

# **The Sentinel:**

## **Improving the Governance of Financial Policies**

Ross Levine\*

Brown University and the NBER

September 30, 2009

Abstract:

Financial regulators and politicians unsuccessfully maintained the safety and soundness of the U.S. financial system not only because they lacked the proper tools but also because they lacked the proper incentives. While filling regulatory gaps and improving supervisory tools are worthwhile reforms, they do not address the core governance failure – the unwillingness, or inability, of the policy apparatus to adapt to a dynamic, innovating financial system and act in the best interests of the public. I propose an auxiliary institution to act as a sentinel on behalf of the public in evaluating the design, interpretation, and implementation of financial regulations.

\* James and Merry Tisch Professor of Economics and Director of the Rhodes Center for International Economics and Finance. Email: [Ross.Levine@brown.edu](mailto:Ross.Levine@brown.edu). I thank James Barth, Maria Carkovic, Gerard Caprio, Stephen Haber, Ed Kane, Lindsay Mollineaux, and Yona Rubinstein for materially improving my understanding of the governance of financial regulation. The result, however, is my responsibility alone.

*A dependence on the people is, no doubt, the primary control on the government;  
but experience has taught mankind the necessity of auxiliary precautions.*

James Madison, Federalist 51, 1788

## **Introduction**

According to the precepts of a representative democracy, the people elect representatives who both enact financial regulations and select financial regulators, who interpret and apply the regulations. If regulators perform poorly, elected representatives replace them. If elected representatives enact harmful policies or select unsuitable regulators, the public elects new ones. According to these principles, oversight by the people motivates elected officials and regulators to act on behalf of the public, not on behalf of narrow, albeit powerful, special interests.

Experience, however, plainly shows the practical limitations of achieving these democratic ideals, especially as regards to the governance of financial regulation. First and foremost, it is exceptionally difficult for the public to obtain, process, and evaluate information on the enactment, implementation, and effects of financial regulations. Second, financial institutions may directly pressure and lobby elected officials and regulators, breaking the line of influence running from the public through elected representatives to the execution of financial policies. In particular, the financial sector is the largest contributor to political campaigns and many senior financial regulators use the revolving door by moving from the financial sector into public office and then returning to private financial institutions. Third, a major financial regulatory institution -- the Federal Reserve -- is largely independent of the government and hence partially removed from public oversight. While there are good reasons for having highly-skilled individuals with private sector expertise regulate the financial sector and for creating an independent central bank, there are similarly good reasons for supplementing the public's ability

to accurately evaluate and effectively shape the design and implementation of financial sector policies.

Although James Madison viewed people as the primarily sentinel over the government, he recognized that history demonstrates the need for “auxiliary precautions” due to the realities of human nature: Since humans are not angels, they sometimes use the coercive power of their official positions to achieve private objectives that do not necessarily coincide with the goals of the public. Thus, Madison argued that, “ambition must be made to counteract ambition,” so that contending institutions scrutinize and compete with each other (Montesquieu, 1748). These tensions and rivalries not only limit the concentration and abuse of power; they also enhance the proper design and implementation of policies.

There has been too little public debate about designing auxiliary methods for improving the governance of financial regulation. We rely almost exclusively on the public’s ability to evaluate the efficacy of complex financial regulations and then compel their elected representatives to induce regulators to act in the public’s best interests. While this must remain the primary method for governing financial regulation, experience, including the current crisis, demonstrates the desirability of creating complementary mechanisms for enhancing the governance of financial regulation, which includes the design, interpretation, and implementation of financial regulations in a timely manner.

### **Governance failures contributed to the crisis**

The negligent implementation of financial sector policies by financial regulators and their political overseers contributed to the collapse of the financial system. Yes, there were regulatory gaps. Yes, some financial regulations were poorly designed. Yes, the insatiable greed of financiers played a role. But, the crisis, and in particular most certainly its severity, was not an

inexorable event. Prudent, reasonable observers could have – and did – recognize that perverse incentives, partially created by official policies, had undermined sound financial intermediation. Yet, financial regulators and politicians failed grossly in the basic execution of their responsibilities. The financial regulatory governance system as currently structured failed to act in the public interest not only because regulators lacked the proper tools but also because they lacked the proper incentives.

For brevity, consider two examples: (1) the regulation of credit default swaps and bank regulatory capital and (2) the creation and operation of SEC-approved credit rating agencies. There are many more examples that would illustrate how financial regulators, with frequent help from their political overseers, did not act in the public interest, including housing financing policies associated with Fannie Mae, Freddie Mac, the Federal Housing Administration, and the Federal Reserve (Wallison and Calomiris, 2009), recent evidence from the Federal Deposit Insurance Company's Inspector General material loss reports and the Federal Reserve's Inspector general investigations that bank regulators were frequently fooled by the short-term profits of banks and avoided confronting banks with troubling risk profiles, the SEC's blundering in dealing with and examining Madoff, and many more. I do not argue that the two examples used here are the most important regulatory failures. Rather, I use them to motivate the need for a substantive rethinking of the governance of financial regulation.

### **An example of governance failure: Credit default swaps and bank capital**

Credit default swaps (CDSs) were invented to provide banks with a mechanism to reduce their credit risk exposure and to free up regulatory capital for other investments. A CDS is essentially a bilateral insurance contract written on the performance of a security or bundle of securities. For example, purchaser A buys a CDS from issuer B on security C. If security C has a

predefined “credit related event,” such as missing an interest payment, receiving a credit downgrade, or filing for bankruptcy, then issuer B pays purchaser A. However, CDSs were carefully crafted so that they are not formally treated as insurance contracts, which would expose them to much greater regulation; rather, they were designed as financial derivatives so that they could be transacted in less regulated, over-the-counter markets. By 2007, the CDS market had a notional value of about \$62 trillion according to Barth et al (2009).

Some of the largest banks relied heavily on CDSs to hedge themselves against losses on securities and to reduce regulatory capital. Regulators treated securities guaranteed by a seller of CDSs as having the risk level of the seller of the CDS. For example, a bank purchasing full CDS protection from American International Group (AIG) on collateralized debt obligations (CDOs) linked to sub-prime loans would have those CDOs treated as AAA securities for capital regulatory purposes because AIG had received an AAA rating from a Nationally Recognized Statistical Rating Organization, i.e., from a government-approved credit rating agency. Thus, banks purchased CDSs, so that they could free up capital reserves to invest in more lucrative assets.

Much has also been written about the supposed inability of regulators to even monitor CDSs due to the Commodity Futures Modernization Act of 2000. Through 2008, virtually all CDS transactions were done over-the-counter, so there was no centralized clearing house or exchange to collect basic information about the CDS market. With the passage of the 2000 Modernization Act, the Securities and Exchange Commission (SEC) was granted authority over CDSs. The SEC argued that the Act impeded them from collecting information about the CDS market and requiring disclosures regarding the credit default positions of financial institutions.

Yet, once the crisis hit, the NY Federal Reserve Bank successfully called for market participants to submit a cleared facility solution for CDS contracts before the end of 2008. Four major contenders are competing to become leaders in clearing CDS. The rapid response to the Federal Reserve's call for clearing houses and exchanges for CDSs occurred without the repeal of the Commodity Futures Modernization Act, suggesting that the constraints felt by the SEC in terms of collecting information on the CDS markets had more to do with the will to act, rather than its legal ability.

More importantly, bank regulators, such as the Federal Reserve, were not compelled to allow banks to avoid setting aside reserves to cover potential losses when banks purchased CDSs: This was a choice. For instance, see Interpretive Letter #988 of April 2004, which was jointly issued from the Board of Governors of the Federal Reserve System and the Office of the Comptroller of the Currency. It was no secret to the Federal Reserve and other regulators that several large banks were using CDSs to reduce regulatory capital and it was no secret that AIG was a large seller of CDSs to financial institutions around the world. The regulatory apparatus chose to allow this.

Regulators could have made a different choice based on the following assessment: (1) Federal Reserve does not have a sound method for assessing the true counterparty risk associated with those selling CDSs to banks; and, the Federal Reserve is unsure whether the credit rating agencies have the incentives and ability to assess the risk of financial institutions selling CDSs to banks; (2) The largest banks are heavily using these CDS to reduce capital requirements; (3) The Federal Reserve responsibility is to maintain the safety and soundness of banks, which relies on banks having capital commensurate with their risk; (4) Therefore, the Federal Reserve will prohibit banks from reducing regulatory capital by purchasing CDSs until it can accurately

assess the counterparty risk of those selling CDSs to the banks. This very simple, prudent assessment would have materially changed one factor fueling the increase in bank risk taking. This choice would have hurt the short-run profits of banks, and banks would have ferociously lobbied against such a decision. Nevertheless, bank regulators had the discretionary power to limit the ability of banks to use credit derivatives to reduce their capital cushions.

The Federal Reserve and other bank regulators made the choice to allow banks to reduce capital through the use of CDSs even though they knew of the growing problems in the CDS market, the growing counterparty risk facing banks, and the lax mortgage standards underlying the deteriorating state of the U.S. financial system. For instance, Tett (2009, p. 157-163) recounts how Timothy Geithner, then President of the New York Federal Reserve Bank, became exceedingly concerned in 2004 about the lack of information on CDSs and the growing counterparty risk facing banks. In an exhaustive study, Barth et al (2009, p. 184-193) demonstrate through the use of internal documents that the Federal Reserve was aware of the myriad of problems surrounding mortgage financing for many year before the bubble burst.

As argued by Barth et al (2009, p. 184):

*... even if the top officials from these regulatory agencies did not appreciate or wish to act earlier on the information they had, their subordinates apparently fully understood and appreciated the growing magnitude of the problem.*

### **Another example of governance failure: Credit rating agencies**

The major incentive problems that plague credit rating agencies have been well-understood for over two decades and carefully documented by a range of scholars, including Partnoy (1999). Yet, over these decades, credit rating agencies grew to play an increasingly pivotal role in the global financial system, spurred by the support, if not blessing, of financial

regulators. This official support included both the active sponsorship of credit rating agencies by the SEC and the passive acquiescence by financial regulators as the quality of ratings deteriorated and rating agency incentives become dangerously distorted.

In the 1970s, credit rating agencies experienced two huge interrelated changes. First, the SEC created the Nationally Recognized Statistical Rating Organization (NRSRO) designation, which the SEC granted to the largest credit rating agencies. The SEC then relied on these SEC-approved agencies to calculate the credit risk of numerous entities, including the broker-dealers regulated by the SEC. The SEC set capital regulations based on the risk assessments of the NRSROs.

The creation of and reliance on NRSROs triggered a cascade of regulatory decisions that dramatically increased the demand for the services provided by these SEC-approved agencies. The SEC, bank regulators, insurance regulators, other Federal agencies, states, municipalities, regulatory agencies in other countries, foundations, and numerous private entities all started using NRSRO ratings to establish investing rules and set capital regulations on virtually all financial institutions. For example, the SEC and bank regulators used the ratings of NRSROs to evaluate the risk of financial institutions and establish their capital requirements. Federal agencies used the risk designations of the NRSROs to define the types of securities various organizations, including government sponsored entities (GSEs) like Fannie Mae and Freddie Mac, could purchase and how much capital needed to be held in reserve against particular assets. The investment opportunities, capital requirements, and hence the profits of insurance companies, mutual funds, pension funds and a dizzying array of other participants in financial markets were materially shaped by how NRSROs rated securities.



Indeed, Partnoy (1999) argues that NRSROs sell regulatory licenses. If an issuer wants the major financial institutions -- commercial banks, broker-dealers, insurance companies, pension funds, etc. -- to have the regulatory latitude to purchase its securities, the issuer must obtain a particular rating from the NRSRO. As long as the financial regulatory authorities defined asset allocation restrictions and regulatory capital using NRSRO ratings, there was an enormous demand for NRSRO services. This demand was not always sensitive to the actual quality of the rating agencies.

Second, in the 1970s, credit rating agencies started selling their ratings to the issuers of securities despite the clear conflicts of interest. Issuers also have an interest in paying rating agencies more for higher ratings since those ratings influence the price that issuers can obtain for the security.

While recognizing the conflicts of interest, credit rating agencies have argued that reputational capital reduces the pernicious effects of these conflicts. If a rating agency does not provide sound, objective assessments, it will lose reputation and investors will no longer use ratings from that agency in making asset allocation decisions. This will reduce demand for all securities rated by that agency, so that all issuers using that rating agency will face lower prices for their securities. From this perspective, reputational capital is vital for the long-run profitability of credit rating agencies and will therefore contain any short-run conflicts of interest associated with “selling” a superior rating on any particular security.

From this perspective, reputational capital will reduce the short-run temptations created by conflicts of interest if the following two, related conditions hold: (1) decision makers at rating agencies have a long-run profit horizon, and (2) demand for securities responds appropriately to

poor rating agency performance, so that decision makers at rating agencies are punished if they “sell” bloated ratings on even a few securities.

These conditions did not hold, however, suggesting that reputational concerns provided exceedingly weak constraints on the conflicts of interest distorting rating agency behavior. First, especially with the explosion in the rating of structured products and the ability of rating agencies to sell ancillary consulting services, rating agencies could book massive profits in the short-run and worry about reputation losses later, if at all. Besides purchasing ratings, issuers of securities would also pay the rating agency for pre-rating evaluations, corporate consultations, and guidance on how to package securities. Thus, financial innovations -- the boom in the issuance of structured products and the increased provision of consulting services by the NRSROs to issuers -- intensified the conflicts of interest facing rating agencies, but the regulatory community did not adapt. Distressingly, the intensification of conflicts of interest through the selling of consulting services by rating agencies closely resembles the amplification of conflicts of interest when accounting firms increased their sales of consulting services to the firms they were auditing. This facilitated the corporate scandals that emerged less than a decade ago, motivating the Sarbanes-Oxley Act of 2002. Yet, still, regulators did not respond as rating agencies pursued these increasingly profitable lines of business.

Moreover, official regulations actually weakened the degree to which reputational concerns would constraint rating agencies; that is, regulators effectively weakened the feedback from poor rating performance to a drop in NRSRO revenues. Many purchasers of securities were forced -- by regulation -- to purchase only securities rated at a particular level by an NRSRO. This regulatory requirement held regardless of NRSRO performance, moderating the degree to which poor ratings performance reduced demand for NRSRO ratings and hence reducing the

impact of ratings quality on an agency's bottom-line. The feedback from rating agency performance to their bottom-line has been further weakened by the inability of purchasers of ratings to sue rating agencies in general and the executives of these agencies in particular. Rating agencies claim that their ratings are simply opinions, which are protected by the Fifth Amendment right of free speech. The agencies and executives claim that they bear no responsibility of the quality of those ratings. Thus, rating agencies face little market discipline, no regulatory oversight, and yet virtually all major issuers of securities in world must purchase their ratings and virtually all major purchasers of securities in the world face regulatory constraints on what they can purchase based on these ratings. It is good to be an NRSRO.

Given the regulatory-induced incentives and regulatory-created protections enjoyed by NRSROs, their behavior and profitability are unsurprising. Lowenstein's (2008) excellent description of the rating of a mortgage backed security by Moody's demonstrates the speed with which complex products had to be rated, the poor assumptions on which these ratings were based, and the profits generated by rating structured products. Other information indicates that if the rating agencies issued a lower rating than Countrywide (a major purchaser of NRSRO ratings) wanted, a few phone calls would get this changed (Morgenson, 2008). The profits margins enjoyed by NRSROs were extraordinary. For example, the operating margin at Moody's between 2000 and 2007 averaged 53 percent. This compares to operating margins of 36 and 30 percent at the exceptionally profitable Microsoft and Google, or 17 percent at Exxon. It is true that the performance of the rating agencies played a central role in the crisis. But, it is also true that the financial regulators established the privileged position of rating agencies and protected them from the discipline of the market.

## **Dynamic financial innovation and sluggish financial regulation**

Another failure of financial regulatory governance structure involves the fatal inconsistency between a dynamic financial sector and a sluggish regulatory system. Financial innovations, such as securitization, collateralized debt obligations, and credit default swaps, could have had primarily positive effects on the lives of most citizens. Yet, the inability, or unwillingness, of the apparatus overseeing financial regulation to adapt to changing conditions allowed these financial innovations to become malignant tools of financial destruction. A more publicly responsible -- and responsive and accountable-- regulatory system could have captured the benefits, while avoiding the pain, associated with these new financial tools.

Financial innovation is crucial – perhaps indispensable – for sustained economic growth. As discussed in and Michalopoulos, Laeven, and Levine (2009), financial innovations have been essential for permitting improvements in economic activity for several millennia. Whether it was (i) the design of new debt contracts six thousand years ago that boosted trade, specialization, and hence innovation, (ii) the creation of investment banks, new accounting systems, and novel financial instruments in the 19<sup>th</sup> century to lower the barriers to ease the financing of railroads, (iii) or the development and modification of venture capital firms to fund the development of new information technologies and innovative biotechnology initiatives, financial innovation has been a critical component of fostering entrepreneurship, invention, and improvements in living standards.

While perhaps natural in the current climate, I believe it would be counterproductive to caricature and dismiss the historical evidence on financial innovation as either (i) an idealized view of financial innovation, or (ii) as a banal truism. The evidence does not imply that financial innovation is unambiguously positive. Financial innovations are frequently implemented simply

to avoid regulations, and they played roles in triggering our current suffering. At the same time, the evidence implies more than the trivial axiom that financial innovation is not always bad. Existing research suggests that financial innovation is an indispensable ingredient in fostering economic growth and expanding economic opportunities, and this should be incorporated into our rethinking of the governance of financial regulations.

These observations advertise two desirable characteristics of a system for governing financial regulations: (1) the financial regulatory regime should not focus exclusively on stability since financial development and innovation matter for the well-being of the population; and (2) the regulatory regime must adapt to financial innovation, or well-reasoned, well-structured regulations will become obsolete and potentially detrimental to economic prosperity.

### **Need to reform the governance of financial regulation**

The conclusion – that governance, not simply specific regulations, contributed to the crisis – has major implications for reforming financial regulation. The Obama Administration outlined a comprehensive package of reforms to reduce regulatory gaps, develop better crisis management tools, and consolidate the regulation of all systemically important institutions in the Federal Reserve. Yet, if technical glitches and regulatory gaps played only a partial role in fostering the crisis, then the Administration’s package of reforms represent only a partial and thus incomplete step in establishing a stable financial system that promotes economic growth and expands economic opportunities. This is not an argument against Obama’s proposed reforms. It is an argument for “auxiliary precautions” to improve the governance of financial regulation.

### **The Sentinel**

I propose the creation of a sentinel -- an auxiliary institution -- for improving the design, reform, and implementation of financial regulations in a more dynamic manner, including

regulations associated with the corporate governance of financial institutions, could materially improve the governance of financial regulations. To be clear, I am addressing the problem of regulatory governance and avoiding other key questions, such as (i) which are the right regulations for achieving desirable outcomes, such as stability, growth, and innovation, (ii) what are the right trade-offs among these potentially competing outcomes, and (iii) how should uncertainty concerning the actual effects of particular regulations influence policy decisions? I address some of these questions in Barth, Caprio, and Levine (2006). Rather, this paper proposes a mechanism for improving regulatory governance: the system for selecting, interpreting, and implementing regulations.

The only power of the FRC would be to acquire any information that it deems necessary for evaluating the state of financial regulation over time, including the rules associated with the corporate governance of financial institutions. Any information collected by the FRC would be made publicly available, potentially with some delay. Transparency is necessary; thus, the law establishing the FRC must clearly and unambiguously assert that the FRC should be granted immediate and unencumbered access to any information it deems appropriate from any and all regulatory authorities and financial institutions. FRC demands for information should trump the desires of regulatory agencies for discretion, secrecy, and confidentiality. Besides allowing the FRC to assess the state of financial regulation, transparency will enhance market oversight of financial institutions and regulatory bodies. While many have expressed concerns that transparency will destabilize markets, there is more evidence that concealing information in the name of confidentiality hinders the efficiency of financial intermediation, the effectiveness of financial regulation, and the stability of financial systems. Experience suggests erring on the side of transparency. This “sunshine” regulatory approach has a long and promising history in the

United States as discussed in McCraw's (1984) impressive book. This approach is also fully consistent with the checks and balances deeply ingrained in the fabric of U.S. political institutions. In other words, the basic purpose and power of the FRC are quite conventional, not radical.

The only responsibility of the FRC would be to deliver an annual report to Congress and the President assessing the current and long-run impact of financial regulatory and supervisory rules and practices on the public. By having no official power over either the regulatory agencies or financial markets and institutions, the FRC would be less constrained in its assessments than an entity with operational responsibilities. While regulators might avoid taking various actions against financial institutions it regulates since that might imply a failure of regulation, the FRC would face fewer hindrances. While one regulator might avoid criticizing another regulator's actions to avoid cross-regulatory conflicts, the FRC would be less reticent. While existing regulatory agencies have internal auditing departments, the FRC would play a different role. These auditing departments perform an important role in assuring that the particular regulatory agencies adhere to their particular rules. Instead the FRC would have much broader responsibilities for assessing the impact of the overall constellation of regulatory and supervisory practices on the financial system. No other independent entity has this role, and the absence of such an institution was clearly evident in the design, implementation, and evolution of financial policies during the last decade.

The major design challenge is to create an FRC in which the professional ambitions and personal goals of its staff align with its mission of boosting the degree to which financial regulations reflect the public interest. As argued by James Madison, the goal is set ambition against ambition, so that the private interests of those working in the FRC align with its mission.

Here are a few suggestions toward this end. The most senior members of the FRC would be appointed by the President and confirmed by the Senate for staggered and appropriate long terms. As with the Board of Governors of the Federal Reserve System, the goal is to limit the short-term influence of politics on the evaluations of the FRC. The senior members of the FRC would also be prohibited from receiving compensation from the financial services industry, even after completing their tenure at the FRC. Since exactly those individuals with sufficient expertise to achieve the goals of the FRC would also have lucrative opportunities in the private sector, this could involve such an enormous personal sacrifice that it would severely limit the pool of qualified people available to the FRC. Thus, staffing the FRC with talented, well-motivated individuals will require a different compensation schedule than currently contemplated in public sector jobs. While problematic, a more lucrative compensation plan is necessary for limiting conflicts of interest while attracting excellent people to the FRC. At the same time, the FRC would be a prominent entity. Those working for the FRC could advance a wide-array of professional ambitions and attain considerable prestige and influence after leaving the FRC by accurately assessing financial regulations. The opportunity to improve financial sector policies and achieve these career aspirations would work to attract talented individuals to the FRC.

### **Benefits of the sentinel**

As a sentinel over financial regulations, the FRC would improve the entire apparatus for writing, enacting, adapting, and implementing financial regulations. As an extra group of informed, prying eyes, the FRC would reduce the ability of regulators to obfuscate regulatory actions and would instead make regulators more accountable for the societal repercussions of their actions. As an additional group of experts reviewing and reporting on financial regulations, the FRC would reduce the probability and costliness of regulatory mistakes and supervisory



failures. By boosting transparency, the FRC would increase the number of individuals and entities capable of monitoring the design, implementation, and effects of financial regulations. As a prominent institution, the FRC's reports to Congress would help reduce the influence of special interests on the public's representatives. By continuously reassessing how regulatory and supervisory practices affect the incentives faced by the financial system, the FRC would reduce the chances that financial policies become obsolete or even dangerous. As an entity whose sole objective is to evaluate the state of financial regulation from the perspective of the public, the FRC would help inform the public and thereby augment public influence over financial regulations.

### **Really? Another institution?**

A natural complaint about the FRC proposal is perhaps best expressed as an exasperated question: Given the existing myriad of regulatory agencies, quasi-regulatory bodies, and other oversight entities, do we really need another one?

The crucial answer is that no other existing entity currently has the incentives, power, or capabilities to perform the FRC's role as a public sentinel over the full constellation of financial sector policies. Besides the natural difficulties of having the Federal Reserve, Securities and Exchange Commission, and other agencies conduct self-evaluations, the internal inspector general departments of these agencies do not have the broad mandate to assess how the complex matrix of financial policies across many regulatory bodies shape the incentives of financial market participants. Moreover, the FRC needs (1) the power to demand information from private institutions and regulatory bodies, (2) a staff with expertise in banking, securities markets, corporate finance, regulation, the law, and financial economics that has both an ongoing commitment to evaluating financial policies and the professional stature to confront powerful

private institutions, regulatory bodies, and Congress itself, and (3) an explicit Congressional mandate to evaluate how the full spectrum of financial policies affect the incentives of financial market participants in particular and the economy in general. With these requirements, however, an FRC-type sentinel would fit comfortably within the general designs of the General Accounting Office, which would therefore eliminate the need for completely new institution.

The FRC proposal will not eliminate financial and regulatory malfunctions. But, the FRC fits comfortably within and should help improve upon the successful U.S. institutional template of checks and balances. In this case, rather than checking power with power as advocated by Madison, the potent influences of transparency and independent assessments will boost the likelihood that the design and execution of financial regulations reflect the public interest. The goal is to improve a system that has not been functioning well for far too long using methods that are consistent with the cultural and institutional norms of our country.

## References

- Barth, James R., Gerard Caprio, Jr., and Ross Levine, 2006, *Rethinking Bank Regulation: Till Angels Govern*, New York: Cambridge University Press.
- Barth, James R., Tong Li, Wenling Lu, Tiphon Phumiwasana, and Glenn Yago, 2009, *The Rise and Fall of the U.S. Mortgage and Credit Markets*, Hoboken, NJ: Wiley & Sons, Inc.
- Demirgüç-Kunt, Asli and Ross Levine, 2009, "Finance and Inequality: Theory and Evidence," *Annual Review of Financial Economics*, 1, forthcoming.
- Levine, Ross, 2009, "The Sentinel: An Auxiliary Precaution for Governing Financial Regulation," Brown University mimeo.
- Lowenstein, Roger, 2008, "Triple-A Failure," *New York Times*, April 27.
- Madison, James, 1788, "The Federalist No. 51: The Structure of the Government Must Furnish the Proper Checks and Balances Between the Different Departments," *Independent Journal*, February 6, 1788.
- McCraw, Thomas K, 1984, *Prophets of Regulation*, Cambridge, MA: Harvard University Press.
- Michalopoulos, Stelios, Luc Laeven, and Ross Levine, 2009, "Financial Innovation and Endogenous Growth," National Bureau of Economic Research, working paper, 15356.
- Montesquieu, Charles de, 1748, *The Spirit of the Laws*, New York: Prometheus Books, 2002.
- Morgenson, Gretchen Morgenson, 2008, "Debt Watchdogs: Tamed or Caught Napping?" *New York Times*, December 7, 2008.
- Partnoy, Frank, 1999, "The Siskel and Ebert of Financial Markets: Two Thumbs Down for the Credit Rating Agencies," *Washington University Law Quarterly*, 77, 619-712.
- Tett, Gillian, 2009, *Fool's Gold*, New York, NY: Free Press.
- Wallison, Peter J. and Charles W. Calomiris, 2009, "The last Trillion-Dollar Commitment: The Destruction of Fannie Mae and Freddie Mac," *Journal of Structured Finance*, Spring, 71-80.