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Reporting on the 2008 Financial Crisis, and the Next One

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Introduction: 2008: My Most Frightening Experience as a Journalist

I've been a financial journalist for a long time, and I've seen a lot, but the 2008 financial crisis deeply shook my faith in the financial system. More important, it opened my eyes to the shortcomings of financial journalism. Covering the Great Recession was, I've come to realize, the most sobering, and at times frightening experience of my forty-year career.

In the spring of 2014, I decided I needed to step back and sort out what I'd learned – and why it still troubled me, so I left New York for Harvard's Shorenstein Center on Media, Politics and Public Policy. I spent my time as a Fellow there talking to a lot of people in finance and economics, and read every bit of market history and analysis I could get my hands on. I wanted to figure out how and where my colleagues (and I) had missed the big picture – and how we could do better the next time.¹

While at Harvard, I spoke with a range of experts including Warren Buffett, the unrivaled investment genius; Larry Summers, the former Treasury Secretary now back on the Harvard faculty; Kevin Warsh, a former governor of the Federal Reserve; Harvard economists Kenneth Rogoff, Ben Friedman, and Robert Glauber; former Bank of England vice-chairman Paul Tucker; IMF economist Manmohan Singh; former Conference Board CEO Gail Fosler; MIT Professor Andrew Lo, and former BIS chief economist William White.

I also read important speeches by Fed officials such as Janet Yellen, Daniel Tarullo, and William Dudley; the *Congressional Financial Crisis Inquiry Report*; and the transcripts of the Fed's many meetings in 2008. I also read dozens of IMF and NBER working papers, as well as a stack of books about the crisis, the role of the Federal Reserve, the "too-big-to-fail" banks, and previous financial crises. (Several current and former central bankers, and Wall Street bankers and investors – as you'll see – also spoke to me, but not for attribution.²)

What follows are the conclusions I reached. Most of them are deeply alarming to me as a journalist and a citizen because what became inescapably clear is that we are still living today with the same global financial system we had on the eve

of the 2008 crash – which was so complex and opaque that no one understood it. Worse, I've concluded, we don't understand it now.

First, I now realize, in 2008 neither regulators, policymakers, nor leaders had ready access to the information they needed to read the early warning signals of disaster. Most importantly, systemically important financial institutions weren't obligated to report their level of financial leverage, the illiquidity of their assets, their counterparty risk exposures, or other critical risk data they preferred to remain silent about.

Second, I can see now that there were higher levels of dangerous interconnectivity between the most concentrated financial institutions that weren't visible or understood by *anyone* involved, including the Federal Reserve, the Treasury, the Securities and Exchange Commission and other regulators, or the institutions they were meant to regulate.

Third, I finally understand that, although we are faced today with very nearly the same level of connectivity, no responsible body among the regulators or the regulated is fully able to evaluate developments in the financial system, just as in 2008. We still don't know who owes what to whom, either inside the United States or between American and international financial counterparties. Moreover, there is no coherent regulatory system in foreign financial capitals that is fully coordinated with the (dangerously fragmented) regulators in the United States.

How Did We Ever Get Ourselves into This Situation?

During the meltdown, especially in September 2008, a great many decisions had to be made, some almost instantly, in order to save the financial system as it faced the worst crisis since 1933. But passage of the Dodd-Frank bill hasn't solved the problems we faced in 2008. In fact, some of the bold acts that saved the day in 2008, such as the SEC's guarantee of the money market mutual funds, or the FDIC's guarantee of bank bonds, or the Fed's bailout of AIG, are now *prohibited* by Dodd-Frank.

But Dodd Frank's weaknesses, which I'll address shortly, aren't even the biggest problem. As I now see it, the core problem in the traditional banking

system is that five too-big to-fail-banks still exist – and they still control 95 percent of the dangerously-unregulated derivatives market. No less a wise man than Warren Buffett told me that he can't evaluate the banks' derivative risk levels, and as a result fears that the next catastrophe (he prefers the word "discontinuity") could be worse than 2008.

Outside the regulated traditional banking system lies the so-called "shadow banking system," barely regulated and barely understood – and a huge problem of its own (more on this shortly). For the moment, just understand that financial media have only lately even tried to investigate sectors such as the \$2.4 trillion money market funds industry, the \$1.9 trillion world of short term repo agreements, or the \$2.5 trillion hedge fund business – or biggest of them all, the *\$240 trillion* over-the-counter derivatives trade.

That \$240 trillion derivatives trade offers several vivid examples of just how unregulated (or under-regulated) shadow banking really is. One is that no one's really sure whether the market's real size is \$240 trillion, or something larger or smaller – a not inconsequential matter, given the sums involved. I challenge anyone, for example, to explain the derivative reports by J.P. Morgan, Goldman Sachs, Citigroup, or Bank of America – the biggest players in the market. Should they show their positions in gross dollars or by netting out their long and short positions to make the amounts at risk seem far less? Jim Stone, a former chairman of the Commodity Futures Trading Commission – which is supposed to, at least minimally, oversee the derivatives market – insists that it's the total exposure that counts, because it's impossible to tell from the banks' information whether the netting operation between long and short positions actually does substantially reduce their risk.

The more I've dug, what has become clear to me – in spades – is just how difficult it is for those of us in the financial press to comprehend all the forces at work in these enormous, and enormously complicated, markets.

But the markets themselves – and their biggest private players – are only one side of the problem. Government regulators, meant to represent and protect the public, are the other.

As former Federal Reserve chairman Ben Bernanke explained to an audience of market insiders (to the press and public) at the Brookings Institution earlier this year, "It was a big challenge to explain what was going on. I tried where I could to bring the story, not just to markets and to other economists, but to a more Main Street type of audience, on television or in town halls and things of that sort. But it was very challenging, frankly, to do that."

"The goal today, in 2014," Bernanke then went on, should be "to explain what we did, why we did it and try to win back the confidence of the public." Yet, looking back now, I'm not sure even Bernanke initially understood that we were experiencing a systemic crisis, because that very theme was missing in his presentations to Congress, the president, and the media. Officials at the New York Fed admitted to me (but only off the record), that they did a very poor job of clarifying the scale and scope of the systemic problems. As a consequence, all of us suffered as the Great Recession unfolded, institution by institution, event by event, with never a clear overview of the health of the entire financial system – and we have no clearer an understanding today.

That's why it is so crucial for journalists to understand what happened before, during, and after 2008 – because it's vital that we be able to spot the signs of impending crisis the next time, before the crisis happens.

Spotting the Next Crisis: A Preliminary Guide for Journalists

Before we go any further, I list here some of the sources and background knowledge that I think can arm journalists with far more ability to understand the deep and often invisible forces at work in the financial system, since public statements by both financial institution CEOs and their regulators are self-serving at a minimum, and often worse. Yet this, you must know, is only the start.

1. To understand what's happening today, a financial journalist *must learn how to read a balance sheet* – and especially the footnotes to financial statements that often highlight a problem that could be *the story*. This has proved true time and time again, because companies try to hide their nightmares in footnotes, in tiny

print and phrased in language that is sure to be murky. When you spot these curiosities, call everyone you can think of – the bank itself, the credit rating agencies, the Fed and SEC, other regulatory agencies – and ask questions until you begin to get answers.

2. Get yourself the transcripts of Federal Reserve board meetings during the crisis, because you'll recognize right away the compelling issues that challenged our central bankers. Then skim through the 2011 *Financial Crisis Inquiry Report* that brilliantly spells out the narrative of a systemic crisis – yet seems to have been read by few. You might also dip into MIT economist Charles Kindleberger's legendary book *Manias, Panics and Crashes: A History of Financial Crisis*, or John Galbraith's *The Great Crash, 1929* – because you will find two wise mentors who were always independent of Wall Street.

3. I can also tell you from experience that it often takes weeks – or months – of digging before you hit pay dirt. Never give up; think of yourself as a miner looking for gold. The deeper you go into the mine, the better your chances of finding an even bolder, edgier story than you thought existed. Use the Internet to spot studies by economic institutes or private-sector economists who specialize in finance. I wish I'd read Paul McCulley's September 2007 note about the Jackson Hole central bank meetings where he raised the specter of the “shadow banking system” for the first time.³ There are sources out there who know valuable things or can interpret for you the deeper meaning of what is happening.

4. If your first sources will speak only off-the-record, search out others – competitors, outside directors, Wall Street traders – who can tell you what you need. Use your mentor: late in the game I met a former Federal Reserve official who wised me up to several surprising policies that I had never heard of. Failing that, go back and try to get your source to put at least some information “on background.”

5. For forward guidance I advise always reading the latest speeches of the Federal Reserve's presidents or board members, especially Janet Yellen nowadays – because they're often pointed presentations on the dangerous issues that are the foremost concerns of the central bankers. (It's how I found out about the

remaining holes in the system still plaguing Wall Street.) Also listen to discordant voices, whether they're academics with an axe to grind or bloggers with their own unique understanding of the system. (Always remember though: everyone is talking from their own book, especially the radical reformers.)

6. Often you can learn about trends in American finance from foreign publications like the *Financial Times* or *The Economist*. I discovered the terrible weaknesses of European banks through reports of the BIS, that were brilliantly interpreted for me by Columbia University Business School professor Charles Colamiris and by a couple of hedge fund managers going short on European debt. (Note though that everyone's fallible: *The Economist* and the *Financial Times* were six years late when they finally featured the "shadow banking system" in 2014.)

7. As for books, I must tell you that on the advice of former *Financial Times* editor (and former Shorenstein Fellow) Richard Lambert, I read *The Banker's New Clothes* by Anat Admati and Martin Hellvig, which does first-rate discovery work on the structural and financial weaknesses of major US banks, especially J.P. Morgan Chase, and makes a compelling argument for substantially limiting the leverage used by the major banks. (The book's voluminous footnotes reveal plenty of systemic weaknesses, especially by accounting policy issues.) I found Timothy Geithner's *Stress Tests* a fairly candid and revealing story of lax regulatory activities. Read also Martin Wolf's *The Shifts and the Shocks: What We've Learned – and Have Still to Learn – from the Financial Crisis*, especially the chapters "How Finance Became Fragile," and "Central Banking After the Great Recession, Lessons Learned, Challenges Ahead."

8. Read what the big bank chairmen write in their annual reports, which sometimes can be quite frank. Jamie Dimon's 32-page letter to J.P. Morgan Chase shareholders in 2013 not only expressed his anxiety about future systemic problems, but sent a major signal to the knowing – that the bank held \$740 billion in highly liquid assets, or almost a third of its balance sheet – as protection against another financial crisis. Read Goldman Sachs' latest shareholder report and you will learn that it has more than \$184 billion in cash meant to keep the

firm operating for up to a year without needing to raise additional funds, or requiring a bailout.

9. Think about the nature of risk. Make a list of what you see as the risks to the system, whether it's monetary policy, interest rates, too-big-to-fail banks – whatever. Above all, remind yourself that a single event is never the story; it's the amalgamation of a great many single events that causes a crisis. Think about finance as a system, not just about the dangers of single products like mortgages, or a single event like the bailout of Bear Stearns. Thinking systematically is the most profoundly difficult lesson a reporter must learn. (Read, if you haven't yet, Harvard Business School's case study of AIG's chaotic risk-taking in derivatives and the George Washington University Law School article "Citigroup: A Case Study in Managerial and Regulatory Failures" by Arthur E. Wilmarth Jr.)⁴

10. I leave the most difficult lesson for last: how to evaluate the five too-big-to-fail banks and their huge derivatives positions. Here there is no clear guide for the perplexed, because you'll see that each bank reports the information differently. Recognize too that foreign banks' accounting rules make their total derivatives exposure greater than if they used US accounting standards. Understand this from the start: no bank tells you either its revenues or its profits from derivatives – ask why. Don't believe anyone who tells you it's all straightforward and lacking in danger. Memorize this passage from Admati and Hellwig's *The Banker's New Clothes*:

Some of the risks that make J.P. Morgan dangerous cannot actually be seen by looking at its balance sheet because the positions that give rise to them are not included there... The bank's commitments to these units amount to almost a trillion dollars, but these potential liabilities are left off the bank's balance sheet. Yet they are quite relevant to the financial health of J.P. Morgan Chase.

Finally, be doubtful of anyone who tells you "this time it's different." Hold onto your skepticism; do your homework. You might end up knowing more than they do.

Too Big To Fail; Too Big To Manage; Too Big To Regulate

Today, six years after the frightening start of the Great Recession in September 2008, the giant financial institutions of Wall Street are still an unparalleled elite of wealth and power. Since 1970 their share of total US corporate profits has risen from 24 to 37 percent. Second quarter profits on Wall Street in 2014 totaled more than \$40 billion, their second highest in the past quarter century. At the apex of this system, the six largest banks, whose revenues equaled 17 percent of GDP in 1995, now count revenues equal to 58 percent of GDP. How, you ask could that be possible?

The explanation is disarmingly simple: Wall Street is more concentrated today than it was before the crisis; in fact it's more concentrated today than at any time in US history. J.P. Morgan Chase owns Bear Stearns and Washington Mutual. Bank of America owns Merrill Lynch and Countrywide Credit. Morgan Stanley owns Smith Barney. Wells Fargo owns Wachovia. Altogether the five largest financial firms control 68 percent of all the commercial bank deposits in the US and hold on their balance sheets over \$10 trillion in assets – an amount roughly equal to two-thirds of the entire American economy.

Mind you, this was all done by institutions that obtain more than 90 percent of their funding from debt. Even after the passage of the ostensibly reformist Dodd-Frank legislation and all the deliberations over Basel III, the amount of equity to debt of the major banks remains essentially what it was in 2008. True, Basel III is supposed to increase bank equity, but it has a transition period that will last until 2019, when banks will still only be required to have equity equal to 7 percent of their assets.

“This is an unnecessarily long transition period,” warn Admati and Hellwig, adding that Basel III's equity requirements even then will be far too low, because for the most part, the required equity will be related not to a bank's total assets but to what are called “risk-weighted assets,” which are in fact a fraction of total assets. Translation? Basel III hasn't made the banks safe from insolvency.

These machinations are frankly, I've reluctantly concluded, the result of the "crony capitalism" (or "regulatory capture") that defines the financialization which has replaced industry as the American economy's most prominent activity since the 1980s. Yet despite the painful losses of the 2008 meltdown, I discovered that some 35 percent of Harvard Business School grads went into finance in 2012, with J.P. Morgan Chase and Goldman Sachs still considered two of the ten most sought-after employers in the US. In short, finance, and its premium compensation opportunities, still rules the business culture. Wall Street, in short, houses the new "power elite" of America, reflecting the influence amassed by the major banks, investment banks, private equity empires, hedge funds, and formidable investment management firms such as BlackRock – which by itself oversees \$4.3 trillion of other people's money, an astounding amount equal to the assets of the entire Federal Reserve system today.

Today the evidence is overwhelming that "some financial institutions have grown beyond the point where they can efficiently monitor themselves," writes Luigi Zingales, a finance professor at the University of Chicago's Booth School of Business.

Mind you, most financial experts from Stanley Fischer, vice chairman of the Fed, to Warren Buffett, America's most highly respected investor, to MIT economist Stanley Lo, are all quite confident that sooner or later we will have another crisis. Yet as long as we have financial firms that are too big to fail, warns William Dudley, president of the New York Federal Reserve Bank, "the goal of financial stability will remain elusive."⁵

So, I believe that too big to fail is *target number one* for reformers of the financial system, even though I fully recognize that the status quo position represented by figures like former Treasury Secretary Timothy Geithner, argues that no one of any consequence has been able to come up with a pragmatic method to achieve this goal in the context of a market-based financial system. The *realpolitik* of finance, in other words, so far seems to have stymied all but the most ardent reformers, implying that we will require another catastrophe to force any truly meaningful reform.

What I've additionally learned from my extensive research and interviews in the past year is that too big to fail also means that these are institutions that are too big to manage, too big to regulate, and too opaque for the press, public, and even their regulators to comprehend. Too big to fail means that the nation is faced with a highly concentrated oligopoly of banks that keeps getting larger and more powerful politically, and that when these banks next get into financial trouble, they will once again become expensive wards of the state. Or, as Jamie Dimon, the chairman of J.P. Morgan Chase, delicately put it in his 2014 shareholder letter, "Of course there is risk in the system. There always was, and there always will be. ...We continue to have a healthy fear of the unknown because we can't predict the cumulative effect of so many changes in our complex system."

Warren Buffett, when I talked to him, had much more than "a healthy fear of the unknown." The "Oracle of Omaha" flatly predicted that "there will be a huge discontinuity some day. I can't say when. But the numbers on the balance sheets of J.P. Morgan Chase and Goldman Sachs will mean nothing." Buffett admitted that even with his decades of experience, he couldn't understand J.P. Morgan Chase's presentation of its derivatives positions, which he noted represent a very large share of the assets on the giant bank's balance sheet. "There is no risk system that is effective if the numbers get big enough," he added quietly.

As a result, Buffett said he wouldn't allow Berkshire Hathaway, the giant conglomerate he sits atop, to write any long-term derivatives contracts with any counterparty whatsoever, hyper-prudence meant to avoid being owed considerable sums by a financial institution that someday won't be able to resolve its debts to Berkshire. "I don't want to be interconnected with significant amounts of receivables," Buffett told me, a remarkable admission of the risks in finance so many years after the bankruptcy of Lehman Brothers.

Buffett says he fears that the next financial crisis will develop from the year-after-year increase in concentrated holdings by just five banks, which possess 95 percent of all the outstanding derivative contracts. Like other savvy investors who aren't privy to the banks' highly confidential internal data about their

derivative positions, he is far from alone in his worries. “Without this information, regulators and investors cannot react in a timely and measured fashion to any threats to financial stability,” an American Economic Review paper concluded in 2012. ⁶

The notional amounts (i.e., the total value) of derivative contracts quintupled between 2001 and 2009, according to the Office of the Comptroller of the Currency, and today are over \$240 trillion – *an amount fifteen times the size of the US economy*. Yet the intricate details of these huge derivative positions, the identity of their counterparties, the nature and amounts of collateral backing the contracts, the degree of leverage employed, and the duration of the contracts are not known to the four giant accounting firms, the credit rating agencies, or banking industry analysts.

The banks don’t even have to reveal how much capital they’ve used in derivative operations or what portion of their overall revenues or profits these operations represent. (Some, like Goldman Sachs, tend to obfuscate by reporting different derivative operations in separate segments of their business.) Derivative prices and volumes of trading are not reported on any public securities exchange or regularly reported in the financial press. In fact, the only way to obtain daily derivative index prices is via a special website administered by the derivative clearing house, DTCC, whose limited data are comprehensible only to professional traders.

Back in 2003, Buffett noted that positions the banks report publicly each quarter “are often wildly overstated... the parties to derivatives also have enormous incentives to cheat in accounting for them.”

During the 2008 financial crisis, former Treasury Secretary Geithner has since admitted, it was impossible for regulators to understand “what exposures they (the banks) had, what counterparties might be in trouble” – then described the ways the large banks expanded their derivative positions in 2008 as “the Wild West.” According to Geithner, “We couldn’t persuade enough of them to reduce their leverage or manage their risks more carefully, because they didn’t think that was in their interest. That was the real danger to the system.”

We keep learning about the never-ending mischief the banks' derivative operations can cause. A Senate committee found last year that as a part of J.P.Morgan's "London Whale" derivative fiasco, the bank hid "hundreds of millions of losses," obstructed government oversight, lied and misinformed regulators, investors, and the public about the nature of the risks it was taking – all part of a broader systemic problem across Wall Street with respect to valuations, risk analysis and oversight of derivatives. (J.P. Morgan Chase was fined \$940 million for its sins.)

Living Wills

Wall Street's banks' derivatives business is only one of too many still-monumental problems left unresolved since 2008; their Armageddon planning is another. The too-big-to-fail institutions were mandated by Dodd-Frank to carefully draw up plans to curtail their activities when they face insolvency and failure once again.

That was four years ago, and since then the big banks' lawyers have produced tens of thousands of pages of so-called "living wills," a regulatory requirement that has grown into a gigantic farce. These highly-touted plans meant to avoid another financial crisis as extreme as 2008, when presented to regulators, were unceremoniously rejected by the Federal Reserve and the Federal Deposit Insurance Corporation as "unrealistic," as well as "inadequately supported" because they failed to make clear (or even to identify) the "kinds of practices that would be necessary to enhance the prospects for an orderly failure." Yet even now, not a single one of the giant banks has come up with a plan to close up shop "without precipitating a financial crisis," according to Thomas Hoenig, vice chairman of the FDIC. The banks have until 2015 to remedy their pathetic attempts to plan for another financial crisis. I'm not optimistic.

Shadow Banking

Beyond the too-big-to-fail-banks and their virtual monopoly on derivatives trading stands a parallel financial colossus called the "shadow banking system,"

which entails a whole group of disparate financial firms, products and functions that have each added complexity and their own risks to order in the marketplace.

The term “shadow banking” was coined by analyst Paul A. McCulley, reporting on the Fed’s Jackson Hole conference in August 2007.⁷ Though the Lehman moment was still a year away, McCulley described a mood of “creative destruction” or in what he termed “a run on the ‘shadow banking system’” – the whole alphabet soup of levered up non-bank investment conduits, vehicles, and structures.”

He pointed in particular to a sudden \$200 billion plunge in the short-term commercial paper market that had left the shadow banks with a liquidity crisis. McCulley stressed that shadow banks have no access to the Fed’s discount window for their uninsured commercial paper. Shadow banking, you see, isn’t banking as we understand it, with a vast network of ATMs, retail branches and debit cards. Instead it is a profusion of clever financial products like money market mutual funds, commercial paper, short-term repurchase notes, and credit default swaps, as well as firms such as hedge funds and investment banks. These shadow banks performed the dangerous act of borrowing vast amounts of money short-term, and then lending it or investing it – just like regulated banks. As former Fed chairman Paul Volcker pointed out, “there was no regulation. It was a kind of free ride.”

By 2008, money market mutual funds had grown to \$3.4 trillion, the use of commercial paper to \$600 billion, the use of short-term repurchase agreements to \$3.9 billion, and credit derivatives globally to a notional value of \$600 trillion. Taken together, the products and firms of shadow banking had grown larger than traditional banking – all without the capital requirements and other regulatory safeguards imposed on banks to limit risk.

As shadow banking outpaced regulated finance, the gross debt of the US financial system grew from 20 percent of GDP in 1979 to 120 percent of GDP by 2008, with predictable results, according to *Financial Times* columnist Martin Wolf. “This combination of shadow banking with the traditional banking

financial system was vulnerable to panic for exactly the same reasons as the traditional banking system: maturity and risk mismatches...magnified by the opacity and interconnectedness of the system.”

In fact, the unstoppable sequence of events in September 2008 illustrates exactly how shadow banking now affects traditional banking and created the disintegration of financial markets across the globe.

The sequence began with the bankruptcy of Lehman Brothers on September 15, 2008. This triggered a run on AIG, the largest insurance company in the world, which foolishly had booked well over \$500 billion of credit default swaps with substantial liabilities AIG could not handle. The Fed had to immediately come up with a \$185 billion bailout for AIG. Simultaneously a money market mutual fund, the Reserve Fund, holding too big a position in Lehman’s commercial paper, experienced a run on its own fund shares. Other money market mutual funds then had to quickly liquidate short-term securities to raise cash to take care of fund redemptions by their own customers. With that, the panic in short-term financial markets, part and parcel of the shadow banking system, was on worldwide.

As fear surged through short-term financial markets, giant hedge funds started calling in their loans to giant firms like Goldman Sachs and Morgan Stanley, made in the form of collateralized repurchase agreements. The unstable elements of the shadow banking system were now unraveling and on the verge of creating Armageddon.

The collapse of the \$600 billion short-term commercial paper market came next. Hoping to fend off calamity, General Electric’s chairman warned Treasury Secretary Hank Paulson on September 17, 2008 that GE would not be able to roll over its own enormous commercial paper borrowing the next morning.

How to stop the downward momentum of this rollercoaster? Treasury Secretary Paulson and Fed chairman Bernanke decided to guarantee the \$600 billion commercial paper market, hopefully to give GE and others time to refinance their volatile short-term debt. Other bailout measures and

munificences, eventually amounting to trillions of dollars put up by taxpayers, would follow to prevent a complete disaster.

In short, shadow banking's weaknesses were crucial to 2008's gargantuan market failures, first in the US and then globally, as banks in Europe and elsewhere sought their own local bailouts. "The root cause of the [financial] crisis was the overall and massive undervaluation of risk across markets, financial institutions and countries," said Jean-Claude Trichet, then-president of the European Central Bank.

Despite the passage of both six years and Dodd-Frank, I'm far from alone in thinking too little has changed in regulatory oversight of most aspects of the shadow banking system. Former Treasury Secretary Larry Summers told me point-blank that the regulatory gap he worries about most is shadow banking oversight, especially in the \$2.4 trillion money market mutual fund industry. Even more worrisome, Summers believes that the web of linkages between shadow banks and traditional banks still prevent the Fed from ever knowing in advance when a major bank might be becoming insolvent – an extraordinary observation that has been discussed nowhere, as best as I can tell.

The market for repurchase agreements – "repos" – are another form of basic finance used by investment banks and hedge funds that still alarms many market-watchers. For example, Erik Rosengren, president of the Boston Fed, recently warned that "large broker-dealers, some of which are owned by big banks, still rely on potentially volatile short-term funding like repos to finance activities."

Mid-Course Lesson: Six Years Later

Everyone – the bankers, the regulators, the media – still face serious obstacles to discerning the deteriorating health of the financial system in 2014, just as they did before 2008.

1. The Fed, as lender of last resort, is still not capable of recognizing when a bank has become insolvent, according to Larry Summers.

2. There is still no reporting system tracing the interconnections among domestic financial institutions and between US banks and investment banks with their foreign competitors. The total sum of borrowing short and lending long in the US is thus still simply not available.
3. Valuable internal information is in many cases still not disclosed in quarterly financial statements.
4. Nowhere is there any mention of a shortage in collateral and the dangerous relending of collateral in the banking system.
5. At least two former highly-placed regulators have told me that the Fed actually prefers to have a few very large too-big-to-fail-banks so that it can oversee the largest portion of banking industry assets “more easily.”
6. Regulators still “lack the resources, the motivation, and still the knowledge” to keep up with the biggest players in finance, according to Martin Wolf.
7. There is still no way to gauge how the size, structure and operations of the “shadow banking system” are making the financial system inherently fragile.

In other words, there are still so many obstacles and challenges to a properly-functioning financial system that no one – including the media – can understand precisely the problems hidden in the plumbing of the financial markets. To mix metaphors, in short, we are still flying blind.

The Whole vs. the Sum of the Parts

“One of the great pre-crisis mistakes was to look at risk in the financial system institution by institution, atom by atom. Doing so resulted in regulators missing the systemic crisis of a lifetime,” says Andrew Haldane, one of the top officials of the Bank of England. “Yet an asset by asset, atom by atom approach to risk management still lies at the heart of the post-crisis regulatory framework.”

Former Fed governor Kevin Warsh is even more explicit: there is still no way to “compare a firm’s exposures against one another in a timely and effective manner. Disclosure practices by the largest financial firms remain lacking and the periodic reporting overseen by the Securities and Exchange Commission

tends to obfuscate as much as inform...” Warsh’s remedy is no less explicit: “Those interconnected firms that find themselves dependent on implicit government support do not serve our economy’s interest. Their continued existence should not be countenanced. The risks associated with our largest firms must never again be underwritten by taxpayers.”

Even Fed Chairman Janet Yellen admits the absurd lack of data the government needs to protect us against another financial crisis. “Highly interconnected firms can transmit shocks widely, impairing the rest of the financial system and the economy. Detailed and comprehensive data on the structure of the financial markets is needed to understand the systemic risks facing the financial system and to gauge the contribution to systemic risk by individual institutions.”

Yet I’ve come to conclude – despite my deep respect for professionals like Haldane, Warsh, and Yellen – that lack of data or data analysis isn’t the only problem. The problem, quite frankly, is that when too-big-to-fail bankers want to oppose some reform that damages their bottom line, they can usually block such a change by dint of the influence their money can buy.

For example, a proposed rule under Dodd-Frank mandated that the single counterparty credit limit on derivatives be no more than 10 percent of each firm’s capital base for each counterparty. If that were in effect today, Goldman Sachs would only be able to write \$7 billion of credit default swaps – or 10 percent of its equity capitalization – with any of its chief competitors. But, according to a footnote in *The Bankers’ New Clothes*, “Goldman Sachs is said to estimate that US banking titans are up to 18 times more exposed to one another under the proposed rule’s methodology than banks consider themselves to be now.” Somehow I doubt the rule restricting derivative positions per counterparty will ever be agreed to.

The banks are no less determined to block public oversight of the \$10 trillion market in credit default swaps that are arranged bilaterally between one bank and another. As a consequence, this gargantuan – and exceptionally profitable – trading business is still not subject to even the oversight and reporting requirements of a market-based clearing house like ICE (Intercontinental Exchange, Inc.).⁸

It is no wonder then that former Treasury Secretary Geithner is flatly predicting that “in a severe crisis, governments ultimately will need to take catastrophe risk off the table by guaranteeing a broader range of financial liabilities... there’s no way to break a true panic without guarantees.”

Nevertheless, getting the guarantees may not be as easy as it was in 2008, due to obstacles included in the Dodd-Frank Act such as the creation of the Financial Stability Oversight Commission. Because FSOC includes leaders from a whole range of disparate regulatory agencies such as the Federal Reserve, Treasury, FDIC, SEC, and CFTC, there is danger it might not see its way to react quickly to a crisis. One respected authority, former Fed governor Donald Kohn, issued a warning in spring 2014 at the Kennedy School that the FSOC was “an accident waiting to happen,” incapable of decisive action in an emergency.

Dodd-Frank was supposed to reorganize regulation to prevent another 2008, but in just four years of rule-making has grown from a 1,400 page bill into an 8,843 page rule book – and could grow to 30,000 pages or more, in the estimate of Martin Wolf. “This manic rule-making,” he writes, “is designed to disguise the fact that the thrust of it all has been to preserve the system that existed prior to the crisis: it will still be global; it will continue to rely on the interaction of vast financial institutions with free-wheeling capital markets; it will continue to be highly leveraged; and it will continue to rely for profitability on successfully managing huge maturity and risk mismatches.” Stunning to most of us, Wolf believes “the authorities want largely to preserve a system they also mistrust.”

“We can now see that the largest, most powerful banks came out of the crisis even larger and more powerful,” writes MIT economist Simon Johnson. When the future of the financial industry appeared dire in September 2008, “Washington

came to its rescue – not because of personal favors to a handful of powerful bankers, but because of a belief in a certain kind of financial sector so strong not even the ugly revelations of the financial crisis could uproot it.”⁹

That’s why, even though trust between Washington and Wall Street is still in a state of unease and disrepair, Wall Street’s interest in the bottom line, rather than the public’s in proper regulation, is winning.

We’ve Been Here Before

The whole structure is delicate. The peculiar essence of our financial system is an unprecedented trust between man and man; and when that trust is much weakened by hidden causes, a small accident may greatly hurt it, and a great accident for a moment may almost destroy it. – Walter Bagehot, *Lombard Street: A Description of the Money Market*, 1873

Four years after the passage of Dodd-Frank, the financial system still contains enormous, unsolved inherent risks. First, there is the fundamental problem of risk, the mismatch of very short-term borrowings that need to be constantly renewed to finance the positioning of long term assets. There is always the risk of demands from the lenders of the short term funds to be repaid, leading to a wave of illiquidity.

Second are the counterparty risks, rooted in the collateral that depends on counterparties who in a crisis may be facing their own internal financial crisis of pending insolvency. A related problem is the carrying of leveraged investments where the risks may not be clear.

Third are the implied backing risks where the creditors of the too-big-to-fail banks believe they’re protected by an implicit government guarantee against failure, which makes everyone involved less attentive to managing risks realistically.

Fourth are the liquidity/solvency risks, since there is in reality (especially in a crisis) no strong dividing line between illiquidity and insolvency, a deep structural reason why the system is inherently risky.

Fifth, there is the moral hazard risk: since the mid-twentieth century, the incentives of stockholders and depositors to discipline bankers have grown much weaker because it's assumed losses that will be passed on to taxpayers.

The whole structure of modern finance still suffers from the fragility of being a nontransparent global network – in which lending and trading and borrowing constantly raises the degree of interconnectivity in the system, thereby amplifying strategic risks, which in turn offers yet more opportunities for turbulence, vulnerabilities, and shocks.

The Fed itself, to underscore this point, has announced the formation of a special committee to monitor potential threats to financial stability. The committee – which currently includes vice chairman Stanley Fischer, former Harvard Law professor Daniel Tarullo, and Federal Reserve member Lael Brainerd – will focus on the challenge of asset bubbles and other volatile market destroyers that threaten stability – even though many critics remain dubious that an early-warning system will work. (Former Secretary Geithner, for example, plays down this goal by declaring that “there’s no way to be sure exactly when a bubble will pop, no certain way to prevent a mania from becoming a panic.”)

And if I've seemed only a Cassandra, let me close by noting that there has been *some* progress toward modernization of the financial system, although it has been steadily diluted by the political power of Wall Street.

Dodd-Frank and Basel III, for example, *have* forced the banks to increase their capital – and even more significantly their liquidity. Some of the major banks such as J.P. Morgan Chase, Goldman Sachs and Citigroup, as I've noted, do now hold highly liquid assets including cash equal to between 20 and 30 percent of their entire assets on the balance sheet. Moreover, these banks are by no means presently over-leveraged as dangerously as they were in 2007 and 2008.

It's a plus too that large banks must now have Tier One capital of 6 percent, rather than 4 percent, though I hasten to add the 6 percent is of “risk weighted” assets. This is the loophole that I and many others worry the banks could employ to leverage themselves back up to dangerous heights. At a minimum, banks can still hold footings equal to at least 16 or more times their capital – and probably a

good deal more. (Admati and Hellwig argue vehemently for banks maintaining 20 percent equity capital and a leverage ratio of debt of 4 to 1. But that's unlikely to happen.)

The “plumbing” of what I still consider the dangerous derivative markets has also been improved by placement of many transactions on publicly-accessible clearing houses like the CME and ICE. These clearing houses are matching buyers and sellers in a manner that has finally brought *some* visible order to this enormous new wing of the financial system. Even so, I can't forget that there is still *at least \$10 trillion* of credit default swaps that are still being settled bilaterally and privately by the banks themselves, with no independent clearing organization or regulator tracking the transactions.

One Closing Fusillade: Make Markets Safer. What Journalists Can Do

Let me finish not as Cassandra but hopefully as Paul Revere here, by saying first what needs to happen to make markets safer, then what journalists can do.

1. It is absolutely absurd that no Federal Reserve forecasting model “captures what's going on,” as former Fed governor Kevin Warsh told me. It makes no sense that monetary management today includes not a single input from domestic financial markets which are affected by every Fed decision.
2. Dodd-Frank now prohibits many of the techniques government used in 2008 to protect Wall Street and America from complete chaos. The Fed is prohibited from bailing out a single institution without the approval of Congress. The Treasury is prohibited from guaranteeing the value of money market mutual fund shares. The FDIC is prohibited from guaranteeing the fixed income securities of major banks, the strategy that helped Citigroup keep its doors open in 2008. These are dangerous mistakes – and must be corrected.
3. Rumors about the financial health of a too-big-to-fail bank can still lead to “contagion risk,” where a threat to parts of a derivatives portfolio can lead to a “run” on the entire portfolio, which is exactly what happened with Lehman Brothers as it approached bankruptcy. The Office of Financial Research, a newly

formed office of the Treasury, claimed in its 2013 annual report that it is collecting data to measure derivative transactions and positions to better understand the risk to financial stability posed by derivatives – but their focus is on counterparty default scenarios, suggesting regulators have a long way to go before they can claim to truly be in control of the risks.

4. A still-unpublished study by Columbia University finance professor David Beim, done for the New York Fed, warned that the Fed staff in New York were constantly afraid to speak their piece and instead deferred to Goldman Sachs in the years after the 2008 crisis. Beim's study (leaked to National Public Radio),¹⁰ is a reminder once again of the ways the giant banks can still intimidate central bank regulators. The culture of the New York Fed, according to Beim, was even after 2008 a culture of abject fear of the regulated's power, paralyzing the Fed.

5. Before he retired from the Fed, Ben Bernanke exclaimed that his goal as chairman of the central bank had been to “explain what we did, why we did it and try to win back the confidence of the public.” A noble goal to be sure, but one the Fed has never achieved because the public (supported in part by the press) has made it abundantly clear that most Americans believe that since 2008 the Fed's done more to bail out Wall Street than Main Street.

Finally, I am charging the media – especially the print press – with what to some of my colleagues will seem an impossible task: to make up for the willful blindness of large Wall Street institutions, the regulators as a whole, and the economics profession, whose models prior to and during the financial crisis were at best ineffective in recognizing the truth, and at worst hid it from the public. I am not preaching that any of my next recommendations are a sure-fire recipe for solutions – but rather my recommendations for spotting the early warning signals of the next impending crisis. As journalists, we owe the public at least that.

1. When the ratio of debt to equity at the too-big-to-fail banks rises to a dangerously high level, say a rate of 20 to 1, it means that banks are putting their solvency at risk once again, and *that's a signal for the press to warn the public*. If necessary, publishers should be asked to pay for forensic accountants to help break down the quarterly financial statements of too-big-to-fail banks – and even aggregate their total debt and equity. This is my top choice for the most effective early warning signal of the system's financial stability. Wouldn't it be a prize-winning role for the press to alert even the regulators that there is a highly dangerous level of debt in Wall Street? Recall that John Mack, the chairman of Morgan Stanley, warned the government in 2008, "We cannot control ourselves. You have to step in and control [Wall Street]." We journalists should count that as an invitation.

2. Another effective way to monitor impending risk is to track the cost of insurance protection for the big financial institutions by keeping daily track of the price of their own derivative contract, the credit default swap. When you see the premium for buying the CDS of a major bank suddenly spike, you'll know that the well-informed are betting that trouble is nearing. In practical terms this means leading newspapers or business magazines will need to assign savvy journalists to keep track of the daily derivatives markets, as well as derivative reports of the Office of the Comptroller of the Currency and the Bank for International Settlements, from now on on an ongoing basis.

3. Watch for a sudden "run" on short-term borrowing instruments like money market funds or commercial paper, or repo agreements. Any sign that the providers of these essential financing instruments are pulling back and demanding their money will be a sign of weakness at either one institution or the system. Journalists need deep sources in Wall Street trading rooms who manage the buying and selling of these essential financing tools.

4. Getting at the truth requires a full-time team of reporters and editors. It's too much for a single journalist to monitor the too-big-to-fail banks, plus the key half-dozen regulatory agencies in Washington, plus the leading economics and finance journals and professors, not to speak of the big foreign banks. (Tracking

derivative positions is, frankly, by itself a full time job.) The press can't count on whispered warnings from inside the Fed or calls from the corner office of a major bank. What's really needed is an investigatory team, with staff in New York who cover Wall Street, staff in Washington who cover the Fed, Treasury, the SEC, the FDIC, and the CFTC, and an economics team that knows the leading academic and independent market experts across the nation. Short of that, the media is always going to be late, dependent on sources who prefer to hide the truth from the world. If the system is "willfully blind," then you need a hearty band of truth seekers to print the truth.

Endnotes

¹In my search for answers I was aided and abetted by two Shorenstein Center professors who shared their insights and encouraged me to dig deep. I especially thank Richard Parker, the biographer of John Kenneth Galbraith, who influenced my thinking, and Thomas Patterson who gave me steady feedback. I would like to thank the Shorenstein Center's Director, Alex Jones, for his persistent recommendation that I concentrate my findings about the media and Wall Street on the post-2008 ramifications of the financial crisis and bailout. This focus helped bring to light the still evident risks of another financial crisis someday.

² I had interviews with several experts on the monetary and financial markets who requested that I not identify them by name. I assure you they were of great value in demystifying these matters.

³ McCulley, Paul. "Global Central, Bank Focus," PIMCO Bonds, August/September 2007.

⁴ McNichols, Maureen and Nathan T. Blair, "AIG – Blame for the Bailout," *Harvard Business Review*, Case #A203 (March 21, 2009).

Wilmarth, Arthur E., *Citigroup: A Case Study in Managerial and Regulatory Failures*, 47 IND.L.REV pp.69-137.

⁵ I should add that this is not just an American concern. "TBTF (too big to fail) is the single greatest challenge in the underpinning of financial stability," I was told by Paul Tucker, the former deputy governor at the Bank of England, with responsibility for Britain's stability (and today a senior fellow at Harvard's Kennedy School of Government and the Harvard Business School). "Solving the TBTF problem is necessary to return banking to its place in market capitalism, and to stem creeping balkanization of global finance," writes Tucker in *Central Banking after the Great Recession, Lessons Learned, Challenges Ahead*, an invaluable addition to the debates about how much regulation and oversight Wall Street requires.

⁶ Abbe, Emmanuel A., Amir E. Khandani, and Andrew W. Lo. 2012. "Privacy-Preserving Methods for Sharing Financial Risk Exposures." *American Economic Review*, 102(3): 65-70.

⁷ McCulley, Paul. "Global Central, Bank Focus," PIMCO Bonds, August/September 2007.

⁸ A related problem I've since learned – but have yet to follow up – involves the generally accepted scarcity of proper collateral, a scarcity said to amount to \$800 billion.

⁹ Johnson, Simon and James Kwak. *13 Bankers: The Wall Street Takeover and the Next Financial Meltdown*. New York: New York Vintage Books, 2011

¹⁰ Bernstein, Jake. “Inside the New York Fed: Secret Recordings and a Culture Class,” *Propublica*, September 26, 2014.

Sources

Interviews and Correspondence

Warren Buffett (CEO, Berkshire Hathaway) and Charlie Munger, (vice chairman, Berkshire Hathaway), interviewed by telephone by the author.

Warren Buffett on restricted use of long-term derivative contracts, email message to author.

Richard Cavanaugh (professor, Harvard University), interviewed by the author, April 17, 2014

Ben Friedman (professor, Harvard University), interviewed by the author, March 14, 2014

Robert Glauber (professor, Harvard University), interviewed by the author, May 8, 2014

Jim Grant (Financial Journalist), interviewed by the author, March 19, 2014

Brian Kleinhanzl, Keefe Bruyette & Woods bank analyst, email message to author.

Andrew Lo (professor, MIT), interviewed by the author, March 12, 2014

Kenneth Rogoff (professor, Harvard University), interviewed by the author, February 11, 2014

Manmohan Singh (economist, International Monetary Fund), interviewed by the author, March 20, 2014

Jim Stone (chairman, Plymouth Rock Assurance), interviewed by the author, April 15, 2014

Lawrence Summers (professor, Harvard University), interviewed by the author, March 24, 2014

Paul Tucker (former official, Bank of England), interview by the author, March 11, 2014

Bibliography

AIG, annual report, 2007

AIG, Management's Discussion and Analysis of Financial Condition and Results of Operations, February 28, 2008

Barth, James and Apanard Prabha. *Breaking (Banks) Up Is Hard To Do, New Perspective on "Too Big to Fail,"* Milken Institute, 2013.

Berkshire Hathaway, annual report, 2013

Cochrane, John H. *Toward a Run-Free Financial System,* University of Chicago Booth School of Business, 2014.

Davis Polk. *Dodd-Frank Progress Report,* April 2014.

William Dudley. "Fixing Wholesale Funding to Build a More Stable Financial System" (speech, New York Bankers Association's 2013 Annual Meeting and Economic Forum, New York, NY, February 1, 2013).

William Dudley. "Global Financial Stability" (speech, Tenth Asia-Pacific High Level Meeting on Banking Supervision, Auckland, New Zealand, February 25, 2014).

"Too Big Not to Fail," *The Economist* (February 18, 2012).

Federal Reserve Bank meeting transcripts, January 2008 to October 2008, accessed at <http://www.federalreserve.gov>

Financial Crisis Inquiry Commission. *The Financial Crisis Inquiry Report: Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States, Authorized Edition,* 2011.

Foroohar, Rana. "The Myth of Financial Reform: How Wall Street Won, Five Years After the Crash," *Time* (September 23, 2013).

Goldman Sachs, Notes to Condensed Consolidated Financial Statements (Unaudited)

J.P. Morgan Chase, 10K report on the Management of Derivative Positions, December 31, 2013

J.P. Morgan Chase, annual report and letter to shareholders from Jaime Dimon, April 9, 2014.

M&T Bank, annual report, 2013

Mehrling, Perry. *The New Lombard Street: How the Fed Became the Dealer of Last Resort.* Princeton: Princeton University Press, 2011.

Minoiu, Camelia, Chanhyun Kang, V.S. Subrahmanian, and Anamaria Berea.

“Does Financial Connectedness Predict Crises?”(working paper, International Monetary Fund, 2013).

Plymouth Rock Assurance, annual report, 2013

Reinhart, Carmen and Kenneth Rogoff. *This Time Is Different: Eight Centuries of Financial Folly*. Princeton: Princeton University Press, 2009.

Singh, Manmohan. “Collateral and Monetary Policy,” (working paper, International Monetary Fund, 2013).

Singh, Manmohan. *The Economics of Shadow Banking*, Reserve Bank of Australia, 2013.

Singh, Manmohan. “New Regulations and Collateral Requirements: Implications for the OTC Derivatives Market,” (working paper, Swift Institute, 2013).

Daniel Tarullo. “Shadow Banking and Systemic Risk Regulation” (speech, Americans for Financial Reform and Economic Policy Institute Conference, Washington, D.C., November 22, 2013).

Warsh, Kevin. “Rethinking Macro,” (working paper, Hoover Institution, 2014).

White, William. *Whither Monetary and Financial Stability? The Implications of Evolving Policy Regimes*, Bank of International Settlements, August, 2003.

Wikipedia contributors, "Shadow banking system," *Wikipedia, The Free Encyclopedia*.

Zumbrun, Joshua. “Clinton Calls Advice He Got on Derivatives Wrong,” *Bloomberg* (April 19, 2010).