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Imperfect Alternatives: Networks, Salience, and Institutional Design in Financial Crises

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With the benefit of hindsight—and some aspiration to foresight—it is useful to consider the type of regulatory regime that might best address financial crises. What could policymakers have done to prevent the recent crisis? And once the crisis started, what interventions might have alleviated it? These questions have been widely debated, with an eye to both substantive policy and the design of effective regulatory institutions. This Article speaks to the latter project—one of comparative institutional analysis—though with a framework that implicates our substantive policy choices as well. It begins with an account of financial crises as grounded in the multiple equilibrium character of the financial markets. Given the latter, it suggests, questions of “salience” become central to the design of both substantive policy and relevant institutions. To emphasize as much, the Article considers the role of transnational regulatory networks in preventing and responding to financial crises. Drawing on the example of the recently re-formed Financial Stability Board, it highlights certain inherent limits of networks, but also points to institutional reforms that might be expected to enhance their capacity to impact salience—and thereby play a role—in regulating financial crises.

INTRODUCTION

We stand (hopefully) near the end of the most significant global
financial crisis since the Great Depression. The full impact of that crisis, especially over the long-term, will likely be devastating. Beyond the immediate crisis, meanwhile, the frequency of financial crises is on the rise.\(^1\) As the last few years have made clear, however, we have a limited sense of how to handle such crises. In the absence of financial panic, we are unsure how to prevent it. Once it arises, we are almost as unsure about how to alleviate it.

This uncertainty operates at two levels: first, as to matters of substantive policy, and second, in our choice of institutional design. This Article focuses on the latter—what regulatory structures and institutions are likely to be most effective in preventing and alleviating financial crises? The proposed analytical framework, however, can be applied to substantive policy as well.\(^2\)

To get at the issue of institutional design, the Article begins with a foundational question: What is the root cause of financial crises? There has been a great deal of discussion regarding this question.\(^3\) For the most part, however, it has not occurred at the level of abstraction necessary to offer a generalized framework for the design of substantive policy—let alone to resolve questions of institutional design. Equally striking has been the disconnect between discussions of the causes of the recent crisis and the analysis of potential regulatory responses. Much of the evaluation of possible responses has proceeded unmoored from any theory of causation—whether of the recent crisis or of financial crises more generally.\(^4\)

Against this backdrop, this Article argues that the genesis and persistence of a financial crisis, as opposed to economic or financial turmoil more generally, is not an issue of sub-prime mortgages, asset securitization, inadequate risk regulation, or the failures of credit rating


\(^2\) A related article explores the implications of a "coordination" account of regulation, including for substantive policy choices in financial crisis regulation. See Robert B. Ahdieh, The Visible Hand: Coordination Functions of the Regulatory State, 95 MINN. L. REV. 578 (2010).


\(^4\) At least in part, the tendency to assess solutions separate from causes of the recent crisis might be explained by the tremendous uncertainty about the latter question, see for example, Richard Squire, Shareholder Opportunism in a World of Risky Debt, 123 HARV. L. REV. 1151, 1198–1200 (2010), as well as some related tendency to focus on more tangible predicates, rather than more abstract, root causes, of the financial crisis. See infra Part I.
agencies.\(^5\) Rather, it turns on systemic patterns of risk and reward in certain sectors of the economy, resulting interdependence in the behavior of market participants, and the consequent tendency of relevant markets to tip strongly (and quickly) to one equilibrium or another. Instead of one or more of the “causes” enumerated above, it is the presence of multiple equilibria in financial markets that was at the heart of the recent crisis.\(^6\) The suggested failures of lending, asset securitization, and risk may well be predicates to the emergence of crisis—or at least the recent crisis. Our efforts to define an appropriate regulatory response to financial crises are likely to go astray, however, if we focus on these phenomena as causes.

Once we appreciate the role of multiple equilibria in the financial markets in causing, sustaining, and alleviating financial crises, we arrive at a distinct framework for evaluating relevant policy and institutional design choices. A proper assessment of the comparative merits of alternative choices depends substantially on questions of salience.\(^7\) What policies or institutions can best enhance the salience of a high rather than low-level equilibrium of lending, investment, and even spending by market participants? Stated differently, what policies and institutions can best coordinate expectations around a collective norm (i.e., equilibrium) of lending, investment, and spending, as opposed to non-lending, non-investment, and a curtailment of spending?

If these are the critical issues in preventing and alleviating financial crises, the next question is what determines salience—a subject of growing interest in law, economics, psychology, and neuroscience, in recent years.\(^8\) Thus, in the particular context of financial crises, what

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6. See infra Part I. Multiple equilibria exist where we find more than one paired set of strategies from which no relevant participant can gain through unilateral action. See Clayton P. Gillette, Cooperation and Convention in Contractual Defaults, 3 S. CAL. INTERDISC. L.J. 167, 174 (1993).


policies are likely to increase the salience of active lending by banks and renewed investment by hedge funds and private equity firms (on which banks depend for their ability to lend)? More precisely, how might we enhance the expectations of any given bank, hedge fund, or private equity firm that other banks, hedge funds, and private equity firms stand ready to lend and invest? And, as to the institutional design question emphasized herein, what factors will render relevant policymaking structures more salient—and hence consequential—in shaping such expectations?

To evaluate as much, this Article suggests four critical determinants of salience in the analysis of institutional design choices. Echoing Thomas Schelling’s analysis of “focal points,” to begin, salience is likely to be determined by both the familiarity and the visibility of a given institution. Likewise, the relative singularity or uniqueness of an institution can be expected to play a role in determining its salience to market participants. Finally, the Article identifies authority, including dimensions of both expertise and legitimacy, as a fourth important determinant of salience.

Given the particular “cause” of financial crises offered herein, and the resulting orientation to salience in analyzing regulatory interventions directed to such crises—the emphases of Parts I and II respectively—what conclusions follow for relevant institutional design choices in addressing financial crises? Consider a few such choices: Should we rely primarily on international or national institutions in responding to financial crises? Among other contexts, this has been an important question in Europe and in the decision to re-empower the International Monetary Fund after years of growing desuetude. A second institutional design choice has been whether to settle for imperfect but extant institutions or to establish new ones, in responding to crises.

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9. See Ahdieh, supra note 2.
10. See infra Part II.
11. See Schelling, supra note 7, at 57–58.
14. Contrasting U.S. and German approaches are suggestive here, see Thomas Mahlich et al., Germany Adopts Its Own Rescue Package for Financial Institutions, MONDAQ, Nov. 13, 2008,
Finally, there is the increasingly prominent question of the role of transnational regulatory networks in addressing financial crises—from the International Organization of Securities Commissions and the Basel Committee on Banking Supervision, to the International Association of Insurance Supervisors and the Financial Stability Board.\(^\text{15}\)

With regard to each of these challenges of comparative institutional design, an analysis of salience offers insight into potential strengths and weaknesses. No alternative is likely to prove perfect. At least in particular contexts, however, more or less effective options can be identified. To suggest as much, Part III explores the last of the aforementioned choices: the reliance on transnational networks versus more structured institutions, in preventing and responding to global financial crises. In particular, it highlights the case of the Financial Stability Forum—and its mid-crisis “re-establishment” as the Financial Stability Board—as a helpful window into the framework of salience suggested.\(^\text{16}\)

Before continuing, a word of caution is in order: The framework offered herein does not purport to be a solution to financial crises, let alone a “magic bullet” to prevent future crises. An emphasis on the multiple equilibrium character of the financial markets is simply a first step in the effort to understand the nature of such crises. The proposed framework for the analysis of salience is likewise intended as suggestive. The goal of this Article is not to explain or solve financial crises, thus, but to offer a framework for their analysis and to suggest a distinct account of the potential role that regulatory institutions may play in facilitating their avoidance and alleviation.

I. THE NATURE AND CAUSES OF FINANCIAL CRISIS

In identifying the root cause of financial crises, the first task is to define what we mean by “crisis.”\(^\text{17}\) A crisis, properly conceived, should be understood as something more than simply economic difficulty, even

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\(^\text{15}\) See, e.g., David Zaring, Three Challenges for Regulatory Networks, 43 INT’L LAW. 211, 216 (2009).


when such difficulty is of substantial depth or breadth. As to the former, no matter how significant the impact of General Motors' bankruptcy, it does not constitute a crisis in isolation.\textsuperscript{18} The same might even be said of the Lehman Brothers' bankruptcy, had it been possible to effectively contain its effects.\textsuperscript{19}

Even widespread economic difficulty may not constitute a crisis. Entire industries—be it the auto industry or the airlines—may be struggling. Entire sectors of an economy may be in decline, as has been true of U.S. manufacturing for the last forty years.\textsuperscript{20} Yet we still may not face a crisis, if the weakness in said industry or sector does not exhibit some systemic quality—a certain species of interdependence—whether within the relevant industry or sector, or beyond it. Unless the losses of one are prone to generate losses for others, talk of a crisis is misplaced.\textsuperscript{21} Financial or economic crises can thus be understood to possess a certain dynamic quality. They are characterized by the spread—the metastasization—of otherwise individuated economic difficulties and challenges.

In the international financial markets, this critical characteristic of crisis is captured in talk of "contagion," where currency crises or other financial shocks in one locale trigger crises in other nations, whether near, as in the 1997–98 Asian financial crisis, or far, as in the extended reach of the 1998 Russian debt default.\textsuperscript{22} Such interdependence can likewise be seen in the rhetoric of "containment."\textsuperscript{23} Anna Gelpern has thus emphasized distinct tasks of crisis containment, financial regulation, crisis prevention, and crisis resolution.\textsuperscript{24} It is the particular

\textsuperscript{18} See Ken Bensinger & Martin Zimmerman, GM in Chapter 11, L.A. TIMES, June 2, 2009, at 1.
\textsuperscript{20} See Jeffrey D. Sachs et al., Trade and Jobs in U.S. Manufacturing, in BROOKINGS PAPERS ON ECONOMIC ACTIVITY 1 (1994).
\textsuperscript{21} It was for precisely this reason that suggestions of potential taxpayer assistance to British Petroleum (BP), in dealing with the costs of the April 2010 oil spill in the Gulf of Mexico, were quickly retracted. There would be no crisis, even were BP to collapse.
\textsuperscript{22} See NOURIEL ROUBINI & BRAD SETSER, BAILOUTS OR BAIL-INS? – RESPONDING TO FINANCIAL CRISSES IN EMERGING ECONOMIES 43–44 (2004). Behind this pattern, one might see a network externality of sorts, in which the returns to lending and investment—and hence the benefits of continued market engagement—are key to the participation of others. See Robert B. Ahdieh, Making Markets: Network Effects And The Role Of Law In The Creation Of Strong Securities Markets, 76 S. CAL. L. REV. 277, 288 (2003) ("Network effects are positive consumption externalities; they arise where the utility of a good to one user increases as other users acquire or utilize it."); Mark A. Lemley & David McGowan, Legal Implications of Network Economic Effects, 86 CAL. L. REV. 479, 481 (1998).
\textsuperscript{23} See Anna Gelpern, Financial Crisis Containment, 41 CONN. L. REV. 1051 (2009).
\textsuperscript{24} See id. Beyond the rhetoric of contagion and containment, talk of "confidence in the markets" and "crises of confidence" can likewise be understood to echo the framework this Article
The task of containment, however, that speaks to the essence of financial crisis.

If the characteristic feature of financial crises is not economic decline—however deep or broad it might be—but interdependence and the resulting potential for the diffusion of such decline, much of the discussion regarding the causes of the recent financial crisis proves to be off-base. Many among those asserted causes, of course, revolve around the bubble in U.S. housing prices, and its eventual burst. Observers have thus critiqued: (1) the Community Reinvestment Act’s requirement of greater mortgage lending to sub-prime borrowers; (2) the Federal Reserve’s abandonment of the Taylor Rule and failures to deflate the housing bubble; (3) the securitization of sub-prime mortgages; and (4) credit rating agencies’ offering of investment-grade ratings to the resulting securities. Others have blamed securitization generally, risk-taking by the American Insurance Group’s Financial Products division, and the limited or fragmented regulation of derivatives and hedge funds. Many, if not all, of these contributed to the financial difficulties that emerged amidst the recent crisis. In a sense, they might even be seen as predicates of the crisis. To describe them as causes of the crisis, however, overlooks at least as much as it captures. Of particular importance for present purposes, it distorts the analysis of how to appropriately respond to such crises, both ex ante and ex post.

If we are concerned with what causes financial difficulties in one firm, sector, or industry to metastasize into a crisis, it is necessary to focus on the multiple equilibrium dynamic at work in the financial markets. The legal literature, notwithstanding important contributions to the study of financial markets, has not attended adequately to this multiple equilibrium dynamic. This has been so, notwithstanding its close relationship to subjects that have received substantial attention—including network externalities and social norms.

advances.


27. See supra note 6.


29. See, e.g., ERIC A. POSNER, LAW AND SOCIAL NORMS (2000); Ahdieh, supra note 22. To be sure, other multiple equilibrium-related issues—including questions of standard-setting and the analysis of coordination games—have received far less attention among legal scholars. See Richard H.
At least in part, this inattention can be explained by legal scholars’ disproportionate emphasis on what might be seen as the opposite of a multiple equilibrium dynamic: the dominant strategy dynamic at work in a single-shot Prisoner’s Dilemma, where players are incentivized to (inefficiently) confess, regardless of the behavior of their counterparts. Multiple equilibrium settings including the financial markets, the internet, standard-setting processes, and technological innovation, by contrast, are characterized by the availability of more than one stable set of strategies, from which players have no incentive to defect, absent a change in strategy by their counterparts.

Thus, in the classic metaphor of coordination among multiple equilibria, two or more drivers can choose to drive either on the right or on the left, and lack any incentive to change sides unless they expect the other driver will do so as well. This is likewise the dynamic at work among market participants in standard-setting and network settings, including in the choice between VHS and Betamax video recorders, Blu-ray or HD DVD players, and various alternative protocols for internet file transfers. Once a given standard has emerged, we are incentivized to embrace and maintain it.

In the financial markets, something similar can be observed. Consider the classic bank run—the most conventional manifestation of a financial crisis, and the case study for early models of multiple equilibria in financial markets. In a bank run, crisis is triggered by the abrupt demand for withdrawals by the mass of depositors. Given the fractional reserve banking structure of modern banks, in which reserves represent only a small proportion of a bank’s outstanding liabilities, this demand cannot possibly be met, driving even the most well-capitalized, healthy banks into bankruptcy.

Attempting to formally model this pattern, economists Douglas Diamond and Philip Dybvig identified the critical characteristic of

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McAdams, Beyond the Prisoners’ Dilemma: Coordination, Game Theory, and Law, 82 S. CAL. L. REV. 209 (2009).
modern banking and of bank runs as the presence of multiple equilibria.\textsuperscript{35} In the preferred equilibrium, depositors place their funds with the bank, confident in their ability to withdraw on whatever future date they can make optimal use of their funds. This allows others to withdraw on earlier optimal dates, thereby generating an efficient distribution of risk. In the inferior equilibrium, by contrast, confidence in the behavior of other depositors is undermined, causing all depositors to seek immediate, sub-optimal withdrawal of their assets and thereby breaking the bank. The essential dynamic of modern banking, consequently, is one in which coordination of depositors around the equilibrium of “maintain deposits” generates optimal returns. In contrast, coordination around the equilibrium of “withdraw deposits” breaks the bank.

This multiple equilibrium dynamic is not unique, however, to banks or bank runs. Rather, it is characteristic of the financial markets more generally—if not inherently, at least in their modern forms. The operation of financial markets today thus involves a significant degree of interconnection and coordination. The returns on an investment to any given individual, meanwhile, are often keyed to its attraction to others.\textsuperscript{36} The result, once again, is a multiple equilibrium dynamic.

A growing body of work on the financial markets, including among legal scholars, echoes this conclusion.\textsuperscript{37} A few examples are suggestive: Financial markets have been characterized to exhibit “strategic complementarities”—a positive feedback dynamic along just the lines described \textit{supra}, whereby increases in production by one firm increase the marginal revenues of other firms, incentivizing them to increase production as well.\textsuperscript{38} Accounts of “herd behavior” in the financial

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\textsuperscript{35} See Diamond \& Dybvig, \textit{supra} note 33, at 402 (“This vulnerability occurs because there are multiple equilibria with differing levels of confidence.”); \textit{see also id.} at 404 (describing “full-information optimal risk-sharing” equilibrium and bank run equilibrium, in which “all agents [are] panicking and trying to withdraw their deposits at $T=1$”).

\textsuperscript{36} See \textsc{John Maynard Keynes}, \textsc{The General Theory of Employment, Interest and Money} 156 (1936) (arguing that the stock market works like a newspaper beauty contest, in which share prices change based on buyers’ predictions of how others will value shares, rather than their fundamental value); \textit{see also Donald C. Langevoort, Theories, Assumptions, and Security Regulation: Market Efficiency Revisited}, 140 U. PA. L. REV. 851, 866 (1992).

\textsuperscript{37} In earlier work, I have described the presence of network externalities in the microstructure of secondary securities markets—an analysis that might likewise be counted among the approaches described above. \textit{See Ahdieh, supra note 30, at 223–25; Ahdieh, supra note 22.}

\textsuperscript{38} See Russell Cooper \& Andrew John, \textit{Coordinating Coordination Failures in Keynesian Models}, 103 Q. J. ECON. 441, 447 (1988); \textit{see also Jeremy Bulow et al., Multimarket Oligopoly: Strategic Substitutes and Strategic Complements}, 93 J. POL. ECON. 488 (1985). This is precisely the domain, of course, of network externalities. \textit{See supra note 37; see also Michael L. Katz \& Carl Shapiro, Network Externalities, Competition, and Compatibility, 75 AM. ECON. REV. 424 (1985).}
markets are similar.\textsuperscript{39} In this account, by contrast with that of strategic complementarities, the relevant behavior of market participants is irrational.\textsuperscript{40} However, the end result is the same: investment choices move in tandem, with decisions by one or more market participants mimicked by others, such that behavior is effectively coordinated.\textsuperscript{41}

Among others, each of these accounts\textsuperscript{42} bespeaks a multiple equilibrium conception of the financial markets. Thus, where strategic complementarities are present, financial markets can be expected to operate like the banking system, in which depositors collectively settle on either an equilibrium of maintaining deposits or withdrawing them, based on their expectations of one another. In the presence of strategic complementarities, one can expect relatively consistent patterns in the lending, investment, and perhaps even spending behavior of market participants.\textsuperscript{43} Banks will either lend or refuse to lend largely in tandem with one another; hedge funds and private equity firms will hold back or aggressively compete for investment opportunities as a group. Herd behavior is to similar effect, with the pack moving to either the high-level or low-level equilibrium, depending on relevant expectations and the resulting behavior of early movers.\textsuperscript{44}

This brings us back to the nature of financial crises as characterized not by economic distress per se, but by the spread and dissemination of such distress. In a multiple equilibrium conception of the financial markets, such contagion can be understood to occur when the market moves—necessarily abruptly—from a high-level to a low-level equilibrium of lending, investment, and spending. Banks refuse to lend. The market for credit default swaps disappears. Private equity


\textsuperscript{40} The emphasis on herd behavior in the financial markets can also be seen to echo “greater fool” theories of those markets. Cf. James C. Spindler, Conflict or Credibility: Research Analyst Conflicts of Interest and the Market for Underwriting Business, 35 J. LEGAL STUD. 303, 308 (2006).

\textsuperscript{41} Again, one might recall Keynes’ vivid portrayal of financial markets as a beauty contest, in which each observer’s assessment is defined by the expected assessment of others. See supra note 36.

Besides analyses of strategic complementarities and herd behavior, as noted in the text, the distinct study of systemic risk, including by Steven Schwarcz, see Steven L. Schwarcz, Systemic Risk, 97 GEO. L.J. 193 (2008), might also be seen to turn on the dynamic suggested.

\textsuperscript{42} See supra notes 37–41 and accompanying text.

\textsuperscript{43} Spending will often lack the systemic quality prevalent in lending and investment. The confidence that stands behind at least some spending (e.g., in continued economic activity and growth), however, may cause it to likewise be dependent on expected spending by others.

\textsuperscript{44} With the dynamic of systemic risk, see supra note 41, the presence of multiple equilibria turns on the relevant risk trigger having been set off, or not, at any given point in time.
investment dries up. And we find ourselves precisely where we were just a few short months ago.

Why do banks, traders, private equity firms, and others cut back their lending, investing, and spending? Because each individual or institution determines that they expect other banks, traders, and private equity firms to do so. Based on the multiple equilibrium structure of their returns, this expectation advises them to do so as well. The critical cause of the recent financial crisis, then, was not sub-prime lending, excessive risk-taking, or the housing bubble. Rather, it was a shift in expectations from a high-level to a low-level equilibrium of lending, investment, and spending.

II. THE SALIENCE OF LENDING AND INVESTMENT ON THE FINANCIAL MARKETS

If financial crises arise from the multiple equilibrium character of financial markets, it is necessary to address the latter in designing a regulatory approach to preventing and alleviating such crises. Regulating sub-prime lending, creating a prudential risk regulator, placing greater restraints on credit rating agencies, and increasing the regulation of hedge funds—among other policy proposals that have been tabled—are all important initiatives. They may even help avoid the next financial crisis, by eliminating critical predicates to it. However, they do not address the systemic dynamic that is the essential source of a financial crisis. Given as much, they are unlikely to suffice in avoiding such crises.

Rather, the critical task for regulation in the face of potential crisis must be to coordinate market participants around relevant high-level equilibria—whether of lending, investment, or spending. Our choice of substantive rules, as well as operative institutional structures, must serve to sustain high-level equilibria in each category. Once a crisis begins, in turn, relevant law and regulation must encourage a return to those equilibria (i.e., must displace the low-level equilibria that characterize the relevant crisis).

How can regulatory regimes do so? In significant part, by attending to the relatively unfamiliar—yet intuitive—role of "salience" in multiple...
equilibria settings. In the strategic choice among multiple equilibria, relatively more salient (or prominent) equilibria are most likely to emerge. Why? Because such equilibria can be expected to be salient to others as well.

Emphasizing the importance of salience, Thomas Schelling famously suggested a role for “focal points” in the solution to coordination games. A given location, outcome, or other equilibrium may thus serve as a “focal point for each person’s expectation of what the other expects him to expect to be expected to do.” The precise source of this focal quality, however, remains unclear. Minimally, the identification of focal points is not solely a matter of reason. As Schelling emphasized, the task of coordination is more in the nature of art than science. The challenge of coordination lies precisely in the fact that no solution can be mathematically derived from relevant incentives. Rather, it turns on the complex psychological, sociological, contextual, and historical dynamics of salience.

In the context of financial crises, an emphasis on salience favors substantive policies that increase the focal quality of the high-level equilibrium of lending, investment, and spending described supra. Federal deposit insurance, for example, was a classic policy initiative directed to this end, following the bank runs that characterized the Great Depression. By insuring against depositor losses, the government increased the salience of a “maintain deposits” equilibrium—even for those not fully protected. Recent policy decisions might also be evaluated along these lines, including public investment in banking institutions, the taking of warrants in those firms, and the Federal Reserve Bank’s stress tests of major U.S. banks. In various ways, each of these policies helped to increase the salience of a high-level equilibrium of lending and investment.

48. See SCHELLING, supra note 7, at 57.
49. Id.
50. See id. at 7.
51. Created in 1933 by the Glass–Steagall Act, the Federal Deposit Insurance Corporation (FDIC) is an independent agency of the federal government, which guarantees deposits at specific insured banks or thrift institutions. Additionally, the FDIC exercises considerable supervisory and resolution authority over insured institutions experiencing financial difficulty. See Onnig H. Dombalagian, Requiem For The Bulge Bracket?: Revisiting Investment Bank Regulation, 85 IND. L.J. 777, 782 n.19, 784, 809 n.163 (2010); Fed. Deposit Ins. Corp., http://www.fdic.gov (last visited June 12, 2010).
52. This is the critical point. Even if my deposits are largely unprotected (i.e., if they are well above the statutory cap), my expectations of a bank run are low—given the FDIC’s effective protection of the vast majority of those who might otherwise make a run on the bank.
53. See Ahdieh, supra note 2.
This Article focuses not on substantive policy choices, however, but on the distinct question of institutional design. What institutional characteristics of relevant regulatory institutions will maximize their capacity to impact the salience of alternative lending and investing equilibria? Are national or international institutions more likely to render the efficient equilibrium focal? Is establishing new institutions preferable or are existing institutions more likely to impact the salience of a preferred coordination point? And finally, as explored in Part III, how capable are regulatory networks of shaping salience, as compared to more structured and formalized institutions?

To assess these questions, the first step is to define the relevant determinants of salience. With regard to the shaping of salience in other respects—including perhaps in the design of substantive policy—any number of potential factors might be identified. As to questions of institutional design, however, four factors might be emphasized: (1) familiarity, (2) visibility, (3) singularity/uniqueness, and (4) authority. Although not previously drawn out in this fashion—or explored with particular emphasis on institutional design—the first three can be derived from Schelling’s analysis of focal points and subsequent scholarly work. The suggested role of authority, meanwhile, steps beyond that analysis.

The relative familiarity of an institution, to begin, is likely to impact its salience in shaping the expectations of market participants. Any given market actor might thus expect an institution familiar to her to likewise be familiar to others and, given the latter’s similar orientation to the expectations of others, to therefore be more likely to shape market behavior generally. An institution such as the International Monetary Fund (IMF), for example, might have a greater impact on expectations due to its relative familiarity, as compared to a newly established entity. The degree of media attention to a given institution might also


55. To be sure, there is significant overlap among the distinct determinants of salience this Article suggests. However, it remains useful to separate them in seeking to analyze alternative institutional choices.

56. The International Monetary Fund (IMF) was established in 1945, as part of the Bretton Woods system, to oversee the international monetary system. During the Great Depression, countries attempted to stabilize their economies by increasing barriers to trade and devaluing their national currencies, with disastrous results for world trade, employment, and living standards. In response to these challenges, the IMF sought to “ensure exchange rate stability and encourage its member countries to eliminate exchange restrictions that hindered trade.” See Int’l Monetary Fund, History: Cooperation and Reconstruction (1944–71), http://www.imf.org/external/about/histcoop.htm (last visited June 12,
be important in evaluating its capacity to avoid and alleviate financial crises.

Questions of visibility follow naturally from the latter, though they are distinct. Consider, for example, the infamous Trilateral Commission—widely fingered by Vietnam War-era conspiracy theorists to be the operational heart of the military-industrial complex driving U.S. government policy.\textsuperscript{57} Though absurdly familiar, the Trilateral Commission was not in the least bit visible. This lack of visibility, in fact, was what made it such an attractive candidate for wild-eyed conspiracy theorists. Beyond familiarity, then, it may be important that relevant market participants see a given institution as enjoying a certain visibility—a certain prominence—among their fellow market participants. If I am to conclude that a given institution will meaningfully shape expectations—and thereby sustain (or displace) an extant equilibrium—I might expect it to have the visibility necessary to do so. The visibility of an institution may thus impact its salience, separate and apart from its familiarity.

Determinants of visibility might include geography and participation, among other factors. As to geography, one might expect institutions based in Geneva or Washington to be more visible than those headquartered in Basel or Copenhagen.\textsuperscript{58} An institution with no fixed headquarters would presumably be even less visible. For similar reasons, the siting of a summit meeting in Pittsburgh—as with the September 2009 G-20 summit—versus London or Washington, might also affect salience.\textsuperscript{59} As to participation, meanwhile, one might expect


\textsuperscript{57} \textit{See} Wilson Huhn, Political Alienation In America and the Legal Premises of the Patriot Movement, 34 GONZ. L. REV. 417, 422 (1998) (“Members of the [Patriot] Movement believe that a cartel of international bankers, the Trilateral Commission, the Council on Foreign Relations, or the United Nations is attempting to create a world government called the New World Order.”); Nicholas D. Kristof, \textit{Learning How to Run: A West Texas Stumble}, N.Y. TIMES, July 27, 2000, at A1 (noting that George W. Bush’s campaign for Congress in 1978 was negatively impacted by his father’s membership in the Trilateral Commission, which many people believed was seeking to create a world government); \textit{see also} \textit{STEPHEN GILL, AMERICAN HEGEMONY AND THE TRILATERAL COMMISSION} (1991); Jeremiah Project, http://www.jeremiahproject.com/newworldorder/nworder07.html (last visited June 12, 2010).

\textsuperscript{58} \textit{Compare} the World Health Organization, World Trade Organization, International Monetary Fund, World Bank, and the secretariat of the North American Free Trade Agreement, with the Bank for International Settlements, \textit{see} http://www.bis.org (last visited June 12, 2010), and the International Council for Exploration of the Sea, \textit{see} http://www.ices.dk/indexfla.asp (last visited June 12, 2010).

\textsuperscript{59} \textit{See} Group of Twenty, http://www.g20.org/index.aspx (last visited June 12, 2010).}
organizations populated by heads of state or even finance ministers to enjoy relatively greater visibility. More absurd, recalling the first year of the Obama presidency, one might imagine that those organizations whose summits are attended by Michelle Obama would enjoy greater visibility as well. Even "participation" broadly defined, the latter examples suggest, may impact visibility and hence salience.

Singularity (or uniqueness) may also be important. An institution may be more salient to market participants if it is distinct or unique. The pronouncements of Alan Greenspan or Ben Bernanke may have influence as much because of the distinct position they hold, as because of any sense of their expertise or authority over relevant policy. Likewise, even on matters beyond his authority, policy assertions of the U.S. president may enjoy a salience not possessed by members of Congress, given the more singular nature of his constitutional position. As to financial crises, one might consider the relative singularity of international versus national (and hence multiple) institutions. In selecting among alternative international institutions, meanwhile, one might imagine that the ability of the various "Group" organizations, including the G-7, G-8, G-20, and G-77, to shape salience would be limited by their multiplicity.

A final potential determinant of institutional salience might be a given institution's authority—though not necessarily the formal authority to dictate policy in the particular setting of interest. While surely important, the authority to dictate policy speaks to a distinct dynamic than the one of coordination that stands at the heart of financial crises. As to the latter, the operative question is not coercive authority of the formal sort but the perceived authority of a given institution, and its resulting capacity to coordinate expectations. In the present setting,

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62. See Ginsburg & McAdams, supra note 54, at 1265.


64. See Gregory Shaffer, Transnational Legal Process and State Transformations: Change, Resistance and Recursivity 41 (unpublished manuscript, on file with author) ("[T]he power of
authority is not an end unto itself, but the means to desired ends.

One dimension of such authority is relevant expertise. In assessing the comparative efficacy of distinct institutions in shaping the salience of alternative equilibria, perceived knowledge and expertise are likely to play an important role. A familiar, visible, and unique institution with little claim of expertise as to the question presented might not be expected to enjoy significant focal point power. Take, for example, Alan Greenspan’s position on the choice between Blu-ray and HD DVD standards. Even before his fall from grace, his views on the latter seem unlikely to exhibit meaningful salience, regardless of how visible or unique he was. Few choosing between the competing standards would expect his inexpert views to impact others’ choice of standard. By contrast, his assessment of the likely inflationary or stimulus effects of the Bush Administration’s proposed tax cuts would be widely expected to impact others’ choices.

To be sure, expertise need not always be present. As Schelling famously described, a bystander with no formal authority might assume significant power to direct traffic in a gridlocked intersection, if the traffic lights should fail and no other, more official means of coordination presents itself. The relevant pedestrian may not have any particular expertise in civil engineering or traffic management. Nonetheless, the unique nature of her signals—and perhaps their visibility—might suffice to render them salient. This suggests the potential for some hydraulic dimension in the determination of salience. Even in the absence of other indicators, a significant degree of singularity may suffice; conversely, distinct expertise and resulting authority may enable observers to effectively distinguish among non-unique institutions or actors.

The impact of authority on salience may also depend on questions of legitimacy. Institutions with greater legitimacy may be more capable of shaping the expectations of market participants as between competing coordination points. Such legitimacy begins with political legitimacy of the familiar sort. Here, the question is whether certain substantive or

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65. See SCHRINDL, supra note 7, at 63.
67. See RODNEY BARKER, POLITICAL LEGITIMACY AND THE STATE 11 (1990) (“[L]egitimacy is precisely the belief in the rightfulness of a state, in its authority to issue commands, so that those commands are obeyed not simply out of fear or self-interest, but because they are believed in some sense to have moral authority, because subjects believe that they ought to obey.”), quoted in Edward Rubin,
procedural characteristics legitimatize an institution’s pronouncements on a particular question of coordination. More broadly, one might think of legitimacy in multiple equilibrium settings as incorporating dimensions of longevity, an established record of engagement or efficacy as to a given issue, and a capacity for prompt intervention.68

Yet the limits of legitimacy as a determinant of salience should be recognized. Again, Schelling’s example of the pedestrian in the intersection is instructive. The pedestrian’s directives are quite salient to the trapped drivers, notwithstanding her clear lack of legitimacy.69 Stating the point more broadly, legitimacy is not essential to determining the focal power of regulatory institutions, by contrast with other, more conventional expressions of regulatory power.70 Thus, the regulatory dynamic at work in multiple equilibrium settings—the nature of any intervention designed to facilitate efficient coordination, whether in addressing financial crises, facilitating standard-setting, or encouraging innovation71—is not defined primarily by legitimacy or authority. While legitimacy may impact salience, a lack of legitimacy is not determinative of it. Even a purely private actor—like the pedestrian in the jammed intersection—may have significant focal power.72

Finally, it bears noting that relevant authority for the purpose of shaping the salience of alternative institutions might well arise outside the policy arena of interest. An entity with broad authority over policy in financial market regulation, for example, might be able to leverage that authority in facilitating coordination in anti-corruption efforts or in the curtailment of terrorism financing. Here, any claim of expertise or legitimacy is weak, but the relevant institution’s authority may nonetheless generate meaningful salience.

III. SALIENCE, COORDINATION, AND THE ROLE OF NETWORKS IN FINANCIAL CRISSES

This Article has argued that an effective regulatory approach to preventing and alleviating financial crises—as distinct from economic

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68. Expertise might likewise be expected to impact perceived legitimacy.

69. One might go further: even if the relevant volunteer was not a pedestrian, but a passenger in one of the cars stuck in the intersection—and hence quite self-interested in her directives—she might play no less a coordinative role.

70. See Ahdieh, supra note 2 (suggesting potential for private actors to serve regulatory coordination functions).

71. See id.

72. See supra notes 69–70 and accompanying text.
difficulties and challenges more generally—must recognize the multiple equilibrium dynamic at the heart of the financial markets. The central goal of regulatory interventions directed to financial crises must be to increase or maintain the salience of a high-level equilibrium of lending, investment, and spending, and thereby to coordinate expectations around it. The ability of particular regulatory institutions to do so depends on four characteristics: their familiarity, their visibility, their singularity, and their authority (including as manifest in their expertise and legitimacy).

What implications might be derived from this framework, as to the regulatory architecture directed to financial crises? As suggested supra, a number of critical institutional design questions have arisen over the last few years, including the choice between international and national institutions, the use of existing institutions versus the establishment of new ones, and the role of regulatory networks versus more formal institutions in responding to financial crises.

Focusing on the role of networks in financial crises, this Part explores the implications of a salience analysis for the overall choice of institutional form and for particular facets of institutional design. After highlighting the great expectations of regulatory networks among scholars and policymakers in recent years and their disappointingly limited role in the recent financial crisis, thus, it draws on the determinants of salience outlined supra to analyze the recently “re-established” Financial Stability Board.

A. Expectation and Reality in the Role of Regulatory Networks

In recent years, transnational regulatory networks have been the subject of growing interest among legal scholars. Inspired by the seminal work of Anne-Marie Slaughter, Janet Levit, Kal Raustiala, Charles Whitehead, David Zaring, and others have explored the development, nature, and role of such networks, including the Financial Action Task Force, the International Competition Network, the International Organization of Securities Commissions, and the International Network for Environmental Compliance and Enforcement. Financial regulatory networks have figured prominently in the literature, meanwhile, including the Basel Committee on Banking

73. See, e.g., ANNE MARIE SLAUGHTER, A NEW WORLD ORDER (2004).
Supervision and the Financial Stability Forum.\textsuperscript{75}

In much of the literature, transnational regulatory networks have been cast as arising from the increasingly disaggregated character of the modern nation-state.\textsuperscript{76} In the face of forces pushing authority both downward, to sub-national entities, and upward, to transnational entities—as well as increasing pressures toward specialization—networks emerge as something of a middle ground, preserving national-level authority, but in a distinct form.

That form revolves particularly around the expert status of relevant participants. Drawing on the study of so-called “epistemic communities,” the transnational network literature sees regulatory networks as comprised of expert, agency-level representatives from participating states.\textsuperscript{77} Such officials ultimately emerge as a kind of community, however, rather than as mere representatives. Commitments come to run to the network itself, given participants’ recurrent engagement with one another over issues of shared expertise.\textsuperscript{78} That being said, networks remain consultative in nature, developing standards, norms, and guidelines to be carried back to participating state authorities for approval or rejection. The network itself lacks authority to bind.\textsuperscript{79}

Beyond these dimensions of their positive character, the normative enthusiasm surrounding transnational regulatory networks also deserves mention. Networks have been the subject of exceedingly great expectations. Perhaps most prominently, Anne-Marie Slaughter has cast them as a solution to the perennial dilemma of how to reconcile the need for transnational solutions to a growing array of social and economic challenges, and the countervailing tug of sovereignty and attendant concerns of legitimacy.\textsuperscript{80} More precisely, Slaughter highlights a critical “tri-lemma” to which networks offer a solution: (1) the need for global rules; (2) the problems of centralized power; and (3) the need for


\textsuperscript{76} See Slaughter, supra note 73, at 12.


\textsuperscript{80} See Slaughter, supra note 73, at 10–11, 24.
mechanisms of political accountability for regulatory actors. 81

Notwithstanding both these great expectations and the particular emphasis on financial regulation in the study of transnational regulatory networks, financial networks played a relatively limited role in the recent financial crisis. 82 They did not prevent the crisis, of course, whether through intervention or even mere warning. Nor did they play any significant role in ending, or even minimizing, the crisis once it was underway. Even entities seemingly tailor-made to serve relevant functions, including the Financial Stability Forum and the Basel Committee on Banking Supervision, were largely absent. How can this anomaly be explained? At least in part, because of the constraints of institutional salience outlined supra.

Even to those in relevant fields, transnational regulatory networks are relatively unfamiliar. By dint of their bureaucratic membership, lack of fixed meeting schedule, and the like, meanwhile, they lack visibility. They lack singularity and uniqueness, in turn, at least because of the multiplicity of relevant networks. A certain lack of singularity can also be seen in networks' representative/participatory nature and in the fact that they do not generate binding policies for the relevant group. Rather, each national representative exhibits the quality of a free agent within the network structure. Finally, for the same reason, networks are non-authoritative. Their diminished legitimacy, by comparison with more formal institutions, may further reduce their authority, especially given the distributional consequences of relevant policy choices amidst financial crises. 83 Only with regard to the dimension of expertise might networks be expected to possess significant salience, as compared to other entities, including international institutions with more general mandates.

Overall, then, networks may be relatively ill-equipped to shape expectations among alternative market equilibria, in the face of potential and actual financial crises. To more fully appreciate as much, it is worth considering the particular case of the former Financial Stability Forum. To begin, the latter helps clarify the limits of networks generally. With an eye to the transformation of the Financial Stability Forum into the Financial Stability Board in the midst of the recent crisis, it also suggests particular institutional features that may be relevant to the shaping of salience, and ways in which the potential impact of networks might be

81. See id. at 10, 257.
82. See Zaring, supra note 75, at 478; see also Zaring, supra note 15, at 215–16.
83. One might consider, in this vein, of the narrower distributional issues manifest in the decision to bailout Merrill Lynch, but not Lehman Brothers—or of the broader distributional questions attendant to the use of public funds to bailout private entities.
increased in this regard.

B. Financial Stability, from Forum to Board

Established by the G-7 in 1999, the Financial Stability Forum (FSF) was given a fairly broad mandate amidst the increasingly globalized financial markets. It was charged, as such, with three tasks: (1) to assess vulnerabilities affecting the financial system; (2) to identify and oversee action to address such vulnerabilities; and (3) to promote coordination and information exchange among national-level financial regulators.84 In the service of these ends, its membership consisted of representatives of the finance ministries and central banks of each of the G-7 countries, along with a handful of additional participants.85

Notwithstanding the close congruence between this mandate and the prevention and alleviation of financial crises, the FSF played only a minor role in the recent crisis.86 With some eye to this failure, the G-20 initiated a substantial reform of the FSF in November 2008. To begin, it expanded its membership to include the rest of the G-20, as well as representatives of Spain and the European Commission.87 Five months later, the G-20 went a step further, “re-establishing” the FSF as the Financial Stability Board (FSB).88

Besides its expanded membership and new appellation, the new board was placed on what the G-20 termed “strengthened institutional foundations.”89 In particular, a Secretary-General was appointed to preside over the new board and an expanded secretariat.90 A fixed schedule of meetings was set out, along with explicit mandates as to the required seniority of national representatives to the FSB.91 Finally, a steering committee was established, to continue the work of the FSB

86. See Zaring, supra note 75, at 478.
89. See FSF Decides to Broaden Its Membership, supra note 87.
90. See FSF Re-established as the FSB, supra note 88.
91. See id.
between its plenary sessions, along with a series of standing committees and ad hoc working groups.  

The substantive mandate of the FSB was likewise enhanced. Beyond the aforementioned obligations of the FSF, the FSB was also made responsible for monitoring and advising on market developments, suggesting best practices for meeting regulatory standards, undertaking strategic reviews of the policy development work of international standard-setting bodies, and setting guidelines for the establishment of supervisory colleges for systemically significant financial institutions. The FSB thus emerged from the crisis a more structured, prominent, and authoritative organization.

C. Salience and the Financial Stability Board

In the transition from the FSF to the FSB, one might see some indicia of enhanced salience and hence an increased ability to serve the coordination functions necessary for financial stability. Many of the institutional design changes enumerated in the preceding section can thus be understood—or at least evaluated—through the framework of salience proposed herein. Minimally, those changes help to elucidate the determinants of salience outlined supra.

Consider, to begin, questions of familiarity. Notwithstanding a dramatically altered membership, an enhanced administrative structure, increased institutional continuity, and a broadened mandate, the name of the Financial Stability Forum was only altered in the most minor of ways. Equally striking was the consistent emphasis of the G-20 on the “re-establishment” of the FSB. Incoherent as it is, the latter implies a certain familiarity. The importance of such familiarity might also be seen in the G-20’s prescription of mandatory FSB consultations with non-members. Even with its already expanded membership, such consultations might be expected to play an important role in enhancing familiarity with the FSB.

The latter point might likewise be tied to the visibility of the FSB. Other dimensions of the transition from the Forum to the Board, however, are even clearer in this regard. Most explicitly, there is the strong emphasis in the FSB’s charter documents on the need to play a more prominent role in the financial community and in regulatory policymaking. It is thus tasked to engage in “stronger public relations

92. See id.
93. See id.
94. See id.
95. See FSB Mandate, supra note 84.
outreach to raise the visibility of its work and its role in the international financial system."96 The imposition of a regular meeting schedule, including mandated time frames for plenary sessions and regular steering committee meetings, might also be understood in this regard.97 Most important, however, may be the strong linkage of the work product of the FSB to the efforts of more prominent international institutions, including the IMF.

By the terms of its charter, thus, the periodic reports of the FSB are to be released in conjunction with the annual meetings of the IMF and the World Bank.98 Substantively, among the most significant new responsibilities given to the FSB—the conduct of so-called "Early Warning Exercises"—is to be undertaken in partnership with the IMF.99 As described in the G-20’s charge to the FSB, such exercises are meant to "strengthen assessments of systemic, low probability-high impact risks to the global outlook" and to "identify policy options to mitigate them."100 They are to be conducted semi-annually, and presented at the annual meetings of the IMF and World Bank—further highlighting the dimension of visibility.101 Even the mere conduct of such far-reaching assessments in conjunction with the IMF, however, might be expected to increase the visibility of the FSB and its regulatory role.

Questions of singularity and uniqueness present a more complex picture, in terms of the impact of the transition to the FSB on institutional salience. Consider the increased membership of the FSB. At one level, as suggested with reference to networks generally, increased size and a more diverse membership might be expected to diminish the FSB’s capacity to signal the necessary level of singularity. On the other hand, an expanded FSB membership might be cast as a distinct source of singularity and uniqueness. Thus, one might imagine the FSB holding itself out as distinctive—even unique—in the comprehensive (yet perhaps still manageable) scope of its membership. The more limited the membership of a given network, stating the point differently, the more plausible it is to imagine a distinct group of nation-states coalescing around their own network and engaging the same issue. Hence the diminished singularity of almost any "Group" institution, be it the G-7 or the G-77. Almost by definition, the latter framing signals a

96. See FSF Re-established as the FSB, supra note 88.
97. See id.
99. See id.
101. See id.
lack of uniqueness, by comparison with other potential institutional structures. 102

One might also see certain of the FSB’s institutional design changes as modulating any negative impact of increased membership on the FSB’s singularity/uniqueness. Both the appointment of a secretary-general authorized to speak for the FSB and the creation of a narrower steering committee for the organization might be understood in this regard. With each reform, the costs of increased membership—in terms of singularity—are diminished.

The shift from the FSF to the FSB might likewise be seen as increasing the salience of the organization, in terms of relevant authority. This begins with the expanded mandate of the FSB. Generally, such increased authority might be expected to enhance the salience of the efforts of the FSB. That said, one might also see some downside to increased authority, given its potential to diminish the FSB’s focus. Its authority, as broadly defined supra, might thus be reduced—insofar as the organization’s targeted mandate to maintain financial stability is diluted by other responsibilities. Its distinct expertise, putting the point differently, might be undermined by a broader mandate.

Finally, two other reforms might also be highlighted, with regard to the authority of the FSB and the resulting salience of its efforts to prevent and alleviate financial crises. To begin, the adoption of a formal charter could be seen to offer enhanced legitimacy to the organization and perhaps an appearance of authority more generally. 103 The mandate for “balanced representation” on the FSB’s steering committee might also be cited in this regard. 104 Such balanced representation might fairly be seen to enhance the legitimacy of the FSB, to impact thereby its perceived authority, and consequently to increase its salience in responding to potential and actual financial crises.

CONCLUSION

In designing regulatory institutions to respond to—and perhaps even to prevent—financial crises, many factors are likely relevant. An underappreciated one, to date, has been the comparative ability of one institutional framework versus another to shape the expectations of

102. The point becomes clearer when one recalls that there are actually several G-20’s—one comprised of major industrialized states and large developing countries and the other exclusively of developing countries.

103. See FSB Charter, supra note 98.

104. See id.
market participants. In preventing the onset of a financial crisis and triggering a quick exit once one is upon us, this task of shaping expectations is critical. Hence the emphasis on salience herein, and on the need to determine the capacity of distinct institutions—international versus national, new versus established, and network versus organization—to play this role.

It is not the claim herein that salience—or even the shaping of expectations—is all that matters in addressing financial crises, or even in designing institutions to do so. It is critical, however. Alleviation of the persistent inattention to which it has been subject is consequently useful. While it may not offer an answer to the perennial challenge of financial crises, it will help to move us in the right direction.