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## Comments by Richard J. Zeckhauser

### CAUSES OF THE FINANCIAL CRISIS: MANY RESPONSIBLE PARTIES

In his paper, John Taylor writes: "One view is that 'the markets did it.' . . . The other view is that 'the government did it.'" Taylor clearly inclines to the second view, and Richard Posner, though less definitive, joins him in this assessment. This is the television detective's take on the world: Scrutinize the evidence and find the guilty party. I want to suggest that a third view applies, which is that both parties were highly responsible, although neither intended the outcome, not unlike the parties to many accidents. Webster's Collegiate Dictionary defines an accident as "an unfortunate event resulting from carelessness, unawareness, ignorance, or unavoidable causes." This financial crisis qualifies admirably. It was a mega-accident.

I urge you to think about three questions regarding accidents that are often asked in tort law, an area in which Posner made one of his many reputations in law. Might this be a situation of contributory negligence? If so, which party had the last chance to avoid the meltdown? Did the government create an attractive nuisance? To support the attractive-nuisance hypothesis, we would have to posit that we must protect the private sector as we must protect children, who might be tempted by a swimming pool and not capable of protecting themselves.

As an introduction to the government's role, Posner and Taylor give us a short course on monetary policy. Such instruction is not surprising from Taylor; he has been a leading practitioner for years. But, as Posner notes, lightheartedly, "I guess if I can write on sex and literature and Benjamin Cardozo, there is no reason not to write about monetary policy." Posner's brief discussion of the federal overnight fund rate and of signaling is well worth reading. I am going to use it in my class to talk about signaling. His postmortem on the collapse of Lehman Brothers is equally compelling. My favorite part of Taylor's paper is his discussion, cast as a third-party

view, of the misapplication of the Taylor rule. It reads, with an excess of modesty, as though the Taylor of the Taylor rule were a recently discovered fourth cousin. I absolutely agree with these two gentlemen. The excessive monetary ease during the years 2002–2005—a gross violation of the Taylor rule—was inexcusable and played a major role in creating the crisis that followed.

But many point fingers elsewhere, as I will in this essay. There certainly exist many different explanations and culprits. I will argue that the blame falls specifically and heavily on a broad range of the private players and public regulators in our financial sector. Within those groups, prime responsibility falls on the medium-size players and on the big players, not on the young couple who took a shot on a condo with a 1 percent down payment and then lost it.

Why was this crisis so enormous? We all know that the subprime-mortgage crisis was the triggering event. The remarkable thing about this crisis in contrast to previous crises is how a relatively small loss—\$1 trillion in subprime mortgages—initiated a gigantic loss amounting to \$20 trillion.

Compare this with the NASDAQ swoon of 2001–02. That was just as important as the subprime collapse, but little happened. A few people around Route 128 and in Silicon Valley were severely discomforted. My portfolio went down, along with many others, but those losses did not cascade into an economy-wide problem. The reason is that the NASDAQ crisis stemmed from excessive enthusiasm in a single sector, a cause of crashes throughout history. NASDAQ investors thought we were in a brave new world where a collection of first-moving companies would dominate future markets. As a result of the first-mover illusion, investors paid exorbitant amounts for companies with only modest prospects. There is Google, of course. But for every Google, there were many dozens of companies that lost 90 percent or more of their heyday value.

What made the more recent crisis so much more far-reaching?

### **Financial Engineering, an Enduring Danger, and Regulation**

The novel aspect of this recent crisis was the tremendous inter-penetration of the various sectors. This was due significantly to the unfortunate factors that Paul Volcker described to us in his keynote speech, reproduced below, most notably financial engineering. Thus, B's shortfalls became A's losses, and similarly for the shortfalls of C and D. But thanks to assets both unfamiliar and opaque, A had not understood his level of exposure or risk. Losses reverberated and cascaded, and the financial world collapsed.

Equally important, and a major component of innovative financial engineering, was the rise of the "nonbank banks," or the shadow banking industry, which had become responsible for most of the lending in our economy.

Alas, such engineering, like nuclear weapons, will now be with us forever. Pandora's box has been opened. Sophisticated and hard-to-track financial instruments will not go away; they are sure to figure in future financial crises. Indeed, some of the seeds have already been planted; witness the crisis in Greece that came to light in early 2010, with Goldman Sachs once again in a starring role as a facilitator.

Fancy financial products and nuclear weapons share features beyond their irremediable escape from Pandora's box. Those who own them have power, respectively financial/economic power and military/political power. Though we might prefer that none had them, if our competitors have them, we certainly want them too. With financial instruments, this interactive relationship is true of firms as well as of nations. Further, both engineered financial products and nuclear weapons are extremely difficult to regulate, since critical elements of secrecy provide some of their value.

Surely some stiff modes of regulation will emerge to be placed on exotic financial products and on new financial institutions. But academia and Wall Street are infinitely creative, and ten years from now new products and institutions will exist that offer or appear to offer superior profit opportunities, and that steer around the newly emplaced regulations. Regulations will have a tough time keeping up with such innovations, and, unless mechanisms are created that enable private participants to understand what they are buying, unrecognized risks will once again bring major losses to financial markets, and perhaps to the broader society.

In the arms race between effective regulation and innovation, I am arguing, innovation will win at least sometimes. Note that I said *effective* regulation. Blanket regulations can be thrown over anything that involves money, but that hardly guarantees that they will do a good job.

Whether one is optimistic or pessimistic about the capabilities of a traditional regulatory approach, our recent experience teaches a stern lesson about how regulation should be conducted. Our current multi-channel regulatory process, with different institutions and instruments regulated by different parties, is simply not an adequate defense when some developments have the potential to threaten the whole system. To begin, the multi-channel approach promotes regulatory shopping, in which players tailor their products and presentations to get the regulator who will be most favorable to them. More important, risks that endanger the whole

system do not get enough attention, since no single regulator has sufficient incentive, capability, or authority to investigate them.

The United States needs an assessor of systemic risk, a kind of financial intelligence agency whose job it is to oversee current conditions and emerging developments to determine whether the system as a whole is in jeopardy. Such an entity would continually scan the horizon for new life forms, such as nonbank banks, that might not receive sufficient traditional regulatory attention. Whether the assessor should also have regulatory responsibilities is debatable. If granted extreme power to impose severe restrictions, it might be reluctant to exercise it. This in turn might lead it to under-assess dangers.<sup>1</sup>

### Information and a Modest Proposal

Regulation, I have argued, cannot be the complete approach to effective risk control. Private players must have adequate and appropriate information to take actions that protect and avoid actions that endanger themselves. Thus I propose that we cast a bright light that reaches into the financial shadows. A broad comprehension of what is happening can only be reached by illuminating information that at present may not be accessible to all. Such understanding, based on much fuller information, has the best potential to protect us. Note that even fairly traditional instruments can bring about crises if not properly understood. Long Term Capital Management, after all, was merely a hedge fund. But its investors hardly understood the risks they were taking, and probably their leaders did not either.

Sometimes the required information is not accessible to the many because it is hidden by the few. Bernie Madoff showed us that an apparent garden-variety investment fund can be no more than a house of cards, if even very sophisticated folks do not do their homework to unearth required information. There are few Madoffs, of course. But what is troubling about his activities is the more general lesson they impart. Really savvy institutions and individuals take false reassurance from the knowledge that their peers are investing in the same fund. They implicitly assume that others understand what is going on, even if they themselves do not. Large numbers of sophisticated people and institutions trusted Madoff. Why did they trust him? Because everybody else trusted him. Madoff paraded through the financial system dressed only in the Emperor's New Clothes.

The problem with buried information is not merely that institutions do not want to fess up. Combine the extraordinary levels of cross holdings, the dearth of information, and the continuing level of financial innovation,

and no one knows quite what to fess up to. There are so many quasi-financial institutions today that traditional regulation will not work. I do not think the solution is to combine two regulatory agencies or to create a new regulatory agency. I think the solution is to think about regulation in a new way. The focus, I will argue, should be on information.

In his paper, Posner discusses externalities and the people imposing externalities on the rest of the system. Following his lead, and despairing of the potential for effective regulation, I think a critical problem involves the externalities of information. Information is a public good, which implies that no private entity has a sufficient incentive to unearth it. We had a very unstable system, and nobody knew how unstable it was. We had a collective interest in assessing how unstable our system was. My fear is that the government, which did not have the resources to unearth the critical information then, and which does not have them today, will not have them in the future. We have to look at some form of public-private relationship that can unearth information about how unsafe the world might be.

I would like to present the bare bones of a modest proposal. When many players have the same obligations or hold the same assets, there are significant informational externalities. If investment firm A investigated deeply and discovered that a major asset was threatened, firms B and C would benefit from that information. Yet no firm has sufficient incentive to incur the entire cost of such an investigation. Conceivably, the government could identify situations where such externalities abound, as it did in assessing assets subsequently shown to be toxic in this crisis. The government could then order that one firm be selected at random, or on some logical basis such as level of exposure, to be subjected to a much more detailed investigation than the firm would choose for itself. The results could then be passed to its similarly situated brethren firms. To avoid revealing proprietary competitive information, the results of the investigation could be sanitized before being passed on to the government and to the firm's peers. The firm investigated, which would be the greatest beneficiary, might pay for 40 percent of the investigation, with its peers divvying up the remaining 60 percent, most likely in proportion to their levels of holdings. The government would also have the prerogative to pass appropriate information along to the investing public.

### The Players and Their Contributions

In assessing blame for the meltdown, it is important to recognize the asymmetries of the two parties. The view of the government as a large, unified

entity is outdated, and this is apparent in the ongoing debates about who should regulate the financial system in the future. The potential regulators, some of them agencies not yet chartered, are battling for survival much as private entities do. Various other private entities are cheering and lobbying for these gladiators.

The private sector, despite all the discussion about "too big to fail," is made up of thousands of decentralized decision makers. This structure makes it harder to say "A did it," or "B did it," or "C did it." Once again, there is contributory negligence from many parties. Surely the people who created the failed instruments bear responsibility. But their damage would have been contained if the rating agencies had identified their deficiencies. And even if the rating agencies had been asleep or corrupt, those who purchased toxic securities could have prevented the collapse if they had been sufficiently diligent before buying them.

We cannot look for a single cause of the financial crisis. To do so is to fall prey to the myth of the autopsy: You read in the paper that a 93-year-old man died of kidney failure. However, in reality his death had 34 causes, and kidney failure was just the most proximate at the time. I would further argue that, even though the government behaved badly, if the private sector had been more alert, or indeed not somnolent, the crisis would not have happened.

Posner excuses the borrowers in the housing crisis, and I agree. If someone had lent me money to buy a house in an area where housing prices were going up by 5–8 percent a year, and said I only needed a down payment of 1 or 2 percent, I would have thought that sounded like a good bet. I would have been doing the right thing. By the way, 25 percent of the mortgages that were written between 2003 and 2006 were written with a down payment of 2 percent or less. These mortgages were not being written to people like Roger Porter, individuals who would have been so embarrassed by the prospect of defaulting on a financial obligation that they would have kept making their mortgage payments even if the mortgage was under water. Rather, the borrowers were people who *would* give up their houses or condos, some by necessity, some because they found it the financially prudent thing to do.

But Posner also states that "I do not blame bankers, the folks on the other side of these transactions. In contrast, I believe the banks were surely making a mistake. They were writing many mortgages with down payments of 2 percent or less in a highly volatile market. Yes, these could be packaged up and sold, but ultimately a bigger fool could not be found to buy."<sup>2</sup>

Posner and Taylor do an excellent job of identifying government follies. To provide balance and to fulfill the discussant's responsibility, I will tilt in the opposite direction and identify blame that falls on the other side. How about credit-default swaps? They were not the creation of the federal government. We had \$5 trillion worth of commercial loans outstanding. It was to be expected that a lot of those borrowers had been overly optimistic and had invested excessively. Maybe we could have expected \$3 trillion worth of commercial default swaps. But in fact we had \$50 trillion worth of commercial default swaps. By comparison, however I slice up the ownership of my very nice house, it is inconceivable that its future owners could get insurance written on it for \$30 million. But that, in effect, is what happened with these swaps. The levels of obligation, most notably of the insurance, vastly exceeded the value of the underlying instruments being insured.

In large part, this obligation inflation was accomplished through leverage. The levels of leverage (read: debt relative to assets) in the financial industry were unprecedented. Citi was leveraged 20 to 1—well above its accustomed level in the previous 15 years, which was in the low teens to 1.<sup>3</sup> I thought that that was impressive before I learned that the European banks were leveraged at substantially higher ratios—indeed, at ratios never before seen in our lifetimes.

Some big, bad players also merit special scrutiny. One of my favorite examples of a big bad player, in part because I was an investor in it, was American International Group (AIG). The distinguished economist Jacob Frenkel, a former governor of the Bank of Israel and then vice chairman of AIG, remarked "We did nothing wrong." What AIG has been blamed for most in the public press is paying out \$165 million worth of bonuses. And, boy, am I indignant, because had AIG given me that money, I would have been more than made whole. That, however, is not really the reason I should be angry. AIG got a bailout. In fact, AIG received the largest bailout—\$170 billion, which makes that \$165 million look like chickenfeed—that the U.S. government gave to anyone. But unlike Goldman Sachs, the Bank of America, or many other firms that just took a loan to get them through a rocky period, AIG is not likely to pay back the loan quickly. These bailout loans had a "heads I win, tails you lose" aspect. If any firm can, it will pay back quickly to avoid paying high charges and to win some public relations plaudits. But if it is truly insolvent, do not expect to see our money repaid in full for many years. (Here "for many years" may well mean "ever.")

The big difficulty was that AIG had written about \$440 billion dollars of credit-default swaps (a figure that was not, by the way, published in its

annual reports). That's real money, even for the big big players. Who knew about that astronomical level of potential liability? Did AIG's accountants? Did its counterparties, such as Goldman Sachs? If its counterparties did know, were they really stupid to rely on an insurer that would collapse when the losses came in? Or perhaps did they have a hint as to how the game might play out if disaster struck?

As soon as the financial crisis hit, Goldman Sachs ran to Washington. (More accurate, Lloyd Blankfein ran to Secretary of the Treasury Henry Paulson, his predecessor at Goldman Sachs.) Blankfein did not say "We need a bailout for Goldman." Rather, he said "The world needs a bailout for AIG." If you had had credit-default swaps with AIG at the Goldman level, estimated at between \$15 billion and \$20 billion, you too would have run to Washington, and you too would have tried your best not to draw attention to yourself. The implicit story was that neither Goldman Sachs nor the government regulators knew the magnitude of AIG's exposure. (By the way, U.S. regulators can deflect some blame, since these credit-default swaps had been mostly written in London.) I daresay that the people who were running AIG were not aware of their level of exposure. No major player was. But shouldn't some of them have suspected? Shouldn't someone have investigated?

Everything was out of proportion in 2008. We had bubbles not only in housing prices but also in the prices and the implicit prices of a vast array of financial instruments. Panics are as interesting and as important a phenomenon as bubbles, and are equally difficult and important to study. Panics and bubbles played important roles in the 2008 meltdown. Clearly the absence of information and (as Taylor said) the absence of a clear policy contributed to these panics. Markets abhor a vacuum, and we had an information vacuum.

### Monetary Policy and the Macro Outlook

Beware of short-term measures that are long-term killers. In *A Tract on Monetary Reform* (1923), John Maynard Keynes said "In the long run, we are all dead." He was right, but maybe he should have said that those of us who worry about the short run often take measures that impair and sometimes kill us in the long run. That suggests the interesting question of what our current monetary and fiscal policies should be, in view of our high rate of unemployment and our huge deficit.

Not being a macroeconomist, I will not venture an answer. The Taylor rule surely provides one, albeit not one that our political system, or indeed the majority of economists, would accept. But all should recognize

one great virtue of instruments like the Taylor rule: they protect us from ourselves.

Any self-denying ordinance, such as the Taylor rule, should be thought of as similar to a diet. How strict should it be? It does not take into account every factor that should be taken into account, so some deviations are inevitable. Sometimes we allow ourselves to stray a little, and sometimes we wander far off course. The interesting question is this: How can we have policies that keep us in line, but sometimes allow us to venture out a little bit? I am not very good at controlling my diet deviations, so I try to be strict with myself. From the experience of the last few years, it is clear that our policy makers take leave from normal prudent policy much too readily.

Posner does not like naysayers, but he used the word 'depression' in the title of his first book about the crisis, and twice in his paper in the present volume. I thought that was quite negative. We are not in what I would label a depression, and I do not believe one looms.<sup>4</sup> Yes, this downturn is much more severe than the recessions of the postwar era, but it is dramatically less dire than the Great Depression, during which the gross national product fell by nearly half and unemployment reached 25 percent. I think the appropriate word to describe our economy, in the near future, is 'suppression'. I think that the things that we have done to our economy over the last decade will suppress us for the next decade due to deficits, inflation, and so forth.

Confidence matters. Posner seems miffed that Ben Bernanke does not run around saying "mea culpa."<sup>5</sup> Whatever my diagnosis of Bernanke's failures or successes, I do not want him to run around saying "mea culpa." He is in charge of the Fed, and I think the worst thing he could do is say "Although I've done a good job for the last year, before that I was really screwing up." That would be terrible for the financial markets and the economy, not merely for Bernanke.

Yet I think the United States now confronts serious problems of confidence and trust. Ten years ago, when we got a document from Lehman Brothers, we knew that it was reliable. Today, we can get a document with any name on it—Goldman Sachs, Harvard University, or even the U.S. government—and reputation does not carry nearly so much weight. Is there any way to restore confidence in our institutions?

### Tools For Crisis Avoidance: Probabilistic Thinking and Illuminating Information

Not many people foresaw this crisis the way it happened, and now there are thousands of people—I must admit I am one of them—who look back

and explain precisely why it happened. History in general, I believe, should be written probabilistically. I think we should study crises by asking what the probabilities of events were before they occurred. If we had changed certain variables, how would that have changed the probability estimate at the time? I have a very hard time, for example, deciding what would have happened if the government had rescued Lehman Brothers. Would Congress have passed the bailout? If it had not passed the bailout, would that have been a good or a bad thing? Would some larger firm have been bailed out later?

I do not know, but I would like to think about such matters probabilistically. The best way to start is by looking forward. How likely is unemployment in December 2010 to fall below 9 percent or to rise above 11 percent? I am not speculating on the direction, but experience suggests that people, indeed experts, are much too confident. That is, the probability distributions they assess are much too tight. Predicting next year's economy is like picking next year's World Series winner; the most likely outcome is unlikely.

We will not see this type of crisis again, but we will see other types of crises. I share Nassim Nicholas Taleb's views of "black swans." These are high-impact events whose occurrences lie well outside our normal expectations. Such events, though rare, are much more common than people think. Moreover, once they happen, the reasons why they did are readily rationalized. An infinite number of crises can arise, and the critical question remains: What will happen in the future?

My analysis suggests that the current financial system has become effective at burying information that should be and can be uncovered. This unacceptable situation poses continuing dangers. Thus, I conclude, with apologies to Cole Porter:

#### **Let's Do It: Let's Illuminate**

We know that banks do it, geeks do it;  
Even educated Greeks do it.

We do it,  
We all obfuscate.

Investment firms in New York do it;  
Hong Kong hedge firms seeking torque do it.  
We do it.  
We all obfuscate.

In London Town, AIG did it;  
Moody's, Fitch, and S&P did it.

We do it.  
We all obfuscate.

The Fed, feeling beyond reach, did it;  
Bernie Madoff, in Palm Beach, did it.  
We do it.  
We all obfuscate.

But I think that we can evolve; do it.  
We only have to resolve; do it.  
Let's do it;  
Let's illuminate.

Small light-emitting diodes do it;  
Bugs and bolts of lightning do it.  
Let's do it;  
Let's illuminate.

Enlightened leaders, they have done it;  
Like Edison, we could bank on it.  
Let's do it;  
Let's illuminate.

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#### **Notes**

1. I am grateful to Richard Posner for pointing out the dangers of combining broad powers to assess with broad powers to regulate.
2. This was a form of Ponzi scheme in which the players, the banks, surely knew that lending with 2 percent down payments was unsound, yet ample profits were being tallied along the way. In such a scheme, players who will know with high probability when the end is coming can be expected to be winners. My speculation, however, is that virtually all were merely doing what others were doing, and thinking little about the potential for the collapse. By engaging in "standard professional practice," despite the dangers that practice entailed, they were gaining the protection of the herd.

Many financial instruments have the property of being highly profitable for a while, thus luring in investors and vastly expanding in scale. Ultimately, much too much money comes to chase too few assets, so prices become excessive and ultimately there is a collapse. Even such highly touted fields as venture capital may prove to have had unimpressive returns on net up through the end of the financial crisis. That is because much more money was at stake in the disappointing years at the end than in the earlier years of great success.

3. Interestingly, Bank of America and JPMorgan Chase, both of which were strong enough to pick up major assets after the meltdown, both had their leverage ratio fall over this period. For Bank of America it went from the mid teens to 1 in the early 1990s to 11.6:1 in December 2007. For JPMorgan Chase it went from the high teens to 1 in the early 1990s to 12.2:1 in December 2007.

4. In the United States, the nonprofit National Bureau of Economic Research has taken responsibility for identifying and dating recessions, and is usually accorded such authority in the press. It explicitly avoids using the common definition of two down quarters of economic activity. Rather, it uses the ambiguous definition: "a significant decline in economic activity spread across the economy, lasting more than a few months."

The word 'depression' is not well defined. Richard Posner asserts: "The word itself is taboo in respectable circles, reflecting a kind of magical thinking: if we don't call the economic crisis a 'depression,' it can't be one." (*The Failure of Capitalism: The Crisis of '08 and the Descent into Depression*, Harvard University Press, 2009, p. ix)

5. Posner's argument is that government officials should admit when they have screwed up "instead of lying continuously." He feels strongly that Ben Bernanke should not have been reappointed, and that to secure his position Bernanke had to make unwise promises about policy.