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Wray, L. Randall

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Lessons we should have learned from the global financial crisis but didn't

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### **Working Paper No. 681**

#### Lessons We Should Have Learned from the Global Financial Crisis but Didn't

by

### L. Randall Wray Levy Economics Institute of Bard College

August 2011

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Levy Economics Institute P.O. Box 5000 Annandale-on-Hudson, NY 12504-5000 http://www.levyinstitute.org

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#### Abstract

In this paper, I first quickly recount the causes and consequences of the global financial crisis (GFC). Of course, the triggering event was the unfolding of the subprime crisis; however, I argue that the financial system was already so fragile that just about anything could have caused the collapse. I then move on to an assessment of the lessons we should have learned. Briefly, these include: (a) the GFC was not a liquidity crisis, (b) underwriting matters, (c) unregulated and unsupervised financial institutions naturally evolve into control frauds, and (d) the worst part is the cover-up of the crimes. I argue that we cannot resolve the crisis until we begin going after the fraud. Finally, I outline an agenda for reform, along the lines suggested by the work of Hyman P. Minsky.

**Keywords**: Global Financial Crisis; Subprime Crisis; Hyman P. Minsky; Galbraith and the Great Crash; Control Fraud; Underwriting; Deregulation; Financial Reform

**JEL Classifications**: E3, E11, E12, E32, E44, G01, G21, G38

#### INTRODUCTION

In this piece, I will first quickly recount the causes and consequences of the global financial crisis (GFC) including an assessment of the lessons we should have learned. I will then move on to a general discussion of an agenda for reform. My approach is heavily influenced by the "masters"—Keynes and his followers, and most specifically by my dissertation advisor, Hyman P. Minsky.

#### THE GFC: CAUSES

John Kenneth Galbraith's book, *The Great Crash* (1929), argued that the economy on the verge of the Great Depression was so fragile that it was just waiting for some event to cause the crisis. It does not really matter what that triggering event was—it could have been anything—and I think that is also true of 2007. If one had to identify one primary weakness, it was in the US housing market, and specifically the problem with subprime mortgages. The first event was in early spring in 2007, when news came that home owners were defaulting on their very first home payments, which had never happened before. For anyone paying attention (and I was—I had been warning about problems in real estate since 2000, and in 2005 had identified the relation between President Bush's "ownership society" and the housing bubble—arguing it would lead to a massive transfer of wealth to the rich when the bubble burst—see Wray 2005), that indicated something was really wrong.

However, most people were not paying attention, so it caught policy makers by surprise—or so they claim. That may be true, I do not know. Professor Mishkin (then, a member of the Fed board) came to the Levy Institute in April to give a talk, focused almost entirely on the dangers of inflation pressures. He argued that the economy had been growing too swiftly, proclaiming that "Since the spring of 2006, however, the expansion of the US economy appears to have been undergoing a transition to a more moderate and sustainable pace. Although such a transition will no doubt be marked by some bumps in the road, it represents a desired macroeconomic rebalancing that over the longer run can help ensure sustained noninflationary growth." (Towle, p.18)

By that time there was a lot of evidence already accumulating that the bubble was bursting, but Mishkin argued that any problems in subprimes would not spill over and said he preferred to focus on the "good news" in housing. In any event, the high rate of defaults on subprimes was THE triggering event, but what is more important is that we had developed an economy that was vulnerable. The total subprime "universe" was less than two trillion dollars (not that much); it wasn't that big relative to US GDP or total debt, and the number in default weren't that high.

So how could that have triggered a global financial crisis? It couldn't have, except that we were extremely vulnerable so that just as in 1929, almost anything would have triggered the collapse. That is where Minsky's work comes in, since he had been pointing to a long-term transformation of the economy toward fragility since his earliest work (Wray 2009).

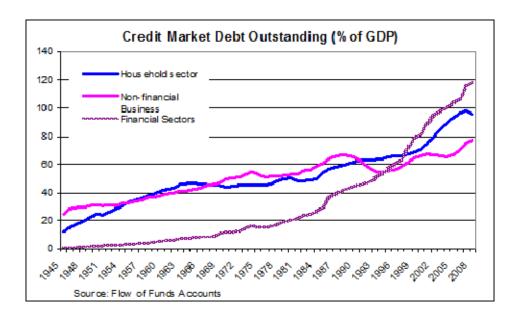
There are a number of competing analyses of the crisis. A lot of people focus on deregulation, and of course that played a huge role—but deregulation had been going on since the late 1960s.

Some analysts blame the Fed—supposedly it kept the interest rate too low and that promoted speculation. I think that this is mostly wrong: low interest rates do not necessarily fuel speculation—a point made by Galbraith in his analysis of the great crash. In any case, the Fed had already turned to raise interest rates in 2004, and most of the worst abuses in real estate markets occurred after 2004, not before 2004 when interest rates were actually very low. The Fed started raising interest rates thinking that that would cool bubbles; of course it didn't. Raising interest rates in a bubble won't have much impact, because the prospective earnings in a bubble swamp any 400 basis points increase in interest rates—which would be a rather large rate hike that would take a couple of years to phase-in (since the Fed had moved to a policy of "gradualism," a series of small rate hikes, when it adopted the New Monetary Consensus).

Then there are those who argue that the cause was stagnant real wages in the US and rising inequality. I think that plays a big role as it does help to explain why American households got so far into debt trying to maintain living standards (Wray 2005). Wages had not risen since the early 1970s, so households were borrowing to buy cars, pay health bills, and for college. For awhile, adding workers per family (mostly women with children) helped to support consumption, but as lending standards relaxed, and as house prices boomed, consumption was

fueled by home equity loans. Indeed, about half of subprime and Alt-A (a step below prime) lending were second mortgages or cash-out refinances of homes. So, I think that explanation is a little closer to hitting something important.

And then finally, there is financialization which points to the rising role of finance in the economy, increasing leverage, increasing layering of debt on top of debt, and a greater share of GDP going to the financial system, going to interest rather than profit, and so on. For example, total US debt (of all types) rose to five times GDP—compared with the previous peak which was three times GDP in 1929. To be sure, the debt ratio had been growing on trend since 1960, but there was a kink in the past two decades. A telling measure of financialization is the ratio of financial institution liabilities to GDP (see next graph) which indicates something new had occurred in recent years. We can think of this as financial layering: financial institutions borrowing from each other to lend. This led to complex linkages, such that failure of one financial institution (Bear or Lehman) would topple all the others that held its liabilities. This explanation clearly highlights one of the greatest indicators of financial fragility, and I think it is the closest to Minsky's explanation, and much closer to getting it right.



Minsky started writing about this in the late 1950s. He tracked the evolution of the economy, and argued that we were moving toward an economy where "it" could happen again. He continually adapted his theory to take account of what was going on. For example, his "financial instability hypothesis" was more about the business cycle in the beginning, but later,

by the end of the 1980s, it was more about this longer-term transformation of the economy (Minsky 1986, 1992a, 1992b, 1992c, 1992d; Minsky and Whalen 1996; Sen 2010b). So the financial fragility hypothesis evolved to an explanation of a long-term transformation, not a business cycle explanation. This culminated in his development of the stages theory—the evolution from Hilferding's "finance capitalism" (that failed in 1929), the rise of "managerial welfare-state capitalism" after WWII with its New Deal protections, and finally to what he called the current stage "Money Manager Capitalism" (Wray 2008a, 2009).

This is an inherently unstable form of capitalism with huge pools of funds under management of professionals, each seeking the highest return. Examples include pension funds, sovereign wealth funds, mutual funds, and insurance funds. Pension funds alone grew to about three-quarters the size of GDP. Managed money was largely unregulated and was able to compete with the regulated banks. It played a role in the rise of what came to be called "shadow banks" and many have pointed to that portion of the financial system as an important contributor to the crisis. Indeed, much of the deregulation of banks was designed to allow them to compete with the less regulated, lower cost, and more highly leveraged shadow banks. By tapping managed money, they helped to bubble up stocks, then real estate, and finally commodities markets. To compete, banks created off-balance sheet entities (such as special purpose vehicles) that took huge risks without supervision. Those risks came back to banks when the crisis hit. It is difficult to imagine how we could have had the GFC without the rise of money managers and the shadow banks.

Until a few weeks ago, the conventional wisdom was that we were over the hump, on the road to recovery. For Washington and Wall Street the GFC is but a distant memory. The tens of trillions of dollars (that is not an exaggeration) committed by Uncle Sam to the bailout of banksters has been claimed to be a great success. Wall Street's share is back up to 40% of all corporate profits. The rich are doing just fine, thank you. Compensation, profits, stock options, and bonuses are up for our elite class. According to a new study, since "recovery" began in the second quarter of 2009, corporate profits took 88% of the growth in national income (Greenhouse, 2011). What about workers? They captured just 1% of that growth. And all of that was in the form of benefits (thanks to rising healthcare costs)—real wages and salaries actually

fell for the first time *ever* in a "recovery." Needless to say, it is also a jobless recovery—the worst performance *ever* in terms of employment creation, too. (More on that below)

But that is easy to overlook in Washington and on Wall Street since the biggest financial institutions escaped with barely a scratch and have returned to the same practices and rewards that caused the GFC. By hook and by crook, Wall Street also escaped reregulation as the flaccid Dodd-Frank Act avoided any fundamental reform. In any case, the Republicans have made clear that they will not provide new funding to regulatory agencies, so even the weak rules in the Act will never get enforced. And so far, none of the big Wall Street crooks have been prosecuted for high crimes. There have been some fines and civil cases, and a few lesser criminals like Bernie Madoff were sacrificed, but all the big banksters are not only free—they are still running their criminal organizations (called "chartered banks" in polite conversation), advising the White House, and gearing up to fund the next presidential campaign.

#### THE LESSONS WE SHOULD HAVE LEARNED

All of that is to say that financial reform is dead for now. Nothing can be done until the next Wall Street—induced crash. But let us enumerate the lessons we should have learned from the GFC so as to prepare to discuss the reforms that should have been adopted.

#### 1. The GFC was not a "Liquidity Crisis"

At a recent conference I attended, one of the Treasury officials who participated in the bailout told me that the crisis really just amounted to a "global missed payment." The whole world was just short a few bucks in its checking account. Uncle Sam provided overdraft facilities and resolved the problem. No harm, no foul (a conference participant actually used those words).

In my view, that is a gross misstatement. What actually happened is that default rates on risky mortgage loans rose sharply while home prices plateaued. Megabanks took a look at their balance sheets and realized they were not only holding trashy mortgage products, but also lots of liabilities of other mega financial institutions. It suddenly dawned on them that all the others probably had balance sheets as bad as theirs, so they refused to roll-over those short-term

liabilities. And since the Leviathans were highly interconnected, when they stopped lending to one another the whole Ponzi pyramid scheme collapsed.

To label that a liquidity crisis is misleading. It was massive insolvency across at least the largest financial institutions (both banks and shadow banks) that led to the "run on liquidity" (really, a refusal to refinance one's fellow crooks—criminal enterprise always relies on trust, and when that breaks down, war breaks out). The banks had an insufficient supply of good assets to offer as collateral against loans, just trashy real estate derivatives plus loans to each other, all backed by nothing other than a fog of deceit. All it took was for one gambling banker to call the bluff. Every banker looked for an even bigger sucker to refinance the junk. The only saps left standing sat (so to speak) in Washington. And that is why it took tens of trillions of lending, spending, and guaranteeing of trash by Uncle Sam acting as sucker of last resort to stop the carnage. (As every gambler knows, if you do not know who the sucker is within five minutes of beginning the game, you are the sucker.)

As of mid 2011, all the big banks are probably still insolvent. It is only the backing provided by Tim Geithner and Ben Bernanke as well as the "extend and pretend" policy adopted by regulators and government supervisors that keeps them open.

As we know from the Savings and Loan crisis of the 1980s, leaving insolvent institutions open only blows the hole bigger—especially when fraudsters are left in charge so they can run what my colleague Bill Black calls a "control fraud" that loots the institution to pay top management huge bonuses. During the thrift fiasco, the fraudsters were finally shut down, more than a thousand were jailed, and the Bush (Senior) administration resolved the crisis with an infusion of about \$200 billion, using the Resolution Trust Authority. While the "bailout" was imperfect, at least that time it stopped the fraud, closed the worst thrifts, and jailed many of the crooks. So far, in this much bigger crisis we have done none of those things.

#### 2. We Should Have Learned That Underwriting Matters.

Underwriting is the process of determining credit-worthiness of borrowers and putting in place incentives to ensure payments will be made as they come due. All the big institutions involved in home finance reduced or eliminated underwriting over the past decade. The "efficient markets" hypothesis said you really do not need underwriting because markets will discover the

proper prices for securitized loans; and lending was so much easier and cheaper to do if you did not bother to check the financial capacity of the borrower. Hence, we ended up with Liar's Loans and NINJA Loans (no income, no job, no assets, no problem!).

Indeed, if one looks closely at recent financial crises you find that the cause is usually deterioration of underwriting standards. Market discipline does not work because when some asset class is booming, lenders come to expect that prices of those assets will continue to rise. They will then lend more relative to value, current income, and expected cash flow because asset price appreciation makes most loans good. If things do not work out, loans can be refinanced or the collateral can be seized and sold. It goes on until someone questions the boom—and starts to sell assets or refuses to roll-over debt. The discovery that assets are probably overvalued causes prices to reverse course and then to collapse, so borrowers sink underwater and lenders are left insolvent. A run on uninsured liabilities then begins.

In the GFC, "depositors" in money market mutual funds began to worry about "breaking the buck" (the funds would not be able to guarantee that a dollar of their liabilities would be worth a dollar), causing a run. Similarly, shadow banks that relied on "rolling-over" very short-term liabilities (including commercial paper) found rising "hair cuts" (the discount applied to their collateral) so that they could not refinance positions in assets. That led to "fire sales" of assets, declining asset prices, and a general liquidity crisis. More importantly, as discussed above, it was recognized that assets had been tremendously overvalued—so even with Treasury extensions of guarantees (to money market mutual funds, for example) and trillions of dollars of lender of last resort activity by the Fed, no one wanted to refinance banks and shadow banks. Since they relied on each other (rather than on depositors), financial institutions discovered the dangers of "interconnectedness." They tried to delever, to sell toxic assets to the Fed (in Quantitative Easing I), and to unwind positions.

I realize that it appears banks *have* retrenched, tightening standards and cutting off loans to all but the most credit-worthy. They apparently learned their lesson? That always happens in the aftermath of a crisis. But the point is that there have been no significant regulatory and supervisory reforms put in place to deal with the next euphoric boom. Hence, underwriting standards will again decline—gradually at first and then with a rush to the bottom, with those lenders willing to adopt the lowest standards "winning." Market "discipline" is always

perverse—there is no lending when it is most needed, and no underwriting when *that* is most needed. So, while banks are not lending, they have not been forced to learn any lessons from the GFC.

## 3. Unregulated and Unsupervised Financial Institutions Naturally Evolve into Control Frauds.

As Willy Sutton responded when he was asked why he robbed banks, "because that's where the money is." Of course, he was a small time bank robber. According to Bill Black, the best way to rob a bank is to own one. Well, it's even better to run one—just ask Bob Rubin, Hank Paulson, Jamie Dimon, or "doing God's work" Lloyd Blankfein. The hired gun in charge of a financial institution can strip the bank of far more money than the owners or bank robbers will ever get.

But policy makers still do not want to recognize that there is fraud everywhere. We know that the banks committed lender fraud on an unprecedented scale (the best estimate is that 80% of all mortgage fraud was committed by lenders); we know they continue to commit foreclosure fraud (and that their creation, MERS—Mortgage Electronic Registry System—has irretrievably damaged the nation's property records; this will take a decade to sort out); and we know they duped investors into buying toxic waste securities (using bait and switch—substituting the worst mortgages into the pools) and then bet against them using credit default swaps. Every time an investigator finally musters the courage to go after one of these banks, fraud is uncovered and a settlement is recovered.

It is apparent that fraud became normal business practice. I have compared the home finance food chain to Shrek's onion: every layer was not only complex, but also fraudulent, from the real estate agents to the appraisers and mortgage brokers who overpriced the property and induced borrowers into terms they could not afford, to the investment banks and their subsidiary trusts that securitized the mortgages, to the credit ratings agencies and accounting firms that validated values and practices, to the servicers and judges who allow banks to steal homes, and on to CEOs and lawyers who signed off on the fraud. To say that this is the biggest scandal in human history is an understatement. And the fraudsters are still running the institutions.

# 4. But the Worst Part is the Cover-Up. We Should Have Known Since the Watergate Years That it is the Cover-Up That Leads to the Worst Crimes.

If one considers the real estate food chain, it all begins with some lowly mortgage broker working out of his garage. He's told that if he can increase his through-put and induce borrowers to take more expensive loans than they actually qualify for, his rewards will be increased. The lender banks created Orwellian-named "affordability products" that insiders called neutron bomb mortgages (designed to blow up and kill the borrower, but leave the home standing) and told the brokers to make those and to refuse the usual documents required for loans—such as W-2 forms and bank account information. Why? As Ollie North put it, "plausible deniability." Banks could claim "Hey, we didn't know this unemployed guy couldn't afford a half million dollar home in Brookside Acres with an exploding adjustable rate mortgage loan at 120% of home value! That borrower defrauded *us* (add whimpers for effect)!"

Once a bank has made a Liar's Loan, every other link in the home finance chain *must be tainted*. And that means every transaction, every certification, every rating, and every signature all the way up to the CEO of the investment bank is part of the cover-up. Not to mention the President of the New York Fed (Timothy Geithner, now Secretary of Treasury) who has access to the doctored bank books. And remember those "stress tests," passed by all the banks, whose balance sheets were government-certified A-OK? That was approved by US government regulators of the banks, who signed-off on fraud—as we now know because the biggest banks have been paying a series of fines imposed for fraudulent behavior.

It is important to recognize that one does not need to make the accusation of conspiracy. Individual self-interest will suffice. As claimed above, once a Liar's Loan is made, all other links in the chain are tainted. The only questions remaining for everyone operating in that chain were these: How can I make a buck? How can I get out of this Ponzi scheme before it collapses? And how can I stay out of jail? As we know, they made the bucks as they were rewarded with multi-million dollar bonuses. While most did not exit before the collapse, Uncle Sam covered their losses with trillions of dollars of bailout. And now they are waiting for the statute of limitations on their probable crimes to run out while the nation's top cops look the other way. That clock is ticking.

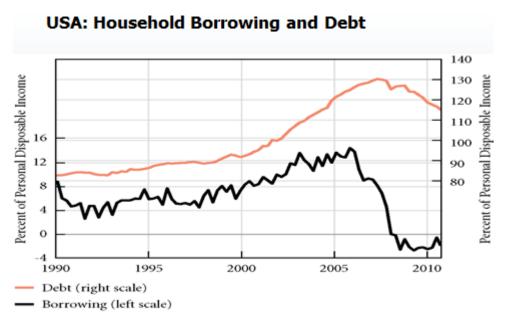
Unfortunately, we haven't learned any of these lessons. We've done no reforming. We let the Ponzi schemes continue, run by the same crooks. Worse, we're going to let them contribute toward the estimated \$1 billion that will flow to the reelection campaign of President Obama.

#### IF REFORM IS NOT NOW POSSIBLE, WHEN WILL IT BE POSSIBLE?

I believe reform will become possible when the next crisis hits. That may be any day because we reproduced the conditions of 2007, so this is similar to the 1929 situation analyzed by Galbraith: we are just waiting for a trigger. When it hits, the crisis is going to roll through the system. The bailout actually increased concentration and the linkages among the top four or five banks making the system more fragile. The next crisis could be worse than the previous one—which has been the general trend since the first postwar crisis in 1966. Let us see why.

Almost all the debt that we had in 2007 still exists. Households have repaid some, and they have defaulted on some, but most of it still exists, as shown in the next figure. Meanwhile, households have lost their jobs, and a lot of them have lost their houses—which doesn't mean they have lost the debt because in a lot of cases they still owe the money but they don't have the house. House prices have declined by about a third across the country, and they are still declining. So there is no way that households and firms are better off now than they were in 2007. In most ways they are much worse. A wave of defaults on commercial real estate could be the next thing to hit. Or, student loans or credit card debt could trigger the next crisis as the value of those assets gets downgraded. That is one path back into crisis.

<sup>&</sup>lt;sup>1</sup> See also Sen 2010a for analysis of the policy response. See Minsky 1996 for his analysis of the "institutional prerequisites" for restoring stability.



Sources: Federal Reserve; BEA

Another path to crisis could be that banking supervisors discover that a major bank is massively insolvent. There is no question that banks have been cooking their books—largely to justify reduction of loan loss reserves in order to record profits so that bonuses can be paid. The problems could begin at Bank of America, or CitiBank, both of which are saddled with bad mortgage debt that they have not written down sufficiently. Many analysts think they are insolvent, so all that is needed to trigger a crisis is for some information to get out, leading to downgraded credit ratings and generating another huge liquidity crisis. Fortunately or unfortunately, Congress is probably not going to let the Fed do what it did last time. Indeed, after Dodd-Frank, most of the actions taken by the Fed and Treasury in the 2007–08 crisis are now illegal or require approval of the President and/or the Congress. It is not likely that such approval could be obtained quickly enough to avert a run.

There is another avenue for contagion. Many people think that European banks are more fragile than American banks, so the problem could start in Europe then spill over to the United States. There is a very easy path from US money market mutual fund holdings of Eurobank assets to a global financial crisis. That is \$3 trillion of extremely short-term liabilities that are like deposits, but not insured. Last time, the US government extended the guarantee to all of them; Dodd-Frank outlaws such intervention. So appearance of a problem among Eurobanks

could bring down that whole market—about twice the size of the US subprime mortgages that brought on the global financial crisis last time.

#### A MINSKYAN AGENDA FOR REFORM

I will address two general areas for reform. The first concerns the financial system; the second concerns jobs and inequality—that is, the "real" economy. The two are actually linked in ways that helped to bring on the GFC.

The long-run US trend has been to consolidate a wide range of services within the affiliates of a bank holding company. The New Deal reforms had separated institutions by function (and state laws against branching provided geographic constraints). Natural evolution plus deregulation allowed growth of a handful of dominant behemoths that play a key role in provision of all of these services. However, economies of scale in banking are exhausted at a relatively small size. And large "too big to fail" banks are systemically dangerous: too large and complex to regulate, supervise, or manage. Hence, reforms ought to aim for downsizing. This does not necessarily mean a return to Glass–Steagall separation by function, but it does mean that policy should favor small institutions over large ones.

Leaving aside the politics, the most important reform would be to prohibit banks from securitizing. Banks are public utilities and should serve the public purpose. If they have access to government guarantees, government bailouts, and Fed lending, they should not be permitted to securitize because it undermines good underwriting. To provide the proper incentive, banks should be required to hold loans to maturity. There is no legitimate reason why banks should move assets off their balance sheets. If nonprotected financial institutions want to securitize without access to the government, then that is a different matter. There is no need to make securitization itself illegal, but banks shouldn't be allowed to do it. Unfortunately, the political barriers are very big. Banks want to securitize; they want to pump and dump; they want to dupe customers and then they want to bet against the junk they securitize using credit default swaps.

Those promoting consolidation in "big box" financial superstores point to supposed "synergies." In reality, as Minsky and many others have argued, economies of scale in banking are reached at a very small size. Supposed economies of scope have proven to be mostly the

ability to dupe customers with "bait and switch" schemes. Charles Keating's Lincoln Savings used its FDIC seal of approval to sell risky and ultimately worthless assets to its elderly widows who thought they were buying insured certificates of deposit (CDs). More recently, Goldman Sachs allowed hedge fund manager Paulson to design sure-to-fail synthetic collateralized debt obligations (CDOs) that Goldman sold to its own customers, allowing both Goldman and Paulson to use credit default swaps (CDSs) to bet on failure (Eisinger and Bernstein, 2010). In other words, the "synergy" allows the institution to bet against its customers.

Worse, large institutions invariably become too complex to manage, regulate, or supervise. This allows top management to run the institution as a control fraud, duping owners of equity while top management is enriched. And, finally, since the institution is thought to be "too big to fail," government will also get swindled when it is called in for the inevitable bailout.

Hence, after the next crisis, large chartered banks should be prohibited from diversifying across the range of financial services. Instead, they should be narrowly focused in their activities, forced to spin off any business not closely related to making short-term commercial loans and commercial and residential real estate mortgages. They should be offered the choice: either keep the bank charter and dump the trading activities, or keep trading and lose the charter.

What do we do with those that dump their charters—choosing to become what we used to call investment banks? It will be very difficult to reorient investment banking towards a long-term horizon with proper underwriting when debt is securitized and subject to lax oversight, and when the average stock is held less than a year (and the stock market taken as a whole is a negative source of funding of capital assets, because firms are caught up in the casino, purchasing their own equity to share in the gains of a speculative bubble). Still, it is necessary to do so.

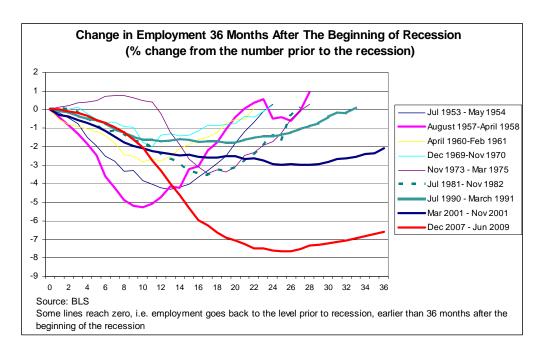
What is needed is to change the incentive structure at investment banks so that good underwriting is rewarded. Compensation of top management and traders must be linked to longer-term results. Neither higher capital ratios (as mandated in Basel III) nor requirements that banks put some "skin in the game" will help. When investment banks originate to distribute, capital ratios are irrelevant (they do not hold the assets on their books). And in a speculative boom, investment bankers are happy to take positions in the dodgy assets that are booming—on

the expectation they can off-load them at the peak. Hence, compensation must be tied to longerterm returns, say, five-year income flows with "clawbacks" for losses.

Underwriting is encouraged when banks hold assets on their books, hence policy should also favor that practice over the "originate to distribute" model. This means that investment banks would play more of an intermediary role, holding long-term debt and issuing their own debt to savers. And, finally, investment banks should not be allowed to play with "house money" (FDIC-insured deposits). Hence, Goldman Sachs and Morgan Stanley should be forced to give up their bank charters—or to abandon investment banking.

Moving to the "real sector," the US faces the twin (and related) problems of high unemployment and record inequality. The GFC and deep recession have of course worsened these problems; however, they clearly result from longer-term trends. In the past thirty years, high unemployment has not been solely a phenomenon of recessions but even expansions occur without much job creation (only the Clinton boom dropped unemployment to levels that were common in the 1960s). Economic growth and employment have seemingly decoupled: the former no longer implies the latter. Jobless recovery is no longer an aberration but has rather become the new normal.

The graph below depicts the change in employment relative to the prerecession level for 36 months after the official start date of the recession. It is obvious that in the earlier postwar period recessions were shallow (in terms of job losses) and the recoveries were robust in terms of job creation. Since 1990 this has not been true. After the 1990–91 recession, it took almost 32 months for employment to reach its prerecession level. After the 2001 recession, it took more than 36 months to reach the prerecession level. The current recession is far worse in terms of the speed and steepness of the decline in employment and in persistence. Even 36 months into the recession employment remains 7% lower than prior to the recession.



The reasons for the phenomenon of "jobless recovery" are numerous and beyond the scope of this brief note. Many point to the decline in the manufacturing sector, the rise of imports, and government inaction in response to unemployment. Additionally, with technology improvements the private sector needs less labor to produce the same amount of output, the so-called "machine problem." Companies have used recessions to discard the "unnecessary" labor, and then do not rehire workers in recovery.

The conclusion that follows is that we need policy to solve the problem of unemployment, both cyclical and long-term. This is why Minsky came up with a proposal: a Job Guarantee (JG) through a government-provided "Employer of Last Resort" (ELR) program offering a job to anyone who is ready and willing to work at the Federal minimum wage plus legislated benefits (Minsky 1965, 1986; Kelton and Wray 2004; Wray 1998). The program would be universal, with no time limits or income, gender, education, or experience requirements.

Minsky always argued that only an ELR program funded by the national government could offer an infinitely elastic demand for labor, hiring anyone willing to work for the program wages. The program operates like a buffer stock: in a boom, employers will recruit workers out of the program; in a slump the safety net allows those who lost their jobs to work in the program to preserve good habits, keeping them work-ready. It will also take those whose education,

training, or job experience is initially inadequate to obtain work outside the program, enhancing their employability through on-the-job training. The program will be a far better source of potential employees than the unemployed or those who have left the labor force after giving up hope of ever finding a job.

Program wages and benefits will be federally funded; the wage will be periodically adjusted to reflect inflation and rising average labor productivity to prevent erosion of purchasing power and to allow workers to share in rising national productivity so that real living standards will rise. Program administration and operation will be decentralized. All state and local governments and registered not-for-profit organizations can propose projects submitted to a Federal office for final approval and funding. Project proposals will be evaluated on the following criteria: a) value to the community, b) value to the participants, c) likelihood of successful implementation of project, and d) contribution to preparing workers for nonprogram employment.

Only government can employ without regard to profitability considerations—which is why an ELR program must be funded by government. While I do not want to address the issue here, most proponents of the JG/ELR proposal also adopt the "modern money theory" (which can be found in Minsky's work) that dismisses "affordability" questions when it comes to sovereign government spending. Indeed, a reason that Minsky argued only sovereign government can "afford" to offer a perfectly elastic demand curve for labor is precisely because affordability is not an issue. If there are unemployed resources, sovereign government can always afford to hire them.

#### CONCLUSION: A MINSKYAN APPROACH TO REFORM

Over past decades the belief that "markets work to promote the public interest" gained in popularity. Minsky questioned: But what if they don't? What if individual profit-seeking behavior leads to incoherent results as financial markets, labor markets, and goods markets all react in a manner that causes wages and prices to fall, generating a debt deflation? Then a system of constraints and interventions can work better.

Unfortunately, things are not better when investment is too high; it generates high profits that reward innovation, generating greater risk-taking and eventually producing a financial structure that is too fragile. As Minsky always argued, the really dangerous instability in the capitalist economy is in the upward direction, toward a euphoric boom. That is what makes the debt deflation possible, because asset prices become overvalued and too much unserviceable debt is issued.

The "free market" ideal is that debt deflations are not endogenous; rather they must result from exogenous factors, including too much government regulation and intervention. So the solution is deregulation, downsizing government, tax cuts, and making markets more flexible. The Minsky–Keynes view is that the financial structure is transformed over a run of good times from a robust to a fragile state as a result of the natural reaction of agents to the successful operation of the economy. If policy-makers understood this, they could formulate policy to attenuate the transformation—and then deal with a crisis when it occurs.

Finally, the mainstream view is that market forces push the economy toward full employment, and with flexible markets, stabilizing forces act swiftly. The Minsky-Keynes view is that there are no automatic forces moving toward full employment, and flexible wages and prices actually make the system dynamically unstable. It is even worse than that, however, when policy actually uses unemployment as a policy tool—to constrain wage and price pressures. Trickle-down policies that aim to redistribute income toward wealthy "savers" further depress demand, generating chronic underemployment.

High inequality and stagnant wage growth tends to promote "living beyond one's means" as consumers try to keep up with the lifestyles of the "rich and famous." When this is combined with lax regulation and supervision of banking, we get a debt-fueled consumption boom. Add a fraud-fueled real estate boom and we have set up the fragile conditions that made the GFC possible.

As discussed here, the Minsky alternative would be a universal job guarantee to promote consumption out of income and to reduce inequality. Financial institutions would be reregulated, with proper incentives put in place to discourage lender fraud. While I have not discussed Minsky's other recommendations, these include support for unions, raising wages at the bottom faster than those at the top, shifting government policy to favor consumption and

government spending over private investment, and favoring work over welfare. The goal is to promote "industry" over "finance" and stability-enhancing institutions over "free market" policies to make it less likely that "it" (another "Great Crash") will happen again.

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