Lessons Learned from the 2008 Financial Crisis

Eugene A. Ludwig

Group of Thirty, Washington, DC

The William Taylor Memorial Lecture

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The views expressed in this paper are those of the author and do not necessarily represent the views of the Group of Thirty.

ISBN I-56708-144-4
Copies of this paper are available for $10 from:
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The William Taylor Memorial Lecture Series

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Published by
Group of Thirty©
Washington, DC
2008

Introduction

This lecture series is dedicated to the memory of William Taylor (1933–1992). William Taylor's career in Washington, D.C. included 15 years at the Board of Governors of the Federal Reserve, where he rose to the position of Staff Director of Banking Supervision and Regulation, and culminated in his appointment as Chairman of the Federal Deposit Insurance Corporation in 1991. The lecture series is dedicated to honoring his long career of distinguished public service and to recognizing his dedication to ensuring the strength and stability of the financial system.

The lectures have traditionally been offered either at the biennial meeting of the International Conference of Banking Supervisors or, in intervening years, at the time of the annual meetings of the International Monetary Fund and the World Bank in Washington, D.C.

REMARKS OF

Eugene A. Ludwig

Founder and CEO, Promontory Financial Group

William Taylor Memorial Lecture

Delivered to the International Conference of Banking Supervisors

Brussels

September 25, 2008

I am deeply honored to be here today to deliver the William Taylor memorial lecture. The collective wisdom in this room is without peer in the area of supervision and regulation. But even more than the wisdom, it is the dedication of the people here today that is most impressive, dedication that sacrifices personal gain for the possibility of a better world order, one where greater financial and economic stability means greater well-being for every world citizen. And, I would add that you, Paul Volcker, stand primus inter pares as well as altimus inter pares.

It is this combination of intelligence and dedication that also characterized Bill Taylor. I knew Bill Taylor well, and I can attest from firsthand experience to the intelligence, integrity, fairness, and public spiritedness of this fine man. Most notable to my mind was Bill's practical intelligence that strove energetically to get to the bottom of things without artifice, a trait shared by the very best in the supervisory profession.

In reading again the words of the nine distinguished central bankers and bank supervisors who gave this lecture before me, I was struck by how many of the talks were reflections on a recently passed financial crisis. So it is that we meet once again in troubling times. Some say this is the most difficult period for financial institutions since the Great Depression.

The superficial analyst will explain away the troubles of today as the result of chicanery. But, I know all of us in this room recognize the problems this crisis exposes are much more fundamental than that. The turmoil raises difficult questions about many of the building blocks of modern finance—models, ratings, structured finance, leverage, collateral, and diversification.

Some will say, though perhaps not in our presence, that in fact the current financial turmoil shows that our old art of regulation and supervision does not work or, at least in a modern world, cannot work well enough. Others will say that the costs of regulation and supervision are just not worth it, because in a financial storm, the only thing that really matters is governmentally controlled financial largesse—that is, monetary policy, discount windows, and the like. Finally, by implication at least, some have said that regulation and supervision should in reality be a second-class citizen in governments' arsenal of financial controls, something of a stepchild of central bank activity.

These attacks on supervision are largely specious. As I will elaborate on in a minute, excessively liquid markets and un- and underregulated sectors of the financial services industry have been the primary drivers of today's financial turmoil. In fact, serious supervision of the entire financial services marketplace, particularly of the sectors most involved in the crisis, would have at least mitigated the impact of the crisis. One of the great strengths of regulation and supervision is that good supervision is all about facing up to the reality of the situation, calling it accurately as best we see it, without political, theoretical, or some other shading. The integrity of the supervisory process allows markets to clear, to remain in operation, and to rebuild.

However, the truth is that at least elements of the supervisory mechanism of today, along with other private and public sector participants in the financial system, did not fully anticipate and adequately moderate today's financial system woes. Accordingly, this is a time for all of us to be deeply reflective and to learn.

Today, I want to say a few words about lessons that we can learn from the current crisis and how this should inform our evolution towards a more robust regulatory architecture. I realize that this is presumptuous of me, as a former regulator from the country that has been at the epicenter of the current storm. But, if we do not learn from history, including from our forebears, we do not learn at all.

It bears emphasis that these lessons apply to supervisory systems large and small. Globalization means that every economy is threatened when something as big as our present problem emerges. On this occasion, the underlying health of the main emerging markets is thankfully much better than, say, in the early 1990s. But recession in the G7 has knock-on effects for every economy around the world, and therefore we all suffer in the long run when, as happened early in this decade, there was a weakening of underwriting standards for subprime mortgages in the United States.

Accordingly, as I embark today on an effort to outline both key lessons learned and elements of the supervisory architecture of the future, I do so recognizing that with all humility this is just one man's view and that much of what I have to say is made possible because I am able to stand on the shoulders of leaders past and present.

With that said, off we go.

Lessons Learned

The fundamental story of the current turmoil is relatively easy to tell. It began early in this decade with a weakening of underwriting standards for subprime mortgages in the U.S. subprime, Alt-A, and other mortgage products, which were sold to people who could not afford them, and in some cases in violation of legal standards.[1] Licensed but only cursorily regulated mortgage brokers originated the worst of the paper, and drew the marketplace toward lower standards.[2] Originators typically did not hold onto the paper, but passed it along to mortgage banks and others, who sliced and diced it into tranches and packaged the tranches into some relatively new and previously untried structured securities. It was generally believed that only the ultimate holder of the securities retained any material risk.[3] While the rating agencies rated the securities using mathematical models, and others along the distribution chain modeled the risk as well, it is widely accepted that there was insufficient data

1 Financial Stability Forum, "Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience," April 7, 2008, http://www.fsforum.org/publications/r_0804.pdf, 36; and Joint Forum of the Basel Committee on Banking Supervision, "Credit Risk Transfer: Developments from 2005 to 2007," Bank for International Settlements, July 2008, http://www.bis.org/publ/joint21.pdf, 12.

2 Joint Forum, 12.

3 Joint Forum (2008), 20–24; and Tommaso Padoa-Schioppa, "Licensing Banks: Still Necessary?" William Taylor Memorial Lecture 5, presented at the International Conference of Banking Supervisors in Washington, D.C., 24 September 1999, http://www.group30.org.

and faulty assumptions.[4] Compensation incentives were principally about profit and not about either customer relationships or compliant behavior.

Lessons 1, 2, 3, 4, 5, 6, and 7

1. New untried instruments, like new businesses, carry higher risk and should be more carefully regulated and supervised, particularly where they are used extensively, carrying perhaps a greater capital charge, greater reserving, and/or being subject to concentration and growth limits.[5] Such instruments should also be subject to reporting requirements, so regulators can monitor the market implications.[6]

2. Models are tools that can add value but are not wholly reliable and must be tested and understood by financial institutions that use them.[7] Over the past decade there has been a growing reliance on models by financial firms and regulatory agencies.[8] Regulators should enforce higher standards of model validation and governance, including verification that management actually understand the models they use.[9] Regulators should insist that models take into account tail events and that a significant margin for error is built into model usage, as models can never be 100 percent predictive and are typically captive of available historical data and the assumptions used in their construction.[10]

3. Similarly, near-exclusive reliance on rating agencies is mistaken. Rating agencies have an important, value-added function of course, but like all human constructs, they do not have clairvoyance; they too make mistakes.[11] Financial institutions should do more than merely rely on third-party rating agency evaluations, particularly

4 Joint Forum (2008), 19.
5 Financial Stability Forum (2008), 40; and Joint Forum (2008), 28.
6 Joint Forum (2008), 24.
7 Andrew Crockett, "Banking Supervision and Financial Stability," William Taylor Memorial Lecture 4, presented at the International Conference of Banking Supervisors in Sydney, Australia, 22 October 1998; and Joint Forum (2008), 28, http://www.group30.org.
8 Financial Stability Forum (2008), 19, 27; and Joint Forum (2008), 10, 13, 24–29.
9 Alan Greenspan, "Bank Supervision in a World Economy," speech presented at the International Conference of Banking Supervisors, Stockholm, Sweden, 13 June 1996; Financial Stability Forum (2008), 17–18; and Joint Forum (2008), 25.
10 Financial Stability Forum (2008), 27–33; and Joint Forum (2008), 17.
11 Financial Stability Forum (2008), 8–10.

of large positions.[12] The larger the position, the more extensive a firm's own risk assessment efforts should be.

4. The securitization process has lulled regulators and financial firms into a false sense of comfort in terms of risk relief for those who are in the securitization chain but who do not ultimately hold securitized paper.[13] Worse still, we have today turned every transaction in our capital markets into a quote-unquote "trade." People, customers, and relationships are secondary if they exist at all; everything is a valueless, faceless trade.[14] This somewhat desiccated system in my view breeds outsized risk and runs counter to the fundamentals of a sound financial system where service and the customer should matter a great deal.[15] Regulators and financial firms need to do a better job of evaluating what and how much risk is really passed along with a securitization, and capital charges, concentration, and growth limits, and reserving should be applied appropriately.[16] Suitability standards certainly do not disappear—or the liability that goes with them—at least in terms of the originator—when paper is securitized.

5. Very serious thought should be given to whether everyone in a securitization or syndication chain should retain some risk in the transaction. Were this to happen, it would dampen the leverage in the system and it would encourage due diligence.

6. Additionally, compensation should be shifted toward giving financial personnel, including, importantly, traders, a much greater stake in the long-term success of the enterprise.[17] Compensation should be tied to compliant behaviors, including selling customers products that are suitable for the use intended.

7. Un- and underregulated entities should not be allowed to infect the regulated financial sector. Un- and underregulated financial entities pose several risks to the financial system. To the extent they are opaque, they make it almost impossible for regulators to assess risk

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12 Joint Forum (2008), 29.
13 Financial Stability Forum (2008), 9–10; Joint Forum (2008), 20; and Padoa-Schioppa (1999).
14 Padoa-Schioppa (1999).
15 Joint Forum (2008), 11.
16 Financial Stability Forum (2008), 30; and Joint Forum (2008), 20, 27.
17 Financial Stability Forum (2008), 20.

in the financial system—such opacity should not be permitted.[18] The lower standards, including capital standards, of many un- and underregulated entities gives them a short-term competitive advantage, which allows them to appear more efficient and more profitable and forces the rest of the marketplace to take more risk than would otherwise be the case.[19] We should not permit entities performing the same financial function to exist under two different regulatory regimes. Traditionally, bank supervisors strove to protect banks from the unregulated financial sector by prescribing limits on transactions banks can undertake and by encouraging strong risk management practices. This one-sided approach to financial regulation has failed more than once; it is time to move on. Activities of the underregulated should be strictly limited or they ought to be properly regulated.[20]

Back to our story: Excess liquidity in the system fueled this business. Spreads narrowed, the yield curve flattened, and pricing for risk came under extreme pressure.[21] Investor demand for higher returns created significant interest in structured securities.[22] The securitized tranches were massively leveraged using investment vehicles, such as SIVs [structured investment vehicles] and CDOs [collateralized debt obligations] and CDOs squared [CDOs of CDOs].[23]

Many participants in the large and rapidly growing marketplace for these instruments were not supervised, such as mortgage brokers, mortgage banks, and hedge funds.[24] And traditional players used SIVs and other vehicles to keep holdings off their balance sheets and lower capital requirements.[25] As a result, the magnitude and interconnectedness of the risk was opaque to market participants, regulators, and central banks.[26]

With margins eroding for most financial institutions, pressures to increase volumes stepped up. These pressures were markedly heightened

18 Financial Stability Forum (2008), 8.

19 Joint Forum (2008), 26; and Padoa-Schioppa (1999).

20 Howard Davies, "Two Cheers for Financial Stability," William Taylor Memorial Lecture 9, presented at the International Conference of Banking Supervisors in Washington, D.C., 25 September 2006, 14, http://www.group30.org.

21 Joint Forum (2008), 27.

22 Joint Forum (2008), 7.

23 Financial Stability Forum (2008), 5; and Padoa-Schioppa (1999).

24 Financial Stability Forum (2008), 7; and Padoa-Schioppa (1999).

25 Financial Stability Forum (2008),5.

26 Financial Stability Forum (2008), 8, 14.

by unrelenting analysts and, in some cases, by large stockholder pressures to grow revenues and profits every quarter. Some senior managements and boards found it difficult to "stop dancing."

Lessons 8, 9, 10, 11, and 12

8. Central banks need to do what they can to control liquidity bubbles and asset bubbles.[27] Society pays serious costs where economic bubbles are allowed to build, including recessions with attendant job losses, property losses, and the long-term losses of no growth or slower growth. Moreover, it is very hard for the supervisor to do its job when economic stimulus pressures are intense.

9. However, where such pressures exist, risks to financial institutions are heightened and regulators must vigorously work to restrain excessive behaviors. In this regard, a special effort should be made to quell analyst and shareholder pressures on bankers to grow revenues and profits on a quarterly or even year-over-year basis, and care should be taken to ensure that conflicts of interest are not disregarded in the pressure to meet profitability hurdles. These short-term profit pressures are typically pernicious and do not take into account risk, certainly long-term risk, which analysts have difficulty evaluating. Regulators should be a counterweight to this kind of pressure. One way to improve the effectiveness of this counterweight is to tie a much greater portion of executive and board compensation to the long-term results of the bank than is currently the case.[28]

10. Excessive growth in any credit sector virtually always leads to a credit bust. Regulators should quickly identify growth trends and work to restrain such excessive growth and concentration. Rapid growth in a risk or product at a single firm should be a huge red flag for its supervisor.[29] More challenging is to identify rapid growth in a product or sector that is not reflected in any single firm. As the recent environment has shown, significant risks can be embedded in complex instruments and spread across a variety of regulated and

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27 Hsien Loong Lee, "Post Crisis Asia – The Way Forward," William Taylor Memorial Lecture 6, presented at the International Conference of Banking Supervisors in Basel, Switzerland, 21 September 2000, http://www.group30.org.

28 Financial Stability Forum (2008), 8.

29 Financial Stability Forum (2008), 8; and Joint Forum (2008) 10, 28.

unregulated institutions.[30] And the same risks can be spread across one institution in toxic quantity because the risk is parceled out into different corporate pockets without the regulator or company being able to aggregate the risks appropriately. Therefore, regulators globally must work collaboratively to collect, share, and assess risks, to identify concentrations and to take action, and regulators and managements need to be able to assess risks across the entire enterprise.[31]

11. The use of leverage throughout the financial system needs to be regulated much more tightly. Excess leverage so magnifies any problem that an exceptional amount of regulatory scrutiny should accompany its use, as well as a bias towards restraint.[32]

12. The use of off-balance-sheet vehicles should be much more restrained than it has been.[33] Fundamentally, there should be a bias that strongly favors putting activities on balance sheet. Off-balance sheet should be essentially limited to completely separate, arms-length enterprises.[34]

I return again to our story. Three assumptions on which this mortgage business was based proved particularly faulty—first, that home prices would go up forever; second, that the consumer, negative savings or not, could borrow his or her way out of a credit hole, in large part because the value of his or her home was rising; and third, that carefully verified loan documentation did not matter. In short, bedrock rules of safe lending were violated—cash flow coverage, collateral coverage, and sound documentation.[35] While the majority of this was originated outside the supervised sector, banks and thrifts were not immune to these violations.

Inevitably, the poorly written underlying paper began to show delinquency and default characteristics that were unusual for more conservatively written mortgage paper and were outside the range of

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30 Joint Forum (2008), 11.

31 Davies (2006), 18; and Financial Stability Forum (2008), 41–43.

32 Financial Stability Forum (2008), 9; and Padoa-Schioppa (1999).

33 William J. McDonough, "Issues in Corporate Governance," William Taylor Memorial Lecture 8, presented at the International Conference of Banking Supervisors in Washington, D.C., 29 September 2002, http://www.group30.org.

34 Joint Forum (2008), 26, 29.

35 Financial Stability Forum (2008), 7; and Joint Forum (2008), 12.

what the models had predicted.[36] This fact caused greater than expected volatility for all tranches of the securitized paper. These negative trends—particularly in a highly leveraged environment—caused some financial players, notably a few hedge funds and mortgage banks, to fail.[37] The elevated delinquencies, defaults, volatility, and failures undermined confidence, including in the ratings process and model-driven structured products. Spreads widened and key markets began to freeze up. Because of the opacity of the marketplace, to which I have referred, and the fact that the initial weaknesses in the marketplace arose from the smaller subprime market, the magnitude of the problem was underestimated.

Mark-to-market accounting accelerated the changes in circumstances emerging from the volatility.[38] Overly thin reserving—itself a victim of mark-to-market disciplines—and inadequate capitalization at some institutions created some sense of panic. Short sellers emerged in droves, and false rumors about troubled institutions spread, which further added to volatility and value deterioration.

Mark-to-market accounting drove asset values down below their future earning power due to the liquidity crisis, and made it more difficult for strategic acquisitions to take place, depriving the markets of sources of capital and stability.

Finally, the widened spreads, market disruptions, and ensuing loss of confidence began to bleed into the general economy.[39] These conditions, plus a further deterioration in credit conditions, gave rise to silent and not-so-silent bank runs, liquidity squeezes, and failures or near-failures, leading to the need for more liquidity and capital, which in turn has led to a credit contraction.[40] National economies began to sag and infect each other.

By and large in this cycle, regulators have not overreacted and have been quite mild in their examinations, evaluations, and supervisory actions. Central banks, most notably the Federal Reserve, have avoided what could have been an even greater systemic event, by flooding the markets with liquidity, buying paper, and taking other extreme measures, which are much heralded in the press.

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36 Financial Stability Forum (2008), 6.
37 Financial Stability Forum (2008), 32.
38 Joint Forum (2008), 17.
39 Financial Stability Forum (2008), 6.
40 Joint Forum (2008), 12, 14, 26.

Lessons 13, 14, 15, 16, and 17

13. Weak credit practices inevitably lead to outsized losses.[41] Regulators simply should not permit these practices or should at least ensure that there are serious restraints on, and costs associated with, their use. Regulators and risk officers must continue with even greater vigor to lean against fashion and excess when bubbles are building in good times.

14. Mark-to-market accounting is procyclical and can create excessive volatility. While the objective of loss recognition is an important one, application of mark-to-market accounting is least effective in the midst of a crisis. The recent crisis has demonstrated that asset values can become artificially depressed during a liquidity crisis.[42] Prices in illiquid markets often do not reflect future earning value of assets, but instead reflect the amount of cash available to buyers in the market. Mark-to-market accounting, therefore, can make it harder for a financial entity to work through a crisis, because it portrays a direr picture of a financial entity at an instant in time, than may actually be the case over a longer period of time.

    Mark-to-market accounting needs to be rethought and/or applied quite differently, at least in the financial sector. Whether or not a return to historical cost accounting is called for, the issue deserves serious study and focus.

15. Short sellers increase volatility and exacerbate market downturns. Whether short selling is a free market practice that should be discouraged or not, spreading vicious and false rumors to lower a stock price should be punished.

16. Individual institutions must be required to do a far better job in managing their own liquidity. Too many institutions did not recognize their contingent liquidity obligations, and few performed adequate stress tests to determine an adequate liquidity cushion. The recent guidance by the Basel Committee is a good step toward improving banks' liquidity management practices, but it must be rigorously applied and extend beyond the banking sector.[43]

41 Financial Stability Forum (2008), 36.
42 Financial Services Forum (2008), 27; and Joint Forum (2008), 25.
43 Financial Services Forum (2008), 10, 18.

17. The use of governmental largess, flooding the market with liquidity, bailouts, and/or safety net extensions in a time of crisis, is necessary but costly. In addition to the more easily measurable short- and intermediate-term costs, they have serious long-term costs, including the build-up of moral hazard. I fear what we have done in this past cycle is to privatize the profits and to socialize the risks. This then sets the framework for less risk-averse behaviors in the future.

Other lessons learned will emerge as the crisis is studied further. However, one thing should be clear from the lessons that I have just enumerated and from the magnitude of the crisis itself: Tinkering around the edges will not do. It is natural for bank supervisors to respond to financial crises by increasing restraints on banks to protect them from getting infected by the free-for-all going on around them. However, this has the effect of making banking less competitive and more vulnerable to the next crisis. It also tends to push the more risky behavior out to the unregulated sector, where it can grow more rapidly, inviting another debacle.

It is time to step back and think about important changes in our supervisory architecture. That this would be the case is certainly supported by the enormous changes that are taking place in finance itself, brought about by globalization and technological innovation.

Our Regulatory Architecture

There is no clear regulatory architecture that has proven itself so superior that one can with certainty advocate for its adoption. Whether the regulator should be part of the central bank or independent; whether there should be regulatory choice based on charter or geography; and/or whether the regulator should deal with one or all of the issues of market conduct, prudential behavior, or systemic events is more a matter of ideological conviction, cultural preference, and judgment than demonstrable superiority. However, history, logic, and the lessons learned from the current financial turmoil suggest the following principles as the bedrock of the regulatory architecture of the future:

1. ***Universal Application of Similar Rules.*** First, all institutions that perform the same economic function within a marketplace, irrespective of charter choice or name, should be regulated in an equivalent manner. Whether an entity is called a fund, thrift, a national bank, a state bank, or a Jersey Island, English, French, or

Latvian bank, fundamental rules of prudential behavior and market conduct should apply and should be applied for the same-sized entity, roughly the same way within that marketplace.

Admittedly, this is a tall order to accomplish. Certainly, rules of disclosure and market conduct can be extended relatively easily to all market players. Prudential rules are another matter. Just look at the years of legitimate effort required simply to harmonize capital requirements—one of many types of prudential rules—for banks—one of many types of financial firms. However, we simply have no choice but to move toward this goal. To do otherwise creates imbalances that threaten the safety and soundness of the marketplace as a whole, and will surely lead to future financial crises. As we are seeing in our current financial crisis, the markets tie entities together so tightly through, for example, structured products, derivatives, and securitizations, that risks created by less-regulated entities are not self-contained, but end up infecting the entire financial system.

2. ***Increased Transparency to Regulators.*** Second, the regulatory mechanism should have as complete information as possible about all the financial institutions operating within the regulator's marketplace, and about the marketplace itself.[44] No financial institution or provider of financial services should be immune from supplying this information. Admittedly, the Joint Forum on Financial Conglomerates and its associated committees have done good work to address this through the principle of comprehensive consolidated supervision, but we need to be absolutely sure this principle works in an open and seamless way, and that it applies to all financial services providers.

   Just as regulators need to see a whole institution, they also need to see products and risks across entire markets, whether or not those markets stop at a regulator's border.[45] Mechanisms must be established to collect information on similar products and risks across different institutions and markets.

44 Crockett (1998); and Financial Stability Forum (2008), 8, 30.
45 Joint Forum (2008), 17; and McDonough (2002).

And just as important, supervisors will need to be prepared to use this information.[46] Supervisors and banks alike focus on what the historical data reveal and indeed have built sophisticated models based on that data. What can get ignored are the new, unexpected events—the tail events—that affect firms and markets in a huge way. One way to address this, as I've noted elsewhere, is through ample liquidity and capital cushions. But too often, information indicating that a tail event is on the way is not seen until after the fact. Supervisors need to acquire, monitor, and react quickly to timely, comprehensive risk information.

3. ***Regulatory Consolidation.*** Third, less is more. We have to reduce the number of international and national organizations setting and applying rules. For the sake of the consistency and efficiency of the regulated sector, the fewer number of bodies setting and/or enforcing the fewer number of rules, the better. This ultimately translates into economic well-being, and also reduces the political friction that impedes information sharing and the convergence of regulatory approaches. Now, I realize that neither complete harmonization, nor complete consolidation, of regulation and supervision will be possible. However, we have come a long way towards international regulatory convergence and this must continue. In the United States, where we have a cacophony of regulatory bodies, serious regulatory consolidation must take place. Whether or not there should be a single consolidated regulator in the United States or elsewhere is an open question. Some places, notably the U.K. and Japan, have of course already taken this step. Having one regulator makes a great deal of sense from the standpoints of equivalency and efficiency, but large bureaucracies come with their own challenges.

   Another knotty problem is the application of home and host country rules to multinational enterprises. International harmonization of rules will eventually solve this problem—but eventually is a long time, and in the meantime multinational enterprises are bedeviled by having to apply a multiplicity of rules to their operations. Minimizing this regulatory burden without degrading supervision is both a possible and an important goal.[47]

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46 Financial Stability Forum (2008), 11.
47 Financial Stability Forum (2008), 52.

4. ***Assurance of Efficacy.*** Fourth, we should strive to ensure that our rules and supervisory techniques are indeed efficacious and risk-based. Much more needs to be done at the national and international level to test the efficacy of our rules. Just as we expect banks to back-test their models to see if they performed, we should look back at our rules to see if they were effective. Of course, some rules will be as much a matter of time-tested judgment as measurement. However, we should not take our rules and practices for granted. In a dynamic financial world, change is the one certainty with which we must keep up.

5. ***Burden Minimization.*** A corollary to this notion is that we should strive to minimize excess burden. Regulations and enforcement mechanisms grow like barnacles on a ship. And it is much easier to put a new one in place than take an old one away. Eventually, too many barnacles affect a ship's speed and performance and can even cause it to sink. As regulators test to determine whether rules really do achieve intended goals, they should be prepared to revise or remove those that do not. Continual efforts should be made to minimize burden, as changes in finance will cause new rules to emerge and others to become less necessary.

6. ***Countercyclicality.*** Sixth, our regulatory and supervisory framework should be counter-, not pro-cyclical.[48] Although regulators need to be referees, not coaches, and to call the game as they see it, supervision and regulation can only do so much after the cycle has turned and mistakes have been made. As the former chief national bank examiner in the United States is wont to say, "once the bullet is in the body" there is only so much you can do. Accordingly, it is enormously important to be at least as tough in good times as bad, and the regulatory framework should reinforce this principle.

7. ***Market Conduct and Prudential Supervision.*** Seventh, market conduct and prudential supervision go hand in glove. In today's day and age, it is not possible to have a safe and sound banking organization that is a rogue in the marketplace. Nor is it possible to have a stable banking system where customers are cheated, laws are

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48 Crockett (1998); and Stanley Fischer, "Basel II: Risk Management and Implications for Banking in Emerging Market Countries," William Taylor Memorial Lecture 7, presented at the International Conference of Banking Supervisors in Cape Town, South Africa, 19 September 2002, http://www.group30.org.

flaunted, or conflicts of interest are disregarded. There is no better example of this than the recent auction-rate securities fiasco. The mistreatment of customers exposed the firms involved to significant financial and reputation risk, not unlike that which would result from asset quality problems.

Whether different organizations or a single regulator with different divisions should be responsible for market conduct and prudential supervision is a decision for national regimes. Either way, the prudential regulator must evaluate market conduct as a potential financial risk, and should expect the institutions it supervises to do so as well.

8. ***Implementation.*** Eighth, integral to the regulatory architecture that I have just described is the quality of implementation by the regulatory bodies. This implementation must be accomplished with integrity, judgment, and vigor. Perhaps the most important attribute of the regulatory process—and why it must be independent from the political process and any other body that can compromise its mission—is that an effective regulatory function must be thoroughly honest and hands-on in its practical examination of the facts and in its application of the rules.

9. ***The Profession of Supervision.*** Finally, if we are to have an effective supervisory service in this ever more complex financial world, as well we must, then we need to step back and assure ourselves of several things:

    - Supervisors should be well prepared for their job.[49] Why is supervision not a university major? One can major in athletics instruction, modern dance, and film these days, but when a major bank supervisory agency needs additional examiners, they must train their own. This has worked well in the past, but with the growing challenges, and the need for global consistency of approach, supervision should be elevated to a profession. The Basel Committee had the foresight to establish the Financial Stability Institute in 1999 to assist with training of the non-G10 country supervisors. It is now time to consider establishing a Financial Supervision Chair at a prominent university.

49 McDonough (2002).

- Legislators that give supervisors their mandate must make the goals of supervision clear. We are all familiar with the difficult policy tradeoffs inherent in supervision. These need to be wrestled with at the highest levels of government, rather than dealt with on an ad hoc basis.

- Supervisors must make the rules clear and transparent. Supervision works best when regulated institutions know what is expected of them and when they receive a consistent and swift reaction if they do not conform to these expectations.

- Supervision should take advantage of market forces. In this regard, perhaps the most powerful market force of all is compensation. In this regard, I would urge that supervisors, as well as companies, align compensation with safe, sound, and compliant behaviors, with a particular emphasis on the long-term well-being of the financial concern, as opposed to short-term benefits to the individual.[50]

Conclusion

In conclusion, supervision should remain at the center of a new global financial architecture. Clearly, central banks have a vital role in maintaining financial stability, and will continue to, from time to time, intervene when they consider it necessary to stabilize markets. But a key reason that this is a viable option for central bankers is the presence of a consistent, objective, and reliable supervisory program.

Regulators are all about calling the plays as they see them, whether or not the truth is painful. Good regulators, like good referees, do not seek to be rock stars, nor do they seek to win popularity contests. They strive to meet the high standards set by William Taylor, the namesake of this lecture series, and the truly successful ones do.

Thank you.

50 Financial Stability Forum (2008), 8.

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ISBN I-56708-144-4