

Bounds in Bank Regulation

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INTRODUCTION

In his recent essay, *Bounded Institutions*,¹ Yair Listokin examines bounded and unbounded structures as two alternative designs for principals to delegate regulatory authority to their agents.² Bounds refer to numerical or quantifiable limitations that are set by the principal on some dimension of the agent's decision-making process, and include caps, quotas or grading curves.³ Listokin shows that bounds can be used to reach ideal regulatory outcomes even in cases where the principal is uninformed and the agent is biased.

In this Response, I extend the logic and intuition of Listokin's bounded institutions to banking, an area where information gaps and biases are pervasive yet bounded structures are not prevalent. For instance, in the debate about the right size of financial institutions, while there is consensus that a certain number of financial institutions have become too big (and thus too big to fail), there is much that remains to be agreed regarding the right size of such institutions and how that ideal should be reached. Likewise, while there is broad recognition that there are accuracy and accountability issues in the ratings process of financial institutions, how this regulatory ratings process can be improved and how progress can be measured are open questions that are being debated.

I suggest here that bounds—particularly their numerical and quantifiable features, like quotas and curves—can offer a concrete solution to these and

1. Yair Listokin, *Bounded Institutions*, 124 YALE L.J. 336 (2014).

2. The terms “principal” and “agent” are used herein to refer to the principal-agent relationship that arises when one person (the principal) manifests assent to another person (its agent) acting on the principal's behalf and subject to the principal's control, and the agent manifests assent or otherwise consents to such an arrangement. For a formal definition of agency, see RESTATEMENT (THIRD) OF AGENCY § 1.01 (2006).

3. Bounds are distinguishable from rules in that bounds require agents to compare subjects to each other. Rules, on the other hand, specify ex ante how agents should regulate subjects based on subject-specific factual characteristics. See Listokin, *supra* note 1, at 350-51.

other regulatory puzzles in banking. I make the argument that more bounds can and should be used in bank regulation: first, by showing that the banking environment satisfies the theoretical conditions for bounded structures, and second, by examining the ways in which the special features of bounds can help solve the urgent challenges in bank regulation.

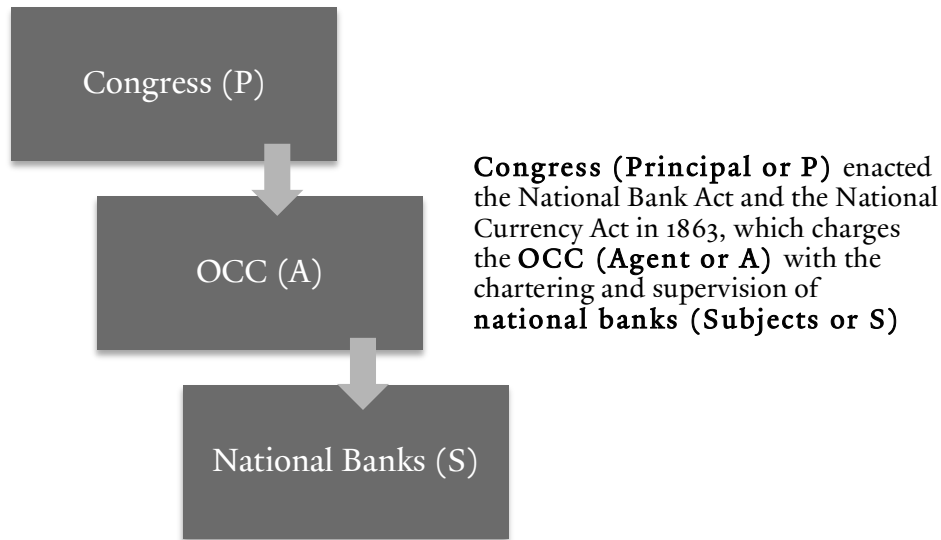
I. HOW DO BOUNDED INSTITUTIONS WORK IN BANKING?

This Part provides the basic framework. Who are the relevant actors? In Listokin's model, there is a superior body (the principal, or *P*), a subordinate body (the agent, or *A*), and the regulated subjects (or *S*) who are affected by the principal and agent's decisions.⁴ The principal relies on the agent to observe and allocate benefits to the subjects according to the quality of the subjects. In banking, Congress enacted the National Bank Act and the National Currency Act in 1863, the former to create a new class of national banks and the latter to form the Office of the Comptroller of the Currency (OCC), which was charged with the chartering and supervision of these national banks.⁵ Throughout this Response, I will refer to Congress as the principal, the OCC as its agent, and the national banks supervised by the OCC as the subjects.⁶

4. *Id.* at 346 tbl.1.

5. This view that regulatory agencies act as agents of Congress has been articulated elsewhere. See, e.g., Richard L. Revesz, *Specialized Courts and the Administrative Lawmaking System*, 138 U. PA. L. REV. 1111, 1140 (1990) ("Congress, the principal, delegates certain functions to its agent, the administrative agency, expecting that benefits will accrue to it through this delegation."); Daniel B. Rodriguez, *The Positive Political Dimensions of Regulatory Reform*, 72 WASH. U. L.Q. 1, 50-51 (1994) ("The relationship between Congress and an administrative agency might be accurately characterized in hierarchical terms: Congress acts, as a principal, to control the actions of its agency-agent.").

6. Alternative formulations are possible. For example, the subjects could be bank regulations rather than the regulated banks, and the agent could be the Federal Deposit Insurance Corporation or the Federal Reserve, both of which also oversee different aspects of banking. But I will use the above designation as the basic framework throughout this Response. The scope of this Response is limited to U.S. federal regulation of banks, and the implications of the dual (federal and state) banking structure or transnational financial regulation on the bounded institutions construct is outside of the scope of this Response.



The remainder of this Part examines how well the bank regulatory environment fits with the conditions Listokin identifies as ideal for the use of bounded structures.⁷ Listokin recommends the use of bounds when: (1) there is a large number of subjects, (2) there is little variation among subject quality, (3) the agent is prone to bias and error, and (4) there are limitations to the practicability of rules.⁸

A. Large Number of Subjects

By the end of 2014, the OCC oversaw a total of 1,663 financial institutions, which included 39 large banks, 36 mid-size banks, 1,077 community banks, 49 federal branches, and 462 federal savings associations.⁹ Although the total number of regulated institutions has fluctuated from year to year, the total assets of the subjects that are regulated by the OCC have grown consistently over the past ten years, as demonstrated in Table 1. This trend aligns with the overall trend of growth throughout the financial sector, which has continuously expanded over the past thirty years, whether expressed as the financial sector's share of gross domestic product (GDP), the quantity of financial assets, employment, or average wages.¹⁰

7. For an application of the framework to the National Science Foundation (NSF), see Listokin, *supra* note 1, at 356-61.

8. *Id.* at 341.

9. OFFICE OF THE COMPTROLLER OF THE CURRENCY, U.S. DEP'T OF THE TREASURY, ANNUAL REPORT: FISCAL YEAR 2014 (2014) [hereinafter 2014 REPORT].

10. Robin Greenwood & David Scharfstein, *The Growth of Finance*, 27 J. ECON. PERSPECTIVES 3, 3 (2013).

Table 1.
NUMBER AND SIZE OF OCC-REGULATED BANKS¹¹

| | <i>Number of Institutions</i> | <i>Assets (in trillions of dollars)</i> |
|------|-------------------------------|---|
| 2005 | 1,933 | 5.8 |
| 2010 | 1,487 | 8.5 |
| 2014 | 1,663 | 10.9 |

B. Little Variation Among Subjects

Non-financial firms can be created for any legal purpose and take myriad forms. Banks, on the other hand, are limited by statute to one or more of three core banking functions: receiving deposits, paying checks, or lending money.¹² And even among financial firms, banks tend to be more homogenous. This homogeneity is largely a result of regulatory design. Activity restrictions and other limitations placed on national banks, together with federal preemption rules meant to ensure uniformity, make it exceedingly difficult for banks to operate in ways that depart too far from the norm.¹³

C. Agents Prone to Bias and Error

Bias and error have specific meanings in Listokin's model. Bias refers to the tendency of an agent to systematically place a higher or lower value on a subject than the principal would perceive (if it had the opportunity to directly observe the subject's quality),¹⁴ and error refers to when the agent allocates more or less to the subject than the principal thinks the subject deserves.¹⁵ Fads in science are one source of bias and error that Listokin discusses in his application of bounded structures to the National Science Foundation (NSF), which could be analogized to bubbles in finance.¹⁶ Bubbles in finance arise when a particular asset is traded at a price significantly above its intrinsic value, and are fueled by over-optimistic perceptions of value (bias) of and the disproportionate

11. See 2014 REPORT, *supra* note 9; OFFICE OF THE COMPTROLLER OF THE CURRENCY, U.S. DEP'T OF THE TREASURY, ANNUAL REPORT: FISCAL YEAR 2010, at 2 (2010); OFFICE OF THE COMPTROLLER OF THE CURRENCY, U.S. DEP'T OF THE TREASURY, ANNUAL REPORT: FISCAL YEAR 2005, at 7 (2005).

12. 12 C.F.R. § 5.20(e)(1) (2015).

13. Henry N. Butler & Jonathan R. Macey, *The Myth of Competition in the Dual Banking System*, 73 CORNELL L. REV. 677, 678 (1988) ("Federal preemption and uniformity, rather than competition and diversity, are the legal norms in banking regulation.").

14. Listokin, *supra* note 1, at 344.

15. *Id.* at 345.

16. For a discussion of financial laws' inability to prevent bubbles and mitigate destruction after bubbles pop, see ERIK F. GERDING, LAW, BUBBLES, AND FINANCIAL REGULATION (2014).

allocations of resources (error) to such asset class. For example, the housing bubble that was pointed to as one of the fundamental causes of the 2007-2009 financial crisis was created as a result of over-optimistic projections of value in the housing sector, and related regulatory policies and market responses that over-stimulated the mortgage and mortgage-backed securities markets.¹⁷

Another source of bias in financial regulation are boundary problems, which exist when regulatory boundaries are drawn according to outdated notions of the risks, activities, and actors that they aim to regulate.¹⁸ While some boundary problems are inevitable because of the pace of financial innovation and the intentional efforts of financial institutions to operate outside of regulatory boundaries, others can be attributed to ill-fitting regulatory design. For example, in my most recent work, I have described the ways in which the traditional institution-based approach to financial regulation has exacerbated regulatory biases and error (as defined by Listokin) in the regulation of leveraged loans.¹⁹

D. Limitations on Practicability of Rules

Listokin explains that bounds are especially useful in settings where it is difficult to devise rules to guide the agent.²⁰ Whether or not rule-based guides are feasible depend on the availability and reliability of proxies.²¹ While banking is an area where rule-based policies are widely used, the reliability of the proxies used to administer rule-based policies has come into question in the aftermath of the recent financial crisis.²² Numerous accounts of the financial crisis describe the ways in which proxies such as the credit scores of borrowers, credit ratings of securitized financial products, and regulatory assessments of

17. See FIN. CRISIS INQUIRY COMM'N, THE FINANCIAL CRISIS INQUIRY REPORT xv-xxvii (2011).

18. MARKUS BRUNNERMEIER ET AL., THE FUNDAMENTAL PRINCIPLES OF FINANCIAL REGULATION 10 (2009) (“There are two aspects of the boundary problem; the shift of activity to unregulated players; and the use of financial engineering to enable given capital to support more credit.”).

19. See Sung Eun (Summer) Kim, *Managing Regulatory Blindspots: A Case Study of Leveraged Loans*, 32 YALE J. ON REG. 89, 107-108 (2015) (highlighting the boundary problems in the regulation of leveraged loans).

20. See Listokin, *supra* note 1, at 364-65. For a discussion of the distinction between bounds and rules as regulatory strategies, see *supra* note 3 and accompanying text.

21. See Listokin, *supra* note 1, at 364-65.

22. For instance, the IMF's Fiscal Affairs Department and Offices in Europe recently organized a workshop titled “The Future of Rules-Based Fiscal Policy” to discuss whether the current rules-based approach to guide financial policies has become “too complex to effectively guide policy makers, and too opaque to anchor expectations and be credible in the eyes of public opinion?” *IMF Fiscal Affairs Department Workshop on “The Future of Rules-Based Fiscal Policy,”* INT'L MONETARY FUND (2015), http://www.imf.org/external/region/eur/rr/2015/Agenda_Brussels_042915.pdf [<http://perma.cc/9CLF-RZZS>].

the quality of capital held by eventually failed financial institutions grossly underrepresented the degree of risk in our financial system.²³ It was such misunderstandings of the magnitude of risk that catalyzed a crisis for which no one was prepared.²⁴

More importantly, the key difference between rules and bounds is that rules are indifferent to the allocation among subjects.²⁵ Under a rule-based system, so long as a subject satisfies the specified conditions, its status and treatment are unaffected by the performance of its peers. This feature of rules makes them less suitable for banking regulation in this post-crisis period where there is renewed focus on interconnectedness among institutions, and recognition that an understanding of where banks stand in relation to one another is critically important to systemic risk regulation.²⁶

The foregoing analysis demonstrates that the banking environment satisfies the four theoretical conditions identified by Listokin as ideal for the application of bounds. Part II of this Response examines why there are nonetheless so few bounds in banking, given their seeming fit, and Part III goes on to explore two specific contexts where the promise of bounds in banking could be realized.

II. WHY ARE THERE SO FEW BOUNDS IN BANKING?

If banking provides a theoretically ideal environment for bounds, one might expect to see bounds being widely used in bank regulation. However, much of bank regulation is presently rules-based.²⁷ Listokin explains that there are some areas where bounded structures are not workable because of the idiosyncratic or unexpected nature of the regulated subjects' needs.²⁸ One such example is regulation that deals with large-scale and rare disasters (such as catastrophic hurricanes) where the inability of bounds to flexibly adapt to variations could actually lead to bad outcomes. Another is defense spending,

23. For a survey of this literature, see Andrew W. Lo, *Reading About the Financial Crisis: A Twenty-One-Book Review*, 50 J. OF ECON. LITERATURE 151 (2012).

24. See FIN. CRISIS INQUIRY COMM'N, *supra* note 17, at xv-xxvii (describing red flags that were missed by regulators in the years leading up to the 2007-2009 financial crisis).

25. See Listokin, *supra* note 1, at 351.

26. See Kristin N. Johnson, *Macroprudential Regulation: A Sustainable Approach to Regulating Financial Markets*, 2013 U. ILL. L. REV. 881, 887; Kathryn Judge, *Interbank Discipline*, 60 UCLA L. REV. 1262 (2013); Steven L. Schwarcz, *Systemic Risk*, 97 GEO. L. J. 193, 206 (2008).

27. See, e.g., Dan Awrey, *Regulating Financial Innovation: A More Principles-Based Proposal?*, 5 BROOK. J. CORP. FIN. & COM. L. 273, 282 (2011) (referring to the "historically predominant rules-based approaches toward financial regulation"); John H. Walsh, *Institution-Based Financial Regulation: A Third Paradigm*, 49 HARV. INT'L L.J. 381, 381 (2008) (explaining how U.S. financial regulation is rules-based).

28. Listokin, *supra* note 1, at 341-42, 378-79.

which is expensive and less predictable and where the transaction costs of passing additional bills are high.²⁹ Should banking also be added to this short list of sectors that are incompatible with bounds? In this Part, I explore some possible explanations for the scarcity of bounds in banking but also refute the notion that such explanations preclude the use of bounds in banking altogether.

A. Agent Independence

One structural feature of bank regulation that could make implementing bounds more challenging is the fact that the agencies that regulate financial institutions are independent agencies.³⁰ The OCC is organized as an independent bureau of the U.S. Department of Treasury, and does not receive any appropriations from Congress.³¹ In 2014, about 97% of the OCC's operations was funded by semiannual assessments levied on national banks and federal savings associations, with the remainder coming from the OCC's investments and other income.³² This structural feature of the OCC could limit the efficacy of bounds if it means that the principal lacks the authority to constrain, including through the use of bounds, its agent.

However, the independent and self-funded status of the OCC does not mean that it is insulated from *any* congressional control. Congress could exercise control over and implement bounds on the OCC by exercising its power to (i) amend the National Bank Act, (ii) request evaluations, investigations, and audits via the Government Accountability Office (GAO), and (iii) set the scope and standard of judicial review of agency actions.³³ And Listokin makes clear that bounds encompass more than just presidential oversight and congressional appropriations; they include other avenues of control such as regulatory budgets, resource constraints, and even cost-benefit

29. *Id.* at 378-79.

30. For a discussion of how regulators of financial institutions are independent agencies that are also exempt from congressional appropriations, see Note, *Independence, Congressional Weakness, and the Importance of Appointment: The Impact of Combining Budgetary Autonomy with Removal Protection*, 125 HARV. L. REV. 1822, 1823 n.12 (2012).

31. *About the OCC*, OFFICE OF THE COMPTROLLER OF THE CURRENCY, <http://www.occ.gov/about/what-we-do/mission/index-about.html> [<http://perma.cc/Z5L8-HV72>].

32. *FY 2016 Budget-in-Brief: Office of the Comptroller of the Currency (OCC)*, U.S. DEP'T TREASURY (2015), <http://www.treasury.gov/about/budget-performance/budget-in-brief/Documents/22.%20OCC%20FY%202016%20BIB%20Final.pdf> [<http://perma.cc/7NHD-GX2R>].

33. For a discussion of each such powers, see 3 CHARLES H. KOCH, JR., WILLIAM S. JORDAN III & RICHARD MURPHY, *ADMINISTRATIVE LAW & PRACTICE* §§ 7:21, 7:24, 12.10 (3d ed. 2010 & Supp. 2015).

analysis.³⁴ Cost-benefit analysis in particular has taken an expanded role in many areas of financial regulation.³⁵

B. Type of Risk

Another characteristic of banking that could explain the absence of bounds is the type of risks that pervade the banking sector. Bank regulation, like hurricane regulation, also protects against infrequent and destructive events. Carmen Reinhart and Kenneth Rogoff's account of the past eight hundred years of banking crises has confirmed the inevitability and cyclical nature of such large-scale crises.³⁶

But financial crises, unlike floods or earthquakes and other *force majeure* events, are human-made and thus are theoretically preventable, or at least controllable. And much of bank regulation is also about the ordinary course of banking, such as regulating entry and exit, defining the scope of permissible activities, and the supervision of the management and information systems used to monitor risk. Recognizing that the nature of banking risks ranges from the extraordinary to ordinary,³⁷ bounds could selectively be applied to the kinds of risks and decisions that fluctuate less from year to year.

C. Information Gaps

Another possible explanation for why bounds are infrequently used is the information asymmetry or gap between what is known by the principal versus what is known by the agent with respect to the quality of the subjects.³⁸ As Listokin explains: "when the principal has more uncertainty regarding the distribution of quality within the population, bounded institutions become less attractive relative to unbounded institutions."³⁹ In the context of banking, Roberta Romano has written about the challenges of financial regulators who must regulate in the face of unavailability of key information, a dynamically

34. Listokin, *supra* note 1, at 368-69.

35. Cf. John C. Coates IV, *Cost-Benefit Analysis of Financial Regulation: Case Studies and Implications*, 124 YALE L.J. 882 (2015) (describing the challenges to cost-benefit analysis for financial regulation). Following the publication of Coates' article, the *Yale Law Journal Forum* published a collection of responses (and Coates' reply thereto). This collection of writings is available at 124 YALE L.J. F. 246, 246-315 (2015).

36. CARMEN M. REINHART & KENNETH S. ROGOFF, THIS TIME IS DIFFERENT: EIGHT CENTURIES OF FINANCIAL FOLLY (2009). For a discussion of how to legitimize bailouts in light of their inevitability, see generally Adam J. Levitin, *In Defense of Bailouts*, 99 GEO. L.J. 435 (2011).

37. For a survey of the principal supervisory strategies used by financial regulators to regulate risks, see Howell E. Jackson, *Regulation in a Multisectoral Financial Services Industry*, 77 WASH. U. L. Q. 319, 339-63 (1999).

38. See Listokin, *supra* note 1, at 362.

39. *Id.*

changing environment, and uncertainty.⁴⁰ Under such conditions, how can Congress intelligently set bounds to constrain the OCC if it does not have any superior information with respect to the quality of the regulated subjects?

While no crystal ball exists, records of past information and the benefit of hindsight are available to Congress, and it is this history and backlog of information that is needed to set and test bounds in bank regulation. And to the extent there are gaps in Congress's knowledge, the use of bounds can be one way to actually force information from both the regulated banks and bank regulators up to Congress so that it can set the proper bounds.⁴¹ Furthermore, the information required to design bounds in bank regulation comes from not only the agents and subject banks, but also from the debt and equity markets (such as stock prices, trading volume, and default frequencies) that have also been shown to be accurate predictors of bank failures and successes.⁴² And the newly created Office of Financial Research (OFR) was formed specifically for the purpose of gathering and disseminating information that can be used as regulatory inputs in the design and implementation of bounds.⁴³

III. WHAT MIGHT BOUNDS LOOK LIKE IN BANKING?

Comparing banking data and trends with Listokin's model in Part I suggests that banks could be fertile ground for the use of bounds. And the discussion in Part II demonstrates that while barriers exist, they are not insurmountable. This last Part offers a preliminary sketch of what bounds

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40. Roberta Romano, *Regulating in the Dark*, in REGULATORY BREAKDOWN: THE CRISIS OF CONFIDENCE IN U.S. REGULATION (Cary Coglianese ed., 2012).
41. One recent example of such consensus building is the New York Department of Financial Services's (NYDFS) recent public hearings on the regulation of virtual currencies, which were held in January 2014. See NYDFS, *Virtual Currency Hearings, Day 1, Panel 1* (Jan. 31, 2014), <http://www.youtube.com/watch?v=TZW7R7FPIJY> [<http://perma.cc/BMV7-UDVP>]; NYDFS *Virtual Currency Hearings, Day 1, Panel 2* (Jan. 31, 2014), http://www.youtube.com/watch?v=A4_M736FgdY [<http://perma.cc/6YNC-VTSM>]; NYDFS, *Virtual Currency Hearings, Day 2, Panel 1* (Jan. 31, 2014), <http://www.youtube.com/watch?v=6EPzoxTAcAI> [<http://perma.cc/PYW9-E7ZQ>]; NYDFS, *Virtual Currency Hearings, Day 2, Panel 2* (Jan. 31, 2014), <http://www.youtube.com/watch?v=8Z3-DA7aFCU> [<http://perma.cc/LY6K-EMSC>]; NYDFS, *Virtual Currency Hearings, Day 2, Panel 3* (Jan. 31 2014), <http://www.youtube.com/watch?v=poMdKtU9aRk> [<http://perma.cc/96CU-8RAM>]. Following the January 2014 hearings, NYDFS released its proposed "BitLicense" regulatory framework for New York virtual currency businesses. See DEP'T OF FIN. SERVS., *Revised BitLicense Regulatory Framework* (2015), http://www.dfs.ny.gov/legal/regulations/rev_bitlicense_reg_framework.htm [<http://perma.cc/BE42-L4ZU>].
42. For a survey of the academic literature and an account of bank regulators' efforts to incorporate market signals into bank supervision, see Timothy J. Curry, Peter J. Elmer, & Gary S. Fissel, *Using Market Information to Help Identify Distressed Institutions: A Regulatory Perspective*, 15 FDIC BANKING REV., no. 3, 2003, at 1.
43. *About the OFR*, OFFICE OF FIN. RESEARCH, <http://financialresearch.gov/about> [<http://perma.cc/5NWM-GBZ9>].

might look like in banking regulation by offering two examples. The first is a statutorily set quota on the chartering authority of the OCC and the second is a statutorily set curve on the ratings of OCC-supervised banks. I first describe the institutional setting for each, then discuss the strengths of using bounds to address the acute problems in that particular setting. I will also address possible counterarguments.

A. Bounds and the Issuance of National Bank Charters

In this Section, I discuss the possible use of bounds in the administration of one of the main levers of bank regulation: the OCC's licensing function. No entity in the United States can operate as a national bank without an OCC-approved charter.⁴⁴ And unlike with corporate charters where the role of the secretary of state is purely ministerial, the role of the regulator in reviewing and granting of applications is much more than ministerial.⁴⁵ A positive or negative outcome of a charter application depends on whether the OCC finds that there is a "reasonable chance that the bank will succeed and that [it] will be operated in a safe and sound manner."⁴⁶ If a charter application fails, the applicant may bring a judicial challenge, but the standard of review in that case is the most deferential standard, which asks whether the OCC's decision was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."⁴⁷

This gatekeeping function of the OCC has created a circularity problem in the later stages of the bank regulatory cycle: the regulator who initially determines that a bank is likely to be successful at the licensing stage also is tasked with the decision of whether or not to close that same bank in the event of its distress. The dynamics of self-preservation and blame avoidance may lead the regulator to become invested in the subjects' success and display a tendency to "oversave" the banks it oversees.⁴⁸ In addition, the fact that almost all of the OCC's budget comes from the assessments and fees collected from supervised institutions raises a conflict of interest in the chartering process by incentivizing the agent to grant more charters than may otherwise be optimal ("overbank").

44. 12 C.F.R. § 5.20(b) (2015) (describing licensing requirements).

45. Cf. MODEL BUS. CORP. ACT § 1.25(d) (2010) (describing the secretary of state's filing of the corporate charter as a ministerial task).

46. 12 C.F.R. § 5.20(f).

47. *Camp v. Pitts*, 411 U.S. 138, 142 (1973) (per curiam).

48. Arthur E. Wilmarth, Jr., *The Dodd-Frank Act's Expansion of State Authority To Protect Consumers of Financial Services*, 36 J. CORP. L. 893, 915-16 (2011) (describing the conflict of interest between supervisory duties and budgetary concerns arising from the funding structure).

Bounds could provide a solution to the problems of overbanking and oversaving in the bank chartering process. A statutorily set quota⁴⁹ could act as an upper bound on the presently quantitatively unfettered discretion of the OCC in this decision to open banks. Congress would still rely on the OCC's expertise to determine whether an applicant deserves a charter (or a receiver should be appointed), but could protect against any tendencies of the agent to oversave or overbank by using bounds to limit the size and crowdedness of the sector.⁵⁰

The strength of bounds such as the quota contemplated here is that they force these discussions to happen *ex ante* and create a binding mechanism that will not be eroded by the problems of circularity and conflict of interests in bank regulation. However, implementing bounds does not come without costs. A quota, if reached, will keep any and all entrants out, regardless of their desert or merit. And if a prospective entrant is kept out because there are no longer any seats left at the table, we might be worried about two separate problems. Not only is this an unfair result for the applicant, but it could also cause those who already have a seat at the now-full table to become complacent. However, a quota is meant to force the agent to face these kinds of difficult scenarios, which prioritize systemic considerations above individual institutional concerns, and evaluate fairness from the perspective of the entire banking sector and not just from that of the prospective entrant or incumbent. Moreover, regulating entry is easier and less costly than *ex post* intervention in a crowded, overheated banking market.⁵¹ Furthermore, banking is a dynamic industry, where there are multiple forced and natural departures, creating frequent opportunities for new entrants to enter the banking industry by assuming a closed bank's deposits.⁵²

But, what if the quota is too high? Too low? Or impossible to change when it needs to be updated? These questions about the appropriate level and administration of a quota go to an assessment of the "right size" of the banking

49. The constitutionality of Congress' power to charter national banks (as within its power to regulate interstate commerce) was upheld in *McCulloch v. Maryland*, 17 U.S. (4 Wheat.) 316 (1819).

50. The Federal Reserve Board's recently finalized rule, which limits bank mergers or acquisitions if the liabilities of the combined entity will exceed more than ten percent of the liabilities in the financial system, is a move in this direction. The final rule (also referred to as Regulation XX or the "Concentration Limit on Large Financial Companies") was issued by the Federal Reserve Board on November 4, 2015 to implement section 622 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. See 12 C.F.R. § 251 (2015).

51. Not only are more examinations conducted as part of the licensing process, but the OCC has also made clear that *de novo* banks are more intensively monitored and closely supervised. COMPTROLLER OF THE CURRENCY, BANK SUPERVISION PROCESS: COMPTROLLER'S HANDBOOK 11-12 (Oct. 2014) [hereinafter COMPTROLLER'S HANDBOOK].

52. The OCC grants a shelf charter to prospective acquirers for this specific purpose.

sector that will have to be answered whether or not we have bounds.⁵³ And once a consensus regarding these open questions has been reached, bounds-based regulations will be an effective way to credibly commit to the agreed upon limits.

B. Bounds and Regulatory Ratings

In this Section, I discuss the possible use of bounds in the OCC's regulatory ratings system. While much attention has been paid to credit ratings agencies (CRAs) and how to fix the broken pieces of that regime,⁵⁴ not as much has been written about the rating that regulators give to supervised banks. Considering that the prescriptions and reform proposals from the CRA critique involve shifting much of the work that was previously done by CRAs to the regulators, the time is now ripe to turn our attention to the regulatory ratings process.⁵⁵

To provide a brief introduction, the OCC uses a "uniform interagency rating system[]" that has been jointly adopted by federal bank and thrift regulatory agencies to assign ratings to subjects.⁵⁶ The CAMELS rating, as it is also known, is a composite of six component assessments: capital adequacy, asset quality, management capability, earnings quality, liquidity adequacy, and sensitivity to market risk.⁵⁷ For each component of CAMELS, the subject is given a rating ranging from one to five, with a one rating indicating the strongest performance and a five being the weakest.⁵⁸

The ratings process can best be described as one that is customized to the institution. It takes into account each institution's size and sophistication, the

53. See generally Gary H. Stern & Ron Feldman, *Addressing TBTF by Shrinking Financial Institutions: An Initial Assessment*, FED. RESERVE BANK OF MINNEAPOLIS: THE REGION (June 1, 2009), <http://www.minneapolisfed.org/publications/the-region/addressing-tbtf-by-shrinking-institutions-an-initial-assessment> [<http://perma.cc/JD3D-4PLU>]; Mark J. Flannery, *What To Do About TBTF?*, FED. RESERVE BANK OF ATL. (May 12, 2010), http://www.frbatlanta.org/documents/news/conferences/10fmc_flannery.pdf [<http://perma.cc/K3B2-3J2D>].

54. See, e.g., Lynn Bai, *On Regulating Conflicts of Interest in the Credit Rating Industry*, 13 N.Y.U. J. LEGIS & PUB. POL'Y 253 (2010); Robert J. Rhee, *On Duopoly and Compensation Games in the Credit Rating Industry*, 108 NW. U. L. REV. 85 (2013).

55. For a summary of the sections of the Dodd-Frank Act that require that references to credit ratings be removed from statute and regulation, see BAIRD WEBEL, CONG. RESEARCH SERV., R41350, *THE DODD-FRANK WALL STREET REFORM AND CONSUMER PROTECTION ACT: ISSUES AND SUMMARY* 15-17 (2010).

56. COMPTROLLER'S HANDBOOK, *supra* note 51, at 9.

57. *Id.*

58. A detailed description of each of the component ratings, including a list of principal evaluation factors as well as a description of each numerical rating for each component, can be found in the Comptroller's Handbook of the bank supervision process. *Id.* at 46-54.

nature and complexity of its activities, and its risk profile.⁵⁹ Further, bank supervision responsibilities are assigned on a bank-by-bank basis, with a dedicated commissioned national bank examiner assigned to each examined bank (on a rotation basis).⁶⁰

While this regulatory philosophy and approach that values consistency and continuity *within* each subject is important to ensure that the supervisory process identifies risks and deficiencies that are unique to an institution, it raises two concerns: one is the lack of comparability of ratings *between* subjects and second is the potential for ratings inflation. A bank given a rating of one will have no way of knowing where it stands in relation to its peers because it does not know how many one ratings were given (in the extreme case, all banks could have received the same rating). Unlike chartering decisions, which are made public, bank regulatory ratings are not disclosed. They are known only to the regulator and the senior management of the rated bank. And if regulators over time develop a positive bias towards subjects (also referred to as “regulatory capture”),⁶¹ banks may be given a higher rating than the principal would deem appropriate, leading to inflation.

Bounds could provide a solution to the comparability and inflation concerns. In this case, the use of a curve would be appropriate. First, the beauty of a curve is that it forces the agent to compare subjects to one another. A statutorily set ratings curve would require the OCC to consider all rated subjects before determining the ratings assignments. And a curve, by definition, avoids ratings inflation (or deflation, for that matter). The implementation of a curve would also shed some light on an otherwise opaque practice. The presence and disclosure of a curve can help banks understand where they stand relative to their peers without the need to know the specific ratings assigned to competitor banks.

Ranking institutions of various size, geography, risk appetite, etc., according to a single cohesive standard is difficult and complex, and requires inevitable judgment calls.⁶² Notwithstanding such challenges, the benefit of a bound such as a curve (and the planning and design required to implement such a bound) is that it can manage the biases and errors of regulators.

59. *Id.* at 9.

60. *Id.* at 5 (“Personnel selected for these assignments are rotated periodically to ensure that their supervisory perspective remains objective.”).

61. See, e.g., Richard A. Posner, *Theories of Economic Regulation*, 5 BELL J. ECON. MGM'T SCI. 335, 335-36 (1974) (explaining the theory of regulatory capture); George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. 3, 4 (1971).

62. The Uniform Bank Performance Report (UBPR), developed by the Federal Financial Institutions Examination Council (FFIEC), has published peer group average data on banks' performance and balance-sheet composition data since 2003. See *UBPR*, FED. FIN. INSTS. EXAMINATION COUNCIL, <http://www.ffiec.gov/ubpr.htm> [<http://perma.cc/5UGH-EW6F>]. It can be a useful guide in setting the curve and overcoming some of the practical challenges of implementing such a curve.

Furthermore, the regulatory structure within the OCC is already set up as a pyramid structure—portfolio managers report to the examiner-in-charge who then reports to the supervisory office—which lends itself to a process where ratings decisions are made by a centralized supervisory body within the agent. Such an effort to centralize would also be consistent with the OCC’s commitment to identifying and measuring risk using common definitions and common methods of evaluation.⁶³ Lastly, the regulatory ratings procedure is not intended to replace banks’ internal models of risk and private ratings organizations’ efforts to generate and maintain tailored and sophisticated measures of risk.

Another challenge to using a curve is its bluntness. For instance, a bank may have scored worse than its peers but only by a small margin—and a curve may result in a ratings differential that overstates that small margin. This concern is especially compelling given my earlier assessment above of the banking sector as one with relative little variability. However, it is precisely this kind of resistance to treating banks adversely that has overheated the finance sector.

One consensus that has emerged from the post-crisis legal and finance literature is the need for countercyclical regulation. Countercyclical regulation refers to policies that clamp down during boom periods and loosen up during bust periods.⁶⁴ Countercyclical regulation has two main objectives: the first is to prevent the growth of asset bubbles and the second is to require financial institutions to build up reserves when times are good.⁶⁵ Bounds can be used to carry out both those objectives. First, as the national bank charter quota example shows, bounds can counteract regulatory inertia toward overbanking by imposing limits on the OCC’s chartering authority even during times when there are no obvious or urgent deficiencies in the banking sector. Second, as the relative regulatory ratings curve example shows, bounds can be used to recognize and reward top performers who outperform their peers (and penalize laggards) and to facilitate a race to the top among subjects.

CONCLUSION

As Listokin articulates in *Bounded Institutions*, the promise of bounds is that they can be used to reach ideal outcomes even when the principal is uninformed and the agent is biased. This has immense appeal for banking,

63. COMPTROLLER’S HANDBOOK, *supra* note 51, at 19.

64. On the other hand, pro-cyclical regulation refers to policies that clamp down during bust periods and loosen up during boom periods. For a review of ongoing debate over the objectives, tools, and impediments to countercyclical regulation, see Patricia A. McCoy, *Countercyclical Regulation and its Challenges*, BOS. COLL. LAW SCH. DIGITAL COMMONS (Feb. 17, 2015), <http://lawdigitalcommons.bc.edu/lspf/934> [<http://perma.cc/RPF2-5JXA>].

65. *Id.* at 2.

where information gaps and biases are pervasive. Another advantage of bounds for bank regulation is that they force comparisons among subjects, which is useful for systemic risk regulation. Bounds can also be used as a means to credibly commit to countercyclical measures that have recently been proposed as an antidote to bubbles in finance.

While I show in this Response that the banking environment is a theoretically appealing setting for bounds, some additional conditions must also be fulfilled for the successful design and implementation of bounds in bank regulation. They include the availability of comprehensive and quality data regarding the regulated subjects and the principal and agent's willingness to consider new regulatory strategies. Furthermore, it must be recognized that the regulated subjects are not static participants, and the subjects' anticipated response to bounds must be built into the design of the bounds in order for bounded structures to reach their desired outcomes. In order to realize the promise of bounds in bank regulation, principals and agents must know of the quality and behaviors of the subjects they regulate, and the goals of principal, agent, and the regulated subjects must be aligned.

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