

HOW SHOULD FINANCIAL MARKETS BE REGULATED?

Kevin Dowd and Martin Hutchinson

It is hard to imagine a more stupid or dangerous way of making decisions than by putting those decisions in the hands of people who pay no price for being wrong.

—Thomas Sowell

Financial regulation is a recurring and central issue in contemporary policy discussions. Typically, leftists want more of it, while proponents of free markets want less, or preferably, none of it. We would suggest, however, that the central issue is not whether markets should be regulated, but by whom—by the market itself, which includes self-regulation by market practitioners, or by the state or one of its agencies. To put it in Coasean terms, what is the most appropriate institutional arrangement by which markets—including financial markets—*should* be regulated?

This question is of fundamental importance to a sound retrospective assessment of the Federal Reserve and is a prerequisite for sound analysis of contemporary reform issues.

To answer this question, we should first consider what the term “regulate” actually means. The primary and oldest meaning is “to

Cato Journal, Vol. 34, No. 2 (Spring/Summer 2014). Copyright © Cato Institute. All rights reserved.

Kevin Dowd is Professor of Finance and Economics at Durham University and a partner at Cobden Partners. Martin Hutchinson is a journalist and author of the Bear’s Lear column (www.prudentbear.com). The authors thank John Allison, Simon Ashby, Sam Bowman, Gordon Kerr, and Basil Zafiriou for helpful comments.

govern or direct according to rules.”¹ However, the term is often used in modern discussions to mean “control by government agencies.” This is a very different meaning, not least because government bureaucrats often follow no rules themselves. Instead, they have a vast amount of discretion to do as they please, make up the rules as they go along, and issue lots of regulations in the process.

Thus, regulation pertains to rules, but the term “rule” is itself ambiguous. Sometimes the noun “rule” means a bedrock principle, but in other cases it refers to a stipulation from a rulebook. In the former sense, a rule is long-lasting and there are not too many of them; an example might be “Thou shalt not kill.” In the latter sense, a rule is reminiscent of the growing micro-regulations that abound in modern life. In this sense, a rule might merely be bureaucratic discretion written down.

It is then clear that all conceivable systems have rules or regulation in one form or another and the question at issue is not *whether* to have rules or regulation but, rather, *what form* they should take.

In this article, we explore this issue in the context of financial regulation in the United States—and, more precisely, we compare the very different systems of financial regulation that existed before and since the founding of the Federal Reserve System a century ago. We examine these systems from the perspective of how well they managed to constrain (or alternatively, encourage) excessive risk taking on the part of financial and other institutions, and we are particularly interested in contemporary systems of government-sponsored financial regulation such as Basel, Dodd-Frank, and the financial regulation provided by the monetary policies of the Federal Reserve itself.

The storyline is one in which risk-taking discipline of the original system was eroded over time by a series of government interventions that not only kicked away the earlier constraints against excess risk taking but strongly encouraged such risk taking, and so

¹The etymology is also revealing. The English term “regulate” comes from the late Latin *regulat*, meaning “directed” or “controlled,” but originates from the Latin verb *regulare*, whose root is the noun *regula* or “rule.”

made the financial system increasingly unstable. In the process, the “tight” rules and self-managing character of the earlier system gave way to more active management (or rather, mismanagement) and growing discretionary (and largely unaccountable) power on the part of the bureaucrats who ran the system with their ever-longer rulebooks. In short, a basically good system became bad, and then worse.

We also emphasize the importance of the monetary backdrop. In the old system, the discipline of the gold standard served to provide a stable monetary environment that helped to rein in excessive risk taking. Once the Fed was established, however, it began to manage the system and first supersede and then replace the gold standard. It then pursued activist monetary policies that produced boom-bust cycles, with periods of low interest rates and loose credit feeding speculative bubbles and inflation, and leading to one crisis after another.

How could this happen? The answer is the usual suspects—the influence of bad ideas and interest groups subverting the coercive powers of the state for their own ends.

Before the Federal Reserve: Regulation by the Market

In the years before the Fed, regulation was provided by the market itself—that is, by the big players operating under competitive conditions. When crises occurred, they would be dealt with by industry leaders or by clearinghouse associations (see Timberlake 1984). These provided emergency loans and in some cases issued emergency currency. A distressed institution would seek assistance from the relevant club, and club leaders would consider the request and respond in their own interest. They would take account of the applicant’s financial health, its reputation, and the overall impact of their decision, including the impact of possible localized contagion if they allowed an institution to fail. An institution that was in otherwise good health, and had been well run and had a good reputation, would be likely to get a favorable response. A badly run and ill-regarded institution would not. The good were helped and the bad were thrown to the wolves. Crises were quickly resolved and any contagion, where it occurred at all, was limited. The most famous example was the resolution of the 1907 crisis, orchestrated by J. P. Morgan from

his personal library, while the government played no active role at all.²

There was little or no government involvement in resolving financial crises, although government intervention and legal restrictions were often important contributory causes of them. This said, by modern standards there was limited government involvement.³

It is worth pausing to consider the main features of this type of regulatory system, if we can even call it that:

- There was little formal regulation in modern sense.
- Such regulation as existed was created and operated by private bankers' clubs.
- Rules were usually informal and left considerable room for discretion on the part of decisionmakers. Indeed, their rulebooks are best understood as codes of good practice or guidelines that evolved in response to changing circumstances and lessons learned. Rules were highly functional.
- Rules were created by industry practitioners who understood their own business, operated under unlimited or extended personal liability, and placed great emphasis on reputation, both personal and institutional.
- The rule-making process was self-interested and constrained both by the profit motive and by market forces. Those involved understood that bad regulations were costly and that they themselves would bear the cost: this was why rules were few

²The role of the government in this crisis is highlighted by a nice anecdote. Once the terms of the deal that was to end the crisis had been agreed to by the bankers meeting in Morgan's library on November 3, one of the participants advised him to consult President Theodore Roosevelt about it. "But what has the president got to do with it?" asked Morgan indignantly. He was then warned that the centerpiece of the deal—the acquisition of Tennessee Coal & Iron by U.S. Steel—was in violation of the Sherman Act and the deal would be undermined unless the president agreed to waive any prospect of federal prosecution, which Roosevelt then did. (See Bruner and Carr 2007: 131–33.) In other words, the government involvement in ending the crisis of 1907 boiled down to it agreeing *not* to attack the deal by which the crisis was resolved.

³This is not to suggest that U.S. bankers operated under *laissez-faire*. They operated under severe amalgamation restrictions that prevented interstate and even some intrastate banking. These rules prevented banks from reaping the full benefits of economies of scale and increased their vulnerability. They also operated under the legislative restrictions of the National Banking System, which also created considerable instability. By contrast, the contemporaneous Canadian banking system was free of these restrictions and both much stronger and more stable.

and the regulatory burden light. There was also a process by which bad rules would be identified and weeded out. One could say that the rule-generation process was modest and subject to a robust error-correction mechanism—namely, the market itself.

- The competitive process also applied to the regulatory systems themselves: competition encouraged good innovations, which would be widely copied. Individual member institutions also had the option of opting out or joining other regulatory clubs; they could also set up new clubs of their own.
- Participants operated against the backdrop of the monetary discipline provided by the gold standard. By limiting money and credit, the gold standard helped to counter speculative excess, allowing overextended banks to fail and encouraging the survivors to conduct their business in a more responsible and less system-threatening way. The discipline of the gold standard also meant that interest rates and the cost of credit were largely beyond the control of individual institutions and more in line with market fundamentals than was later the case.

Each of these features is very different from what we see in the modern system. Underlying this system—indeed, making it possible—was a conventional wisdom that was much more pro *laissez-faire* than that prevailing today. Associated with this ideology were high levels of personal liability and personal responsibility that created strong incentives to keep costs down and rein in excess risk taking. These incentives created a system that had strong governance features and was highly effective—though by no means perfect—in controlling risk taking and handling financial crises when they occurred.

We now discuss how these key features were each overturned.

The Establishment of the Federal Reserve System and an Expansionary Fiat Monetary System

As a preliminary, we should emphasize that the period before the Fed was not some monetary idyll; far from it. There were repeated experiments with central banking in the earlier years and a considerable amount of monetary instability throughout much of the 19th century. Among the most notable examples were the crash of 1819, caused by the monetary excesses of the Fed's predecessor, the

Second Bank of the United States; the disruption caused by the suspension of specie payments and the move to a wartime economy with the onset of the Civil War in 1861; and the crisis of 1873, which was due in no small part to the U.S. Treasury's greenback scheme and by government promotion of the Northern Pacific Railroad.

The United States formally adopted the gold standard only in 1879—a move intended essentially to revert to the status quo ante bellum, but with the important difference that the new system was a *de jure* gold standard and not a bimetallism that functioned *de facto* as a gold standard. However, the gold standard was still highly controversial and bitterly opposed by the silver movement in the last decades of the 19th century—and became firmly established only with the victory of William McKinley over William Jennings Bryan in the presidential election of 1896 and the subsequent passage of the Gold Standard Act of 1900.

By then Britain had been on the gold standard continually and successfully for almost 80 years with only one major crisis—that of 1825—compared to the succession of major crises that had plagued the United States over the same period.

The Panic of 1907 led a few years later to the creation of the Federal Reserve System by an act of Congress in December 1913. The Fed opened its doors in 1914. Its principal purpose was to provide emergency currency and a lender of last resort (LOLR) function, which conventional wisdom wrongly presumed had been handled badly by the private sector. The Fed was intended to operate subject to the discipline of the gold standard. However, the Fed had barely begun its operations when the First World War broke out. Belligerent countries suspended the gold standard and the United States soon found itself the only major country still operating on it.

Inevitably, the Fed had too much discretion and was too big a player to be passively disciplined by the gold standard—and was soon engaging in active monetary policy. This was very apparent in the later 1920s, when Benjamin Strong's policy of low interest rates helped fuel the contemporary boom and subsequent bust. There followed the catastrophe of the 1930s, to which the Federal Reserve's failure to provide emergency liquidity to the banking system—remember this was what the Fed had been set up to do—was a major contributing factor. The response to this failure was to increase the Fed's power, centralize the Fed's administration, and greatly expand financial regulation. The most notable examples were the passage of the

Glass-Steagall Act, separating commercial and investment banking (and decapitalizing the latter, which seriously hampered recovery), and the establishment of federal deposit insurance. The Fed then blundered again when it doubled reserve requirements in 1936–37, which helped kill the nascent economic recovery and push the economy into renewed recession.

In the meantime, the feeble international gold standard of the interwar years—a much watered-down version of the classical gold standard of pre-1914—had come and gone. Only the United States had remained on gold, but in 1933, President Franklin D. Roosevelt issued an executive order effectively prohibiting private holdings of gold, and the next year he revalued the official price of gold from \$20.67 to \$35 dollars an ounce—that is, he devalued the dollar against gold.

The new Bretton Woods system set up after the Second World War was a gold standard only in the weakest possible sense. It was merely a dollar standard with a commitment by the Fed to maintain the price of gold, in a gold market from which private individuals and institutions were almost entirely excluded. There followed the loose monetary policies of the 1950s, and it was soon obvious that the United States had a mounting inflation problem.

In *A Program for Monetary Stability*, published in 1960, Milton Friedman provided a memorable assessment of the government's record to date in stabilizing the U.S. economy:

The Great Depression did much to . . . reinforce the now widely held view that inherent instability of a private market economy has been responsible for the major periods of economic distress experienced by the United States. On this view, only a vigilant government, offsetting continuously the vagaries of the private economy, has prevented or can prevent such periods of instability. As I read the historical record, I draw almost the opposite conclusion. In almost every instance, major instability in the United States has been produced or, at the very least, greatly intensified by monetary instability. Monetary instability in its turn has generally arisen either from governmental intervention or from controversy about what governmental monetary policy should be. The failure of government to provide a stable monetary framework has thus been a major if not the major factor accounting for our really severe inflations and depressions [Friedman 1960: 9].

Post-1913, much of this instability was created by the Fed, and it is fair to say that the Fed's record has not improved in the half-century or so since Friedman wrote those words.

The monetary acceleration continued in the 1960s. This led to rising inflation and the stock market surge of the late 1960s, which was in many ways a repeat of the late 1920s. This bubble burst with the Penn Central failure in 1970 and its attendant wave of brokerage bankruptcies. By this point, the Federal Reserve was having great difficulty maintaining its Bretton Woods gold peg, and in August 1971 President Nixon abandoned the peg and let the price of gold float. The United States was now on a fiat currency without even the pretence of any link to gold.

The way was now open for the highly inflationary policies of the 1970s and the necessary but painful monetary correction by Paul Volcker from 1979 onward. Fast forward now to the late 1980s: inflation has been brought down and Volcker has been replaced by Alan Greenspan as Fed chairman.

Greenspan then introduced the “Greenspan put”—the policy of propping up the stock market if it should plummet—in the aftermath of the stock market crash of October 1987. This was followed by further monetary easing in 1991. By the mid-1990s, however, Greenspan was complaining of “irrational exuberance” in the stock market. He responded by *reducing* interest rates, thus stimulating the boom of the late 1990s; the centerpiece (U.S.) of which was the tech boom that burst in 2001. He then responded by a *more* aggressive monetary policy that produced an even bigger boom culminating in the crisis of 2008–09. His successor, Ben Bernanke, then responded to that crisis with an *even more* aggressive monetary policy—in the process stimulating the biggest bubbles of all time and leaving policymakers with a huge headache.

Such policies led to an ever more damaging boom-bust cycle and to the state of affairs described by Andy Haldane, the Bank's of England's executive director for financial stability. Speaking to the UK Parliament's Treasury Select Committee in June 2013, he said that the “biggest risk to global financial stability right now” is that posed by inflated government bond markets across the world. He then told astonished British MPs: “Let's be clear . . .

We have intentionally blown the biggest government bond bubble in history.”⁴

The same could be said for the policies pursued by the Federal Reserve: the financial system wouldn’t be so unstable if the Fed hadn’t tried so hard to stabilize it. The Fed’s response to the bubbles it has created is to blow even harder and hope for the best. The Fed has got itself into a corner and has no credible strategy to get itself out. We know that the latest bubbles must burst at some point and when they do interest rates are likely to rise sharply as bond market investors attempt to dump their holdings. When that happens the financial system will collapse, again. The temptation will then be to prop up bond prices by monetizing what could well be the entire government debt, at which point the Federal Reserve’s balance sheet would explode from \$4 trillion to \$16 trillion or more almost overnight and inflation will be off to the races.

Monetary policy has thus become progressively more destabilizing and now poses an unprecedented threat to the U.S. economy. Federal Reserve officials have no credible solutions to the problems they have created. Instead, they merely offer lame excuses and ask us to trust them one more time as they seek to gamble their way out and nothing is done to hold them to account. Fed chairmen have appropriated enormous power to themselves, and it could reasonably be said that the Fed chairman now has more power over the U.S. economy than the president. In these circumstances, it is hardly surprising that policy discussions are increasingly dominated by “cult of personality” nonsense. No matter how smart Alan Greenspan, Ben Bernanke, and Janet Yellen are, none of them predicted the 2008–09 financial crisis.

The Federal Reserve as Lender of Last Resort

As we have seen, before the Fed, last-resort lending was managed by the big players. If an institution sought assistance, the big players would decide whether and on what terms to provide it. However, once a central bank is established with its monopoly privileges, then

⁴We do not wish to single out Haldane for criticism. On the contrary, he is almost alone among central bankers in having both the intelligence and the courage to address the real problems that others deny.

the last-resort function inevitably passes to it—in part because other banks are restricted in their freedom to issue liquidity, but also because this is now the explicit responsibility of the central bank. But once the LOLR becomes a matter of central bank policy, what should that policy be?

The classic answer was suggested by Walter Bagehot in *Lombard Street* (1873). He suggested that the central bank should provide last-resort support to solvent but illiquid institutions at a penalty rate against prime collateral. The penalty rate would discourage such requests (and make them genuinely last-resort), and the requirements that the bank be solvent and offer first-class collateral should protect the central bank against possible losses.

The existence of a central bank LOLR function gives rise to two related problems, however. One problem is that of moral hazard: banks might count on that support and behave less responsibly. The other problem is that of how to credibly limit central bank support *ex ante* to discourage such irresponsibility. These two problems are intimately related. While a central bank might talk tough before the event about how it would not bail out badly run banks, how it responds in the heat of a crisis is another matter, where the pressure is on to arrange a hurried rescue and never mind any threats it previously made to let badly run banks fail. *Ex ante*, bankers know this, and might reasonably dismiss such threats as lacking credibility and then do whatever they want. This leads to a game of chicken that is almost impossible for the central bank to win, and also to a big-risk moral hazard problem.

There is an interesting analogy here. Back in the 18th century, the British navy had a problem with weak commanders. A case in point was Admiral John Byng. An inexperienced desk officer appointed commander of the Royal Navy's Mediterranean fleet when the Seven Years' War broke out in 1756, he failed to fully engage a slightly superior French fleet at the Battle of Minorca. Instead, he retreated to Gibraltar after an inconclusive battle, as a result of which Minorca fell to a French invasion three weeks later. Public opinion in Britain was outraged and Byng was court-martialed, found guilty of "failing to do his utmost" to avert the loss of Minorca, and shot. It was this episode to which Voltaire referred in a famous passage in *Candide* two years later: "In this country [Britain] it is good, from time to time, to kill an admiral *pour encourager les autres*." Byng's punishment may have been a trifle harsh,

but it worked—and no British fleet ever again shied away from engaging a superior enemy force.

Reverting back to modern bankers, the Byng example suggests that incompetent bankers should be shot. We would not quite go that far, although another 18th century punishment, the stocks, is tempting. However, our point is simply that they should be punished, not rewarded, for their incompetence. The obvious way to do this is to impose some personal penalty, such as the loss of a personal bond.⁵ Incentives matter.

There is no credible solution to this problem short of abolishing the central bank. Indeed, it is interesting to note that Bagehot himself acknowledged this point. As he wrote toward the end of *Lombard Street*:

I know it will be said that in this work I have pointed out a deep malady, and only suggested a superficial remedy. I have tediously insisted that the natural system of banking is that of many banks keeping their own cash reserve, with the penalty of failure before them if they neglect it. I have shown that our system is that of a single bank keeping the whole reserve under no effectual penalty of failure. And yet I propose to retain that system, and only attempt to mend and palliate it.

I can only reply that I propose to retain this system because I am quite sure that it is of no manner of use proposing to alter it. A system of credit which has slowly grown up as years went on, which has suited itself to the course of business, which has forced itself on the habits of men, will not be altered because theorists disapprove of it You might as well, or better, try to alter the English monarchy and substitute a republic, as to alter the present constitution of the English money market, founded on the Bank of England [Bagehot 1873: 331–32].

In short, Bagehot himself offered his rule as a second-best solution to a problem that shouldn't have existed in the first place,

⁵There are various ways in which this could be done. Ideally, one could roll back unlimited liability, at least for banks. Another possibility, put forward by UK MP Steve Baker (Con, Wycombe) in 2012, is to impose a regime of extended personal liability on bank directors, with safeguards attached such as the requirement to post personal bonds that would be forfeit if the bank got into difficulties. Critics might argue that measures such as these would mean that banks would never apply for assistance, but that is exactly the point: we don't want them to.

and could easily be remedied by abolishing the privileges of the central bank.

The LOLR remit then expanded over time. The highlights of this process include the bailouts of Continental Illinois in 1984, LTCM in 1998, and then those of much of the banking system in 2008–09, by which point “too big to fail” (TBTF) was now firmly established as a cornerstone of policy toward the banking system.

The history of the central bank LOLR thus embodies an interesting policy logic. We wish to discourage banks getting themselves into difficulties, so we rule out the first-best solution, free banking. This is mistake number one. We then offer them help instead of punishment when they get into difficulties: mistake number two. When they do get into difficulties, we rarely apply the Bagehot Rule itself, but bail them out instead: mistake number three.⁶ Never mind all those earlier promises that next time we *really are* going to let badly run banks fail. Instead, the banks see those promises as exactly what they are—hot air—and we duly find ourselves with the albatross of TBTF stuck around our necks and a huge incentive for banks to take irresponsible risks.⁷

Federal Deposit Insurance

Federal deposit insurance was established in 1934 under the provisions of the Banking Act of 1933. Its proponents offered an apparently self-evident justification that it would help the banking system by removing any incentive on the part of depositors to run. Yet, federal deposit insurance was bitterly *opposed* by the bankers themselves. It was, said the president of the American Bankers Association, “unsound, unscientific and dangerous” (*New York Times* 1933: 14). Opponents argued that deposit insurance was bad because it creates major moral hazard problems. In particular, it incentivizes bankers to take more lending risks and to run down their banks’ capital, both of which would weaken their banks and make the banking

⁶So the net effect of the Bagehot Rule was to provide a thin end of the wedge by which the LOLR function had become its opposite, the Bailout of First Resort. Old Bagehot must be turning in his grave.

⁷Note here the underlying “bad idea”—namely, that there has to be a central bank LOLR function because the market on its own can’t provide emergency liquidity or its own LOLR. Yet this idea flies in the face of the evidence that the market *did* provide its own LOLR in the absence of a central bank—and this assistance was more successful precisely because it was limited.

system less rather than more stable. They also pointed out that past experience with compulsory deposit insurance systems at the state level showed that it didn't work for exactly these reasons.⁸

A good example was Texas in the 1920s. To quote one contemporaneous assessment of this experience:

The plan made too many banks and too few bankers. All kinds of incapable people tried the start a bank under the protection of the fund. The system gave a false sense of security—people looked to the fund for protection and paid no attention to the soundness of the banks themselves, nor to the ability of the managers. Prosecution of bank wreckers and crooks was made impossible. The depositors got their money from the fund, so they were not particularly interested in prosecuting the unscrupulous or incompetent men who caused the banks to fail. Such an unsound system of banking weakened the financial structure of the entire state [quoted in Salsman 1990: 54].

As Salsman (1990: 54) aptly put it, “Federal deposit insurance was instituted in 1934 under political pressure and expediency, despite . . . prescient warnings and frequent references to the most basic rudiments of economics.”

It turned out that the critics were right. Banks' capital ratios fell by more than half in just over a decade, and regulators were never able to reverse the trend to capital deterioration created by deposit insurance (Salsman 1990: 56–57). The adoption of deposit insurance also led over time to major changes in the banking industry itself, which became less conservative and more prone to risk taking. The eventual outcome was the great deposit insurance crisis of 1980s and early 1990s and the destruction of much of the American thrift industry.⁹

⁸For more on U.S. experiences with state deposit insurance, see Calomiris (1989, 1990).

⁹Space precludes us from discussing some of the other ways in which ill-judged policies contributed to this crisis. These include the impact of Regulation Q combined with the highly inflationary Federal Reserve policies of the late 1970s, which pushed many banks and thrifts into insolvency. There was the impact of the increased deposit insurance ceiling—raised from \$40,000 to \$100,000 in 1980—not to mention the fact that the deposit insurance premium was at a flat rate rather than risk-adjusted, which exacerbated the moral hazard associated with deposit insurance. There was also the impact of regulatory forbearance, in which regulators let insolvent institutions continue in operation in order to avoid short-term strain on the deposit insurance fund, only to result in larger losses later on.

The “bad ideas” here are that banking is inherently unstable and, relatedly, that that instability manifests itself in the vulnerability of the banking system to runs—a vulnerability that can be remedied by deposit insurance removing the incentive of depositors to run.

Ironically, just as the problems of deposit insurance were becoming evident in the early 1980s, mainstream economists were persuading themselves that we really *did* need deposit insurance after all—and never mind the basic rudiments of moral hazard economics or even its track record.

The seminal event was the publication in 1983 in the *Journal of Political Economy* of the Diamond-Dybvig (DD) model, which offered a justification for deposit insurance based on the fallacious premise that the banking system was inherently unstable. This model rapidly gained mainstream acceptance and is still accepted by the bulk of the economics profession as providing *the* standard justification for it.

Their reasoning goes as follows. Imagine that we live in a neoclassical economics world where we make up simplified models to capture the essence of an economic problem. The model is our analytical framework and is intended to guarantee rigor. In this model, individuals live for two periods and are given endowments at the start of period 1. They have access to a technology that will yield a return in period 2, but don't know in which of the two periods they will want to consume: these consumption preferences are only revealed after they have invested. At that point, an investor is revealed as either type 1, who wants to consume in period 1, or type 2, who wants to consume in period 2. Individuals can always invest in their own back yard and consume whenever they want, but in that case, a type 1 investor would never earn any return, because he would have to dig up his investment and consume it before it had had time to produce any yield.

DD now suggest that everyone could be better off *ex ante* coming to a mutual insurance arrangement in which they insure each other against the risk of turning out to be a type I investor. DD call this arrangement a “bank.” The arrangement works if the proportion of type 1 investors is known, but the DD bank is then exposed to a run problem if the proportion of type I investors is not known. Everyone knows that the bank does not have the resources to redeem all its deposits at the promised rate if everyone decides to withdraw in period 1, because the underlying investment has not yet yielded a

return but the bank has committed itself to pay some return to depositors who withdraw in the first period. This leads to the possibility that individuals might get spooked and decide to redeem their deposits. To prevent a system-wide bank run, the government would intervene and offer a deposit guarantee. Everyone could then breathe a sigh of relief, and the fear of a run goes away. Those who wish to consume early can do so and, thanks to the guarantee, the others can be confident that their deposits will be safe at the end of period 2.

Unfortunately, there are not one but three serpents lurking in this Garden of Eden. The first is that the model involves a *deus ex machina*—a methodological “no no” because it means that the model is logically inconsistent. The problem here is that the deposit insurance mechanism has to be feasible in the context of the assumed model. So how would this mechanism work? Presumably, once the last type 2 depositor had withdrawn and the proportion of type 1 vs. type 2 depositors is revealed, then the government would be able to track everyone down and arrange for the transfer payments between them to honor the deposit guarantee. However, the model itself presupposes that individuals *cannot* be traced once they leave the bank—it was exactly the absence of any mechanism to track them down afterward that was used to justify the existence of the bank in the first place. In short, DD assume that such a mechanism does not exist when they motivate the existence of their bank, but assume that such a mechanism *does* exist when they propose their solution to the inherent instability to which their bank is prone.

Well, either the mechanism exists in the model or it does not. If it does, then the model’s private sector can also use it and create a run-proof and certainly different institutional structure to the one postulated by DD. In this case, there is no need for deposit insurance. If the mechanism does not exist, then neither the government nor anyone else can make use of it either. In this case, deposit insurance would not be implementable however much it was “needed”—it would just not be possible. In a nutshell, in this model, properly considered, deposit insurance is either not needed or impossible to implement. Take your pick. Either way, the model can’t be used to justify it.¹⁰

¹⁰For a more extended treatment of these issues, see Dowd (1992).

Even if we ignore the point that the model is inconsistent, there is a second problem. Let's suppose for the sake of argument that DD are correct that what is needed is a collective guarantee along the lines of their deposit insurance scheme. Since this supposedly gives a welfare-superior outcome, then everyone in their society will agree to it voluntarily and there is no need for any compulsion by the government. In other words, the market left alone would deliver their preferred outcome—that is, we would have private rather than government deposit insurance. So their model, taken at face value, gives no justification for any compulsory system of deposit insurance.

The third problem is obvious to any banking professional though apparently not to many academic financial economists: the bank in their model has no capital. Such an institution is not a bank in any true sense of the term, even within the rarified confines of a neoclassical economic model. It is a mutual fund that tries to ape a bank by fixing the values of its liabilities despite having uncertain asset returns and no capital. Although DD call this institution a “bank,” just calling it a bank does not make it one. A true bank is a financial institution that issues both debt (deposits) and equity. If DD had called their financial institution a mutual fund instead of a bank, and had then assumed that their mutual fund was going to issue fixed-value liabilities, the problem with their financial intermediary would have jumped out: you cannot have a financial intermediary with fixed liabilities, assets that vary in value, and no capital and not expect it to be prone to runs.

With this point in mind, consider an extension to the DD environment. Suppose we have a type 3 agent who also has an endowment but who differs from the other agents in knowing that she will not wish to consume in period 1. This agent can then use her endowment to create a financial institution that has the capital to offer credible guarantees to the type 1 and type 2 agents. The institution can now be described as a bank in a recognizable sense, and the type 3 agent can be described as the banker. We then have an institutional structure that resembles the banking systems we observe in the real world—in particular, we have deposits, equity capital, depositors, and bankers. And guess what? Assuming the banker has enough equity capital, then the promised returns on early-withdrawal deposits can be credibly met even if everyone runs on the bank. There is then no reason for any of the type 2 agents to panic. In plain English, extend the DD model to allow for bank capital and the DD problem of a run-prone financial intermediary disappears.

Again, there is no justification for deposit insurance. Instead, depositors are reassured by bank capital—provided that the banker has enough of it, but this is just a modelling assumption.¹¹

In short, there are only five things wrong with the Diamond-Dybvig justification for bank deposit insurance:

- It is logically inconsistent.
- Even taken at face value, it provides no justification for a compulsory scheme, since everyone would agree to it.
- It has nothing at all to say about banks—except those with zero capital, and these should not be in business anyway.
- It ignores moral hazard issues.
- It is at odds with the historical evidence that deposit insurance does not work.

Any one of these problems ought to preclude the model from serious consideration, and yet this model is *still* the standard justification for deposit insurance—another bad idea that has captivated the somnolent economics profession.

Modern Financial Regulatory Systems (I): Features

Modern financial regulatory systems have quite different features from the club-based systems of over a century ago: excessively long rulebooks, high and growing costs, poorly designed rules, gameable rules, and bad thinking.

Excessively Long Rulebooks

Perhaps their most striking features are their size and their astonishing rate of rule production. In an article on Dodd-Frank mischievously subtitled “Too Big Not to Fail,” in early 2012, *The Economist* noted:

The law that set up America’s banking system in 1864 ran to 29 pages; the Federal Reserve Act of 1913 went to 32 pages; the Banking Act that transformed American finance after the Wall Street Crash, commonly known as the Glass-Steagall act, spread out to 37 pages. Dodd-Frank is 848 pages long. Voracious Chinese officials, who pay close attention to regulatory developments elsewhere, have remarked that this

¹¹An example is provided by Dowd (2000).

mammoth law, let alone its appended rules, seems to have been fully read by no one outside Beijing (your correspondent is a tired-eyed exception to this rule).

As if this wasn't bad enough, the article goes on to observe that

size is only the beginning. The scope and structure of Dodd-Frank are fundamentally different to those of its precursor laws, notes Jonathan Macey of Yale Law School: "Laws classically provide people with rules. Dodd-Frank is not directed at people. It is an outline directed at bureaucrats and it instructs them to make still more regulations and to create more bureaucracies." Like the Hydra of Greek myth, Dodd-Frank can grow new heads as needed [Economist 2012].

Industry experts have suggested that the eventual Dodd-Frank rulebook might run to some 30,000 pages, although we are tempted to suggest that when it hits that target it will just continue to grow. As Gordon Kerr (2013), notes: "The size of this mountain task is not simply immense, it is unscalable."

Another example is Basel. This originated in the aftermath of the serious disturbances to banking and currency markets that followed the Herstatt bank failure in 1974. The resulting Basel Committee on Banking Supervision was to provide a cooperative forum for the central banks of member countries to discuss banking supervisory matters, and its initial focus was merely to establish rules for bank closures. In the early 1980s, however, the committee became increasingly anxious about the capital ratios of the major international banks deteriorating at the same time as the international environment was becoming more risky. The committee sought to reverse this deterioration and strengthen the banking system—never mind the awkward fact that this deterioration was in large part due to the incentives created by government deposit insurance and the expanding LOLR function—while working toward greater convergence across different countries' national capital requirements. Thereafter, the committee experienced one of the most remarkable cases of mission creep in history. Over time, the Basel system transformed into a transnational regulatory empire that spawned a vast cottage industry of parasitic "Basel specialists" whose sole purposes were to interpret and implement the ever-expanding Basel rulebooks. This Basel empire is growing at a phenomenal rate post the utter disaster of

Basel II—and, thanks to its own repeated failures, is likely to expand much further yet.

High and Growing Costs

There has also been a remarkable growth in the budgets, not to mention the number, of regulatory agencies. Consider:

- The Securities and Exchange Commission budget request for financial year 2014 is \$1.67 billion, up 42 percent from 2012, and up 91 percent since 2007, versus 13 percent cumulative inflation according to official CPI statistics.
- The Commodity Futures Trading Commission budget request for financial year 2014 is \$315 million, up 58 percent from 2012, and up 407 percent since 2007.
- The Office of the Comptroller of the Currency budget request for financial year 2014 is \$1,043 million, up 69 percent since 2007.
- The new Consumer Financial Protection Bureau budget request for 2014 is \$497 million—and this agency didn't even exist in 2011.

There are also the costs of the Federal Reserve (with system expenses up 31 percent since calendar 2007) and of Basel—and goodness knows what they might be, although we can be confident that they will be very high.¹²

We should keep in mind that these are only some of the direct costs of regulations. We also need to consider the costs of compliance on the part of regulated firms, who must employ their own armies of compliance officers and establish cumbersome compliance procedures. Moreover, there are the *indirect* costs of these regulations—namely, the costs of the damage they do, including the costs of badly designed rules and the costs of crises created or bungled by incompetent regulators.

Poorly Designed Rules

Modern systems are littered with poorly designed rules. Some of our favorites are zero-risk weighting of sovereign bonds, pressuring

¹²We are not aware of estimates for the United States, but a credible estimate for Europe puts the cost of Basel III at more than 70,000 full-time private sector jobs (Härle et al. 2010).

soundly run banks to take greater risks, regulatory endorsement of the Gaussian (normal) distribution, and regulatory endorsement of the Value-at-Risk (VaR) measure of risk and the mathematical modelling behind it.

Zero-Risk Weighting of Sovereign Bonds. In the original Basel Accord, or Basel I, the debt of OECD governments was assigned a zero risk weight. This implies that all such debt, including Greek government debt, was assumed to be riskless. Its effect was to artificially encourage banks to hold higher levels of government debt than they otherwise would, and was a major contributor to recent EU banking problems. When the Eurozone sovereign debt crisis escalated a couple of years ago, many banks then suffered major and otherwise avoidable losses on their holdings of government debt. This rule has been repeatedly criticized, but is *still* on the books.

Pressuring Soundly Run Banks to Take Greater Risks. In private correspondence, John Allison gives an entertaining story of how regulations impacted his bank, BB&T (see also Allison 2013). This is a conservatively run institution that did not suffer a single quarterly loss since the onset of the crisis. The bank did not have highly sophisticated risk management systems. It did not need them because it did not take excessive risks. The risk models it then submitted to the Fed under the risk supervisory process used its own loss experience, which was much lower than the industry average. However, supervisors rejected their models and demanded that the bank use more sophisticated models and industry loan-loss experience instead of its own. This requirement saddled the bank with an unnecessary model development cost of over \$250 million and a higher regulatory capital charge—and will force the bank to take more risk to pay for the extra costs involved. In short, in the interests of promoting good risk management and discouraging excessive risk taking, the Federal Reserve forced a well-run bank to adopt highly expensive risk management technology that it neither wanted nor needed, imposed higher regulatory capital requirements that were not justified by the risks the bank wanted to take, and will then force the bank to take extra risks that it *didn't* want to take in order to recoup its higher costs.

Regulatory Endorsement of the Gaussian Distribution. The most widely used statistical distribution is the Gaussian, or normal, and this is the standard distribution used in risk management too. However, the Gaussian is suitable only for statistical problems relating to the central tendency of the distribution, such as problems

involving means. It works in such situations by virtue of the Central Limit Theorem. However, in risk management we are interested in the tails of the distribution and this theorem does *not* apply to the tails, which are governed by the very different Extreme Value Theorem. In fact, the Gaussian assumption gives *extremely* poor estimates of tail probabilities.

To give an example, in August 2007 there was talk of hedge funds getting hit by “25 sigma” events—losses that were 25 standard deviations away from expected losses. It was repeatedly said in the media that these were so extreme that one might have to wait 10,000 or 100,000 years to expect to see such losses on a single day. However, such claims were manifestly wrong because the losses suffered by the hedge funds were not in fact that rare.

But now ask the following question: How long would we have to wait to see one such daily loss if the world *were* Gaussian? The answer is $1.309e+135$ years—that is, 1.309 years, but with the decimal point moved 135 places to the right (see Dowd et al. 2008: 3). This number is about equal to the number of particles in the universe multiplied by the number of nanoseconds since Big Bang multiplied by all the atoms in all the bodies of everyone who has ever lived times multiplied by a few trillion, give or take a few zeros. The probability of observing such losses is about on a par with seeing Hell freeze over. The take-home message is that since such losses are not that uncommon, the Gaussian is totally unsuitable for estimating tail risks.

Regulatory Endorsement of the VaR Risk Measure and the Mathematical Modelling behind It. The VaR (Value-at-Risk) measure of risk is a percentile on a probability density function that gives the cutoff to the relevant tail, and is used to determine banks’ regulatory capital requirements. Unfortunately, it is of very limited use for banks’ financial risk management because it does not tell us anything meaningful about the tail itself—that is, the VaR is blind to tail risks. The VaR is rather like a chocolate tea pot: it looks good with all that fancy math until it is actually stressed with a little hot water. There is also evidence that the bigger, more complex and more expensive, VaR models perform worse than much simpler ones (Berkowitz and O’Brien 2002). Any benefits from all that extra complexity appear to be more than outweighed by the many implementation compromises that “sophisticated” models inevitably entail.

It is important to stress that most of these problems have been known for a long time, and yet these rules remain on the books.

Gameable Rules

Even worse than poorly designed rules are poorly designed rules that are *gameable*. These are highly destructive because they encourage the looting of bank capital and the furtive offloading of risks onto other parties, often with serious systemic implications. The following are several examples, all of which have regulatory approval.

Capital Plundering or How to Destroy Securitizations. A major feature of Basel is the way in which positions hedged with credit derivatives get a risk-weighted capital charge of 0.5 percent, whereas the standard default charge for most positions is 8 percent. This opens up opportunities for clever financial engineers to come up with scams in which portfolios that would otherwise attract healthy capital charges can be reclassified as hedged for Basel purposes and the capital released for “better” uses—such as paying bonuses to the clever financial engineers who designed them and their managers (see Kerr 2010; also Kerr 2011, 2013). The banks that employ them are then left seriously capital-depleted even though their risk-adjusted capital numbers are, if anything, improved.

Hidden Hypothecations. This is another set of scams—examples include “failed sale” and some covered bond securitizations—in which banks furtively pledge assets to counterparties while the assets ostensibly remain on their balance sheets. The banks then enter into arrangements with other counterparties who do not realize that those assets are not recoverable in subsequent bankruptcy proceedings. Such hypothecations deceive the later counterparties, who don’t realize how weak their counterparties really are, and are in essence fraudulent (see Dowd, Hutchinson, and Kerr 2012 for more details).

Hidden Re-Hypothecations. Many transactions involve the posting of collateral by investors who assume that their collateral is safely tucked away in a vault with the institutions they entrusted it to. The reality is that collateral is often secretly re-hypothecated—quietly posted elsewhere—and it is not uncommon for the same collateral to be re-hypothecated a dozen times or so.

This problem became apparent with the MF Global meltdown in late 2011. To quote one informed commentator:

MF Global’s bankruptcy revelations concerning missing client money suggest that funds . . . were instead appropriated as part of a mass Wall Street manipulation of brokerage rules that allowed for the wholesale acquisition and sale of

client funds through re-hypothecation. A loophole appears to have allowed MF Global, and many others, to use its own clients' funds to finance an enormous \$6.2 billion Eurozone repo bet. If anyone thought that you couldn't have your cake and eat it too in the world of finance, MF Global shows how you can have your cake, eat it, eat someone else's cake and then let your clients pick up the bill [Elias 2011].

The magnitude of this problem is enormous:

Engaging in hyper-hypothecation have been Goldman Sachs (\$28.17 billion re-hypothecated in 2011), Canadian Imperial Bank of Commerce (re-pledged \$72 billion in client assets), . . . Oppenheimer Holdings (\$15.3 million), Credit Suisse (CHF 332 billion), Knight Capital Group (\$1.17 billion), Interactive Brokers (\$14.5 billion), Wells Fargo (\$19.6 billion), JP Morgan (\$546.2 billion) and Morgan Stanley (\$410 billion) [Elias 2011].

In other words, re-hypothecation is yet another disaster waiting to happen.

SPV Financial Alchemy. There is, finally, the old classic of SPV financial alchemy.¹³ You start with a portfolio of credit-risky bonds. In fact, even better if it is a portfolio of very credit-risky bonds: in this game, the junkier the bonds, the better the alchemy works. Let's say that this portfolio would attract a particular credit rating, C, say, which is the lowest S&P rating north of default. You now set up a special purpose vehicle (SPV), which buys the portfolio and issues tranching claims against it. The trick is in the tranching: the junior tranche protects the senior tranche by absorbing the first losses, and only after the junior tranche is wiped out do claimants to the senior tranche lose anything. A not atypical arrangement is a 20/80 split between junior and senior tranches, after which the senior tranche attracts an A, even AAA, rating, and can be flogged off to investors accordingly. And so a pile of junk— financial lead—is converted into 80 percent gold and only 20 percent lead, even though the risks in the underlying pool remain exactly as they were. You then repeat the process again on the junior tranche and others like it, and repeat as many times as you like, each time converting more and more of the

¹³This section draws on Dowd and Hutchinson (2010).

toxic waste into investment-grade investments in a manner reminiscent of the way in which the mafia make the proceeds of crime respectable by repeatedly laundering it. Unfortunately, when a crisis occurs, the financial magic is apt to suddenly wear off and much of the “gold” then reverts to its original leaden state—and investors discover the hard way what they had really invested in.

Again, we emphasize that each of these practices—and many others like them, and they are very widespread—greatly increase systemic instability in the banking system.

More Bad Thinking

Underlying badly designed rules is some seriously bad thinking.

A Regulatory Risk Management Standard. A major objective of modern financial regulation, especially Basel, is the promotion of a regulatory risk management standard. At first sight this objective might seem reasonable—it connotes the benefits of, say, standards for accounting or physical measurement—but the reality is that it flies in the face of how markets actually work and embodies a major fallacy of composition.

Consider the following: If we were dealing with a single institution, we might advise it to move out of risky positions when a crisis occurs. This makes sense for a single player but the market as a whole cannot divest itself of risky positions—someone has to hold them. There is, consequently, a fallacy of composition in which the individual institution can sell, but the market as a whole cannot. The collective attempt to dump such positions then sends prices down sharply and creates a vicious spiral, in which the collective attempt to move out of risky positions makes those positions even riskier. The fundamental problem is, then, that the encouragement (by regulators or anyone else) of a *single* risk-management strategy itself destabilizes the market. Market stability requires players who pursue different strategies: when many firms are selling in a panic, we need other institutions willing to move in and buy.¹⁴

¹⁴This example is a perfect illustration of how the Basel system tends to promote systemic instability. Going further, *any* weaknesses in the Basel rules will have systemic potential. Any weakness in those rules is likely to affect all banks at much the same time, whereas the same weakness in any one institution's risk management will be unlikely to have any systemic impact.

Financial Regulation Should Mimic the Market. A common assertion among central bankers and financial regulators is that financial regulation should somehow mimic market incentives. One distinguished exponent of this view is Alan Greenspan, who really should know better. Speaking at the Chicago Fed Conference on Bank Structure and Competition in May 1997, he said:

I believe that in many cases, policymakers can reduce potential distortions by structuring policies to be more “incentive-compatible”—that is, by working with, rather than around, the profit-maximizing goals of investors and firm managers. . . . I readily acknowledge this is often easier said than done. Nevertheless, I believe some useful guiding principles can be formulated.

The first guiding principle is that, where possible, we should attempt to strengthen market discipline, without compromising financial stability . . . A second guiding principle is that, to the extent possible, our regulatory policies should attempt to simulate what would be the private market’s response in the absence of the safety net [Greenspan 1997].

But this argument leaves the goal wide open: if you *want* market incentives, simply *have* market incentives and be done with it.

The fallacy here is that regulators can have their cake and eat it too. They don’t want genuine free markets because they would entail unpleasant outcomes like bank failures—and the regulators themselves would be out of a job. So they imagine that they can avoid such unpleasantness by establishing a bank safety net to ensure that banks don’t fail. This seriously distorts the incentives that banks face, and they then imagine that by some regulatory sleight-of-hand they can recreate the incentives created by fear of failure in a regime where they themselves have removed that fear.

Scientism. A veritable minefield of problems relate to the regulators’ (and industry’s) addiction to scientific thinking—the naïve application of physical science models and ways of thinking to social science problems where they do not belong. This mindset is wrong for a whole host of reasons, but let’s just cite the following four:

- It assumes that social processes such as markets can be described by stable laws of motion. However, stable laws exist in physics but not in markets: market processes are changing all

the time. Any relationships that do get picked up by empirical methods are fleeting and apt to break down, especially when market participants attempt to use them. For example, market participants are apt to model stock price processes and use their models to develop trading strategies, but those very strategies change the stock price process itself.

- It fails to take account of the reality that many risks—in fact, most of those that really matter—are not quantifiable at all. These are the “unknown unknowns” famously defined by Donald Rumsfeld. Modelling such risks is impossible by definition.
- It ignores that effective risk management is often undermined by senior management. The problem with good risk modelling is that it leads to high estimates of financial risk and hence high capital charges. This ties up capital and curtails risk-taking, both of which reduce bonuses—and this will never do. In most banks, an overly diligent risk manager risks confrontation with his or her superiors and will likely soon be out of a job.
- Last but not least, scientism in finance—which usually goes by the name quantitative finance—is insanely wedded to the VaR risk measure and the Gaussianity assumption.

It is almost superfluous to point out that scientific thinking is a key reason why risk modelling—by the regulators or the industry—almost never works.

Constructivist Mindset. Underlying scientism is the constructivist mindset with its tendency to believe in “planned” solutions. Suffice here to note that the problems with this mindset were beautifully set out in a well-known passage from Adam Smith ([1759] 1976: 380–81):

The man of system is apt to be very wise in his own conceit; and is often so enamoured with the supposed beauty of his own ideal plan of government, that he cannot suffer the smallest deviation from any part of it. He goes on to establish it completely and in all its parts, without any regard either to the great interests, or to the strong prejudices which may oppose it.

He seems to imagine that he can arrange the different members of a great society with as much ease as the hand arranges the different pieces upon a chess-board. He does not consider

that the pieces upon the chess-board have no other principle of motion besides that which the hand impresses upon them; but that, in the great chess-board of human society, every single piece has a principle of motion of its own, altogether different from that which the legislature might choose to impress upon it.

One of the many curiosities with this mindset is that it imagines that there is some perfect solution out there that is superior to whatever the market can provide—this is just taken from granted as an article of faith—and that all that is needed is to delegate some body of experts to identify and implement it. The resulting solution comes back obviously full of holes (e.g., Basel II), and those in charge are then *surprised* when it does not work. Their response is to repeat the exercise again but typically on a more grandiose scale. The new solution is a bigger failure and they repeat the mistake again, and again. There is no reflectivity or learning by experience built into the process. Instead, there is an unchallenged assumption that there is no other way to think about the problem and the naïve belief that “we will get it right this time” without ever pausing to consider why it didn’t work all those times before. We then have another instance of Einstein’s notion of insanity—repeating the same mistake but each time expecting an outcome different from all the previous ones.

Modern Financial Regulatory Systems (II): Rule-Generation Process

It is also interesting to consider the process by which the rules are generated. The first point to recognize here is that those who generate the rules do not bear the costs of the rules they produce. On the contrary, it is in their interest to produce long rulebooks to justify their own existence and argue for more resources to produce even longer rulebooks. Modern financial regulatory systems have a built-in incentive to produce massive and growing oversupply, and the correction mechanisms that used to constrain rule-generation no longer exist. Those involved are no longer governed by the profit motive, and regulated firms can no longer opt out or set their own competing regulatory clubs. If we ever hope to tame these systems, we have to find some way to ensure that those who create these rules bear at least some of the costs of the rules they generate.

A second point is that the earlier learning mechanisms that governed rule-generation no longer exist. Since there is no competition amongst rule-generators, it is no longer possible to rely on competition among alternative regimes to eliminate bad rules and promote good ones. We are then in the classic command economy situation where we no longer know how many bakeries or what the price of bread should be, since we have suppressed the only mechanism that could tell us. We are then dependent on the wisdom of bureaucrats to make these decisions for us.

The main exception is competition at the international level—competition between the various national regulatory bodies—so how do we deal with that? The answer is that we seek to *suppress* that competition too in the name of “harmonization.” Instead of leaving the United States, the European Union, Japan, and others free to offer competing regulatory systems, with the jurisdiction with the better practices gaining some advantage, and in so doing pressuring the others to follow suit and improving the quality of regulation overall, we suppress that process and hand over the harmonization process to a committee instead. Once again, we replace a good rule-generation process with an inferior one.¹⁵

A third point is that the rule process becomes a politicized committee process that is accountable in the main only to itself. The process is then subject to all the pitfalls of committee decisionmaking: a tendency to duck difficult issues, engage in horse-trading, and promote excessive standardization; a vulnerability to politicization and domination by powerful individuals with their own agendas; and a vulnerability to groupthink and a proneness to go for solutions that look good on paper but don’t work in practice. It also leads to overemphasis on a culture of compliance with no thought given to the costs involved. When it comes to risk issues, it often leads to a total obsession with risk modelling and capital management—which they don’t understand anyway—with those involved becoming so bogged down with the risk metrics that they lose all sight of the risks. It is also often the case that the rules are so obviously poorly put

¹⁵The real issue is not harmonization at all: competing rule-making systems tend to harmonize anyway. Instead, the real issue is the *process* of harmonization. This is overlooked by the “planners” who can only see one route to harmonization and have conveniently hijacked the term itself. As they repeatedly argue, Who could be against harmonization? But such propaganda misses the point.

together that those involved are too embarrassed to defend them afterwards, even though they signed off on them.¹⁶

There is, thus, a serious accountability gap that can't be resolved unless there is some mechanism to make the individuals involved personally responsible.

To make matters worse, modern regulatory systems are also prone to capture:

- Financial firms have vastly greater resources, so they can hire the best talent and assemble expert teams in relevant areas (e.g., financial modeling, accounting, and law) giving them the ability to outgun the regulators, especially on complex technical issues, and set the agenda. By comparison, regulatory bodies are often short-staffed and have inadequate research support. Consequently, regulatory officials are often outnumbered and outgunned in meetings. They are also hampered by a steady exodus of their staff, who take their skills and institutional knowledge to the private sector, where they are far better paid.
- Firms are often able to hold carrots in front of individual regulators with the prospect of lucrative future jobs. As a result, regulators are often reluctant to challenge firms for fear of jeopardizing their own prospects.
- Financial firms wield big sticks; they have great influence and powerful friends, who can (and sometimes do) bring pressure to bear and, where necessary, intimidate individual regulators who get in their way. Their greater resources also allow firms access to superior legal firepower, which means, in practice, that they can often get their way merely by threatening the regulators with legal action.
- There is the cozy relationship between the financial industry giants, the regulatory system, and the government. Key players move back and forth between all three, leading to industry capture, not just of the financial regulatory system, but of the political system too.

¹⁶ We are reminded of an anecdote about a senior Basel official at one of the big risk conferences before the financial crisis. Challenged to defend the (then) new Basel II rulebook of more than 1,250 pages of mind-numbing gobbledegook, he sighed and admitted, "It does rather look as though it was written without adult supervision."

The regulatory system is also captured by the regulators themselves, who use it to promote their own interests—to promote an agenda that emphasises their importance, promotes their power, and gives them more resources.

Nor should we forget that the regulatory process is also captured by politicians who use it for their own ends: to promote reforms that they have rarely thought out, to grandstand, and to help friends in the industry who pay their campaign contributions.

The Volcker Rule provides a perfect example. This is an offshoot of Dodd-Frank that had the worthy intention to ban proprietary trading by financial institutions on government support, and hence stop at least one avenue by which traders could speculate for personal gain at the expense of the taxpayer. Threatened with the loss of one of its favorite lunch buckets, the industry responded by lobbying extensively for exemptions. In so doing, they “took a simple idea and bloated it into a 530-page monstrosity of hopeless complexity and vagueness”—effectively killing it off by filling it full of holes (Eisinger 2013). The regulators themselves supported this process for their own ends: they stood to gain from more regulations and the resources that go with them, and from an extension of regulatory discretion.¹⁷ Neither the industry nor the regulators had any stake in making the Volcker Rule effective, so the end result—the appearance of the Volcker Rule, but without the substance—is hardly surprising.

Note how this arrangement satisfies all three principal participants: the politicians get their legislation and are seen to be doing something (and never mind what), while the industry and the regulators get their way in ensuring that the Volcker Rule is unworkable—and the fact that this arrangement is horrendously costly and doomed to failure doesn’t matter to any of them.

Regulatory capture is also the main reason why so many bad regulatory practices persist, despite their weaknesses being well known.

¹⁷The regulators preferred to implement the Volcker Rule in a “nuanced fashion,” intending to distinguish between intentional and unintentional prop trading, a barny idea that would make enforcement impossible unless a miscreant trader was considerate enough to leave an incriminating e-mail trail. However, a “nuanced” implementation does have the advantage of giving great scope for discretion and enabling regulators to argue for more resources. Remember that Volcker’s original idea was for a *simple* rule that left no exemptions and no room for ambiguity.

They persist because their weaknesses serve the purposes of key interest groups. An example is the Basel rule giving credit derivatives a 0.5 percent capital weight, which enables financiers to construct all manner of dubious securitizations, such as the “how to destroy” scam mentioned earlier. Other examples are the regulatory endorsement of the Gaussian assumption and the VaR risk measure. These lead to major underestimates of true risk exposures but are convenient for the industry because they lead to low capital charges. Capital that should be used to buffer banks against risk can then be siphoned off as dividend and bonus payments, and senior management can play dumb when the bank later collapses and the taxpayer is required to pay for the bailout.¹⁸

Putting these points together, we have an undisciplined rule-generation process that is out of control. Everyone including the regulators complains that the rules are burdensome, excessive, and often make no sense—and yet the system produces ever more of them. They also lose any contact with their underlying supposed rationale—to control risks, protect investors and so forth—and often become counterproductive. In the end, the process of rule-generation becomes the end in itself. We then get to the point where there are so many rules, so many consultation papers, so many meetings, so many agendas and so many *changes* in agendas, that even the regulators who produce all this gumpf can no longer keep up with the juggernaut that they have set in motion. Nevertheless, the regulatory apparatus continues to grow, and it doesn't matter that the regulatory burden continues to expand or that none of this regulation actually works.

Basel II is a case in point. This was in essence just thousands of pages of regulatory gibberish with the ostensible objective of ensuring that the international banking system would be safe. It was rolled out in June 2004 and had just been adopted—in the EU and Japan, though not yet in the United States—when the crisis hit and the banking system collapsed. In their resulting panic, bank regulators across the world then rushed out many thousands of pages of new draft rules, plus many more pages of discussion and consultation documents. Indeed, so great was the deluge of regulatory material that by spring

¹⁸This said, other rules serve the interests of the government. The Basel zero weighting of OECD sovereigns is a case in point. This was useful to governments because it artificially boosted the demand for government debt.

2010 observers were jokingly referring to it being tantamount to a Basel III. By the fall of that year, however, Basel III had become a reality and the joke was on the jesters. But the *real* jesters are those telling us that the solution to all that gobbledegook was now to have even more of it, crafted on the fly under crisis conditions by the same people who had gotten it wrong the previous time, not to mention the times before that. And remember that Basel II had been produced over the course a fairly quiet decade, whereas Basel III was the product of a few months' panic.

If one thing is for sure, it is that this ever-inflating system will certainly fail again. When it does, we can expect it to further ratchet up its expansion—and presumably again and again, assuming the whole system does not collapse before then—until the parasite has weakened its host so much that the host can no longer function.

This example reminds us that modern financial regulatory systems are not only prone to failure but actually *thrive* on it. In any sensible system, failure would lead to some error correction or negative feedback. However, in modern financial regulation—not to mention that of the 1930s—the opposite is the case. When it fails the response is not “Let’s get rid of all that useless regulation because it has failed,” but rather “Let’s create a regulatory system that works.” In practice, this always gets hijacked into “Let’s have even more of it.” Instead of being held to account, they use the crisis they help create to push for even more power and resources and fob us off with excuses and promises that the new system really will work next time. When it comes to monetary policy and financial regulation, it is truly the case that nothing succeeds like failure. It is no wonder, then, that regulation has such a tendency to ratchet up.

There is also the problem of there being no mechanism to make rules or policies consistent. Indeed, consistency becomes impossible. Faced with rules that clash, those who apply the rules—the regulators—are then increasingly free to pick and choose which rules to cite or which to apply. Defenders of the regulatory system can do the same: whatever the problem, they can point to some rule that addresses it—and never mind that this solution is contradicted by some other provision somewhere else. They can argue, with the appearance of plausibility, that their regulatory systems address any and all problems, and they would usually be right, on paper—provided one ignores all those inconvenient contradictions or the track record of repeated failure. We are tempted to describe this as

a perfect example of Coasean textbook economics. But it is in fact far worse than Coase ever imagined.

If regulators can pick and choose which rules to cite, or to apply—and who *outside* the regulatory system can keep up with rules to challenge them?—then the whole process becomes one of regulatory discretion and there are no longer any rules in the proper sense of the term. We then have the appearance of rules but the reality of unaccountable discretion on the part of those managing the system: they can do whatever they want. Ironically, the rulebook becomes a license for almost unlimited discretion; it is then literally “discretion written down”—and there is no mechanism to hold regulators or policymakers to account.

It gets worse. The system has rules, but they are superseded by discretion, which is to say, the system doesn’t really have any rules at all. At the same time, there is a huge regulatory burden, so rules *do* exist in that sense—and they are ineffective too. It is hard to imagine a system less fit for purpose.

And this takes us to the most sinister and most damaging result of unaccountable officials doing whatever they want: the subversion of the rule of law. If we have so many rules that no one else can keep up with them, and if the regulators are free to pick and choose the rules or policies they apply, exploiting inconsistencies as they see fit, and if there is no effective mechanism to hold them to account, then we are no longer living under the rule of law; we are living under a regulatory dictatorship.

The good old system didn’t have any of these problems because it had features that the modern systems so conspicuously lack: incentive structures and accountability mechanisms that worked, and underlying those, the rule of law.

Conclusion

In concluding, we would emphasize two points. The first is that the modern system has not only kicked away most of the constraints against excessive risk taking but positively incentivizes systemic risk taking in all manner of highly destructive ways. These include:

- The replacement of a monetary regime in which money managed itself to one that requires management, leading to a central bank with a proclivity to inflate the currency and engage in alternate policies of boom followed by bust.

- The encouragement of excessive risk taking by a greatly expanded LOLR function and by the destructive incentives created by federal deposit insurance.
- The almost innumerable ways in which capital regulation, designed to counter such risk taking, has exactly the opposite effects.

Underlying the LOLR function, deposit insurance, and financial regulation generally, is a fundamental moral hazard issue—that each of these, in different but reinforcing ways, incentivizes bankers to take excessive risks because they reap the short-term benefits but offload subsequent losses onto others, most notably, taxpayers.

Each of these features, and the problems they entail, reflects the most fundamental point of all—namely, that the modern system of a central bank and armies not only of regulators but of regulatory bodies—has all but destroyed the old governance systems that used to keep risk taking in reasonable check.

We have gone from a system that managed itself to one that requires management but cannot be managed. We have gone from a system that was guarded by market forces operating under the rule of law to one that requires human guardians instead, but we have still not solved the underlying problem of how to guard the guardians themselves.

The outstanding issue of the day is, therefore, very simple: how to get back from here to there—preferably before the whole system collapses. Abandoning bad ideas might be a good start.

References

- Allison, J. (2013) *The Financial Crisis and the Free Market Cure: How Destructive Banking Reform Is Killing the Economy*. New York: McGraw Hill.
- Bagehot, W. (1873) *Lombard Street: A Description of the Money Market*. London: John Murray. Reprinted (with introduction by Hartley Withers). London: William Clowes and Sons, 1924.
- Berkowitz, J., and O'Brien, J. (2002) "How Accurate Are Value-at-Risk Models at Commercial Banks?" *Journal of Finance* 57: 1093–1112.
- Bruner, R. F., and Carr, S. D. (2007) *The Panic of 1907: Lessons Learned from the Market's Perfect Storm*. New York: Wiley.

- Calomiris, C. W. (1989) "Deposit Insurance: Lessons from the Record." Federal Reserve Bank of Chicago *Economic Perspectives* (May-June): 10–30.
- _____ (1990) "Is Deposit Insurance Necessary? A Historical Perspective." *Journal of Economic History* 50 (2): 283–295.
- Diamond, D. W., and Dybvig, P. H. (1983) "Bank Runs, Deposit Insurance, and Liquidity." *Journal of Political Economy* 91 (3): 401–19.
- Dowd, K. (1992) "Models of Banking Instability: A Partial Review of the Literature." *Journal of Economic Surveys* 6 (2): 107–132.
- _____ (2000) "Bank Capital Adequacy versus Deposit Insurance." *Journal of Financial Services Research* 17 (1): 7–15.
- Dowd, K.; Cotter, J.; Humphrey, C. G.; and Woods, M. (2008) "How Unlucky Is 25 Sigma?" *Journal of Portfolio Management* 34 (4): 76–80.
- Dowd, K., and Hutchinson, M. (2010) *Alchemists of Loss*. New York: Wiley.
- Dowd, K.; Hutchinson, M.; Ashby, S.; and Hinchliffe, J. M. (2011) "Capital Inadequacies: The Dismal Failure of the Basel Regime of Bank Capital Regulation." Cato Institute Policy Analysis No. 681 (29 July).
- Dowd, K.; Hutchinson, M.; and Kerr, G. (2012) "The Coming Fiat Money Cataclysm and the Case for Gold." *Cato Journal* 32 (6): 363–88.
- Economist* (2012) "Dodd Frank Act, Too Big Not to Fail." *The Economist* (18 February).
- Eisinger, J. (2013) "The Volcker Rule, Made Bloated and Weak." *New York Times* (29 October).
- Elias, C. (2011) "MF Global and the Great Wall St. Re-Hypothecation Scandal." Available at <http://newsandinsight.thomsonreuters.com> (7 December).
- Friedman, M. (1960) *A Program for Monetary Stability*. New York: Fordham University Press.
- Greenspan, A. (1997) "Technological Change and the Design of Bank Supervisory Policies." Keynote speech at the 33rd Federal Reserve Bank of Chicago Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago (1 May).
- Härle, P.; Lüders, E.; Papanides, T.; Pfetsch, S.; Poppensieker, T.; and Stegemann, U. (2010) "Basel III and European Banking: Its

- Impact, How Banks Might Respond, and the Challenges of Implementation.” McKinsey Working Papers on Risk, No. 26.
- Kerr, G. (2010) “How to Destroy the British Banking System: Regulatory Arbitrage via ‘Pig on Pork’ Derivatives.” Available at www.cobdencentre.org/2010/01/how-to-destroy-the-british-banking-system.
- _____ (2011) *The Law of Opposites: Illusory Profits in the Financial Sector*. London: Adam Smith Institute.
- _____ (2013) “The End of Our Banking System and the Birth of a New One.” Mimeo. Cobden Partners, London.
- New York Times* (1933) “Wires Banks to Urge Veto of Glass Bill.” (16 June): 14.
- Salsman, R. (1990) *Breaking the Banks: Central Banking Problems and Free Banking Solutions*. Great Barrington, Mass: American Institute for Economic Research.
- Smith, A. ([1759] 1976) *The Theory of Moral Sentiments*. Indianapolis: Liberty Classics.
- Timberlake Jr., R. H. (1984) “The Central Banking Role of Clearinghouse Associations.” *Journal of Money, Credit and Banking* 16: 1–15.