

LEARNING THE RIGHT LESSONS FROM THE FINANCIAL CRISIS

Kevin Dowd and Martin Hutchinson

More than eight years after the onset of the global financial crisis, there is one thing that ought to be clear to everyone: unconventional monetary policies are not working. We have had three rounds of quantitative easing (QE) and the Fed's balance sheet has increased nearly fivefold from \$825 billion in August 2007 to just over \$4 trillion today; the federal funds rate fell from 5.25 percent to almost zero by December 2008 and has remained there until the 25 basis point increase in December 2015; federal debt has more than doubled to just over \$18 trillion, rising from 61 percent to 101 percent of GDP; vast amounts of public money have been thrown at the banks to keep them afloat; and there has been a huge expansion in financial regulation. To say that the results have been disappointing would be an understatement: output has been sluggish, unemployment has been persistent, bank lending has flatlined, productivity has risen at an unprecedentedly slow rate since 2011, and poverty and inequality have greatly increased.¹ For their part, the banks are still much weaker

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Kevin Dowd is Professor of Finance and Economics at Durham University in the United Kingdom, a partner at Cobden Partners, and an Adjunct Scholar at the Cato Institute. Martin Hutchinson is a journalist and author of the Bear's Lair column (<http://tbwns.com/category/the-bears-lair>). The authors thank Anat Admati, Roger Brown, John Butler, Gordon Kerr, Alasdair Macleod, Alberto Mingardi, and Kevin Villani for helpful comments.

¹Going further, these policies have even managed to defy the Zarnowitz rule—

than they should be, and major banking problems—especially, “too big to fail”—are still unresolved and continue to pose major threats to future financial stability. Seven years of extreme Keynesian policies have failed to produce their intended results. We see similar results in Europe and in Japan. In the latter, this comes after 25 years of such policies.

It is curious that in every discipline except Keynesian macroeconomics, practitioners first consider what caused a problem and then seek a treatment that addressed the cause. If the cause of a medical condition is excess, then the remedy would be moderation or abstinence. However, in Keynesian economics, if the cause is excess spending, then the standard treatment is *even more* spending. Keynesians then wonder why their treatments don't work. To give one example, former U.S. Treasury secretary Larry Summers (2014: 67) recently observed: “It is fair to say that critiques of [recent] macroeconomic policy . . . , almost without exception, suggest that prudential policy was insufficiently prudent, that fiscal policy was excessively expansive, and that monetary policy was excessively loose.” Summers is correct, but he fails to note the irony: that the majority of policymakers *still* advocate insufficiently prudent prudential policy, excessively expansionary fiscal policy, and excessively loose monetary policy. One can only wonder what these policymakers expect to achieve, other than the same result those policies produced last time, on a grander scale.

It is therefore important that we return to first principles and rethink monetary and banking policy. Instead of mindlessly throwing more money and stimulus around, we should consider what caused our current problems and then address those root causes. We would suggest that the causes of our malaise are activist monetary policies on the one hand, and a plethora of government-created incentives for bank risk taking on the other. Both causes are themselves the product of earlier state interventions.

that sharp recessions are followed by sharp recoveries (Zarnowitz 1992). This suggests that these policies have been not so much ineffective as counterproductive, and that the economy would have recovered faster had the policy response been less aggressive.

This diagnosis suggests the following reform program: (1) re-commoditize the dollar, (2) recapitalize banks, (3) restore strong governance in banking, and (4) roll back government interventions in banking. The first two reforms directly address the causes just mentioned—monetary meddling and government-subsidized risk taking—and are intended to get the financial system functioning normally again. The two remaining reforms serve to eradicate the root causes and strengthen the system long term by protecting it against future state intervention.

Recommoditizing the Dollar

The key to monetary reform at the most fundamental level is to establish a robust monetary constitution that would have no place for institutions with the power to undermine the currency; thus, there would be no central bank. However, before we can end the Fed, we must first put the U.S. dollar on a firm footing. The natural way to do that is to re-commoditize it—that is, anchor the value of the dollar to a commodity or commodity bundle.

The obvious reform is to restore the gold standard. In its purest form, a gold standard involves a legal definition of the currency unit as a specified amount of gold. For example, the Gold Standard Act of 1900 defined the dollar as “twenty-five and eight-tenths grains of gold nine-tenths fine.” This definition implies a fixed equilibrium gold price of just over \$20.67 per troy ounce.

The gold standard has much to commend it: it imposes a discipline against the overissue of currency, restrains monetary meddlers, and has a fairly good track record. The main problem, however, is that it makes the price level hostage to the gold market. If the demand for gold rises, then the only way in which the gold market can equilibrate is through a rise in the relative price of gold—that is, a rise in the price of gold against goods and services generally—and this requires a fall in the price level (i.e., deflation). Conversely, if the demand for gold falls or the supply rises, the price level must rise (i.e., inflation must occur) to equilibrate the gold market. The stability of the price level under the gold standard, therefore, depends on the stability of the factors that drive demand and supply in the gold market. Historical evidence suggests that the price level under the gold standard was fairly volatile in the short term but much more stable over the longer term.

We might then ask whether we can improve on the gold standard. Over the years there have been many proposals to do so. Perhaps the most promising—and one of the least known—is the “fixed value of bullion” standard proposed by Aneurin Williams in 1892:

In a country having a circulation . . . made up of paper, and where the government was always prepared to buy or sell bullion for notes at a price, the standard of value might be kept constant by varying from time to time this price, since this would be in effect to vary the number of grains of gold in the standard unit of money. . . . If gold appreciated [relative to the price level], the number of grains given or taken for a unit of paper money would be reduced: the mint-price of gold bullion raised. If gold depreciated, the number of grains given or taken for the note would be increased: the mint-price of gold bullion lowered [Williams 1892: 280].

Thus, the proposal, which admittedly lacks operational details, is that the system respond to shocks in the relative price of gold by changing the gold content of the dollar, instead of letting the whole adjustment fall on the price level, as would occur under a true gold standard. The gold content of the dollar becomes a shock absorber.

We would emphasize, too, that the Williams system is only one example from a broader family of similar systems.² We can imagine even better systems that would deliver greater price-level stability.

Having thus restored the convertibility of currency, the next step is to liberalize its issue by removing any Federal Reserve privileges. Any bank would be allowed to issue its own currency, including banknotes. The main restriction would be one designed to guard against counterfeit: any notes should be clearly distinguishable from those issued by other banks. Commercial banks would be free to issue notes denominated in U.S. dollars if they wished but those notes would only be receipts against U.S. dollars as legally defined. In other words, a commercial bank one-dollar note might state, “I promise to pay the bearer the sum of one dollar,” as per the conditions governing the redeemability of the dollar note, and respecting the *legal definition of the U.S. dollar as a given amount of gold* at any particular time. There would be no restrictions against the issue of currency denominated in other

²See, for example, Irving Fisher’s “compensated dollar” plan (Fisher 1913).

units of account, nor any restrictions on private currencies. The law would also be changed to allow U.S. courts to enforce contracts made in any currencies freely chosen by those involved.

By this point, the door would be open to private banknotes that would start to circulate at par with Federal Reserve notes. Over time, their market share would rise, as note-issuing banks would be incentivized to promote their own notes over those of rivals, and the Fed's share of the currency market would gradually diminish.

Recapitalize the Banks

Turning now to banking, the first point to appreciate is that the banks are still massively undercapitalized. The root causes of this undercapitalization are the incentives toward excessive risk taking created by various government interventions, including the limited liability statutes, government deposit insurance, the central bank lender of last resort function, and the general expectation that banks can count on being bailed out if they get themselves into trouble. With the exception of limited liability, these interventions are specifically designed to protect the banking system. In fact, however, they are seriously counterproductive: by protecting the banks against the downside consequences of their own decisions, these interventions subsidize risk taking, and the downside is passed on to the taxpayer. Naturally, banks respond to this regime by maximizing the value of the risk-taking subsidy: they increase their leverage and become far too big, with the biggest ones becoming *too big to fail*.

This trend toward weaker banks can be seen in the history of bank capital ratios. In the late 19th century, it was common for banks to have capital ratios of 40 to 50 percent. By the beginning of the recent financial crisis, however, the capital-to-asset ratios of the 10 biggest banks in the United States had fallen to less than 3 percent. The banks were thus chronically weakened, and the authorities—the Federal Reserve, the Federal Deposit Insurance Corporate (FDIC), and even the federal government—became hostage to them. The authorities dared not let weak banks fail for fear of the consequences. It is essential, therefore, that this dependence be ended, with viable banks made to stand on their own feet, and weak ones eliminated.

Accordingly, the most pressing task is to recapitalize the banking system: the required minimum capital standards need to be much higher and much less gameable than they currently are. To this end,

we suggest that the United States impose a minimum bank capital ratio of 20 percent, with a further 10 percentage points on top (i.e., a 30 percent minimum) for systemically important financial institutions (SIFIs). We suggest that the numerator and the denominator of the capital ratio be defined as conservatively as possible:

- The numerator should be Common Equity Tier 1 (CET1), defined as tangible common equity plus retained earnings. CET1 capital gives us a conservative measure of the buffer available to absorb losses in a crisis. Broader definitions of capital are not appropriate because they include items such as deferred tax assets, goodwill, and other intangible assets that cannot be deployed in a crisis.
- The denominator should be the bank's total exposure or total amount at risk. This consists of total assets plus the additional exposures buried in off-balance-sheet positions—including securitizations, guarantees, and other commitments. It is important that these be estimated prudently, with no allowances made for hedging or correlation offsets, as these can be unreliable. The objective is to estimate the total amount that can be lost under worst-case assumptions.

Note that this capital ratio makes no use of risk weights or even risk models, both of which are essentially useless (Dowd 2014). It is precisely these features that undermine the Basel bank capital regulations, which, despite their stated intent to the contrary, have long since become means by which bankers decapitalize their own banks and pass much of the cost of their risk taking onto the taxpayer. One might add that the Basel system is insanely wedded to risk weights and risk models, because it is captured by the banking industry, which uses it to game the system. There is therefore no point in the United States arguing the issue as a topic for future Basel reform. Instead, the United States should simply withdraw from the Basel system and impose the above rules unilaterally on banks operating within its own territory.

A high capital requirement would have a number of beneficial effects:

- First, by forcing banks to bear the downside consequences of their actions, it would greatly reduce moral hazard, significantly curb risk taking, and thereby make the financial system much stronger. We can also think of higher capital requirements as

greatly reducing the value of the government-created risk-taking subsidy.

- Second, shareholders would be more exposed to downside risks, which would strengthen the incentive of bank shareholders to ensure that senior management—who ultimately account to them—behave more responsibly. This, in turn, would help strengthen the governance structures of banks.
- Third, since the new capital regime would dispense with the arbitrary risk weights that permeate the Basel system, it would help correct the distorted lending incentives that Basel has created. Most notably, Basel attaches a zero risk weight to sovereign debt, a 50 percent risk weight to mortgage debt, and a 100 percent risk weight to corporate debt. Those risk weights artificially encourage banks to buy government, and to a lesser extent mortgage, debt in preference to corporate debt. Abandoning risk weights would remove those distortions and lead to more balanced bank portfolios with a greater emphasis on corporate lending. The distortions created by the very low risk weights attached to securitizations and model-based risk estimates would also be removed.
- Fourth, the use of the total exposure measure in the denominator of the capital ratio would mean that different positions would attract different capital requirements in proportion to the amounts at risk. This would serve to penalize risky positions and help drive out much of the toxicity that still exists in banks' on- and off-balance-sheet positions.

For its part, the supplementary SIFI capital requirement would provide additional insurance against the possibility of a big bank failure, as well as reducing the damage when such an event does occur. Big banks would have an incentive to slim down or break themselves up in order to avoid the higher SIFI capital requirement; smaller banks would be discouraged from becoming megabanks themselves. The bankers concerned might object that this additional requirement would help to make their banks uncompetitive. They would be right: the underlying objective here is precisely to make the antisocial, too-big-to-fail business model unsustainable. We want to squeeze the megabanks so that they shrink, get rid of their toxic positions, simplify themselves, and become manageable again. That way, they cease to be threats to the financial system and taxpayers.

We would also emphasize that high capital requirements should be imposed as soon as possible. As Admati and Hellwig (2013a: 169) point out:

It is actually best for the financial system and for the economy if problems in banking are addressed speedily and forcefully. If bank equity is low, it is important to rebuild that equity quickly. It is also important to recognize hidden insolvencies and to close zombie banks. If handled properly, the quick strengthening of banks is possible and beneficial, and the unintended consequences are much less costly than the unintended consequences of delay. This is true even if the economy is hurting.

The need for speed arises in part because zombie banks would have both the opportunity and the incentive to waste even more public money, but also because their ongoing weakness would continue to hamper economic recovery.³

A natural question is why have a 20–30 percent minimum capital requirement? There are no magic numbers, but we want a minimum capital requirement that is high enough to remove the overwhelming part of the moral hazard that currently infects the banking system. We also want a requirement that is much higher than what we have at present. As John Cochrane (2013) put it: the capital requirement should be high enough that banks will never be bailed out again.

In this context, many experts have recommended minimum capital-to-total asset ratios that are much greater than those called for under current Basel rules. In an important letter to the *Financial Times* in 2010, no less than 20 experts recommended a minimum ratio of equity-to-total assets of at least 15 percent (Admati et al. 2010), and some of these wanted minimum requirements that are much higher. In addition, John Allison (2014) and Allan Meltzer (2012) have called for minimum capital-to-asset ratios of at least 15 percent; Admati and Hellwig recommended a minimum “at least of the order of 20–30 percent”; Eugene Fama and Simon Johnson recommended a minimum of 40–50 percent (see Admati and

³The damage caused by excessive regulatory forbearance has been a recurring theme in U.S. history (see, e.g., Salsman 1990) and is also a key factor in Japan’s poor economic performance since the Japanese asset bubble burst in 1990.

Hellwig 2013a: 179, 308, 311); and Cochrane (2013) and Thomas Mayer⁴ have advocated 100 percent.

The minimum capital requirement would be enforced by a simple rule: banks would not be permitted to make any distributions of dividends, or to pay any bonuses, until they met the above capital requirements.⁵

All banks with capital ratios below the minimum would then be pressured to produce credible capital plans so that they could resume distributions. They would have three ways to rebuild their capital: increase retained earnings, shrink assets, and/or issue more equity. The first two options, which banks would be forced to do anyway, would be slow, and given the pressure to resume distributions as soon as possible, it is difficult to see how most banks could avoid the need for a share issue to speed up the recapitalization process. The stock market would value a bank's shares in line with its perception of each bank's future profitability. A bank that is perceived to have good prospects would obtain good prices for its shares and should be able to recapitalize easily and quickly. On the other hand, a bank that is perceived to have poor prospects would experience difficulty selling its shares. At best, they would trade for low prices and recapitalization would be a slow process dependent on the accumulation of retained earnings and asset sales. At worst, the market might perceive the bank to be insolvent, in which case it would not be able to raise any new capital at all. The stock market reaction to a bank's share offering would provide a very useful signal of the bank's financial health.

Strong banks would be revealed to be strong and could recapitalize quickly; weak banks would be revealed to be weak, and the weakest would head toward extinction via takeover or failure. In the interim period, there would be a mass sale of banking assets and superfluous operations, which would depress the market for those

⁴Personal discussion.

⁵In the period since the onset of the financial crisis, the Federal Reserve has caved to bank pressure in allowing the banks to make dividend payments and stock repurchases, which undermine the Fed's own attempts to recapitalize the banking system. The amounts involved have been very substantial. For example, from the third quarter of 2007 through the height of the crisis, the largest 19 U.S. banks paid shareholders almost \$80 billion; in fact, about half the money the government invested in the banks during the crisis went straight out the back door to shareholders (Admati 2012).

things and ensure that bank managements repositioned themselves with the most rigorous regard for what was actually profitable. In particular, capital- and risk- thirsty investment banking operations would be closed down or sold to brokerage operations without banking licenses or deposits from the public.

There then arises the delicate question of what to do if some banks are revealed to be very weak, even insolvent. This is very likely to occur: some of the big banks (e.g., Bank of America, Citi, and Deutsche) have high leverage, major problems, and vast off-balance-sheet positions. Indeed, we cannot rule out the possibility that imposing higher capital standards would reveal the hitherto hidden weakness of major banks, thereby triggering a major crisis. However, we can also well imagine a renewed financial crisis being triggered by other factors, such as a rise in interest rates.

So what should be done in such circumstances? It would make no sense to keep weak banks afloat at public expense; nor should the authorities respond as they did in 2007–08, with a series of panicked late-night deals of (at best) dubious legality. Instead, the authorities should be required by law to close distressed banks in an orderly fashion—possibly after a temporary period of public ownership to preserve orderly markets—with losses allocated according to existing seniority structures and viable units sold off to competitors. It should also be mandatory that senior management prepare living wills⁶ and be made personally liable for any losses that might fall on taxpayers, which would almost certainly bankrupt them if their banks failed. Criminal investigations should also be opened so that any criminal behavior can be uncovered and punished. Ultimately, we need to give bankers the right incentives. By way of contrast, the current system imposes vast, random fines upon the banks, in some cases for minor violations that were not illegal at the time they were “committed.” This is a scam that punishes the wrong people: bank managements make it through unscathed, but shareholders don’t get the returns they have earned.

⁶The downside with existing provisions for living wills is that bankers might be tempted to booby-trap them in order to blackmail the authorities in the heat of a crisis. To make living wills useful, it is therefore essential that bankers be suitably incentivized: they should be made strictly (and potentially criminally) liable for any losses that might arise if something nasty “unexpectedly” crawls out of the woodwork.

Naturally, the imposition of higher capital requirements would cause the bankers to howl like hyenas, as it would greatly diminish their pay. Indeed, bankers have been very effective in fighting off attempts to impose serious increases in capital requirements by spreading a number of self-serving misconceptions—the real purpose of which is to defend their subsidized risk taking. This suggests that even the modest increases mandated under Basel III would be an enormous imposition to be resisted at all costs (Admati and Hellwig 2013a, 2013b). These misconceptions have seriously distorted public discussion and done much to block the reforms needed to get the banking system working properly again. We should consider a few of them.

The first misconception is that the banks are already adequately capitalized as they have capital ratios higher than Basel requires: the eight biggest SIFI banks, the ones that really matter, had an average ratio of capital to risk-weighted assets of almost 13 percent at the end of 2014. However, these capital ratios are meaningless; their Basel adequacy only serves to demonstrate the inadequacy of Basel itself. The ratios that matter are the *leverage ratios*, which for the same banks, at the same time, were 7.26 percent using U.S. Generally Accepted Accounting Principles (GAAP), and just over 5 percent using International Financial Reporting Standards (IFRS) (FDIC 2015). The latter are more reliable because of stricter rules applied to netting, but IFRS also has many problems and is far from perfect, not least because of its vulnerability to gaming. What's more, no current accounting standards even remotely address the issues raised by enormous off-balance-sheet positions or allow you to determine whether a bank is really solvent or not. The much-lauded rebuilding of American banks' balance sheets is greatly exaggerated.

The second misconception is that higher capital requirements would increase banks' costs. However, if this argument were correct, it would apply to nonbank corporations as well, and we would expect them to be equally highly leveraged in order to take advantage of the "cheapness" of debt. Instead, most nonbank corporations have capital ratios of over 50 percent. Some don't borrow at all. In reality, equity actually helps reduce the costs associated with potential distress and bankruptcy, and the same benefits apply to banks as to other corporations.

There is, nonetheless, one case where higher capital is costly—at least to bank shareholders. When the government intervenes to cover banks' downside risk, capital becomes expensive to the

bank's shareholders: the higher the bank's capital level, the more of the risk subsidy they forgo, because higher capital reduces the cost to third parties of their risk-taking excesses. When bankers complain that capital is expensive, they consider only the costs to shareholders and themselves and do not take into account the costs of their risk taking to the economy.

In fact, the social cost of higher equity is *zero*. To quote Admati and Hellwig (2013a: 130):

A bank exposing the public to risks is similar to an oil tanker going close to the coast or a chemical company exposing the environment to the risk that toxic fluid might contaminate the soil and groundwater or an adjacent river. Like oil companies or chemical companies that take too much risk, banks that are far too fragile endanger and potentially harm the public.

But unlike the case of safety risks posed by oil or chemical companies, higher bank safety standards can be achieved at no social cost, merely by requiring that banks issue more equity. This, in turn, can be achieved by reshuffling paper claims between banks and their investors.

Another of the banks' false, scaremongering arguments is that high minimum capital requirements would restrict bank lending and hinder economic growth. To give just one example: Josef Ackermann, the then-CEO of Deutsche Bank, claimed in 2009 that higher capital requirements "would restrict [banks'] ability to provide loans to the rest of the economy" and that "this reduces growth and has negative effects for all" (quoted in Admati et al. 2014: 42). The nonsense of such claims can be seen by noting that they imply that further increasing banks' leverage must be a good thing, notwithstanding the fact that excessive leverage was a key contributing factor to the financial crisis, and that ongoing bank weakness—weakness associated with too much leverage—is still impeding economic recovery.

One also encounters claims, based on a confusion of capital with reserves that mixes up the two sides of a bank's balance sheet, that higher capital requirements would restrict bank lending. To give two examples:

Think of [capital] as an expanded rainy day fund. When used efficiently, a dollar of capital on reserve allows a bank to put ten dollars to work as expanded economic activity. The new

Basel rules would demand that banks would maintain more dollars on reserve for the same amount of business, or more capital for no new economic work [Abernathy 2012].

Higher capital requirements would require the building up of a buffer of idle resources that are not otherwise engaged in the production of goods and services [Greenspan 2011].

These statements come from experts who should know better. Such statements would be correct if they applied to requirements for higher cash reserves, but are false as they apply to requirements for higher equity capital. Capital requirements constrain how banks *obtain* their funds but do not constrain how they *use* them, whereas reserve requirements constrain how banks use their funds but do not constrain how they obtain them.

In fact, evidence suggests that high levels of capital actually support lending. To quote former Bank of England Governor Mervyn King (2013):

Those who argue that requiring higher levels of capital will necessarily restrict lending are wrong. The reverse is true. It is insufficient capital that restricts lending. That is why some of our weaker banks are shrinking their balance sheets. Capital supports lending and provides resilience. And, without a resilient banking system, it will be difficult to sustain a recovery.

Then there is the “the time is not right” bugbear, which is merely an excuse to kick the can down the road:

From the bankers’ perspective, the time is never ripe to increase equity requirements or to impose any other regulation. As for the regulators, when the industry is doing poorly, they worry that an increase in equity requirements might cause a credit crunch and harm the economy [and never mind that excessive forbearance only makes the problem worse]. When the industry is doing well, no one sees a need to do anything [Admati and Hellwig 2013a: 171].

Last but not least, there is the “level playing field” excuse—a claim that higher capital requirements would disadvantage “our” banking industry relative to overseas competition. U.S. bankers make this claim against competition from Europe; British bankers make it

against competition from the United States and Europe; and European bankers make it against competition from the United States and Britain. In other words, everyone makes it against everyone else. This argument is false because it presumes that higher capital is costly, and we know that it is not. It is also false because it ignores the point that higher capital supports a more resilient banking sector. On the other hand, the “level playing field” excuse is a good one to give impressionable local politicians who don’t know any better.

Restore Strong Governance in Banking

We need to restore strong governance in banking. The key to achieving this is to reestablish strong personal liability on the part of the major decisionmakers with the bank—namely, senior bank management, including board members. More precisely, bank directors should be subject to unlimited strict personal liability for any losses that lead their banks to become bankrupt. This would effectively mean that the bankruptcy of the bank would entail the personal bankruptcy of its senior management. The strict liability provision would strip them of any excuses: if it happened on their watch, they would be automatically liable, without any need to prove dereliction of duty on the part of any particular director. These liability rules would encourage senior bankers to take a much greater interest in risk management and shut down high risk operations that could redound on them personally.

There is also the question of whether there should be extended liability for bank shareholders. In the United States, double liability for bank shareholders was common until the 1930s and made for conservative banking and low bank leverage. Extended liability provided reassurance to clients—both depositors and borrowers—and greatly reduced the moral hazards associated with the separation of ownership and control. The net effect was to greatly strengthen corporate governance in banking and ensure a tight grip on risk taking. It didn’t always work: even under unlimited liability, the unfortunate Overend and Gurney shareholders of 1866 subscribed £10 toward their £100 shares—and were then called upon to put up the other £90 after the bank defaulted.

Going further, the default liability structure for bank shareholders should be *unlimited* liability. Recall that American investment banks were all unlimited liability partnerships a generation ago. The last to convert into a limited liability company was Goldman Sachs in 1986.

It is also worth noting that just over a century ago, J. P. Morgan preferred to use the unlimited liability model despite the fact that he could have incorporated—precisely because of the reassurance that unlimited liability gave his clients. With each deal he made, he put all his personal wealth on the line.

It is also widely recognized that the conversion of the unlimited liability investment bank partnerships into corporations was a major factor promoting greater risk taking and leverage. Describing the first such conversion—that of Salomon Brothers—Michael Lewis writes:

John Gutfreund [Saloman's CEO] had done violence to the Wall Street social order—and got himself dubbed the King of Wall Street—when, in 1981, he'd turned Salomon Brothers from a private partnership into Wall Street's first public corporation. He ignored the outrage of Salomon's retired partners. . . . He and the other partners not only made a quick killing; they transferred the ultimate financial risk from themselves to their shareholders. . . . But from that moment, the Wall Street firm became a black box. The shareholders who financed the risk taking had no real understanding of what the risk takers were doing, and, as the risk taking grew ever more complex, their understanding diminished [Lewis 2010: 257–58].

These conversions then led to an increased focus on return on equity, much greater risk taking, and a major deterioration in the quality of corporate governance—all of which were highly predictable.

Of course, unlimited liability has its downsides: if a bank goes bankrupt, it can ruin its shareholders; it also discourages investors at the margin, who would expose themselves to losses beyond their investment; and it makes share trading difficult, because other shareholders would want to verify and approve new shareholders. However, one could argue that this is all to the good, because unlimited liability creates exactly the right incentives: if we want the guardians of our money to guard it as carefully as if it were their own, then unlimited liability is the natural choice. Recall, also, that Adam Smith ([1776] 1976: 741) was famously critical of the limited liability company: “The directors of such companies . . . being the managers of other people's money than their own, it cannot well be expected that they should watch over it with the same anxious vigilance. . . . Negligence and profusion must always prevail . . . in the management of such a company.”

Moreover, limited liability is not a natural market outcome, but rather the product of government intervention after a vexed controversy—during which the free-market advocates of the time raised exactly the points that we are making here (see Campbell and Griffin 2006: 61–62).

Roll Back Government Interventions in Banking

The costs of financial regulation cannot be reliably quantified, but one thing is for sure: they are truly enormous. John Allison likes to point out that if you asked bankers whether they would prefer to eliminate taxes or eliminate regulation, the answer would be a no-brainer: regulation. He also notes that about 25 percent of a bank's personnel cost relates to regulations alone (Allison 2014: 351).

Crews (2014) estimates the cost of federal regulation to be just over \$1.8 trillion, or 11 percent of GDP. Of that, the cost of economic and financial regulation makes up the thick end of half a trillion dollars. There can therefore be no doubt that regulation is a huge and growing drag on the economy. Most of it should simply be swept away: in the banking area, this would entail the repeal of a whole range of legislation, including Dodd-Frank, Sarbanes-Oxley, the Community Reinvestment Act, and Truth in Lending.

We also need to eliminate the various government-sponsored enterprises (GSEs) set up to interfere with the banking system, which have each promoted excessive risk taking. The first target would be Fannie Mae and Freddie Mac. These entities have absolutely no useful role to play in the economy, have done enormous damage to the U.S. housing market, and were key contributors to the global financial crisis. They should be shut down forthwith before they do any more damage.

The next target would be the FDIC, the very existence of which serves to encourage excessive risk taking by protecting bankers against many of the adverse consequences of bank failure. In particular, the FDIC removes any incentive depositors have to monitor their banks as they otherwise would; bankers respond by lowering their lending standards, taking more aggressive risks, and running down their capital. Reforms here would entail:

- The establishment of a program to phase out deposit insurance: this might involve a gradual reduction in the amounts covered—currently \$250,000 in standard cases—combined

with the introduction of and gradual increase in depositor coin-
 surance, up to the point where FDIC insurance is eliminated.

- A gradual reduction and eventual phasing out of the FDIC's role in examining and supervising banks: such functions would no longer be necessary once strong governance structures had been reestablished, and banks had been recapitalized and then adjusted their business models to root out excessive risk taking.
- Reforms to provide for low-cost means of enforcing consumer protection: these might involve private arbitration mechanisms or ombudsmen procedures, as are used in many other countries.
- Reforms to privatize decisions about when banks should go into bankruptcy and how such institutions should be resolved: such issues should be left to the private sector as is standard in other industries. A major benefit of such reforms is that they would eliminate the current biases—the incentives toward excessive forbearance—that exist when such decisions are left with regulatory agencies that are subject to capture by political or industry interests.

The third and most difficult reform is to roll back the most troublesome GSE of all—the Federal Reserve. The initial steps would entail implementation planning for the reforms suggested here (e.g., to recommoditize the dollar), as well as contingency planning for plausible adverse events such as a rise in interest rates, the failure of a SIFI, or a renewed financial crisis.⁷ We then need a series of programs to carry out the following important tasks:⁸

- Roll back and ultimately abolish the Fed's supervisory and regulatory roles, and eliminate ancillary programs such as the Fed's Comprehensive Capital Assessment Review “stress tests.”
- Privatize the Fed's payment system, FedWire.

⁷This contingency planning should consider the possibility of another financial emergency and should include a program to keep the banking system as a whole operating at a basic level to prevent widespread economic collapse, fast-track bankruptcy processes to resolve problem banks and, where possible, return them to operation as quickly as possible, a prohibition of cronyist “sweetheart deals” for individual banks, and provisions to hold senior bankers to account.

⁸There are other tasks of lesser importance, which nevertheless still need doing. These include, for example, transferring the Fed's statistical operations to the U.S. Bureau of Statistics.

- End the Fed's lender of last resort function, and close down its discount window: last resort and discount window lending would then be left to the private sector.
- Close down the Fed's foreign exchange desk and the New York Fed's open market operations.
- Close the Consumer Financial Protection Bureau, or, failing that, transfer it to the Commerce Department where Congress can oversee it.
- Transfer the Fed's government debt management responsibilities to the Treasury.
- End the Fed's role as a bankers' bank by, for example, spinning off the Fed's deposit-taking functions to a separate voluntary-membership bankers' bank entity whose only function would be to hold and manage banks' deposits.
- Wind down and eventually phase out Federal Reserve currency: the only currency in circulation would then be that issued by regular commercial banks.
- Clean up and wind down the Fed's balance sheet: this task is probably best carried out by spinning off the Fed's asset portfolio into a separate runoff company, whose sole purpose would be to run down its asset portfolio at minimum cost to the taxpayer. Given the size of the Fed's balance sheet, this process would likely take a considerable amount of time and lead to a prolonged period of depressed asset prices and associated higher interest rates. It is likely to end up being very costly to the taxpayer whatever happens.
- Shut down the Federal Reserve Board. Individual Federal Reserve banks would then be free to continue to operate but would be stripped of any privileges or public policy responsibilities. It would be up to their member banks to decide upon their future.

The final regulatory rollback would be to phase out capital adequacy regulation. Such regulation would no longer be necessary once government-created incentives to excessive risk taking had been eliminated. The determination of banks' capital ratios could then be left to the banks themselves operating under the discipline of the free market. Banks that ran their capital ratios too low would then be subject to punishment by the market: they would lose confidence and market share, and so forth; *in extremis*, they would eventually be run

out of business and should be allowed to fail as would be the case with badly run firms in any free market.

Conclusion

Central bankers have printed trillions in new base money, brought interest rates to zero (or even below), and thrown trillions at banks in subsidies with no noticeable positive effects. Yet, central bankers are considering more monetary stimulus. It appears that they have learned all the wrong lessons from the crisis. The central lesson they drew was that if a policy doesn't have the desired effects, then they should keep trying it again and again but on ever-greater scales. The lessons they should have drawn are that "stimulus"—whether in the form of QE, ZIRP, or NIRP—is counterproductive.

As far as the banking system is concerned, they convinced themselves that they had no choice but to bail the banks out; instead, they failed to realize that what was needed was a major structuring in which the zombies would have been shut down, the remaining banks recapitalized (and *not* at public expense), and the banks' governance structures overhauled to make the bankers personally liable for any losses they make.

The task ahead is to get both groups to unlearn these lessons: central bankers need to return to their senses, and commercial bankers need to be made to understand that the ongoing party of excessive risk taking at public expense is over; and, in turn, will only happen when the party *really* is over.

The four reforms discussed in this article—recommoditizing the dollar, recapitalizing the banks, restoring strong governance in banking, and rolling back government interventions in banking—can lead the way to a more robust financial system and strong economic growth. To implement a positive reform program, however, will require leaders who have both an understanding of the lessons learned from the financial crisis and the courage to act on them.

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