OF 2007–2009, STAFF REPORT NO. 563, at 1–2, 20 (2012), https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr563.pdf [<https://perma.cc/SEY8-XBFM>] (providing an overview of the Fed’s liquidity programs and the empirical work conducted on their efficacy, leading to the conclusion that “[t]he evidence uncovered to date . . . broadly supports the conclusion that the programs were effective at mitigating the strains in financial markets”).

AIG, to accepting as collateral assets of uncertain value, as it did with Bear Stearns, and to offering highly attractive interest rates throughout, the Fed was doing what it took while seemingly trying to adhere, at least at the margins, to the limits the law imposed on it.⁴⁷ Looking closely at the ways the Fed used its authority, there were even times that its interventions more resembled guarantees than senior, collateralized lending.⁴⁸ The core point here is that the notion that the Fed adhered to Bagehot's dictum is largely a fiction, as is the notion that a central bank can stop a crisis while adhering to such constraints.⁴⁹ A lender of last resort may be useful during periods of systemic distress, but it alone does not suffice to stop all systemic panics.

Expanding the lens beyond stability provides further insight into the limits of relying too heavily on a central bank, acting without direct authorization from a more accountable body, during a crisis, and hence the relative benefits of the proposed EGA. The Bank of England of Bagehot's time was a far more private institution than most central banks today.⁵⁰ He was not particularly concerned about issues like legitimacy or democratic accountability. The situation has changed. Today, the Federal Reserve, the Bank of England, and most other central banks are government bodies,

47. See *id.* at 9, 13, 19 (noting that the Fed provided financial support to AIG and "special financing" for Bear); see also *supra* section II(A)(2).

48. See *infra* Part II.

49. Calomiris & Kahn, *supra* note 44, at 62; Posner, *supra* note 24, at 1538–40.

50. See SCOTT, *supra* note 29, at 109 (explaining that from its founding until long after Bagehot's work, the Bank of England operated as a private corporation formed pursuant to a Royal Charter).

albeit exceptionally independent ones, and their ongoing viability depends on some degree of public trust.

These “political” considerations are relevant here because crisis-management interventions often produce winners and losers, even when designed to enhance the size of the overall pie. The perception that the Fed’s interventions looked out for Wall Street over Main Street has been an ongoing source of consternation for many, and a contributing factor in subsequent popular backlash. One of the early and most visible embodiments of this backlash was the Occupy Wall Street Movement, which eventually “ignited a national and global movement calling out the ruling class of elites by connecting the dots between corporate and political power.”⁵¹ This movement has had a profound effect on political outcomes on both sides of the Atlantic.⁵² Although numerous other factors further contributed to this uprising, it serves as a powerful reminder of the long-term costs that can arise when concerns about democratic legitimacy are ignored in crisis management.

51. Michael Levitin, *The Triumph of Occupy Wall Street*, ATLANTIC (June 10, 2015), <https://www.theatlantic.com/politics/archive/2015/06/the-triumph-of-occupy-wall-street/395408/> [<https://perma.cc/WQ3Z-28D5>].

52. See Noah Barkin, *After Trump and Brexit, Populist Tsunami Threatens European Mainstream*, REUTERS (Nov. 9, 2016), <https://www.reuters.com/article/us-usa-election-populists-analysis/after-trump-and-brexit-populist-tsunami-threatens-european-mainstream-idUSKBN134111> [<https://perma.cc/W3RP-KBV6>]; Owen Matthews, *Beyond Brexit: Europe’s Populist Backlash Against Immigration and Globalization*, NEWSWEEK (June 28, 2016) <http://www.newsweek.com/2016/07/08/britain-brexit-wounds-european-nationalism-475101.html> [<http://perma.cc/F6UC-ARVA>]; Simon Shuster, *The Populists*, TIME, <http://time.com/time-person-of-the-year-populism/> [<https://perma.cc/XC7E-L4KG>] (discussing the 2016 U.S. election’s effect on the rise of populist decentralization and disintegration in Europe).

These political considerations, and the assumption that they shape the long-term costs of crisis-era interventions, help distinguish the EGA from recent proposals to expand the authority of the Federal Reserve to provide more expansive support during a crisis. A number of highly respected academics, such as Hal Scott and Eric Posner, have voiced concerns akin to those here.⁵³ They recognize that a Bagehot-style lender of last resort cannot suffice to contain a panic and are troubled by the post-crisis reforms that pull back, rather than expand, the Fed's authority to intervene to contain a growing crisis.⁵⁴ In their analyses, however, this is reason to provide the Fed greater authority to provide guarantees and potentially even to take more drastic and obviously fiscal steps to stabilize fragile firms in the midst of a panic.⁵⁵ The proposal here rejects such an approach. The two-year time limit on guarantees issued pursuant to the EGA institutionalizes a mechanism whereby Congress must authorize any longer term support. Although the breadth of the guarantee is designed to obviate the need for regulators to comply with the fiction that they can and should draw hard lines between solvent and insolvent firms at the height of a crisis, the time-

53. SCOTT, *supra* note 32, at 268–71; Posner, *supra* note 27, at 1567–68.

54. See SCOTT, *supra* note 32, at 79–80, 93–94 (juxtaposing the need for a presence of a strong lender of last resort to ensure financial stability and the dangers of the restrictions placed on the Fed's lending powers by the Dodd-Frank Act); Posner, *supra* note 27, at 1571 (“The recent financial crisis shows why [additional] powers are necessary and the conventional Bagehot approach is inadequate.”).

55. See SCOTT, *supra* note 32, at 93, 137–44 (discussing possible reforms to strengthen the Fed's role to provide greater stability); Posner, *supra* note 27, at 1568–69, 1575 (identifying limits placed on the Fed and arguing Congress should have “gathered as many of those [lender-of-last-resort] powers as possible into the hands of the Fed”).

limits nature of the guarantees precludes them from being used as a tool to recapitalize firms or provide other long-term fiscal support. The design gives regulators the time and incentives to determine where fiscal support may be warranted and then requires them to report these findings and recommendations to Congress. It thus introduces a procedure for allocating explicitly fiscal decisions to Congress while providing a pragmatic approach to stabilizing the system in the short run so Congress can have the time and information required to make those decisions. Put differently, the EGA builds a procedure for answering the hard questions a crisis will pose rather than purporting to answer them all in advance.

D. Ongoing Relevance: Action and Creativity

In dismissing the notion that a lender of last resort acting within the constraints attributed to Bagehot can suffice to contain a crisis, the analysis here does not rebut the deeper insights motivating his claims.⁵⁶ Among his key insights were his recognition of the potential for panics to inflict widespread costs, his acknowledgment that intervention was warranted to avert these costs, and the value of flexibility and creativity in crafting those interventions.⁵⁷ These lessons also lay a foundation for understanding the

56. An alternative, and not inconsistent, explanation is that central bankers frequently invoked Bagehot during the Crisis because they knew they were stretching the bounds of lawful and acceptable behavior, and his dictum was the most readily amenable principled norm to explain and defend their actions. *See* Judge, *supra* note 17, at 80–82.

57. BAGEHOT, *supra* note 1, at 51–54.

value of having a guarantor of last resort alongside a lender of last resort.

Recognizing that allowing the market forces to run unabated when panic sets in can have deleterious effects far in excess of the losses on withdrawing creditors and the banks issuing their claims is integral to understanding Bagehot's claim that central banks should intervene. Subsequent experience and empirical work affirm that when a systemic crisis hits, there are systemic repercussions.⁵⁸ Because of interconnections, common exposures, and signaling, the failure of one bank can trigger runs on other, even potentially sound, institutions.⁵⁹ The failure of banks and bank-like institutions, in turn, can lead to a loss of information, liquidity hoarding, and a reduction in credit for the real economy, harming growth.⁶⁰

58. See U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-13-180, FINANCIAL CRISIS LOSSES AND POTENTIAL IMPACTS OF THE DODD-FRANK ACT 15, 18, 20 (2013) (providing a broad overview of the literature on the myriad costs of the Crisis, including: output losses in the "range from several trillion to over \$10 trillion," "the longest stretch of unemployment above 8 percent in the United States since the Great Depression," and a decline in "median household net worth [of] \$49,100 per family, or by nearly 39 percent, between 2007 and 2010"); David Luttrell et al., *Assessing the Costs and Consequences of the 2007–09 Financial Crisis and Its Aftermath*, FED. RESERVE BANK OF DALL. ECON. LETTER, Sept. 2013, at 1, <https://www.dallasfed.org/~media/Documents/research/eclett/2013/e11307.ashx> [<https://perma.cc/A42L-PSTF>] (estimating that "the cost of the crisis, assuming [optimistically that] output eventually returns to its precrisis trend path, is an output loss of \$6 trillion to \$14 trillion," which "amounts to \$50,000 to \$120,000 for every U.S. household"); Carmen M. Reinhart & Kenneth S. Rogoff, *The Aftermath of Financial Crises* 3 (Nat'l Bureau of Econ. Research, Working Paper No. 14656, 2009), <http://www.nber.org/papers/w14656> [<https://perma.cc/3359-FACN>] (finding that "financial crises are protracted affairs" that usually "share three characteristics": (1) "deep and prolonged" "asset market collapses," with "[r]eal housing price declines averag[ing] 35 percent stretched out over six years"; (2) "profound declines in output and employment," including an "unemployment rate [that] rises an average of 7 percentage points"; and (3) the "real value of government debt tends to explode, rising an average of 86 percent in the major post-World War II episodes").

59. XAVIER FREIXAS & JEAN-CHARLES ROCHET, MICROECONOMICS OF BANKING 195–96 (1997); Franklin Allen & Douglas Gale, *Financial Contagion*, 108 J. POL. ECON. 1, 2 (2000); Xavier Freixas et al., *Systemic Risk, Interbank Relations, and Liquidity Provision by the Central Bank*, 32 J. MONEY, CREDIT & BANKING 611, 611–12 (2000).

60. See Freixas & Rochet, *supra* note 59, at 310 (explaining that because banks arise to solve

As explained by Neel Kashkari, President of the Federal Reserve Bank of Minneapolis: “Failures of large financial institutions pose massively asymmetric risks to society A very crude analogy is that of a nuclear reactor. The cost . . . of letting a reactor melt down is astronomical. Given that cost, governments will do whatever they can to stabilize the reactor before they lose control.”⁶¹ It is this same asymmetry that makes it virtually impossible, and unwise, for the government not to intervene in the face of a financial panic.

The importance of creativity in fashioning a response capable of containing a crisis also remains pertinent. Time and again, particularly in the United States, bank-like activity migrates outside of the regulated banking sector. Although much of the formal work on the mechanisms of contagion focus on banking, bank-like structures are exposed to similar risks, and it is often in these domains where crises first arise. As Kashkari recognizes: “[W]e won’t see the next crisis coming, and it won’t look like what we might be expecting.”⁶² As further explained by Federal Reserve

information asymmetries and other market imperfections, those imperfections re-emerge as frictions that impede activity when banks fail); Joe Peek & Eric Rosengren, *Credit Supply Disruptions: From Credit Crunches to Financial Crisis*, 8 ANN. REV. FIN. ECON. 81, 82 (2016) (identifying “a variety of empirical and theoretical papers” showing how the “loss of bank capital could cause capital-constrained banks to shrink lending and . . . this loss of credit availability could have deleterious effects on the real economy”).

61. Neel Kashkari, Pres., Fed. Reserve Bank of Minneapolis, Remarks at the Brookings Institution: Lessons from the Crisis: Ending Too Big to Fail 4 (Feb. 16, 2016), https://www.minneapolisfed.org/~media/files/news_events/pres/kashkari-ending-tbtf-02-16-2016.pdf [<https://perma.cc/99BL-A3A8>].

62. *Id.* at 3.

Chair Janet Yellen: “We simply have to expect that when we draw regulatory boundaries, and supervise intensely within them, that there is the prospect that activities will move outside those boundaries and we won’t be able to detect them, and if we can, we won’t have adequate regulatory tools.”⁶³ *Ex ante* regulation simply cannot keep pace with financial innovation.⁶⁴

U.S. history supports these assessments. Based on his examination of the twelve most significant financial crises in U.S. history, Hugh Rockoff concluded that eleven of the twelve arose in some form of shadow banking system.⁶⁵ In a similar spirit, Gary Gorton explains: “The cause of financial crises is the vulnerability of . . . forms of money that are usually the short-term liabilities of financial intermediaries,” such as “private bank notes . . . , demand deposits . . . [,] commercial paper, [and] sale and repurchase agreements These forms of money exist for a reason, to conduct transactions, but they are vulnerable to sudden revocation, withdrawal, or

63. Pedro Nicolaci da Costa & Ben Leubsdorf, *Fed’s Yellen Says Regulating Shadow Banks a ‘Huge Challenge’*, WALL ST. J. (July 2, 2014, 1:03 PM) <https://blogs.wsj.com/economics/2014/07/02/feds-yellen-says-regulating-shadow-banks-a-huge-challenge/> [<https://perma.cc/73L9-YT5P>]; see also Kashkari, *supra* note 61, at 3 (stating that “we won’t see the next crisis coming, and it won’t look like what we might be expecting”).

64. Iman Anabtawi & Steven L. Schwarcz, *Regulating Ex Post: How Law Can Address the Inevitability of Financial Failure*, 92 TEXAS L. REV. 75, 96 (2013).

65. Hugh Rockoff, *It is Always the Shadow Banks: The Failures that Ignited America’s Financial Panics* 12, 38–40 tbl.2 (Oct. 13, 2014) (unpublished manuscript), <https://indiana.edu/~caepr/Conferences/Wicker/Panics%20%2010-17-2014.pdf> [<https://perma.cc/NE98-Q7U6>].

exit.”⁶⁶ Moreover, as he explains, there is a pattern to where and how these private forms of money arise.⁶⁷ During periods of growth, the short-term instruments issued by the private sector, including those issued by non-banks, appear remarkably safe.⁶⁸ And when truly safe assets are in relatively short supply and costly to hold, market participants start to treat these privately issued forms of money as substitutes.⁶⁹ Empirical evidence supports this analysis.⁷⁰ Market participants recognize that privately issued short-term debt is not a perfect substitute for fiat money (or gold), but during periods of growth, when the demand for money-like assets for transaction and liquidity-storing purposes outstrips the supply of truly safe assets, private instruments regularly are priced in a way that suggests they are providing the same type of nonpecuniary benefits provided by government instruments and insured bank deposits. And, as just discussed, this is not irrational from the perspective of the holders of that short-term debt. It is the system that suffers far more than short-term creditors

66. GARY B. GORTON, MISUNDERSTANDING FINANCIAL CRISES: WHY WE DON'T SEE THEM COMING 5 (2012).

67. *Id.* at 8–9.

68. *Id.* at 6, 8–9, 46.

69. Krishnamurthy & Vissing-Jorgensen, *supra* note 43, at 253–54.

70. See Mark Carlson et al., *The Demand for Short-Term, Safe Assets and Financial Stability: Some Evidence and Implications for Central Bank Policies*, INT'L J. CENT. BANKING, Dec. 2016, at 307, 309 (analyzing public and private short-term debt as substitutes); Arvind Krishnamurthy & Annette Vissing-Jorgensen, *Short-Term Debt and the Financial Crisis: What We Can Learn from U.S. Treasury Supply*, 2–3 (Mar. 29, 2013) (unpublished manuscript), <https://pdfs.semanticscholar.org/b5ed/7f384a3ee2205dc5fce2fc7fb028b0ad4823.pdf> [<https://perma.cc/T6L2-2DBD>] (showing that the aggregate amount of short-term debt issued by the financial sector is inversely related to the aggregate amount of government debt outstanding).

themselves when debt holders exit en masse.⁷¹

The widespread costs of uncontrolled panics and the dynamism of financial markets are the foundation from which this Article builds. The large externalities that arise from panics explain why market discipline alone will not prevent panics and why the government cannot credibly commit not to intervene in the event of a panic. Once government intervention becomes inevitable, the question is one of form and timing. With respect to banks, the classic source of fragility, the United States and other industrialized nations have chosen to insure claims of a certain type up to a specified limit, irrespective of whether a bank's failure poses any stability risk.⁷² This broad insurance scheme is coupled with extensive *ex ante* government regulation and oversight to minimize the moral hazard and externalities.⁷³ *Ex ante* regulation and supervision are only possible, however, when one can identify in advance the institutions that could pose a threat to the stability of the broader system.

When the site of fragility is outside the regulated banking sector, the challenge shifts. Today's system of market-based intermediation, like the other shadow banking systems Rockoff, Gorton, and other economic historians have examined, can play an important role in promoting

71. Calomiris & Gorton, *supra* note 13, at 159 tbl.4.16 (providing evidence that at least one failed bank was able to pay its depositors in full).

72. MICHAEL S. BARR ET AL., FINANCIAL REGULATION: LAW AND POLICY 233–36, 238–41, 255 (1st ed., 2016).

73. *Id.* at 247–52.

economic growth and harnessing new technology to facilitate financial intermediation. Just as importantly, regardless of the social utility of financial intermediation outside the regulated banking sector, history suggests it is inevitable. In light of the significant new costs imposed on banks in the post-Crisis regime and the ongoing viability of using contract and property to enable intermediation outside that regime, there is no reason to think that shadow banking will disappear.⁷⁴ If anything, it seems poised for further growth.⁷⁵ Recognizing that financial regulators will necessarily remain behind the curve in identifying these sources of fragility, and that they will often lack the authority to subject new forms of intermediation to prudential regulation and oversight, makes Bagehot's admonition for flexibility just as relevant today. It is also among the key virtues of institutionalizing a guarantor of last resort in the form suggested here.⁷⁶

E. The EGA in Relation to Other Recent Proposals

The final dimension of comparison that merits attention is how the EGA would compare with, and might complement, other proposals for

74. There have been some notable improvements post-Crisis, like the creation of the Financial Stability Oversight Council, its ability to designate non-banks systemically significant, and fundamental changes in how money market mutual funds are regulated. These changes, however, remain modest relative to the size of the shadow banking system, and the increased regulation of banks increases the economic returns from shadow banking, setting the stage for further growth.

75. See FIN. STABILITY BD., GLOBAL SHADOW BANKING MONITORING REPORT 2016, at 3 (2017), <http://www.fsb.org/wp-content/uploads/global-shadow-banking-monitoring-report-2016.pdf> [<https://perma.cc/94PB-HAH6>] (stating that “shadow banking that may give rise to financial stability risks grew 3.2% to \$34 trillion in 2015 for the 27 jurisdictions” examined for the report).

76. See *infra* subpart IV(D).

trying to tackle the challenges here at issue. Despite widespread attacks on the Federal Reserve and other central banks for reasons outlined here and others, many experts recognize that some change with respect to crisis management and the role of the Fed in managing crises is warranted. There remains, however, significant disagreement regarding the nature of the problem, the range of viable alternatives, and thus how best to proceed. Paul Tucker, former Deputy Director of the Bank of England, for example, has argued that Bagehot can still work so long as central banks provide more clear advance guidance regarding to whom they will lend and on what terms.⁷⁷ Hal Scott has similar ongoing faith in the capacity of a central bank with broad lender-of-last-resort authority to stave off crisis and wants the Federal Reserve's power to be expanded accordingly, but he also recognizes the value of empowering regulators to go further, providing guarantees and other forms of support, without having to go to Congress.⁷⁸ By contrast, others have argued for reforms far more drastic than those proposed here, most of which leave a central bank with a more central role in crisis management than the EGA envisions. Former Director of the Bank of England, Mervyn King, has come up with an innovative proposal to replace a traditional lender of last resort with a pawnbroker of last resort,

77. See generally PAUL TUCKER, UNELECTED POWER: THE QUEST FOR LEGITIMACY IN CENTRAL BANKING AND THE REGULATORY STATE 503–24 (2018) (arguing for more rigidly defined and communicated lending standards paired with better accountability for financing from central banks).

78. SCOTT, *supra* note 29, at 137–45.

able to lend against assets that have been prepositioned at a central bank.⁷⁹ Professor Eric Posner has argued in favor of giving central banks even more expansive authority to inject capital and take other clearly fiscal action like recapitalizing banks.⁸⁰ In a slightly different but related vein, a number of scholars, like Morgan Ricks and Adam Levitin, have proposed dramatic *ex ante* changes to the structure of finance with the aim of eliminating even the possibility of panics.⁸¹

The arguments for adopting the EGA in lieu of, or potentially in conjunction with, one of these other proposals vary and are laid out in greater detail in connection with the proposal itself below.⁸² The three key advantages of the EGA relative to most alternatives on the table are its capacity to address financial dynamism, its ability to accommodate a more realistic set of information assumptions, and its capacity to help promote healthy democratic engagement.

Underlying the EGA is an assumption that *ex ante* regulation is critical, but finance has a way of changing whether we want it to or not. Recognizing that the financial system will inevitably evolve, and will do so

79. MERVYN KING, *THE END OF ALCHEMY: MONEY, BANKING, AND THE FUTURE OF THE GLOBAL ECONOMY* 269–70 (2017).

80. ERIC POSNER, *LAST RESORT: THE FINANCIAL CRISIS AND THE FUTURE OF BAILOUTS* 177–78 (2018); Posner, *supra* note 24, at 1570–71.

81. See RICKS, *supra* note 5, at 12–21 (promoting massive changes like the elimination of physical currency, the conversion of banks to public-private partnerships, and a cap-and-trade system for monetary issues); see also LEVITIN, *supra* note 6, at 357 (proposing the “Pure Reserve” system where safe banks exist exclusively for safekeeping and payment services).

⁸² See *infra* Parts III and IV.

in ways that weaken the efficacy of rules meant to guard against panics, no matter how well-conceived, suggests that the EGA will remain useful even in the event that *ex ante* regulation becomes significantly more robust or policymakers adopt one of the other reform proposals on the table.⁸³ Similarly, the various forms of calls for a more robust lender of last resort are interesting and might have some benefits if adopted. But their efficacy often hinges on the central bank having high-quality information about which institutions are healthy and what assets are worth, both issues that become difficult to discern during a periods of systemic distress.

Finally, the Article here is concerned with both the macroeconomic ramifications of how one approaches crisis containment and the longer term legitimacy issues that arise. Approaches like those proposed by Scott, King and Posner, while potentially offering benefits over the status quo, could exacerbate the challenge of trying to protect central bank independence with respect to monetary policy and may well increase the probability of political backlash following a crisis.

The proposed EGA does not purport to solve financial fragility, nor would it exclude any of the reforms just mentioned. It could in fact serve as a useful complement to many of them. It would, however, shift the implications of adoption, both in terms of minimizing the adverse costs of

83. *See generally* Judge, *supra* note 7, at 1173–75 (providing an alternative view of financial crises, fragility, and regulation that contrasts with Ricks’s view and proposal).

unintended developments and in ensuring that there remains a politically accountable body positioned to take the lead when things go badly.

II. The Practice: Guarantees in the 2007–2009 Financial Crisis

When it comes to containing crises, theory often lags behind practice. The Bank of England experimented, but inconsistently; Bagehot pointed out what worked and what did not work in light of those experiences; these observations then laid the foundation for his policy recommendation. Another century passed before economists formally captured the dynamics that explain why Bagehot was right to endorse lender-of-last-resort interventions. Other popular forms of bank regulation, from deposit insurance to capital-adequacy requirements, were similarly borne out of experience more than theory.

Embracing the importance of learning from experience, this Part explores the frequency with which guarantees are already used by policymakers to contain financial crises. The focus is the response of U.S. regulators to the Crisis through the passage of the Emergency Economic Stabilization Act of 2008. Given the limited formal guarantee powers enjoyed by regulators, this Part examines the practical intent and effect of the interventions examined even when regulators had to stretch their formal authority to achieve a desired aim.

A. *Guarantees in the Crisis*

1. *The FDIC.*—Even outside of crisis periods, a primary role of the FDIC is to assure smaller depositors that they will get their money back even if their bank fails.⁸⁴ This would remain unchanged under the proposal here. During the Crisis, however, the FDIC provided a range of guarantees that went well beyond its traditional role of insuring deposits up to the statutory cap (which was increased to \$250,000 per account during the Crisis).⁸⁵ For example, in October 2008, at the height of the Crisis, the FDIC adopted the Temporary Liquidity Guarantee Program.⁸⁶ Because all of the entities eligible to participate were already regulated banks with FDIC insurance and the program was adopted pursuant to a “systemic risk” determination by the Treasury Secretary,⁸⁷ the FDIC was able to automatically enroll all eligible banks in the Temporary Liquidity Guarantee Program, which was actually two initiatives bundled under a single heading, while providing eligible banks a subsequent opportunity to

84. See *2018–2022 Strategic Plan: Insurance Program*, FED. DEPOSIT INS. CORP., <https://www.fdic.gov/about/strategic/strategic/insurance.html> [https://perma.cc/AZ6H-DBZT] (emphasizing that the FDIC “protects depositors at banks and savings associations of all sizes”).

85. Press Release, Fed. Deposit Ins. Corp., *Basic FDIC Insurance Coverage Permanently Increased to \$250,000 Per Depositor* (July 21, 2010) (on file with author).

86. *Temporary Liquidity Guarantee Program*, FED. DEPOSIT INS. CORP., <https://www.fdic.gov/regulations/resources/tlgp/index.html> [https://perma.cc/949Y-PAPQ] [hereinafter *TLGP*].

87. Lee Davison, *The Temporary Liquidity Guarantee Program: A Systemwide Systemic Risk Exception*, in *CRISIS AND RESPONSE: AN FDIC HISTORY 2008–2013*, at 33, 34 (2017), <https://www.fdic.gov/bank/historical/crisis/crisis-complete.pdf> [https://perma.cc/5LRM-N96K].

201x]

Guarantor of Last Resort

137

opt out of one or both dimensions of the Program.⁸⁸

The first component of the Program dramatically expanded the scope of the short-term claims protected by the FDIC. Pursuant to this aspect of the Program, the FDIC “guaranteed *in full* all domestic noninterest-bearing transaction deposits” and certain other short-term claims at participating banks.⁸⁹ These additional guarantees covered more than \$800 billion in deposits at the program’s height in 2009, and a subsequent variation on the program eventually covered more than \$1.4 trillion in deposits.⁹⁰

The second element of the program guaranteed banks’ newly issued debt up to a prescribed amount set by reference to a bank’s outstanding debt scheduled to mature.⁹¹ The guarantee extended only until mid-2012, even if the debt itself had a longer maturity.⁹² At its peak, the FDIC guaranteed \$345.8 billion in bank debt through this regime, as a wide range of banks utilized the program.⁹³

Fees were levied on all banks that remained in the deposit guarantee

88. Seth A. Hoelscher & Duane Stock, Was Bond Insurance a Gift from the FDIC? 1, 4–5 (Feb. 19, 2013) (unpublished manuscript), <https://www.ou.edu/dam/price/Finance/CFS/paper/pdf/StockHoelscherPaper.pdf> [<https://perma.cc/6GCU-JQXX>]. For more detailed information, see generally 12 C.F.R. § 370 (2009) (setting forth the criteria related to participation in the Temporary Liquidity Guarantee Program).

89. *TLGP*, *supra* note 86 (emphasis added).

90. Davison, *supra* note 85a, at 33; Press Release, Fed. Deposit Ins. Corp., FDIC Chairman Bair Delivers Remarks to the Johns Hopkins Carey Business School: Discusses Imminent Board Action to Finalize Rules on Temporary Liquidity Guarantee Program (Nov. 20, 2008) (on file with author).

91. 12 C.F.R. § 370.3(6) (2015).

92. *Id.* § 370.3(d).

93. *TLGP*, *supra* note 85.

program after the opportunity to opt-out and on the issuance of any new bonds backed by an FDIC guarantee. The fees collected enabled the FDIC to earn more than it lost in the aggregate.⁹⁴ Nonetheless, both programs incurred losses.⁹⁵ The deposit guarantee aspect of the regime resulted in net losses.⁹⁶ And, even though these were offset by net gains from the guarantees on newly issued debt, subsequent empirical analysis suggests that the great majority of banks using these programs enjoyed net benefits as a result, suggesting this too operated, on the whole, as a subsidy to the participating banks.⁹⁷

These programs served complementary aims. Expanding deposit insurance encouraged depositors to keep their money in banks, helping to stabilize the banking system. A secondary effect may have been to reduce the movement of deposits away from community banks and toward banks perceived as too big to fail.⁹⁸ The guarantees on the longer term debt were not aimed at preventing runs but rather at helping banks to new debt as older debt matured. A common element of both schemes is that they largely

94. *Id.* (stating that “[o]verall, TLGP fees exceeded the losses from the program” and providing a breakdown of both).

95. *Id.*

96. *Id.*

97. Hoelscher & Stock, *supra* note 88, at 16–21.

98. Evan Weinberger, *State Banking Groups Push Congress for TAG Extension*, LAW360 (Aug. 30, 2012), <https://www.law360.com/articles/374241/state-banking-groups-push-congress-for-tag-extension> [<https://perma.cc/LV8X-88FM>] (explaining that “[s]maller banks argue that the guarantees helped even the playing field when competing with their larger rivals,” and describing efforts by groups representing community bank interests to extend the program).

worked to keep private money in the system and to keep it where it was prior to the crisis.

2. *The Federal Reserve.*—Unlike the FDIC, the Federal Reserve had no formal authority to insure short-term (or other) debt. Thus, to understand the ways the Federal Reserve used effective guarantees to help stem the panic, it is necessary to examine the aim and effect of its interventions, not just the formal terms of those interventions.

One example of a Federal Reserve intervention that took the form of a guarantee was the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF), put into place in September 2008.⁹⁹ The failure of Lehman Brothers caused one money market mutual fund to “break the buck,” a term used when a fund’s net asset value falls below \$1.00 per share.¹⁰⁰ Within a week, investors withdrew more than \$170 billion from money market funds, creating significant disruptions in short-term funding markets.¹⁰¹ At the time, money market funds held roughly 45% of the outstanding commercial paper.¹⁰² To help counter the lack of liquidity in the market for asset-backed commercial paper (ABCP) and to

99. *Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility*, BD. OF GOVERNORS OF THE FED. RESERVE SYS., <https://www.federalreserve.gov/monetarypolicy/abcpmmmf.htm> [<https://perma.cc/3TAK-B4PT>].

100. Jonathan Macey, *Reducing Systemic Risk: The Role of Money Market Mutual Funds as Substitutes for Federally Insured Bank Deposits*, 17 STAN. J. L., BUS. & FIN. 131, 132 (2011).

101. *Id.* at 149.

102. Burcu Duygan-Bump et al., *How Effective Were the Federal Reserve Emergency Liquidity Facilities? Evidence from the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility*, 68 J. FIN. 715, 722 (2013).

make it easier for money market mutual funds to unload such paper in order to pay all of the money market fund holders who were demanding their money back, the Fed launched the AMLF.¹⁰³

The AMLF was adopted pursuant to the Federal Reserve's authority under Section 13(3), which enables it to serve as a lender of last resort to non-bank institutions under exceptional circumstances.¹⁰⁴ The structure of the AMLF deviated significantly from traditional lender-of-last-resort operations. Pursuant to the AMLF, the Federal Reserve loaned money to banks to buy ABCP from money market mutual funds.¹⁰⁵ The loans were made without any recourse to the bank that received the loan, and there was no haircut, meaning that banks could borrow the full price they paid for the ABCP.¹⁰⁶ The terms thus operated in a manner akin to a Federal Reserve guarantee of the full value of the ABCP posted even though the Federal Reserve has no authority under Section 13(3) to provide guarantees and thus could not formally guarantee the instruments.

Within ten days of its launch, the guarantees extended under the

103. U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-11-696, OPPORTUNITIES EXIST TO STRENGTHEN POLICIES AND PROCESSES FOR MANAGING EMERGENCY ASSISTANCE 154-57 app.II, 154 fig.14 (2011).

104. 12 U.S.C. § 343(3) (2012). As enacted by the Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203 § 1101(c), 124 Stat. 1376, 2115 (2010), "any reference in any provision of Federal law to the third undesignated paragraph of section 13 of the Federal Reserve Act (12 U.S.C. 343) shall be deemed to be a reference to section 13(3) of the Federal Reserve Act."

105. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 101, at 156.

106. Burcu Duygan-Bump et al., *supra* note 102, at 724.

201x]

Guarantor of Last Resort

141

AMLF exceeded \$150 billion.¹⁰⁷ Subsequent empirical analysis suggests that the program succeeded in reducing the liquidity strains in the ABCP market and the strains faced by money market mutual funds holding such assets.¹⁰⁸ Subsequent analysis also suggests that the program made it easier for money market funds to continue to buy ABCP, reducing the additional strain imposed on the already strained credit markets.¹⁰⁹ Like the loan to AIG, the program experienced no losses and yielded significant fees for the Federal Reserve.¹¹⁰ Use of the AMLF declined precipitously when it was superseded by another program pursuant to which the Federal Reserve directly purchased ABCP and other forms of commercial paper.¹¹¹ The program was thus short-lived, but seemingly quite effective during its short life.

The support that the Federal Reserve provided to AIG to enable the firm to avert filing for bankruptcy immediately after the failure of Lehman Brothers was another instance of the Fed using its lender-of-last-resort authority to effectively provide a guarantee. AIG was the second large financial institution that the Federal Reserve helped keep out of bankruptcy

107. *Id.* at 723 fig.3.

108. *Id.* at 717.

109. Burcu Duygan-Bump et al., *supra* note 100, at 722–23.

110. *Id.* at 723–24 (stating that “the Federal Reserve did not suffer any losses in its operation of the AMLF,” which expired in February 2010).

111. MARC LABONTE, CONG. RESEARCH SERV., R44185, FEDERAL RESERVE: EMERGENCY LENDING 6, 26 (2016).

despite lacking the liquid assets required to keep its doors open.¹¹² The first was Bear Stearns. In March 2008, the Federal Reserve facilitated JP Morgan's acquisition of Bear Stearns by effectively enabling the transfer of \$30 billion in risky assets off of Bear's balance sheet into a newly formed entity funded with just over \$1 billion from JP Morgan and nearly \$29 billion from the New York Fed.¹¹³ Although the Federal Reserve ultimately profited from the transaction, it incurred significant credit risk in the interim and, because the Federal Reserve intervention enabled Bear to avoid bankruptcy, it has subsequently been viewed as a government bailout of the firm.¹¹⁴

In contrast to the situation with Bear Stearns, the AIG intervention was structured to enable it to remain a stand-alone company. Pursuant to the initial agreement between the Federal Reserve and AIG, the Federal Reserve agreed to provide up to \$85 billion in fresh liquidity to AIG in exchange for a 79.9% stake in the company along with other fees and

112. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 101, at 32–33.

113. MAIDEN LANE LLC, CONSOLIDATED FINANCIAL STATEMENTS AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2014 AND 2013, AND INDEPENDENT AUDITORS' REPORT 7 (2015), https://www.federalreserve.gov/aboutthefed/files/maidenlanellcfinstmt2015_508.pdf [<https://perma.cc/2TYB-YLTD>]; *Maiden Lane Transactions*, FED. RESERVE BANK OF N.Y., <https://www.newyorkfed.org/markets/maidenlane.html> [<https://perma.cc/4XL4-S7AF>].

114. *See* FED. RESERVE BANK OF N.Y., *supra* note 112 (“June 14, 2012: Maiden Lane LLC . . . repaid the loans made by the New York Fed, with interest.”); *Net Portfolio Holdings of Maiden Lane LLC*, ALFRED, https://alfred.stlouisfed.org/series?seid=WMAIDEN1&utm_source=series_page&utm_medium=related_content&utm_term=related_resources&utm_campaign=alfred [<https://perma.cc/5J4H-THMG>, with the date range set to 2008-01-18 to the current date] (showing that the value of the assets in the LLC declined significantly before rebounding, with the aggregate portfolio value subsequently declining as a result of sales).

interest.¹¹⁵ Critical to the analysis here is that implicit in this \$85 billion commitment was an understanding that the government would provide AIG whatever support was required to enable it to avert bankruptcy.¹¹⁶ The true guarantee-like scope of the government's commitment soon became apparent. When the initial injection proved deficient to meet AIG's ongoing liquidity needs, the Federal Reserve, and subsequently the Treasury Department, ultimately disbursed more than \$184 billion to assist AIG—well more than twice the original commitment.¹¹⁷

Although ultimately profitable, the transaction put the government in the position of being AIG's largest shareholder for a lengthy period of time and exposed the government to significant credit risk. It was not until August 2009, “after posting a more than \$100 billion loss over the previous six quarters,” that AIG again became profitable.¹¹⁸ Subsequent analysis “of the performance of AIG's underlying real estate securities indicate[] that AIG's problems were not purely about liquidity,” and there were

115. *Starr Int'l Co. v. United States*, 856 F.3d 953, 959 (Fed. Cir. 2017).

116. It is possible that if the government had the authority to explicitly guarantee AIG's counterparties and other creditors, AIG's liquidity needs might have been far more modest.

117. For a detailed description of the government support provided to AIG, see BAIRD WEBEL, CONG. RESEARCH SERV., R42953, GOVERNMENT ASSISTANCE FOR AIG: SUMMARY AND COST 8 tbl.1, 9–17 app. A (2017). With respect to the support provided by the Treasury, see Calomiris & Khan, *supra* note 37, at 62 (explaining that “any TARP investment in a too-big-to-fail bank *had always been* an implicit contingent common stock investment” in that “[i]t was unlikely that the government would use its preferred status in the states of the world where it would be financially useful to do so (in bankruptcy or receivership) because the government would convert to common stock in order to prevent bankruptcy or receivership”).

118. *Financial Stability: TARP Tracker from November 2008 to September 2018*, U.S. DEP'T OF THE TREASURY, <https://www.treasury.gov/initiatives/financial-stability/reports/Pages/TARP-Tracker.aspx> [<https://perma.cc/D9R8-A468>] (under the “Timeline Events” column on the right, scroll down to “August 2009”).

meaningful write-downs in the assets used as collateral for the Fed's loans to AIG.¹¹⁹

More generally, although the AMLF, Bear, and AIG interventions were all adopted under § 13(3), which is meant to enable the Federal Reserve to serve as a lender of last resort to non-banks in “unusual and exigent circumstances,” the forms of those interventions are as unusual as the circumstances that prompted them.¹²⁰ Not one of these interventions resembled a traditional lender-of-last-resort intervention. Rather, consistent with the analysis in Part I, they were effectively guarantees formally structured otherwise because of legal constraints.

119. Robert McDonald & Anna Paulson, *AIG in Hindsight*, J. ECON. PERSP., Spring 2015, at 81, 103.

120. Parinitha Sastry, FED. RESERVE BANK OF N.Y., *The Political Origins of Section 13(3) of the Federal Reserve Act*, ECON. POL'Y REV., Sept. 2018, at 1, 1–2, 3 tbl.1.

3. *The Treasury*.—The most striking example of the Treasury Department’s use of guarantees during the Crisis was the support it provided to money market mutual funds. In the same week that the Federal Reserve launched the AMLF, and motivated by similar concerns regarding the mounting withdrawals from prime money market mutual funds and the potential ripple effects of those withdrawals, the Treasury Department launched a temporary program to guarantee money market funds that opted to participate in the program.¹²¹

The guarantees were provided using the Exchange Stabilization Fund established by the Gold Reserve Act of 1934.¹²² That Fund was designed to enable the treasury secretary to “deal in gold, foreign exchange, and other instruments of credit and securities” in order to influence the relative value of the U.S. dollar.¹²³ The Fund had already moved “from obscurity to notoriety,” in the words of Anna Schwartz, when used by Treasury to make a \$12 billion loan to Mexico in 1995.¹²⁴ The program extended the

121. *Asset Backed Commercial Paper (ABCP) Money Market Mutual Fund (MMMF) Liquidity Facility (AMLF or “the Facility”)*, Fed. Reserve Discount Window/Payment System Risk (Feb. 5, 2010), <https://www.frbdiscountwindow.org/Home/GeneralPages/Asset-Backed-Commercial-Paper-ABCP-Money-Market-Mutual-Fund-MMMF-Liquidity-Facility-AMLF-or-the-Facility-> [<https://perma.cc/E9AF-KG8D>] (noting the AMLF program began operations on September 22, 2008); Press Release, U.S. Dep’t of the Treasury, Treasury Announces Temporary Guarantee Program for Money Market Funds (Sept. 29, 2008).

122. *Id.*

123. 31 U.S.C. § 5302 (2012); see also Gary Richardson et al., *Gold Reserve Act of 1934*, FED. RES. HIST. (Nov. 22, 2013), https://www.federalreservehistory.org/essays/gold_reserve_act [<https://perma.cc/ZT6M-SZTX>].

124. Anna J. Schwartz, *From Obscurity to Notoriety: A Biography of the Exchange Stabilization Fund*, 29 J. MONEY, CREDIT & BANKING 135, 135 (1997).

guarantees on an opt-in basis; it provided coverage up to the value of the fund on the day the program was launched—thus serving to maintain rather than change the status quo; and it required participating funds to pay a fee in exchange for coverage.¹²⁵ The majority of mutual funds participated, leading to the payment of well over \$800 million in fees to the Treasury Department.¹²⁶ The government did not have to pay out on any of the guarantees, as not a single money market fund failed while the program was in place.¹²⁷

Even though the government came out ahead financially, the episode revealed that money market mutual funds pose systemic risk and might require government support. With some prompting from the Financial Stability Oversight Council, this revelation motivated the SEC to overhaul how these funds are regulated.¹²⁸ As then-SEC Chair Mary Jo White explained when the new rules were finalized, the “reforms fundamentally change the way that money market funds operate. They will reduce the risk of runs in money market funds and provide important new tools that will help further protect investors and the financial system.”¹²⁹ Thus, when evaluating the significance of the Treasury’s intervention from the

125. Macey, *supra* note 100, at 149–50.

126. *Id.* at 150.

127. *Id.*

128. Press Release, U.S. Sec. & Exch. Comm’n, SEC Adopts Money Market Fund Reform Rules (July 23, 2014).

129. *Id.*

perspective of the money market mutual fund industry, the “strong reform package” imposed on them after the Crisis was resolved was much more costly than the fees they incurred to participate in the Treasury’s guarantee program.¹³⁰

4. *A Brief Look Abroad.*—Given the diversity of different financial and political systems, and the inherent challenges of scope, the focus here is on the United States. But the claim is not specific to the U.S. system, and so it is worth taking a moment to expand the lens. Following the failure of Lehman Brothers, a number of countries, such as Australia, Denmark, Germany, Hong Kong, New Zealand, and Singapore, expanded their deposit insurance schemes to cover all retail deposits.¹³¹ An overlapping group of countries, including Australia, Canada, France, Germany, Italy, Spain, and the United Kingdom, also guaranteed banks’ wholesale sources of short-term funding.¹³² Ultimately, many of these countries provided significant explicit fiscal support to their banking sectors, in the form of recapitalizations and broader guarantees.¹³³ The point here is merely to highlight that within a short period of time after the shock induced by Lehman’s failure, a good number of countries introduced broad Crisis-era guarantees to help stabilize their financial systems. That this mode of crisis-

130. *See id.* (explaining that the new rules requiring use of a floating net asset value (NAV) prevents funds from using the “special pricing and valuation conventions that currently permit them to maintain a constant share price”).

intervention was used so broadly suggests that policymakers believed very broad guarantees to be helpful in ways that went beyond the already institutionalized mechanisms for lender-of-last-resort support.

B. Putting These Actions in Context

The array of interventions described above are too diverse and the ramifications too contested to yield simple answers about how best to contain a growing financial crisis. Collectively, however, they still shed light on a number of key issues.

First, regulators already use guarantees to contain panics and stem the spread of financial crises.¹³⁴ Short-term creditors are the ones who can flee most easily, and many of the interventions targeted them accordingly. But interventions protecting longer term creditors were also used with some frequency.¹³⁵ All of the interventions had the aim and effect of reducing the spread of the panic by keeping private capital in the system. By allowing creditors to temporarily rely on the government's creditworthiness in lieu of

131. Allen et al., *supra* note 11, at 33.

132. *Id.*

133. *Id.*

134. *See id.* at 32–38 (describing the use of guarantees in various countries); Luc Laeven & Fabian Valencia, *Resolution of Banking Crises: The Good, the Bad, and the Ugly* 4–5 (Int'l Monetary Fund, Working Paper No. WP/10/146, 2010), <https://www.imf.org/external/pubs/ft/wp/2010/wp10146.pdf> [<https://perma.cc/V4UL-QE9C>] (discussing “widespread use” of guarantees and providing examples from different countries).

135. *See* Sebastian Schich, *Expanded Guarantees for Banks: Benefits, Costs and Exit Issues*, 2009 OECD J: FIN. MKT. TRENDS, no. 2, at 55, 59 (describing government-intervention targeting of longer term funding in financial turmoil).

having to worry about the actual value of the assets underlying their claims, these interventions helped to stabilize and protect funding structures that had been in place prior to the Crisis. In general, guarantees were used to reduce, rather than bring about, changes in how assets were funded.

Second, these guarantees were needed because traditional lender-of-last-resort interventions proved helpful but far from sufficient in preventing the panic from spreading. Starting in August 2007, more than a year before the Crisis hit its zenith, the Federal Reserve launched a number of lender-of-last-resort initiatives to try to stem its growth.¹³⁶ Those interventions made it easier for commercial banks to borrow from the Federal Reserve while avoiding the stigma sometimes associated with discount window borrowing. Starting in March 2008, the Federal Reserve also extended lender-of-last-resort support to many non-banks in recognition of the growth and importance of market-based intermediation.¹³⁷ These interventions reduced liquidity strains, but they did not bring about a meaningful and positive inflection point in the evolution of the Crisis until complemented by more robust interventions.¹³⁸

136. For a detailed account of the Fed's actions during this time, see Judge, *supra* note 17, at 855–58. For a summary of the research, which generally shows that these interventions had beneficial effects, see Frederic S. Mishkin, *Over the Cliff: From the Subprime to the Global Financial Crisis*, J. ECON. PERSP. (Spring 2011), at 49, 60–61.

137. BD. OF GOVERNORS OF THE FED. RESERVE SYS., THE FEDERAL RESERVE'S SECTION 13(3) LENDING FACILITIES TO SUPPORT OVERALL MARKET LIQUIDITY: FUNCTION, STATUS, AND RISK MANAGEMENT 17 (2010), https://oig.federalreserve.gov/reports/FRSLending_Facilities-Report-final-11-23-10_web.pdf [<http://perma.cc/T3BA-PL9E>].

138. Judge, *supra* note 17, at 919–20.

Third, as effective as these guarantees were at helping to stem the Crisis, they too were stopgap measures. It was not until the underlying information gaps and capital deficiencies that contributed to the panic were addressed that the liquidity strains fully dissipated and markets began to function without government support.¹³⁹ The required recapitalizations were possible only because of explicit congressional authorization, granted at the height of the Crisis with strikingly little information.¹⁴⁰

Fourth, expanding the scope of the analysis, the need to go to Congress at the height of the Crisis exacerbated the Crisis and did little to enhance the democratic accountability issues posed by the extraordinary interventions required to stabilize the financial system. The Crisis had been underway for more than a year before policymakers sought this additional authority from Congress.¹⁴¹ Nonetheless, congressional leaders were largely unaware that a crisis of such magnitude had been brewing.¹⁴² Moreover, when regulators sought this new authority, the Treasury Department and other financial

139. See, e.g., BEN S. BERNANKE, *THE COURAGE TO ACT: A MEMOIR OF A CRISIS AND ITS AFTERMATH* 567–75 (2015) (describing the role of transparency and higher liquid asset holding requirements had on American recovery); Judge, *supra* note 17, at 909–11 (noting the results of the Supervisory Capital Assessment Program disseminated information on bank health, which reduced uncertainty and promoted market activity); Mishkin, *supra* note 134, at 61–63 (identifying the information provided by the stress tests as “[a] key element in the financial market recovery”).

140. See Emergency Economic Stabilization Act of 2008, Pub. L. No. 110-343, 122 Stat. 3766 (2008) (codified at 12 U.S.C. § 5201 (2012)) (identifying the purposes and broad powers granted under the Act); Judge, *supra* note 17, at 907 (“With the adoption of the Emergency Economic Stabilization Act of 2008 . . . Congress provided financial regulators with significant additional tools . . .”).

141. Judge, *supra* note 11, at 912.

142. See BERNANKE, *supra* note 139, at 284–85 (describing the meeting at which Bernanke and Paulson warned Congress of the magnitude of what was happening).

policymakers still lacked critical information about the source of the problems and how best to address them.¹⁴³ One ramification was that the House of Representatives initially voted down a bill to provide the Treasury Secretary additional authority, significantly exacerbating the Crisis.¹⁴⁴ Another consequence was that the Treasury Department requested, and Congress provided, authority to pursue an asset purchase plan that was never actually implemented. Instead, Treasury creatively interpreted its authority to buy troubled assets as enabling it to provide fresh capital to AIG, all of the largest banks, smaller weak banks, auto companies, and others.¹⁴⁵ Although the capital infusions proved effective, the stark contrast between the plan presented to Congress in seeking new authority and the plan ultimately implemented by Treasury and other regulators renders laughable the notion that Congress played a meaningful role in shaping the approach pursued. Although this is but one example of the “unorthodox lawmaking” that has become the new norm in congressional action,¹⁴⁶ it

143. *Id.*; John Cassidy, *Anatomy of a Meltdown: Ben Bernanke and the Financial Crisis*, NEW YORKER (Dec. 1, 2008), <http://www.newyorker.com/magazine/2008/12/01/anatomy-of-a-meltdown> [<https://perma.cc/LM73-PRC7>].

144. Mishkin, *supra* note 136, at 54–55; Liaquat Ahamed on *Lehman Brothers’ Fall*, NEWSWEEK (May 17, 2009), <http://www.newsweek.com/liaquat-ahamed-lehman-brothers-fall-80127> [<https://perma.cc/DT66-2NND>] (noting that the Dow Jones Industrial average fell by only 2.5% in the two weeks following Lehman’s failure in contrast with a decline of nearly 25% in the two weeks following the House’s no vote as evidence that the vote played a greater role than Lehman’s failure in contributing to the fallout that followed).

145. BAIRD WEBEL & EDWARD V. MURPHY, CONG. RESEARCH SERV., RL34730, THE EMERGENCY ECONOMIC STABILIZATION ACT AND RECENT FINANCIAL TURMOIL: ISSUES AND ANALYSIS 9–11 (2009).

146. Abbe R. Gluck et al., *Unorthodox Lawmaking, Unorthodox Rulemaking*, 115 COLUM. L. REV. 1789, 1791–96 (2015) (providing an overview of the numerous ways that unorthodox

starkly illustrates how the need to act quickly in the face of an emergency can deprive Congress of the chance to play a meaningful role in determining the appropriate response to a crisis, such as the conditions that should attach to any capital injections or other government support.¹⁴⁷

Fifth, the lack of adequate tools to address the evolving Crisis contributed to regulators' willingness to stretch the authority that they did have. The Treasury's creative interpretation of the authority granted to it under EESA was consistent with the behavior of all of the leading financial regulators during the Crisis. Facing widespread panic, the Fed, the Treasury, and the FDIC each proved willing to stretch its authority to provide the guarantees here described. Congress noticed both this creativity and the public backlash these interventions engendered. When the Crisis subsided, Congress scaled back each of these sources of authority: The Fed, for example, is forbidden from using its Section 13(3) authority to help individual institutions, as it did with AIG and Bear, and it must overcome new hurdles, like receiving approval from the Treasury Secretary, before extending any loans under Section 13(3).¹⁴⁸ The FDIC similarly faces new limits on its authority to provide guarantees during periods of systemic

lawmaking has taken hold and the implications for where power lies in the lawmaking process).

147. This about-face did trigger congressional backlash. Representative Gary Ackerman, a Democrat from New York, told Treasury Secretary Paulson at a hearing in November 2008: "You seem to be flying a seven-hundred-billion-dollar plane by the seat of your pants." Cassidy, *supra* note 143.

148. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 1101(a)(6), 124 Stat. 1376, 2113–14 (2010) (codified at 12 U.S.C. § 343 (2012)).

distress, including a requirement that two-thirds of the members of the governing bodies of the FDIC and Federal Reserve determine that “failure to take action would have serious adverse effects on financial stability or economic conditions in the United States” and certain other conditions are satisfied.¹⁴⁹ These developments may in part reflect a lack of appreciation for the need for crisis-fighting tools, but the fact that these sources of authority were generally subjected to additional procedural burdens rather than eliminated entirely suggests that concerns about accountability and legitimacy were also at the forefront of the reasons for scaling back.

III. The Proposal: The EGA

Having established why having a robust LOLR does not suffice to deter or stop panics, and that federal regulators have already adopted a de facto policy of using the tools they do have to provide guarantees to limit the spread of market dysfunction when a crisis hits, the Article now turns to the normative claim that this de facto practice should be formalized. This Part describes how the EGA would work and compares it, briefly, to the various guarantees deployed during the Crisis. Parts IV and V address the virtues of the proposed regime, the rationales for its precise contours, and the challenges that may arise if it is adopted.

149. *Id.* § 1104(a)(2)(b)(ii), 124 Stat. 1376, 2120 (2010) (codified at 12 U.S.C. § 5611(a)(2)(b)(ii) (2012)); *id.* §§ 1104–1106, 124 Stat. at 2120–2126 (codified at 12 U.S.C. §§ 5611–13 (2012)).

The Orderly Liquidation Authority, which authorizes the Treasury Secretary to instigate an FDIC-controlled resolution of a non-bank financial institution and to provide liquidity to facilitate that resolution, serves as a rough template, although there are meaningful differences between the two. Also worth noting is that the EGA could serve as an important complement to other crisis-management and resolution tools, like having a robust lender of last resort and the current Orderly Liquidation Authority, but it could also serve as a partial substitute for these crisis-fighting tools. Given the Fed's already diminished authority to provide emergency liquidity, the scaling back of other crisis-management tools, and the proposals to further reduce regulators' crisis-era toolkit, this partial substitutability may make adoption of the EGA particularly timely and important.

A. The EGA in a Nutshell

(1) In order to invoke its authority under the EGA, the Treasury Secretary, in consultation with the President, must determine that the situation poses a threat to the stability of the U.S. financial system and that other conditions regarding the expected benefits of government intervention and the lack of readily available private alternatives are satisfied.

(2) The Secretary can instigate consideration of whether the requisite conditions are satisfied on his own initiative. He can also be compelled to make such a determination upon receipt of a written recommendation approved by the majority of the leadership of any of the major financial

201x]

Guarantor of Last Resort

155

regulators (namely, the Federal Reserve, OCC, FDIC, SEC or CFTC).

(3) The scope and structure of the EGA—including eligible entities and claims and the terms of the guarantees provided—will be determined by the Treasury Secretary, in consultation with other regulators as appropriate, in light of the circumstances confronted. The features that may be incorporated include:¹⁵⁰

a. An opt-in regime that assesses a fee from the entity issuing the claims protected in exchange for such protection.

b. A mandatory program that provides direct and automatic protection for a specified class of claimants while imposing no formal requirements on the entities issuing the claims.

c. A negotiated regime in which entities have the option to participate in exchange for providing information, undertaking internal risk-management changes or agreeing to other terms.

d. A limit on the aggregate coverage established by reference to the value of the claims outstanding at the time of intervention, or a comparable cap designed to ensure that the guarantees operate to maintain, rather than change, the status quo.

e. Limits with respect to the particular claims, enabling the guarantees to cover the full face amount of the debt protected or some lesser

150. Many of these features are derived from the experience of using guarantees in the Crisis. See *supra* Part II. Others build on a theory regarding how best to limit moral hazard while still promoting financial resilience. See *infra* Part IV.

portion thereof.

f. Additionally, the Treasury Department would have the option, but not obligation, to adopt guidelines in advance of any crisis, such as a guideline providing that it would not intervene to prevent the failure of a single institution, but it may provide widespread support in the wake of such a failure.

(4) The Secretary has the option to work with other financial regulators in establishing the terms and operationalizing an intervention. The Secretary may further use her position as head of the FSOC to facilitate the communication and coordination required to achieve desired aims.

(5) The Secretary's otherwise quite significant discretion is subject to two limitations:

a. Invocation of the EGA is subject to a two-year time limit. Guarantees may be shorter in duration, but they cannot be longer, and all guarantees will expire two years after the EGA is first invoked even if a particular guarantee is not issued until later in the crisis.

b. Once the EGA is invoked to protect a set of claimants, it cannot again be used to protect the same class of claimants unless Congress has expressly reauthorized the Secretary to provide such protection.

(6) Reports to Congress.

a. Shortly after making a determination regarding whether to invoke the EGA, the Secretary must report to Congress regarding its

201x]

Guarantor of Last Resort

157

determinations and the reasons therefore. The Secretary must provide Congress regular updates regarding any guarantee program implemented.

b. Within one year of first invoking the EGA, the Secretary would provide a report to Congress on (a) the reasons why invoking the EGA had been necessary; (b) whether the circumstances giving rise to the invocation had been resolved; (c) whether further action is needed to address ongoing threats to the stability of the financial system and what course of action the Secretary would recommend to address those threats; and, (d) if no further action is required to bring about stability, what reforms have been implemented or ought to be implemented to prevent a recurrence of the circumstances leading to the invocation of the EGA. Any other financial regulator who had played a role in invoking or implementing the EGA would be asked to sign onto the Secretary's report or explain how its assessment diverged from that contained in the report. One six-month extension could be invoked with good reason given for the delay.

c. Congress can determine whether to hold oversight hearings, empower an Inspector General to review the actions taken, or take other steps to assess the appropriateness of the Secretary's actions. Congress would separately take up, as needed, consideration of any legislation required to address the lingering crisis or to facilitate reforms needed to address newly revealed sources of systemic risk. Alternatively, Congress could set up a special commission or put into place an alternative structure

for developing an appropriate response to the challenges revealed.

B. Comparing the EGA to Past Practice

To understand the impact of adopting the EGA, it is useful to consider how the presence of this authority would impact the handling of an actual financial crisis. Although speculative, this subpart briefly considers (i) whether and to what extent the EGA would have enabled the types of interventions regulators used in response to the Crisis, including actions taken pursuant to legal authority that have since been scaled back; and (ii) other ways that having the EGA in place may have altered the nature and significance of these and other interventions.

1. Scope of Coverage.—Many of the guarantees used during the Crisis could have been implemented pursuant to the EGA. For example, the guarantees extended to money market mutual funds and noninterest-bearing transaction deposits could have been adopted on substantially the same terms, subject to the explicit two-year time limit and other checks. Something akin to the Federal Reserve's AMLF also would have been possible.

The EGA could also be used to guarantee longer term or newly issued debt, as the FDIC did during the Crisis. Although the EGA is designed primarily to stop runs by short-term creditors, the range of creditors it may protect is not proscribed. Just as the FDIC recognized, enabling an institution to retain longer term debt can also help calm a panic by

protecting an institution's overall funding structure. The need for the Treasury Secretary to authorize the terms of such loans, the reporting requirements, and the strict two-year time limit for the guarantees would preclude an exact replica of the FDIC's program under the EGA, reflecting the additional checks the EGA seeks to impose.¹⁵¹ But the EGA could use the FDIC program as a model for how to use guarantees to help institutions attract new capital when longer term debt matures.

The decisions made with respect to save individual firms, such as Bear Stearns, Lehman Brothers, and AIG, brings to the fore the differences between a world with the EGA and that which existed during the Crisis. On the one hand, there would be no question regarding the authority of the Treasury Secretary to help avert the failure of an institution. Given that the leading regulators all cited lack of legal authority as the reason for not intervening to protect Lehman and that regulators grappled with their legal authority at other points, this clarity would have been a meaningful shift.¹⁵² On the other hand, the need for the Treasury Secretary to take the lead

151. *See infra* section IV(C)(1).

152. *See* BERNANKE, *supra* note 137, at 302–04 (discussing the need for a plan to be politically feasible, and a plan that “looked like a government takeover of banks” would be rejected by House Republicans fearing an expansion of authority); HENRY M. PAULSON, JR., ON THE BRINK: INSIDE THE RACE TO STOP THE COLLAPSE OF THE GLOBAL FINANCIAL SYSTEM 225 (2010) (admitting the Federal Reserve did not have the statutory power to save Lehman Brothers, but that such an admission would have devastated the economy); *Public Policy Issues Raised by the Report of the Lehman Bankruptcy Examiner: Hearing Before the H. Comm. on Fin. Serv.*, 111th Cong. 15–17 (2010) (statement of Ben S. Bernanke, Chairman, Bd. of Governors of the Fed. Reserve Sys.) (stating that no agency had the legal authority to provide the capital or unsecured guarantee that may have prevented Lehman's failure).

authorizing such interventions, along with the other differences, may result in very different terms. Additionally, the triggering of the two-year time limit for any guarantees and the need to provide a comprehensive report regarding that decision would likely result in very different types of behavior following a decision to intervene.

Although it is impossible to know how the last crisis would have played out in the presence of the EGA, a little speculation can bring to life the nature of how the EGA stacks up against the pre-Crisis regime. First, in March 2008, the Secretary would have faced a difficult decision with respect to whether to save Bear. Knowing that he had broad authority to provide market-wide support should things turn out badly may have increased the Treasury Secretary's willingness to take the risk of allowing Bear to fail. Given that the overall financial system was stronger in March 2008 than it was in September 2008 when Lehman failed, and the capacity of the Secretary to step in to combat uncertainty, this may have resulted in a very different and smaller crisis.¹⁵³ Alternatively, had he decided to save Bear, that decision would have triggered the clock, setting a deadline for further guarantees and imposing a range of reporting requirements. Although it is very difficult to know, these constraints may have enhanced the preparedness of regulators (and perhaps even Congress and market

153. For a discussion of the additional actions that could have been taken during this period to reduce the magnitude of the crisis that followed, see generally Judge, *supra* note 11.

participants) for the eventual demise of Lehman Brothers. And should Lehman's demise still have materialized, the Treasury Secretary again would have had additional options, and the additional accountability, the EGA allows and imposes. The Secretary could have used the EGA to help Lehman avert bankruptcy, but he also could have used it to reduce the systemic disruptions of that bankruptcy by using guarantees to deter counterparties and other short-term creditors from running on Lehman and its subsidiaries.¹⁵⁴

2. *Decision-making and Accountability.*—Shifting the focus beyond the form of intervention to the dynamics surrounding adoption and implementation brings into relief what would, and would not, have been different had the EGA been in place. As an initial matter, despite the apparent diversity of actors involved in extending guarantees during the Crisis, making the Secretary alone responsible for invoking the EGA seems like a major shift.

The degree of the change this would bring about may, however, be more modest than it first appears. The Treasury Secretary was deeply

154. The importance of the EGA as a complement to changes in the bankruptcy code is reflected in the critical role of the liquidity provided by short-term claimants in enabling the process to proceed smoothly. *See, e.g.,* Marcel Kahan & Edward Rock, *How to Prevent Hard Cases from Making Bad Law: Bear Stearns, Delaware, and the Strategic Use of Comity*, 58 EMORY L.J. 713, 740 (2009) (showing that the Fed and J.P. Morgan's commitment to purchase \$30 billion of illiquid Bear Stearns securities stabilized its share price); Mark J. Roe & David Skeel, *Assessing the Chrysler Bankruptcy*, 108 MICH. L. REV. 727, 728–29 (2010) (discussing the role of the government's infusion of cash to facilitate the Chrysler chapter 11 bankruptcy proceeding). Adoption of the EGA, however, is far from a complete substitute for the Orderly Liquidation Authority, which has a number of additional features that enhance its capacity to facilitate a more orderly and accountable resolution process.

involved in most of the guarantee-related actions that occurred during the Crisis. For example, even under the law then in place, the FDIC could not have provided any of the exceptional guarantees that it did without the Treasury Secretary first making a systemic risk determination.¹⁵⁵ Although the law did not give the Treasury similar authority with respect to the Federal Reserve's formal authority to take action pursuant to Section 13(3), inside accounts make clear that the Federal Reserve would not have provided support to Bear or AIG had the Treasury Secretary not approved.¹⁵⁶ Moreover, economically, it was the Treasury that bore much of the risk of the Fed's unusual interventions. Because the Fed routinely remits any excess profits it earns to the Treasury, any diminution in its earnings reduces the size of the remit.¹⁵⁷

The backstop provided to Bear Stearns illustrates these dynamics. Subsequent disclosures make it clear that even though the Treasury Secretary publicly ascribed the decision to the Fed, Treasury Secretary Henry Paulson was involved throughout.¹⁵⁸ Moreover, in a letter to New

155. 12 U.S.C. § 1823(c)(4)(G) (2008); Deposit Insurance Regulations; Unlimited Coverage for Noninterest-bearing Transaction Accounts, 75 Fed. Reg. 60,341, 60,342 (proposed Sept. 30, 2010) (to be codified at 12 C.F.R. pt. 330) (supplementary information).

156. BERNANKE, *supra* note 139, at 216, 285.

157. Jane Ihrig et al., *How Does the Fed Adjust Its Securities Holdings and Who Is Affected?* 14 (Fin. & Econ. Discussion Series, Working Paper No. 2017-099, 2017), <https://www.federalreserve.gov/econres/feds/files/2017099pap.pdf> [https://perma.cc/T4Q6-GZF3].

158. Cf. Greg Robb, *Treasury Details Key Role in Bear Stearns Bailout*, MARKETWATCH (Apr. 2, 2008), <http://www.marketwatch.com/story/correct-treasury-details-extensive-role-in-bear-stearns-bailout> [https://perma.cc/822H-QC8X] (explaining that "Treasury Secretary Henry

York Fed President Timothy Geithner, he expressly acknowledged that

[o]n behalf of the Department of the Treasury, I support this action . . . and acknowledge that if any loss arises out of the special facility extended by the [Federal Reserve Bank of New York] to [J.P. Morgan Chase], the loss will be treated . . . as an expense that may reduce the net earnings transferred by the [New York Fed] to the Treasury general fund.¹⁵⁹

Thus, not only are guarantees widely used already in practice, but the proposal to require the Secretary to make the appropriate findings to invoke the EGA and to bear the associated credit risk may also be viewed as largely formalizing a regime that already exists in practice. That the EGA expressly contemplates other financial regulators will often play a central role in operationalizing guarantees further suggests that institutionalizing the EGA may do more to affirm than disrupt the system in place when the Crisis hit.

But there remains a reasonable probability that formalization could be transformative along a number of fronts. As a starting point, the EGA

Paulson and the White House, through its spokesmen, have taken to calling the Bear Stearns bailout a ‘Federal Reserve action’), *with* Letter from Kevin I. Fromer, Assistant Sec. Legislative Affairs, Dep’t. Treasury, to Russ Sullivan, Staff Dir., Democratic Staff, Comm. on Fin. & Kolan Davis, Staff Dir., Republican Staff, Comm. on Fin. (Mar. 28, 2008), <http://online.wsj.com/public/resources/documents/Treasuryletter0308.pdf> [<https://perma.cc/C93A-P4FU>] (stating that “Treasury personnel, [including Secretary Paulson], worked closely with [the Federal Reserve] as it negotiated with JPMorgan and Bear Stearns”).

159. Letter from Henry M. Paulson, Jr., Sec., Dep’t Treasury, to Timothy F. Geithner, Pres., Fed. Reserve Bank of N.Y. (Mar. 17, 2008).

provides clear lines of responsibility in conjunction with providing authority. There would no longer be—as was the case with Lehman Brothers—an option for regulators to hide behind a lack of legal authority when making a decision not to intervene. Moreover, having a single regulator (the Treasury Secretary) accountable for decisions to intervene and decisions not to intervene might result in meaningful changes in how these issues are handled within the executive branch. Thus, even when the EGA would restore aspects of the crisis-fighting toolkit that Congress took away post-Crisis, it would do so in a manner that enhances accountability and could alter use accordingly.

The Treasury Secretary's capacity to invoke the EGA is also likely to have a significant impact on the behavior of other financial regulators during periods of systemic distress. Financial regulators regularly stretched the bounds of their legal authority during the Crisis, and notable scholars and at least one court have taken the position that they violated the law on more than one occasion.¹⁶⁰ They did so, at least in part, because no one had the tools needed to effectively bring an end to the successive runs that were spreading throughout the system, and the specter of the Great Depression loomed large as a reminder of what can happen when the government is too

160. *Starr Int'l Co. v. United States*, 107 Fed. Cl. 374, 378 (2012), *vacated in part on different grounds*, 856 F.3d 953 (Fed. Cir. 2017); Posner, *supra* note 27, at 1548–53; Philip Hamburger, *The Raid on AIG's Equity Was Illegal*, WALL ST. J. (Mar. 8, 2018), <https://www.wsj.com/articles/the-raid-on-aigs-equity-was-illegal-1520552723> [<https://perma.cc/5LU5-79RG>]; George Selgin, *The Courage to Refuse*, ALT-M BLOG (Oct. 31, 2015), <https://www.alt-m.org/2015/10/31/courage-to-refuse/> [<https://perma.cc/U5AH-HS55>].

slow to intervene.¹⁶¹ In a regime with the EGA, other regulators may be far less inclined toward such creativity and could be more easily disciplined should they exercise it nonetheless.

In addition to its power, the limits to what the EGA can accomplish are also critical to understanding what makes the EGA useful in seeking the middle ground along the many tensions at stake in the handling of a crisis. It allows the executive branch to intervene quickly and forcefully to bring a temporary reprieve, but it retains an important role for Congress. Treasury must report to Congress and, more importantly, Treasury must seek approval from Congress before taking more substantive fiscal action, as will likely be needed to bring about lasting stability. The EGA thus integrates concerns about political and public accountability into the crisis-management regime and harnesses these forces to help address challenges like moral hazard, rather than pretending that there can be such a thing as a purely technocratic solution to the messy and difficult tradeoffs crises inevitably pose.

This very brief analysis of the ways in which the EGA both enables and imposes checks on the processes and terms of government guarantees as a means for crisis management sets the stage for a more comprehensive examination of the benefits, and some drawbacks, of the proposal. The next

161. Posner, *supra* note 24, at 1546.

two Parts address each in turn.

IV. Some Benefits

A. *Stopping the Run While Starting the Clock*

The core aim of the EGA is to stop a panic while simultaneously starting the clock. The overarching need when a panic sets in—as they have, regularly, in diverse countries throughout time¹⁶²—is to stop the panic. There are numerous theories about why short-term creditors run, some of which focus on coordination problems among those creditors and others which focus on what those creditors know about the health of the institutions issuing their claims.¹⁶³ Only government-backed guarantees can stop a panic irrespective of which theory explains a particular run.¹⁶⁴ This helps to explain why deposit-insurance schemes have been so successful in helping to prevent panics¹⁶⁵ and why such schemes were generally expanded during the Crisis.¹⁶⁶ And it helps to explain why guarantees were used so extensively and in so many different forms at the height of the

162. GORTON, *supra* note 67, at tbl.10.5; CARMEN M. REINHART & KENNETH S. ROGOFF, THIS TIME IS DIFFERENT: EIGHT CENTURIES OF FINANCIAL FOLLY 112–16 (2009).

163. *See supra* subpart I(B).

164. *Id.*

165. *E.g.*, RICKS, *supra* note 5, at 215–19.

166. Asli Demirgüç-Kunt et al., *Introduction to the Updated Deposit Insurance Database*, VOX, CEPR POLICY PORTAL (Aug. 4, 2014), <http://voxeu.org/article/updated-deposit-insurance-database> [<https://perma.cc/N4C4-QEDX>] (finding a marked increase in the number of countries with explicit deposit insurance schemes—of the 189 countries studied, “112 (59%) had explicit deposit insurance by year-end 2013—a sharp increase from 84 countries (44%) in 2003. The great financial crisis of 2008 influenced this trend, with 5 countries adopting deposit insurance in that year alone”).

Crisis. The programs adopted varied dramatically, and thus had quite different benefits and costs. Each, however, illustrates how guarantees can be used to keep private capital in the system and reduce the magnitude of the ripples that spread when a shock causes short-term creditors to have questions about the value of the assets underlying their claims or the inclination of their fellow creditors to flee. The value of a tool that can credibly stop short-term creditors from running, irrespective of where in the system problems erupt, is hard to overstate.

Nearly as important as providing a short-term reprieve from the devastation a widespread panic can wreak, however, is ensuring that the underlying problems giving rise to the panic are addressed. In addition to demonstrating that panics inevitably arise, history also suggests that regulators are often too slow to recognize and address the underlying challenges, opting instead to forebear and hope the problem goes away. One of the most vivid illustrations of this type of response is the way policymakers at all levels responded to the savings and loan debacle of the 1980s. Even putting to the side the adverse effects on GNP and other indirect costs, the process of closing failed institutions ultimately cost approximately \$153 billion, of which \$124 billion was borne by taxpayers.¹⁶⁷ Subsequent empirical work shows that regulators consistently

167. Timothy Curry & Lynn Shibut, *The Cost of the Savings and Loan Crisis: Truth and Consequences*, FDIC BANKING REV., Dec. 2000, at 26, 33. For a description of some of the other

delayed the closure of institutions even when they were insolvent, and that these delays significantly increased the costs of closing the institutions.¹⁶⁸ Subsequent work also highlights the massive secondary effects of the failure to close institutions in a timely fashion, including losses to GNP stemming from the misallocation of resources and increased funding costs for the government.¹⁶⁹ Even more recent work exploits heterogeneity across states to show that greater levels of forbearance are correlated, initially, with more lending but eventually lead to greater declines in credit, real estate prices, and growth when forbearance is brought to an end.¹⁷⁰

The tendency toward forbearance, however, is much more widespread and consistently quite costly. Another famous example is Japan's banking crisis in the 1990s and the country's prolonged challenges achieving growth

costs, see CONG. OF THE U.S. BUDGET OFFICE, THE ECONOMIC EFFECTS OF THE SAVINGS & LOAN CRISIS 29–40 (1992); James B. Thomson, *The Cost of Buying Time: Lessons from the Thrift Debacle*, ECON. COMMENT., FED. RESERVE BANK OF CLEVELAND, Jan. 1, 1993, at 1, 2–3.

168. *E.g.*, Thomson, *supra* note 165, at 4 (providing a summary of the various empirical studies conducted on the direct and indirect costs of regulatory forbearance during the S&L debacle and concluding that “losses on [the thrifts] that have been forced to close their doors significantly eclipsed the cost of prompt closure in the early years of the decade”); Edward J. Kane & Min-Teh Yu, *How Much Did Capital Forbearance Add to the Tab for the FSLIC Mess?* 16 (Nat'l Bureau of Econ. Research, Working Paper No. 4701, 1994), <http://www.nber.org/papers/w4701.pdf> [<https://perma.cc/EVB4-6BHL>] (showing that forbearance increased costs even if one also takes into account the potential benefits associated with the strategy).

169. CONG. OF THE U.S. BUDGET OFFICE, *supra* note 165, at 33 (examining the adverse effects on GNP); John B. Shoven et al., *Real Interest Rates and the Savings and Loan Crisis: The Moral Hazard Premium*, J. ECON. PERSP., Winter 1992, at 155, 159–67 (describing the way and demonstrating how competition from CDs issued by insolvent banks may have increased the yield demanded from Treasuries).

170. SEAN HUNDTOFTE, FED. RESERVE BANK OF N.Y., DOES GOING EASY ON DISTRESSED BANKS HELP ECONOMIC GROWTH?, STAFF REPORT NO. 823, at 1–2 (2017), https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr823.pdf [<https://perma.cc/E6NP-UCAL>] (finding that “forbearance is associated with larger contractions in real estate[] and cumulative average declines of more than 3% in real GDP”).

following that crisis.¹⁷¹ Recent work formally shows how deposit insurance and regulatory forbearance can lead to financial crises and retard growth, and maps the model onto Japan's actions and challenges during this period.¹⁷² There is also new evidence regarding the practice and determinants of forbearance in Europe.¹⁷³ Moreover, while the practice of forbearance did not make U.S. headlines during the Crisis as it did during the S&L debacle, it continues to be a real challenge. A recent study estimates that over a third of the costs that the FDIC incurred in closing failed banks between 2007 and 2014 could have been avoided had the FDIC closed the institutions in a more timely fashion.¹⁷⁴ Qualitative analysis of the period similarly suggests that regulators were too slow to act on the signals the market was sending and that there is at least a possibility that the depths of the Crisis may have been averted by a more timely regulatory

171. E.g., Akihiro Kanaya & David Woo, *The Japanese Banking Crisis of the 1990s: Sources and Lessons*, ESSAYS INT'L ECON., June 2001, at 1, 1 (explaining that "most of [the] underlying causes" of Japan's banking crisis, including "regulatory forbearance when the system is under stress[,] are typical of banking crises in general").

172. Robert Dekle & Kenneth Kletzer, *Deposit Insurance Regulatory Forbearance and Economic Growth: Implications for the Japanese Banking Crisis* 10–15, 21–25 (Int'l Monetary Fund, Working Paper No. WP/05/169, 2005), <https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Deposit-Insurance-Regulatory-forbearance-and-Economic-Growth-Implications-for-the-Japanese-17825> [<https://perma.cc/ZE25-TBM4>].

173. Timotej Homar et al., *What Drives Forbearance—Evidence from the ECB Comprehensive Assessment 2* (Eur. Cent. Bank, Working Paper No. 1860, 2016), <https://www.econstor.eu/handle/10419/154293> [<https://perma.cc/Z832-TFD2>].

174. Rebel A. Cole & Lawrence J. White, *When Time Is Not on Our Side: The Costs of Regulatory Forbearance in the Closure of Insolvent Banks*, J. BANKING & FIN., July 2017, at 235, 235–36.

response.¹⁷⁵

More importantly, forbearance is merely one manifestation of a broader dynamic. When a financial crisis erupts because of underlying problems somewhere in the system, the long-term impact of that crisis will depend on whether the underlying problems are addressed and treated in a timely fashion or whether policymakers instead treat only the symptoms, allowing the underlying problems to fester and grow. All too often, the latter course prevails, adding to the size and cost of the crisis that ensues.¹⁷⁶

The EGA is structured to minimize the capacity of policymakers to take such an approach. It is a crisis management device, not a mechanism for preventing or solving crises. The two-year time limit is sufficiently long to enable deployment to have the desired effect of calming a panic, but it is also not so long that it can serve as anything more than a stopgap measure. Because the clock starts the moment the EGA is invoked, policymakers and market participants are aware that they must move expeditiously to understand and address whatever problems might resurface when the guarantee ends.¹⁷⁷

175. Judge, *supra* note 11, at 913–15.

176. E.g., Takeo Hoshi & Anil K. Kashyap, *Will the U.S. and Europe Avoid a Lost Decade? Lessons from Japan's Postcrisis Experience*, 63 IMF ECON. REV. 110, 114–17 (2015) (suggesting that certain European countries may be on a path of lower growth because of a failure to address deficiencies in their banking sectors); Harry Huizinga & Luc Laeven, *Bank Valuation and Accounting Discretion During a Financial Crisis*, 106 J. FIN. ECON. 614, 632–33 (2012); Judge, *supra* note 20, at 65; Ricardo J. Caballero et al., *Zombie Lending and Depressed Restructuring in Japan 1972–2006* (Nat'l Bureau of Econ. Research, Working Paper No. 12129, 2006).

177. For further discussion, see *infra* subparts IV(C), IV(D).

B. Time

The fine balance between granting regulators sufficient authority and discretion to effectively stop a panic while not giving them so much discretion that they can avoid confronting the challenges at hand can be framed as an effort to provide regulators (as well as market participants and other policymakers) one key ingredient: time.

Returning to the three explanations for a panic shows the value of time in resolving a panic.¹⁷⁸ If the challenge is coordination problems among short-term creditors arising from the fact that early exit is rewarded and late exit is penalized once a run takes hold, time itself may suffice to bring about a cure. If the challenge is information asymmetries between the management of institutions and the short-term creditors funding those institutions, time might allow healthy institutions, on their own or with a third party, to devise ways to credibly communicate that health to creditors. If the challenge is one of information gaps, time can enable market participants and policymakers to undertake the information gathering and analysis needed to fill the most critical gaps. And, in the likely event that all three reasons are contributing, time can help in each of these ways.

Starting with realistic assumptions about expertise, information, and ignorance helps reveal just how important time can be and why panics

178. See subpart I(B), *supra*.

induce challenges that are not readily captured in many standard economic models. For example, Marvin Goodfriend and Robert King have argued that there is no reason to expect the government to have better information than private market participants regarding the actual health of a liquidity-constrained financial institution, and thus there is minimal justification for having a central bank engaged in financial regulation and liquidity support outside of open market operations.¹⁷⁹ Nonetheless, during the Crisis, numerous institutions that subsequently revealed to be solvent faced significant challenges obtaining the short-term liquidity they needed to remain operational. Although over-determined, much of this tension can be attributed to information asymmetry and precautionary liquidity hoarding that was likely exacerbated by the absence of a sufficient standing regime for addressing the spreading market dysfunction.¹⁸⁰

An additional benefit of time is that it may help market participants and regulators see a situation more clearly by shifting the frame through

179. Marvin Goodfriend & Robert G. King, *Financial Deregulation, Monetary Policy, and Central Banking*, in *RESTRUCTURING BANKING AND FINANCIAL SERVICES IN AMERICA* 15 (William S. Haraf & Rose Marie Kushmeider eds., 1988) (“[W]e know of no compelling rationale for public provision of line-of-credit services to individual banks through a central bank discount window” given that “today’s financial markets provide a highly efficient means of allocating credit privately. Since central bank loan commitments do not appear to be necessary, neither do the supporting regulation and supervision.”).

180. Liquidity hoarding may also have exacerbated the challenge. See Douglas Gale & Tanju Yorulmazer, *Liquidity Hoarding*, 8 *THEORETICAL ECON.* 291, 311–12 (2013) (noting “absence of inefficient liquidity hoarding” as a feature of constrained-efficient allocation); Viral V. Acharya & Ouarda Merrouche, *Precautionary Hoarding of Liquidity and Interbank Markets: Evidence from the Sub-Prime Crisis* 6 (Nat’l Bureau of Econ. Research, Working Paper No. 16395, 2010), <http://www.nber.org/papers/w16395> [<https://perma.cc/2Y36-U62V>] (presenting findings that suggest stress in British money markets was caused in part by “weaker banks engaging in liquidity hoarding as a precautionary response to their own credit risk”).

which they are looking at it. Although the term “panic” is often used in the context of financial regulation as rational withdrawals by short-term creditors, it is not by chance that these events have been labeled as panics—a term with dictionary definitions that include “a sudden unreasoning terror often accompanied by mass flight.”¹⁸¹ There is a rich body of literature, in fields ranging from neuroscience to behavioral economics, showing the effect of speed and context on decision-making and the ways a sense of panic can reduce creativity and degrade decision quality.¹⁸² Removing a sense of panic may meaningfully improve the quality of decisions made by market participants and regulators alike.

To be sure, the claim here is not that the EGA is the sole tool available to buy regulators precious time when a crisis strikes. Many *ex ante* regulations, like capital and liquidity requirements, can also serve this aim and likely will work in conjunction with the EGA to preserve some level of stability while policymakers devise a longer term solution. The advantages of also having the EGA are two-fold. First, the EGA can be deployed to bring about stability in sectors of the market that were not subject to sufficient *ex ante* regulation in light of the associated risks. Second, the

181. *Panic*, MERRIAM-WEBSTER’S COLLEGIATE DICTIONARY (11th ed. 2014).

182. *E.g.*, DANIEL KAHNEMAN, THINKING FAST AND SLOW 41 (2012); FRANK PARTNOY, WAIT: THE ART AND SCIENCE OF DELAY 1–17 (2012) (describing recent work in neuroscience on decision-making); Junchol Park et al., *Anxiety Evokes Hypofrontality and Disrupts Rule-Relevant Encoding by Dorsomedial Prefrontal Cortex Neurons*, 36 J. NEUROSCIENCE 3322, 3322–23 (2016) (employing a controlled study of rats to show the ways that a “sustained anxiety state” adversely effects the neural functioning involved in decision-making).

EGA is unique in also triggering an alarm clock of sorts, discouraging the tendency to delay that can allow other buffers to be burned through without the sense of urgency needed to address the difficult problems that may need attention to achieve a more lasting resolution.

C. Allocation of Authority

The importance of time takes on added importance when expanding the focus to include concerns about legitimacy and democratic accountability. To grossly oversimplify, there is an inverse relationship between the governmental bodies with the institutional competence (including information, expertise, relationships, and the like) to respond quickly to contain a crisis and those that are democratically accountable. Thus, alongside allowing market participants and regulators time to gather and distribute information in ways that can help alleviate the panic, time is also critical to enabling the more democratically accountable, but relatively uninformed, policymakers to play a meaningful role in the allocation and other issues that will inevitably arise in paving a lasting path to stability. Providing time to get various policymakers up to speed is but one of the ways that the EGA can promote a more appropriate allocation of authority among the various bodies involved in efforts to contain a growing financial crisis.

1. Executive v. Congress.—A threshold issue given the separation of

powers among the Executive (which includes the administrative agencies as well as the President), the Legislature, and the Judiciary, is which branch is best suited to take the lead when a crisis first strikes. To tackle this issue, we must start by understanding what the baseline is in the absence of adequate existing crisis-management tools. One possibility, on display during the Crisis, is that agencies within the executive branch creatively stretch authority meant for other aims.¹⁸³ During the early stages of the Crisis, the Fed, Treasury, and FDIC each creatively deployed the powers granted to them to try to mitigate the adverse effects of the fallout from the subprime mortgage crisis.¹⁸⁴ The other possibility is that Congress must intervene quickly, with little information, or risk making the crisis far worse.¹⁸⁵ This also happened during the Crisis. Although early stage efforts by the Executive brought some relief, they were far from sufficient to address the problem at hand. This led to a request by Treasury Secretary Henry Paulson, supported by Fed Chair Ben Bernanke, for Congress to grant him extraordinary new powers and \$700 billion to help save the financial system.¹⁸⁶ Despite asking for authority to spend more than any

183. *E.g.*, Eric A. Posner & Adrian Vermeule, *Crisis Governance in the Administrative State: 9/11 and the Financial Meltdown of 2008*, 76 U. CHI. L. REV. 1613, 1628 (2009) (noting that “[m]ost of the actions taken by the Treasury Department, the Federal Reserve Board, the SEC, and related agencies fit within existing statutory authorities, but not all did” and that “[t]he most legally questionable event was the bailout of AIG”), *see also supra* subpart II(A).

184. *See supra* subpart II(A).

185. *See supra* subpart II(B).

186. ANDREW ROSS SORKIN, *TOO BIG TO FAIL: THE INSIDE STORY OF HOW WALL STREET AND WASHINGTON FOUGHT TO SAVE THE FINANCIAL SYSTEM—AND THEMSELVES* 465 (2009);

single government expenditure in history, Paulson's proposed bill was only three pages long, reflecting the fact that it was a rushed job rather than a thought-out plan that could be subject to meaningful evaluation and debate.¹⁸⁷ Congress balked. Despite the insertion of a range of measures designed to enhance accountability, the House voted the bill down, and the stock market plummeted nearly 800 points.¹⁸⁸

Congress eventually passed a bill providing the Treasury Secretary much of the authority that he wanted but with a range of ancillary provisions doled out to garner sufficient support.¹⁸⁹ Even more troubling from a democratic accountability standpoint is that the Act was sold to Congress as a way to enable the Treasury Secretary to stabilize the financial system by buying "toxic" mortgage assets. But it soon became clear that buying mortgage-related assets was not going to be the best way to restore stability, and the Secretary instead used the broad discretion that the Act granted him to recapitalize an array of firms, including banks, AIG, and auto companies.¹⁹⁰

Posner & Vermeule, *supra* note 181, at 1624–25.

187. SORKIN, *supra* note 186, at 466.

188. Posner & Vermeule, *supra* note 183, at 1625.

189. 12 U.S.C. § 5211 (2012).

190. Posner & Vermeule, *supra* note 181, at 1626–27; *see also* BERNANKE, *supra* note 137, at 301–04 (acknowledging that: (i) even though it was never discussed with Congress, a number of financial regulators believed that recapitalizing banks was more likely to work than buying up toxic assets and (ii) the Treasury Secretary intentionally ensured the language was sufficiently broad to allow either course of action); SORKIN, *supra* note 184, at 489 (recounting a conversation in which Stephen Schwarzman, head of Blackstone, explained to Paulson the problems with the plan that sought to buy toxic assets).

According to Posner and Vermeule, the vastness of the authority granted to the Treasury (and exercised by the Fed) raises constitutional questions under the nondelegation doctrine.¹⁹¹ They recognize “such a challenge is highly unlikely to succeed,”¹⁹² but the very fact that Congress is pushing against the constitutional bounds regarding the amount of authority it can vest in another governmental body highlights how the nature of having to pass legislation at the height of a crisis compelled a legislative grant that effectively gave the Executive the capacity to devise a plan *after* Congress had acted, thus denying them their normal role in reviewing, providing feedback on, and approving that plan.

This is not just a story of the Crisis but of crises generally, and of the inherent mismatch between the demands crises pose and the institutional competence of Congress as a body. Political theorists have long observed that it is amazing, given their size and composition, that legislatures manage to get anything done even under the best of circumstances.¹⁹³ Congressional lawmaking requires the approval of the majority of two chambers of Congress, one with 100 members, the other with 435.¹⁹⁴ This usually entails

191. Posner & Vermeule, *supra* note 183, at 1630–34.

192. *Id.* at 1631.

193. Jeremy Waldron, *The Dignity of Legislation*, 54 MD. L. REV. 633, 639–41 (1995) (identifying William Blackstone, Jean-Jacques Rousseau, and John Stuart Mills as among the many who have opined on the challenge of legislating in light of “the sheer numbers . . . of persons that law-making involves” (emphasis omitted)).

194. *The Legislative Branch*, WHITE HOUSE: PRESIDENT BARACK OBAMA, <https://obamawhitehouse.archives.gov/1600/legislative-branch> [https://perma.cc/4G47-RRQL].

a process in which distinct bills are introduced in each chamber; referred to the appropriate committees therein; subjected to scrutiny, debate, and amendment within that committee; subjected to scrutiny, debate, and amendment on the floor; passed within each chamber; revised further by a conference committee with members from both the House and Senate; sent back to each chamber for approval in the revised form; and only then presented to the President to sign into law.¹⁹⁵ This is a time-intensive process in which the substance of the bill is expected to evolve, often quite significantly, even if the bill is one of the few eventually adopted into law.¹⁹⁶ Also worth emphasizing is that despite meaningful debates—both descriptive and normative—about the nature of legislatures, theorists are united in viewing deliberation as core to the legislative process and the legitimacy of the legislation thus produced.¹⁹⁷

Emergencies, however, require prompt action. Even modest delays can exacerbate the size of a crisis. Allowing Congress the time required for it to develop the required information and expertise, and to gather feedback

195. WILLIAM N. ESKRIDGE, JR. ET AL., *CASES AND MATERIALS ON LEGISLATION AND REGULATION: STATUTES AND THE CREATION OF PUBLIC POLICY* 29 (5th ed. 2014).

196. *Legislative Productivity in Congress and Workload*, THE BROOKINGS INST. 1, 3, 7, https://www.brookings.edu/wp-content/uploads/2016/06/Vital-Statistics-Chapter-6-Legislative-Productivity-in-Congress-and-Workload_UPDATE.pdf [<https://perma.cc/QG7Q-48LB>] in *Vital Statistics on Congress: Data on the U.S. Congress, Updated May 2018*, THE BROOKINGS INST. (May 21, 2018), <https://www.brookings.edu/multi-chapter-report/vital-statistics-on-congress/> [<https://perma.cc/2HCQ-KAVF>] (statistically documenting the small proportion of bills introduced that actually become law in the post-War period).

197. ESKRIDGE ET AL., *supra* note 195, at 262 (“Both pluralist (agency) and republican (trusteeship) theorists emphasize the importance of legislative deliberation . . .”).

from constituents, as they would need to in order to develop an appropriate legislative response, would only increase the magnitude of the recession everyone is seeking to minimize. Although emergency legislation may be but one form of a growing body of “unorthodox” lawmaking that is becoming the new norm, it is a form that significantly alters the balance of power between Congress and the Executive and undermines the role Congress is meant to play.¹⁹⁸

In short, the Executive must take the lead during a crisis. If it lacks sufficient power to address the crisis at hand, whether that crisis takes the form of a threat to financial stability or the need to respond to a terrorist attack, Congress may have little choice but to act quickly to provide the Executive new power subject to limited oversight to ensure the situation is addressed.¹⁹⁹ In addition to raising fundamental constitutional questions

198. Although Posner and Vermeule may view this as an inevitable and even appropriate development even outside of crisis periods, others view this as far less benign. *Cf.* ERIC A. POSNER & ADRIAN VERMEULE, *THE EXECUTIVE UNBOUND: AFTER THE MADISONIAN REPUBLIC* 16–17 (2010) (concluding that a Madisonian regime with separation of powers is obsolete), with Harvey Mansfield, *Is the Imperial Presidency Inevitable?*, N.Y. TIMES (Mar. 13, 2011), <https://www.nytimes.com/2011/03/13/books/review/book-review-the-executive-unbound-by-eric-a-posner-and-adrian-vermeule.html> [<https://perma.cc/HA8N-8VCT>] (reviewing ERIC A. POSNER & ADRIAN VERMEULE, *THE EXECUTIVE UNBOUND*) (arguing that the authors “should reconsider whether formal institutions like the separation of powers in the Constitution are as insignificant as they say”), and PHILLIP HAMBURGER, *IS ADMINISTRATIVE LAW UNLAWFUL?* 1 (2014) (arguing that it is time to “reconsider the lawfulness of administrative law”). *See also* SCOTT, *supra* note 32, at xviii–xxi (calling for Congress to grant “strong anti-contagion weapons” to fight financial crises but realizing the impossibility); Charles W. Calomiris, *Government by ‘Guidance’ Quashes Economic Freedom and Rule of Law*, FORBES (Jan. 5, 2015, 7:56 AM), <https://www.forbes.com/sites/charlescalomiris/2015/01/05/government-by-guidance-quashes-economic-freedom-and-rule-of-law> [<https://perma.cc/C2DY-2H5N>] (characterizing agency informal rulemaking and guidance as “imperious bureaucracy” and calling for greater congressional oversight over agency-made rules and budgets).

199. From the perspective of Posner and Vermeule, this state of affairs may be inevitable and even desirable, but most others are far less sanguine. *Cf.* POSNER & VERMEULE, *supra* note 197, at

about the allocation of authority, this state of affairs also undermines the legitimacy of crisis-era interventions in ways that can contribute to public distrust. One of the early manifestations of the populism that has swept much of the globe was the Occupy Wall Street movement, which embodied broadly held perceptions that policymakers had bailed out Wall Street while doing too little for Main Street.²⁰⁰ That movement is now giving rise to a host of policy changes that includes greater protectionism and new limits on immigration.²⁰¹ Both by enabling a greater role for Congress and by allowing greater two-way communication with the public, the EGA could set the stage for a process in which the long-term response does more to address the fairness and other issues that crises inevitably pose.

The effort to utilize the unique capabilities of the Executive without excessively compromising democratic legitimacy serves to again highlight why the limits of the EGA are more of a virtue than a drawback. The EGA does not provide a magic bullet for inherently difficult questions. It instead sets the stage for a process that allows more meaningful engagement by a broader swathe of actors in ways suited to their competencies. The EGA

14, 198–200 (“[T]he [framers’] decision to give emergency powers to Congress . . . rather than the president, probably did not help forestall a dictatorship. Lincoln violated the clause, and Congress acquiesced.”), *with* Gluck et al., *supra* note 145 at 1789 (criticizing the broadness of and lack of attention paid to emergency legislation).

200. *E.g.*, Robert L. Borosage, *The Populist Moment Has Finally Arrived*, NATION (Mar. 23, 2015), <https://www.thenation.com/article/occupy-and-organize/> [<https://perma.cc/PQY7-HTPA>]; Levitin, *supra* note 51.

201. Rogers Brubaker, *Populism’s Perfect Storm*, BOS. REV. (July 11, 2017), <http://bostonreview.net/politics/rogers-brubaker-populisms-perfect-storm> [<https://perma.cc/SB6X-G8JU>].

provides the executive branch with a great deal of authority and discretion, consistent with Posner and Vermeule's assessment of what emergencies require. At the same time, the Secretary can invoke the EGA only after determining that legislatively numerated conditions have been satisfied, and congressional approval remains a prerequisite to the provision of fresh capital, structural reforms, longer term guarantees, or other more substantive interventions that are likely to be necessary to achieve lasting stability. After the crisis has been resolved, it will also be in the hands of Congress to determine whether an industry has been sufficiently reformed such that the EGA should be reauthorized if previously used to support that industry. Although the EGA can by no means assure procedural perfection any more than it can guarantee an outcome that perfectly balances stability and fairness, the EGA sets the stage for a more appropriate allocation of authority in light of the nature of the institutions involved.

2. *Within the Executive.*—Both because of the explosion in the size of the administrative state today relative to the country's founding and because there are carefully delineated mechanisms within the administrative state that affect the degree of presidential control and political responsiveness of various administrative actors, it is important to also explain why a particular actor within the executive—here, the Treasury Secretary, in consultation with the President—should make a particular determination.

In some ways, the Federal Reserve might seem like the more suitable

body to have this authority. Central banks have a long history of helping to restore calm during periods of panic and the Federal Reserve likely has more of the information and expertise that will be needed to address an unfolding crisis than the Treasury.²⁰² For these reasons, the Fed very likely will be deeply involved in any invocation of the EGA. Formally, it will have the ability to trigger consideration of whether the EGA should be invoked, and it may also be empowered to play a meaningful, even possibly lead, role in implementation. The Crisis, however, and the backlash to it, brought to life the challenges of having a central bank play too great a role in crisis management.

The Federal Reserve, like other central banks, is structured so as to provide it greater independence than any other federal agency, with protections including effective control over its budget, exceptionally long terms for each of the governors, the inability of governors to be removed other than for cause, and limited judicial review of its decisions.²⁰³ This independence is justified on the basis that one of the Fed's most important

202. Press Release, Bd. of Governors of the Fed. Reserve Sys. & Dep't of the Treasury, The Role of the Federal Reserve in Preserving Financial and Monetary Stability Joint Statement by the Department of the Treasury and the Federal Reserve (Mar. 23, 2009), <https://www.federalreserve.gov/newsevents/pressreleases/monetary20090323b.htm> [<https://perma.cc/K4UT-8PEC>].

203. Judge, *supra* note 20, at 65–67; Charles I. Plosser, *The Importance of a Regional and Independent Federal Reserve*, in Fed. Reserve Bank of Pa., *Out of Many . . . One: 2009 Annual Report* 8, 8–9, 12–13 (2009), <https://www.philadelphiafed.org/-/media/publications/annual-report/2009/2009-annual-report.pdf?la=en> [<https://perma.cc/Z3GL-9SKL>]; Who Are the Members of the Federal Reserve Board, and How Are They Selected?, Bd. of Governors of the Fed. Reserve Sys. (Jan. 11, 2017), https://www.federalreserve.gov/faqs/about_12591.htm [<https://perma.cc/6K7M-F336>].

functions is monetary policy, and to implement that function in the way that best serves the long-term interests of the country, the Fed must sometimes make decisions that entail short-term costs. Empirical work supports the notion that time consistency justifies central bank independence when it comes to monetary policy.²⁰⁴

Central bank independence is relevant here in two ways. On a pragmatic level, having a central bank take actions that have salient distribution consequences sets the stage for backlash that might threaten its capacity to remain independent even when exercising its monetary authority.²⁰⁵ As Kevin Warsh, a Fed Governor, noted in late 2008: “The circumstances of . . . [2008] caused us to cross more lines than this

204. Ben S. Bernanke, Chairman, Speech at the Institute for Monetary and Economic Studies International Conference: Central Bank Independence, Transparency, and Accountability, Bank of Japan, Tokyo, Japan (May 26, 2010), <https://www.federalreserve.gov/newsevents/speech/bernanke20100525a.htm> [<https://perma.cc/8FSV-YMV6>]; see also Rosa M. Lastra & Geoffrey P. Miller, *Central Bank Independence in Ordinary and Extraordinary Times*, in CENTRAL BANK INDEPENDENCE: THE ECONOMIC FOUNDATIONS, THE CONSTITUTIONAL IMPLICATIONS, AND DEMOCRATIC ACCOUNTABILITY 31, 31–33 (Jan Kleineman ed., 2001) (stating that there is evidence that independent central banks maintain price stability better than non-independent central banks); Alberto Alesina & Lawrence Summers, *Central Bank Independence and Macroeconomic Performance: Some Comparative Evidence*, 25 J. MONEY, CREDIT & BANKING 151, 151–52 (1993) (stating that “insulating monetary policy from the political process” avoids time-inconsistency problems and enforces low-inflation equilibriums); Frederic S. Mishkin, *Monetary Policy Strategy: Lessons From the Crisis* 8–10 (Feb. 2011) (Nat. Bureau of Econ. Res., Working Paper No. 16755), <https://www.imf.org/external/np/seminars/eng/2011/res2/pdf/fm.pdf> [<https://perma.cc/2XZ9-JVY3>] (stating time-inconsistent policies can lead to worse outcomes than predictable rules, and central bank independence avoids the problem and improves macroeconomic performance).

205. Zoe Thomas, *Why Do Many Americans Mistrust the Federal Reserve?*, BBC NEWS (Dec. 15, 2015), <https://www.bbc.com/news/business-35079495> [<https://perma.cc/HET9-K6PH>]; see also Andrew Flowers & Harry Enten, *The Fed Has Never Been More Polarizing*, FIVETHIRTYEIGHT (Feb. 24, 2015), <https://fivethirtyeight.com/features/the-fed-has-never-been-more-polarizing/> [<https://perma.cc/H34W-SVKT>] (showing that there was a precipitous decline in public support for the Fed in the years before and during the crisis, and while support among Democrats has started to rebound, it has continued to wane among Republicans).

institution has crossed in the previous seventy years.”²⁰⁶ The public noticed. When Alan Greenspan left his position as Chair of the Fed in 2006, he enjoyed an approval rating between 65% and 72%.²⁰⁷ By contrast, when Ben Bernanke completed his term as Chair, his approval rating was a mere 40%, and his approval rating was even lower among Americans who made less than \$60,000 a year.²⁰⁸

The Federal Reserve as an institution fares even worse. In 2015, just one-third of Americans felt that the Fed was doing a good or an excellent job—a rating that puts the Federal Reserve second to the bottom among all federal agencies.²⁰⁹ Only the IRS is less well-liked.²¹⁰ In light of recent electoral upsets and meaningful efforts from both sides of the political spectrum to reduce the Fed’s autonomy, these developments cannot be dismissed. There is a long history of American distrust of central banking that has resulted in the demise of more than one of the nation’s central banks.²¹¹

206. Cassidy, *supra* note 143.

207. Sarah Binder, *Why It Matters What the Public Thinks about Janet Yellen*, WASH. POST (Feb. 11, 2014), https://www.washingtonpost.com/news/monkey-cage/wp/2014/02/11/why-it-matters-what-the-public-thinks-about-janet-yellen/?utm_term=.d68735547739 [<https://perma.cc/LW7G-GWA4>] (showing the results of the various polls conducted); Thomas, *supra* note 203 (stating that Greenspan’s approval rating was 72% in 2006).

208. Andrew Dugan, *Fed Chairman Bernanke Leaves with Mixed Verdict*, GALLUP (Jan. 29, 2014), <https://news.gallup.com/poll/167099/fed-chairman-bernanke-leaves-mixed-verdict.aspx> [<https://perma.cc/Y6T8-3MMT>].

209. Thomas, *supra* note 205.

210. *Id.*

211. *E.g.*, SCOTT, *supra* note 29, at 80–88 (describing the rise and fall of the First and Second National Banks of the United States and the controversy surrounding the creation of the Federal

Just as importantly, giving the central bank authority to make these types of decisions is hard to justify normatively. When shifting from monetary policy to financial regulation, there is far less theoretical support for the notion that a central bank should be making decisions with significant allocation implications, and emergency-era interventions inevitably have effects on allocation. The Treasury Secretary is a member of the President's Cabinet and is expected to work far more closely with, and under the guidance of, the President than an independent agency.²¹² This is part of the reason that the Treasury Secretary has frequently been the one empowered to make systemic risk and liquidity determinations and to play a central role in authorizing interventions to stabilize the financial system.²¹³ This by no means assures legitimacy, but it enhances accountability by ensuring that the EGA can never be invoked without direct consultation with the most powerful elected official.

Putting these pieces together, having the Treasury Secretary serve as

Reserve).

212. *The Executive Branch*, WHITEHOUSE.GOV, <https://www.whitehouse.gov/about-the-white-house/the-executive-branch/> [<https://perma.cc/7WCX-SXC4>].

213. *E.g.*, Emergency Economic Stabilization Act of 2008, Pub. L. No. 110-343 § 2, 122 Stat. 3765, 3766 (2008) (codified at 12 U.S.C. § 5201 (2012)) (stating the purpose of the Act is to “immediately provide authority and facilities that the Secretary of the Treasury can use to restore liquidity and stability to the financial system of the United States”); Housing and Economic Recovery Act of 2008, Pub. L. No. 110-289 §§ 1101, 1118, 122 Stat. 2654, 2661–62, 2688 (2006) (codified as amended at 12 U.S.C. §§ 4511, 4513) (authorizing the Secretary to place Fannie Mae and Freddie Mac into conservatorship or receivership); *see also* Gretchen Morgenson, *Fannie and Freddie's Government Rescue Has Come with Claws*, N.Y. TIMES (Dec. 12, 2015), <https://www.nytimes.com/2015/12/13/business/fannie-and-freddies-government-rescue-has-come-with-claws.html> [<https://perma.cc/6YTK-EE9F>] (describing events leading up to and following Fannie Mae and Freddie Mac being taken into conservatorship).

the key instigator and having the Treasury Department directly bear the economic risk allows the Federal Reserve to focus on traditional central banking. Reducing pressure on the Fed to stretch its authority is important on both pragmatic and normative grounds. Simultaneously increasing the pressure on the Treasury to take a lead in making difficult decisions further improves democratic legitimacy relative to the current, inadvertent status quo.

D. Dynamism

The final feature worth highlighting is the capacity of the EGA to address challenges even when they arise outside of the regulated sphere. Today's banking system, at least in the United States, is far better capitalized than it was prior to the Crisis.²¹⁴ From the Fed's discount window to the possibility of FDIC guarantees, there are also a number of *ex post* tools that remain available to mitigate a crisis as it afflicts formal banks. The EGA should be available for banks when appropriate, and the banking system is often implicated—whether by interconnections or common exposures—even when problems first arise elsewhere. Nonetheless, the primary rationale for institutionalizing something as broad as the EGA is not the banking sector.

214. Roger Lowenstein, *A Legacy of the Financial Crisis? The Makings of the Next One*, WASH. POST (Sept. 7, 2018), https://www.washingtonpost.com/business/economy/a-legacy-of-the-financial-crisis-the-makings-of-the-next-one/2018/09/07/de26aa46-af0c-11e8-a20b-5f4f84429666_story.html?utm_term=.97c971c00533 [<https://perma.cc/YW9N-RSL3>].

The reason the EGA is such a critical addition to the current crisis-management toolkit is the inevitable dynamism of financial markets, and the possibility of institutions arising that may not be seen as systemically important until a crisis actually strikes. Although the particular system of market-based intermediation known today as the “shadow banking system” is a recent phenomenon, the pattern of short-term debt creation migrating outside the banking system and instability arising in those domains has been repeated throughout history.²¹⁵ The dynamism of finance makes this challenge inevitable. As explained in a recent IMF report on regulating for systemic stability: “Some (perhaps many) risks though will remain undiscovered, not just because of a lack of attention by markets, supervisory agencies and others, but because they are not easily recognizable. Indeed, sometimes these (system) risks of a (new) product are not even known by the purveyor.”²¹⁶

Recognizing the inherent dynamism of financial markets and the inevitability of fragility outside the direct purview of prudential regulators affirms the critical need for crisis-management instruments that can be deployed outside the regulated space. The EGA has this capacity. It enables

215. Rockoff, *supra* note 65, at 3 (examining the dozen financial panics that occurred in the United States from the Panic of 1819 through the Crisis and finding that “[t]ypically, panics were started by a cluster of failures in which shadow banks played a prominent role”).

216. Stijn Claessens & Laura Kodres, *The Regulatory Responses to the Global Financial Crisis: Some Uncomfortable Questions* 13 (Int’l Monetary Fund, Working Paper No. WP/14/46, 2014), <https://www.imf.org/en/Publications/WP/Issues/2016/12/31/The-Regulatory-Responses-to-the-Global-Financial-Crisis-Some-Uncomfortable-Questions-41422> [https://perma.cc/NG57-7ZYU].

financial regulators to target problems at their source, wherever that may be. This allows regulators to develop responses that are more closely tailored to the ends they are trying to achieve, potentially reducing the temptation to stretch other sources of authority. It also allows them to demand information from entities they do not otherwise oversee, allowing them to more quickly devise a comprehensive understanding of where losses lie and the challenges underlying the panic.²¹⁷ Although discussed last, this flexibility may be the greatest virtue of the EGA.

E. Creativity and Risk Taking

One of the core ways that the EGA here proposed differs from current emergency-era authority in the United States and most places is in its breadth. Beyond allowing regulators the capacity to address problems that arise outside the regulated sphere, this scope can also make it easier for regulators to use the tools available when problems arise in that sphere. Consider, for example, the ongoing questions about whether a bank holding company with seemingly sufficient loss-absorbing capital and a recently refreshed living will can go through a bankruptcy proceeding without recreating the fallout that followed Lehman's failure. Most agree that long-

217. For more on the value of having regulators provide emergency-era support to nonbanks in exchange for information, see Kathryn Judge, *The First Year: The Role of a Modern Lender of Last Resort*, 116 COLUM. L. REV. 843 (2016).

term, moral hazard might be far better contained if it could.²¹⁸ And, at least in theory, such an institution should be far more capable of orderly resolution today than it was a decade ago. Nonetheless, pressing questions remain about whether a bankruptcy proceeding will actually work as hoped, leading to ongoing fears that regulators may lack the courage to give it a try. After Lehman Brothers, regulators may be understandably hesitant to just give it a try and hope for the best, even if probabilistically, it looks like it should work.

The EGA changes that calculus. A Treasury Secretary discussing options with other lead regulators could now be assured that if something equivalent to the Primary Reserve Fund's breaking the buck were to occur despite their best planning, he could respond swiftly and powerfully to contain that additional fallout. Additionally, the Secretary could announce an intention to use that authority to contain any further fallout simultaneously with the announcement of the bankruptcy, further reducing the likelihood of panic and disruption. Without getting too Pollyanna and suggesting the very existence of the EGA will make it possible never to need it, the claim here is that the benefits of the EGA go beyond situations when it is used. Just like a lender of last resort, there are likely to be some

218. See David A. Skeel Jr., *Single Point of Entry and the Bankruptcy Alternative*, in *ACROSS THE GREAT DIVIDE: NEW PERSPECTIVES ON THE FINANCIAL CRISIS* 315–16 (Martin N. Bailey & John B. Taylor eds., 2014) (recognizing that Lehman failed to plan for bankruptcy because it expected a bailout, which led to significant monetary losses).

circumstances when just having an EGA can help calm markets and give regulators the backbone to take the types of risks that can be crucial to reducing the moral hazard concerns that arise after a crisis.

V. Some Counter-Arguments

A. *Moral Hazard*

Moral hazard may be the biggest reason not to adopt the EGA. Giving the Treasury Secretary broad guarantee authority may incline financial institutions to assume greater risks and might weaken the market discipline that counterparties and creditors would otherwise impose. Although there is deep disagreement about whether and to what extent moral hazard is a problem, there are good reasons for concern.²¹⁹ If market participants anticipate being protected from certain downsides, this can alter their propensity to monitor and limit risk in troubling ways.

As a starting point, the EGA here proposed is meant to complement, not displace the massive system of *ex ante* regulation currently in place. Once institutions or activities are revealed to be meaningful sources of systemic risk, it is critical to develop appropriate mechanisms of prudential regulation and oversight to mitigate or force internalization of the associated externalities. The assumption that such regulation will be

219. For a summary of the mixed views on moral hazard, see Posner, *supra* note 24, at 1540 n.35 and sources cited therein.

incomplete is not to disregard its critical importance.

Additionally, assessing the myriad ways that an EGA might alter incentives requires starting with an appropriate baseline. The baseline today is not a world in which market forces operate without any government interference or where those interventions will be limited to what the law currently allows.²²⁰ Because of the externalities that runs and failures can trigger, the government cannot credibly commit to not intervene in the face of disaster.²²¹ The EGA adds structure and discipline in its mandatory elements, and, by giving the Secretary broad authority to intervene when needed, it might actually make it easier for regulators to take the chance of allowing an institution to fail when the ramifications of that failure are unknown.

Also important are the ways the mandatory procedural limits reduce moral hazard and could facilitate the path to reform. Because the EGA can only be invoked when the Treasury Secretary determines that there is a sufficient threat to the functioning of the financial system as a whole, idiosyncratic risk should remain subject to significant market discipline. The temporal limit on the EGA means that it cannot be used to solve or avoid capital deficiencies. Additionally, the requirement that the EGA, once

220. *See supra* subpart II(A)..

221. *See* Charles W. Calomiris et al., *Establishing Credible Rules for Fed Emergency Lending*, 9 J. FIN. ECON. POL'Y 260, 262 (2017) (concluding that externalities arising from events threatening financial institutions have the capacity to destroy the entire financial system).

invoked, cannot again be used to protect the same class of claimants provides institutions a strong incentive never to put themselves in a situation where the EGA would need to be used to protect their claimants. Once government support is needed, the industry or firm receiving support will likely face a long-term choice between inviting massive reform (in order to justify having Congress re-extend the possibility of protection) or demise.

Apart from the statutorily imposed limits on when the EGA will be invoked, the Secretary could further mitigate the moral hazard by providing guidelines regarding when and how the Secretary anticipates using the EGA. A classic maxim in financial regulation is that regulators should allow the first bank to fail and save all of the others.²²² This creates healthy discipline during normal times because no bank wants to take greater risks than others, particularly if banks understand that this is the policy they will face. This advice was not followed in the Crisis, perhaps because regulators lacked clear authority to limit the knock-on effects that one bank's failure might trigger. Nonetheless, with the EGA, a Secretary could issue guidance or otherwise indicate an intention to follow this type of procedure, putting firms on notice that failure is an option because (rather than despite) of the existence of the EGA.

222. See Joel Shapiro & David Skeie, *Information Management in Banking Crises*, 28 REV. FIN. STUD. 2322, 2323 (2015) (discussing a regulator's incentive to build a reputation with the first bank so subsequent banks are put on notice that they may not be bailed out).

There is no way to know in advance precisely how the EGA will be utilized by any particular administration. It is impossible to deny that vesting this type of authority in an executive body could lead to abuse. But the same political accountability that enables the possibility of abuse could also prove remarkably effective at limiting excess use of other regulatory tools (like an overly lax lender of last resort) and reducing expectations that Congress will jump in and grant broad executive authority to save all distressed firms. Starting with a realistic baseline that recognizes that market participants already expect significant government support in the event of systemic distress shows why the EGA may well reduce the aggregate moral hazard in the system.

B. Fairness

Two related issues that have received significant attention in the wake of the Crisis are unfairness and perceptions of unfairness. With the exception of Lehman Brothers, the government did not allow a single major financial institution to fail.²²³ This approach may have been effective in helping to contain the growing crisis, but it also bestowed a significant largesse on their employees, creditors, and other stakeholders. Efforts to help homeowners, meanwhile, provided far less aid than originally

223. James B. Stewart & Peter Eavis, *Revisiting the Lehman Brothers Bailout That Never Was*, N.Y. TIMES (Sept. 14, 2014) <https://www.nytimes.com/2014/09/30/business/revisiting-the-lehman-brothers-bailout-that-never-was.html> [<https://perma.cc/DBB3-P4ZB>].

promised,²²⁴ even though providing greater aid to homeowners and otherwise reducing the debt burden of average Americans may have been an effective way to reduce the size of the recession following the Crisis.²²⁵ That even less was done to help those who lost jobs or had their retirement savings wiped out led to a widespread perception that regulators intervened to help Wall Street but not Main Street.²²⁶

These are important concerns that merit center stage in devising the government's response to the next financial crisis. They are, however, only tangentially related to the proposal here. The EGA is designed to stop the bleeding and provide policymakers the breathing room required to devise a plan for addressing underlying deficiencies and improving the macroeconomic outlook; it says nothing about what that plan should look

224. *E.g.*, CHRISTY G. ROMERO, OFFICE OF THE SPECIAL INSPECTOR GEN. FOR THE TROUBLED ASSET RELIEF PROGRAM, QUARTERLY REPORT TO CONGRESS: JANUARY 27, 2016, 74–76 (2016) (describing the frequency of wrongful terminations of homeowners by servicers participating in HAMP); CHRISTY L. ROMERO, OFFICE OF THE SPECIAL INSPECTOR GEN. FOR THE TROUBLED ASSET RELIEF PROGRAM, QUARTERLY REPORT TO CONGRESS: JULY 29, 2015, 101–08 (2015) (showing that 70% of mortgagees who applied for HAMP were turned down and raising a host of other questions about the efficacy of the program); David Dayen, *The Government Program that Failed Homeowners*, GUARDIAN (Mar. 30, 2014), <https://www.theguardian.com/money/2014/mar/30/government-program-save-homes-mortgages-failure-banks> [<https://perma.cc/C9GU-GJB3>] (explaining that five years after the launch of HAMP “[f]ewer than one million homeowners remain in the . . . program – just a quarter of its target – and \$28bn of the funding remains unspent” and further noting that of the 1.3 million who did receive permanent modifications to the terms of their mortgage, “350,000 of them defaulted again . . . and were evicted from their homes”).

225. ATIF MIAN & AMIR SUFI, HOUSE OF DEBT: HOW THEY (AND YOU) CAUSED THE GREAT RECESSION, AND HOW WE CAN PREVENT IT FROM HAPPENING AGAIN 142, 145–48, 163 (2014) (“The most effective policy puts cash into the hands of those who will spend the most of it, and indebted home owners have an extremely high marginal propensity to consume.”).

226. *See* Nin-Hai Tseng, *The Bailout Wall Street Is Blocking from Main Street*, FORTUNE (Aug. 9, 2013), <http://fortune.com/2013/08/09/the-bailout-wall-street-is-blocking-from-main-street/> [<https://perma.cc/2R2X-AENC>] (noting that unlike Wall Street, “Main Street never got” a bailout).

like. The inherently finite nature of the EGA ensures that apart from circumstances where the underlying problems are truly modest in nature, further action will be required. Those actions could entail providing capital support to banks and other large firms, as happened during the Crisis, or providing debt relief to homeowners or other borrowers, a path that could have been but was not taken during the Crisis.²²⁷ It is true that the EGA will likely be deployed to protect the stability of fragile financial institutions that may have played a role in contributing to the Crisis, but having in place a time-limited tool to stop the bleeding makes it possible for elected officials and others concerned with fairness and legitimacy to devise a long-term solution that takes those considerations into account.

C. Credit Risk

Another concern is that guaranteeing financial claims entails credit risk. Given the potential scale of the programs envisioned and the potential need for the Treasury to respond with limited information regarding the quality of the underlying assets, the credit risk could be substantial. This is a legitimate concern, and one of the reasons that the Treasury Department, and not the Federal Reserve, should control the EGA. In contrast to idealized notions of how a lender of last resort might work, the guarantees here envisioned could entail fiscal judgments. These are the type of

²²⁷. For a discussion of the tradeoffs of these different approaches, see MIAN & SUFI, *supra* note 223, at 122–26, 142, 145–48.

decisions best made by more politically accountable actors.

In practice, the magnitude of credit risk may well be quite modest relative to the claims insured. For example, in November 2008, at the height of its efforts to contain the Crisis, the Federal Reserve had extended more than \$710 billion in credit pursuant to its authority to lend money to non-bank institutions under unusual and exigent circumstances.²²⁸ As of January 2016, the Federal Reserve had earned more than \$30 billion on those loans while incurring no losses.²²⁹ The crisis-era investments by the Treasury Department under the Troubled Asset Relief Program (TARP) did entail some losses, but on net yielded more than \$15 billion in profits for the U.S. government, a far cry from the large losses many predicted initially.²³⁰ This does not necessarily mean that the government was compensated fully in light of the magnitude of the credit risk that it assumed.²³¹ Nonetheless,

228. Labonte, *supra* note 111, at 1–2. This authority is somewhat akin to the use of the EGA in that in contrast to the Federal Reserve’s discount window lending to banks, these loans are not made in connection with the prudential oversight of the Federal Reserve and other bank regulators.

229. *Id.* at 2.

230. Russell Berman, *The U.S. Made \$15 Billion from Bailouts*, ATLANTIC (Dec. 19, 2014), <https://www.theatlantic.com/politics/archive/2014/12/treasury-announces-sale-ally-financial-stock-end-of-tarp-program/383939/> [<https://perma.cc/XF77-TLG2>]. The most recent data is available at *Monthly Report to Congress*, U.S. DEP’T OF THE TREASURY, <https://www.treasury.gov/initiatives/financial-stability/reports/Pages/Monthly-Report-to-Congress.aspx> [<https://perma.cc/H2HP-F7RV>].

231. *E.g.*, Matt Palumbo, *Overselling TARP: The Myth of the \$15 Billion Profit*, NAT’L REV. (Jan. 6, 2015), <https://www.nationalreview.com/2015/01/overselling-tarp-myth-15-billion-profit-matt-palumbo/> [<https://perma.cc/9FSM-LTKZ>] (noting that “while a profit of \$15 billion sounds enormous, it only amounts to a nominal annualized return of 0.6 percent”); Jonathan Weisman, *U.S. Declares Bank and Auto Bailouts Over, and Profitable*, N.Y. TIMES (Dec. 19, 2014), <https://www.nytimes.com/2014/12/20/business/us-signals-end-of-bailouts-of-automakers-and-wall-street.html> [<https://perma.cc/Q92Z-6TDX>] (“Given the scale of the broader economic losses and the risk the government took to protect Wall Street and Detroit, a \$15 billion profit on a \$426

these figures attest to the fact that the government may be able to provide quite significant support during periods of widespread systemic distress while exposing taxpayers to modest, if any, losses. More generally, because the EGA will generally be deployed to maintain, rather than change, the status quo, the government will often be stepping in to assume liquidity or other risks that private market participants had been willing to bear up until the crisis hit. So long as government intervention is not assumed irrespective of circumstance, and the EGA makes that unlikely, the market discipline at play outside of crisis periods should help mitigate the credit risk to which the government is exposed once crisis hits.

More importantly, the credit risk associated with the EGA is more of an issue of how it should be deployed rather than whether it should be adopted. The government regularly spends money in a variety of ways. The question is not whether there is a fiscal component to a broad guarantee scheme but whether it is justified in light of the expected benefits. Given the informational dynamics, these types of calculations may be speculative but they do provide a meaningful framework that can be used to address the relevant question, which is not whether there is credit risk but whether that credit risk is justified.

D. Funding and Other Implementation Challenges

The issue of credit risk also implicates another challenge: How to fund the EGA should the Treasury need to make good on guarantees in excess of any fees the program might earn. A related issue is whether the debt ceiling might become an issue. Although the Treasury's use of the Exchange Stabilization Fund to backstop money market mutual funds demonstrates that guarantees can be effective even when the assets backing the guarantee are dwarfed by the value of the claims covered, there is some limit.²³² These are but two of the range of issues that might arise in connection with adopting and implementing the EGA as proposed here.

Some of these challenges, like the debt ceiling, arise from potential conflicts between the EGA and other laws. Another domain where these types of issues might arise relates to information. There are meaningful restrictions on how information can be shared among government agencies and procedural hurdles on the government's capacity to demand information from firms, creating frictions that would need to be addressed for the EGA to work as intended.²³³ To the extent these types of challenges are foreseeable, it may be possible to address them as part of the implementing legislation. That said, there are likely to be issues that are not

232. Macey, *supra* note 100, at 149–50.

233. See Paperwork Reduction Act, 44 U.S.C. §§ 3501–3521 (2012) (enumerating conditions that federal agencies must follow to collect and share information).

as foreseeable or not subject to clean, *ex ante* resolution.²³⁴ These will most likely need to be addressed during implementation. For example, due process concerns might be addressed by extending guarantees directly to the holders of certain types of financial claims without imposing any obligations on the issuer if the issuer does not consent and it is determined that this mode of intervention is justified by systemic considerations.

There could well be a host of other issues that arise during implementation. For example, to succeed in halting a run, the EGA must be implemented in a manner that addresses liquidity risk, not just credit risk. If short-term creditors expect that they will have to wait months to be paid, even if eventually paid in full, they may still have an incentive to withdraw short-term funds. Similarly, there are logistical challenges inherent in seeking to make the EGA one part of an overall scheme that entails gathering the information required to identify and address underlying weaknesses. These considerations cannot be fully addressed in advance, but they do raise a number of issues that can be mitigated through appropriate advance planning.

As a starting point, the EGA specifically envisions that other financial regulators will play important roles alongside the Treasury Department.

234. Cf. Thomas W. Merrill & Margaret L. Merrill, *Dodd-Frank Orderly Liquidation Authority: Too Big for the Constitution?*, 163 U. PA. L. REV. 165, 173–74 (2014) (discussing Title II of the Dodd-Frank Act and arguing that the legislation raises multiple constitutional questions).

Although the Treasury Secretary must make the required systemic risk determinations and the Treasury Department bears the credit risk should the guarantees ultimately result in any losses, other regulators can prompt consideration of whether a class of claimants should be protected and other regulators can help with implementation. Other regulators will likely also play critical roles in implementation. In this regard, the EGA is not all that different than the current Orderly Liquidation Authority, which must be approved by the Treasury Secretary and depends on liquidity and credit provided by the Treasury Department, but which is implemented primarily by the FDIC.²³⁵ The Federal Reserve is also likely to play a prominent role in implementation of the EGA and in the process of identifying and addressing the deficiencies threatening the system. Given the patchwork nature of the financial-regulatory architecture in the United States, this type of coordination is unavoidable even if challenging.

Enhancing the Treasury Secretary's ability to work closely with other regulators in both determining whether to invoke the EGA and implementing any guarantees if adopted is the Secretary's position as the head of the Financial Stability Oversight Council (FSOC). The leaders of all of the important federal financial regulators are FSOC members, and the FSOC is specifically charged with identifying and helping to address

235. Aaron Klein, *A Primer on Dodd-Frank's Orderly Liquidation Authority*, BROOKINGS: UP FRONT (June 5, 2017), <https://www.brookings.edu/blog/up-front/2017/06/05/a-primer-on-dodd-franks-orderly-liquidation-authority/> [<https://perma.cc/25X8-A83E>].

201x]

Guarantor of Last Resort

201

systemic risk. In addition to affirming the expectation that the Treasury Department play a central role in promoting systemic stability, the Secretary's role as head of FSOC puts her in the position to ensure that the EGA is implemented in a manner that complements other efforts underway by other financial regulators to address the burgeoning crisis the Secretary seeks to help contain.

None of this is to ignore the significant challenges that will exist to ensuring that the EGA can work and will work as envisioned. Some additional progress can be made through ongoing monitoring, advanced planning, and ramping up information gathering even in response to soft signals that something is amiss. The EGA is not a tool that should be ignored entirely until crisis hits. Ongoing diligence and advanced planning are critical. At the same time, one reason for the EGA is the inevitable dynamism of the financial system. It allows regulators to respond to contain a crisis even when risks arise in unexpected places or propagate in unexpected ways. Accordingly, any advanced planning and guidance should serve as a starting point rather than a straitjacket when the time comes to invoke the EGA.

Conclusion

A guarantor of last resort will not prevent the next crisis. But a guarantor of last resort should improve the prospects, both in terms of macroeconomic outcome and accountability, when that crisis strikes. An

EGA enables policymakers to contain a crisis in a timely fashion, reducing the spillover effects on the real economy. It also denies policymakers the option of putting off the difficult task of identifying and addressing the underlying problems, further mitigating the macroeconomic costs. Just as importantly, the EGA proposed here would enable regulators to respond irrespective of where the next crisis erupts, addressing the inevitable dynamism of financial markets. And it would help to restore a more appropriate balance of power between Congress and the President and within the executive branch.

The EGA is not a first-best solution to financial fragility. It will not stop the next crisis or cause moral hazard to disappear. Nor will it address the fairness concerns that so often arise when the steps required to bring about stability benefit the same financial market participants who helped create the fragility. But the EGA does belie the fiction that there is always a tradeoff between resilience and accountability. By creating an emergency-era regime that brings with it internal mechanisms for producing and transmitting information and passing authority among policymaking bodies at intervals reflecting their capacity and competence, a guarantor of last resort can promote both.