

A Perspective on Financial Market Reform

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In response to a nationwide decline in U.S. house prices that had significant repercussions for the U.S. and global financial markets, many countries are considering a wide variety of financial market reforms. Most of the proposed reforms include the establishment of new governmental agencies to regulate banks and other financial institutions and/or to prohibit or restrict certain types of financial transactions. I offer several guiding principles for financial reform and suggest the types of reforms that are likely to generate the best results based on these principles. Finally, I discuss the role that the central bank can play in mitigating the size, duration, and effects of financial crises. While the analysis draws heavily on the U.S. experience, I believe that the implications apply globally.

Guiding Principles

First, it is unlikely that any financial reform can prevent an asset-price bubble. The U.S. financial crisis was a consequence of a nationwide decline in the U.S. house prices. While a number of analysts—most notably Robert Shiller—warned that house prices were unsustainably high, no governmental regulatory agency, including the Federal Reserve, took any action. While there are many reasons for this, an important one is simply that it is difficult to identify an asset-price bubble—even after the fact.

Second, like the human body, market economies have self-correcting mechanisms. Firms go into and out of business, products (and even industries) come into and go out of existence, and resources (including labor) get reallocated in response to technological innovation and, perhaps less frequently, changes in tastes. While there are adverse effects for those caught up in the economic turbulence, governmental actions and policies which significantly interfere with the economy's self-healing process can have adverse effects on the economy itself.¹

Third, regulatory reform should not attempt to impede structural changes that are the consequence of welfare-enhancing economic forces.

Broad Implications of the Guiding Principles

These guiding principles have broad implications for the types of financial reform that are likely to be successful and those that are not—or worse yet, impose needless regulatory burden or otherwise reduce the efficiency of the financial markets. First, any regulatory reforms that are intended to prevent bubbles are likely to be unsuccessful. Asset-price bubbles occur from time to time for a variety of reasons. Most importantly, they are virtually impossible to identify in real time and very difficult to burst if they are identified. Consequently, policies that are intended to prevent the formation of asset-price bubble are doomed to fail.

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¹For example, there is evidence that the Great Depression in the U.S. was prolonged by misguided governmental policies, e.g., Cole and Ohanian [7]. Likewise the recession in Japan that began in the late 1980s was arguable prolonged by governmental policies.

There are reforms that could be helpful, however. Specifically, reforms that prevent activities that exacerbate the formation of an asset-price bubble. For example, the acceleration in home prices in the U.S. was accompanied by a marked deterioration in mortgage lending standards: Zero down payment, no-doc, and zero equity mortgages make sense only in a world where house prices are assumed to increase significantly. The erosion of lending standard certainly exacerbated the rise in home prices. There were numerous opportunities to halt the erosion in lending standards, but no steps were taken. Instead, the deterioration in lending standards was facilitated by the securitization of sub-prime loans by government-sponsored agencies (e.g., Calomiris [4, 5], and Calomiris and Wallison [6]). The acceleration in home prices would have been much less severe had lending standards been maintained.

Second, effective financial market reforms should rely as much as possible on the natural healing mechanisms of the market. At bare minimum, they should not hinder them. Reforms that are well intentioned but interfere with the market's self-correcting mechanisms can have serious adverse consequences for the economy.

Third, reforms that are at odds with fundamental economic forces are welfare reducing. Moreover, they are likely to be circumvented over time.

Practical Implications of the Guiding Principles: The Systemic-Risk/Economic-Catastrophe Hypothesis

These guiding principles have a number of practical implications. In particular, they have important implications for what I call the *systemic-risk/economic-catastrophe hypothesis* (SRECH). The SRECH asserts that the economic effects of a failure of a very-large, systemically-important financial institution will be catastrophic. A reform that is currently being considered in the U.S. is a consequence of the SRECH; namely, the creation of a *systemic-risk regulator* (SRR). Indeed, some lawmakers have argued that the creation of a SRR is key to any financial reform designed to prevent future financial crises. However, the creation of a SRR is likely to result in a (possibly huge) governmental agency that will ultimately be ineffective. To understand why, it is important to note that there is no consensus definition of systemic risk. Moreover, it is generally conceded that it will be difficult to measure, assuming an adequate definition (Taylor [10]). If you cannot define or measure it, perhaps there should not be an agency in charge of regulating it.

The lack of a consensus definition notwithstanding, the phraseology that is used in discussions of systemic risk—"large, interconnected, and strategically important"—suggests that systemic risk is related to the interconnectedness of firms. A high degree of interconnectedness suggests the possibility that the failure of a "highly" interconnected firm could trigger the failure of firms with whom it has connections. For example, the failure of General Motors affects all of its dealerships, suppliers, and financial institutions with whom it has relationships and, in turn, these dealerships, suppliers, and financial institutions affect other firms with whom they are connected, and so on and so forth. Developed economies are characterized by a high degree of specialization. Consequently, highly developed economies are composed of complex webs of interconnected firms—interconnectedness is the rule, not the exception. The SRECH suggests that the failure of a very large interconnected firm would have very significant effects on the economy, so such firms should be considered too-big-to-fail, TBTF. However, this analysis would suggest that **all** very large firms should be considered TBTF, but this does not seem to be the case. TBTF seems to apply only (or primarily) to large financial firms. Few suggest that large non-financial firms are TBTF.

Why financial firms? One possibility that has been suggested is that other financial institutions have substantial exposure to the large financial firm. Consequently, the failure of the large financial institution will trigger the failure of a large number of other financial institutions, which will in turn trigger additional failures, and so on and so forth. This will, in turn, significantly reduce the availability of credit, which will have serious effects on non-financial firms and economic activity generally. Note, however, that the degree of exposure of one firm to the economic fortunes of another is a common problem that can be dealt with using well-known and effective risk management techniques. That financial institutions attempt to manage their exposure risk is evidenced by Furfine [9] who finds that "the risk of contagion is found to be economically small."²

In any event, successful regulatory reform should be directed at enhancing the risk management efforts of

²Furfine [9], p. 111.

financial institutions. Moreover, the necessity of such oversight would be significantly reduced if governments simply adopted a policy that no firm—financial or otherwise—is TBTF because TBTF significantly reduces, if not eliminates, the incentive for financial firms to properly manage their exposure risk to the TBTF firm.

It is also worth pointing out that the financial crisis in the U.S. was largely a consequence of the fact that many financial institutions had relatively large holdings of real estate loans, primarily in the form of mortgaged-backed securities (MBS). Consequently, it was not contagion that was the problem. The simple fact is that all holders of MBS were effected, regardless of the degree of interconnectedness. Moreover, the effect was very large. Household real estate wealth declined by \$4 trillion from the second quarter of 2006 to the second quarter of 2008. This loss affected financial institutions broadly based on their MBS exposure, regardless of their size and degree of interconnectedness.

What’s the Evidence of the SRECH?

The analysis in the previous section suggests that systemic risk can be dealt with using well known risk management methods, but what is the evidence that financial crisis necessarily result in severe economic recessions? Often cited evidence is the relationships between financial panics and economic recessions at the end of the 19th century and the early part of the 20th in the U.S. and elsewhere. There are a number of reasons to be suspect that these events do not necessarily have implications for today’s economy. For one thing, financial markets were less well developed and less integrated nationally and internationally than they are today. Moreover, there is reason to suspect that governmental policies that encouraged risky practices played an important role (e.g., Calomiris [2, 3], and references therein). Furthermore, economic resources were also less fluid for a variety of reasons. Importantly, central banks did not understand the importance of their role in providing liquidity at such times (a problem that may still exist). Greater diversification and appropriate monetary policy can enable the economy’s natural healing mechanisms.

Also, there is a strong reason that financial crises and economic recessions are linked. Specifically, financial panics or crises usually involve significant losses of wealth. It is hardly surprising that significant and rapid wealth losses have adverse economic repercussions. Indeed, if the wealth losses are large enough and broad-based enough, the economic effects are likely to be correspondingly large. As of the first quarter of 2010, the real estate wealth loss by U.S. households is in excess of \$7 trillion. It is hardly surprising that a wealth loss of this magnitude would have significant macroeconomic effects. It is not the fact that financial institutions are linked that is important. What is important is the circumstances that give rise to the crisis.

More recent “evidence” is said to come from experience following the failure of Lehman Bros. Some analysts have suggested that the economy would have been less severely affected had Lehman been bailed out like Bear Sterns. I believe that the economic effect of Lehman Bros.’ failure was more severe than necessary because of uncertainty about the response of the monetary and fiscal authorities. Importantly, the Fed failed to learn the most important lesson of the Great Depression: financial crises require the central bank to supply additional liquidity to the markets. The Fed did not contract the supply of credit, as Friedman and Schwartz [8] showed the Fed did in the early stages of the Great Depression. However, the Fed did not increase the supply of credit either. Instead the Fed implemented a program of sterilized lending, even as the financial crisis intensified, effectively forcing some credit market participants to make loans to others. Elsewhere (Thornton, [13]) I suggest that Lehman Bros.’ failure may not have occurred had the Fed provided the necessarily liquidity and a coherent strategy for monetary policy earlier in the financial crisis.

The SRECH and the Transfer of Wealth

Firms fail when their net worth is negative, i.e., their liabilities exceed their assets at current valuations. Consequently, bailouts typically involve a transfer of wealth from those who pay for the bailout (present and future taxpayers) to those who benefit from not letting the firm fail (typically the owners and major creditors). Supporters of the SRECH and TBTF argue that there are others who gain from preventing “financial cataclysm,” as Alan Blinder [1] has recently called it. Specifically, there are welfare gains to those who benefit from reducing the severity of the economic recession that results from the bailout. Those who advocate TBTF and bailouts do so on the presumption that the welfare gains from the reduced severity

of the recession are larger than the welfare losses to those from whom the wealth was transferred.³ Such calculations are extremely difficult even when distributional issue of exactly who gains and who loses is ignored (which it always is), but impossible when it is not. The fact is, no one can really make such a calculation. Consequently, I suggest that such decisions might be guided by another principle: Namely, in a free-market, democratic society citizens should not be forced to pay for the misfortune of those who have the knowledge and economic resources to prevent it. This principle, coupled with the lack of evidence (theoretical or empirical) to support the SRECH suggests that the cornerstone of effective financial reform should be the elimination of TBTF. The alternative to TBTF is bankruptcy—the process that democratic market economies have devised to deal with firm failure. Financial reforms that strengthen and expedite bankruptcy procedures for financial firms are worthy of serious consideration.

Other Practical Implications

Some have suggested that TBTF would be unnecessary if large financial institutions were simply busted up and financial institutions were simply not allowed to become “too large,” whatever that might mean in practice. However, empirical evidence (e.g., Wheelock and Willson [14]) suggests that there are significant economies of scale associated with financial services industry, particularly banking. This evidence is consistent with economic theory which indicates that, other things the same, economies of scale will exist in industries that are characterized by a high ratio of fixed to variable costs. The existence of significant economies of scale means that financial reforms that require that “large“ financial institutions be busted up and prevents other financial institutions from becoming “too large” violates one of the guiding principles and is, therefore, welfare reducing. Moreover, the fact that it is at odds with a fundamental economic force mean that, ultimately, it will prove to be ineffective.

In principle, the above analysis applies to proposals to limit investment of various financial institutions in certain types of assets, most notably certain types of derivatives. Because the price of many derivatives is based on the price or performance of some asset that the investor may otherwise have no interest in, it is important to limit the participation in such assets to those which are traded in organized markets with appropriate margin requirements. However, measures that simply do not allow certain financial institutions to benefit from the economic benefits that such investments may provide are unwarranted.

Financial Crises and Monetary Policy

Finally, I would like to note that central banks can play a very significant role in reducing the severity of the effects of the crisis and speeding up the economic recovery. When economic agents default on their debt obligations in large numbers there is an increased need for liquidity. Central banks can provide the needed liquidity by making loans to banks and other affiliated institutions and by purchasing relatively short-dated securities in the market. It is important that the central bank communicates its intentions to the market, however. Specifically, the central bank should note that the liquidity is being provided to mitigate the effects of the financial crisis and that it will be withdrawn as financial conditions stabilize. Such an announcement will help stabilize the markets by making it clear that the central bank will provide all of the required liquidity, and will also help stabilize inflation expectations by making it clear that the liquidity provision is not permanent. In principle, there is no limit on the size of the liquidity provision. The central bank should be willing to provide all of the liquidity that the markets require.⁴

Unfortunately, the Fed did not follow this procedure. Early on in the financial crisis, the Fed reduced the discount rate by 50 basis points, which was largely ceremonial since few banks borrowed at the discount window. Beginning in late 2007 the Fed introduce several new lending facilities that could have been effective were it not for the fact that the Fed sterilized the effects of such loans on the total supply of credit through offsetting sales of government securities. As I have noted elsewhere (Thornton [11]), sterilized lending does not increase the total supply of liquidity but merely reallocates credit to the borrowing institution from

³For example, Blinder [1] suggest that “spending perhaps \$50 billion (his estimate of ultimate the net cost of the Troubled Asset Relief Program, TARP) of taxpayer money to forestall financial cataclysm seems like a bargain.”

⁴A good example was the Fed’s announcement that it would lend freely at the discount window following the 1987 stock market crash.

other market participants. The Fed maintained its policy of sterilized lending even after the bailout of Bear Sterns and the continued deterioration of conditions in financial markets. It was only after the failure of Lehman Bros. that the Fed massively increased the supply of liquidity and, then, only because it was unable to sterilize such a massive amount of lending.

At no time during this episode, or since, did the Fed articulate the purpose of its actions or an intention to remove the liquidity provision quickly.⁵ Indeed, the Fed made matters worse by its large-scale purchase of long-term securities, primarily mortgage-backed (MBS) and governments. Absent this program, the liquidity provision of the Fed would be back to essentially normal levels. As conditions in financial markets improved, loan demand diminished. Consequently, Fed phased out most of the new lending facilities.

The Fed is currently in an uncertain position; some members of the Federal Open Market Committee wish to reduce the total supply of liquidity by selling the long-dated assets acquired under the long-term asset purchase program, while others argue that the market continues to need the additional liquidity, despite the fact that the demand for loans from the Fed has returned to normal. This experience demonstrates why central banks should provide additional liquidity by making loans and purchasing short-dated securities. Loan demand declines automatically as the effects of the financial crisis wane, and the liquidity provided by the purchase of short-term assets can be withdrawn naturally and rapidly as the short-dated securities mature.

References

- [1] Blinder, A.S. (2010) "Government to the Economic Rescue," *Wall Street Journal*, June 16, 2010, page A21.
- [2] Calomiris, C.W. (2009) "Banking Crises and the Rules of the Game," unpublished manuscript.
- [3] Calomiris, C.W. (2009) "Prudential Bank Regulation: What's Broke and How To Fix It," unpublished manuscript.
- [4] Calomiris, C.W. (2008) "The Subprime Turmoil: What's Old, What's New, and What's Next," Paper presented at the Federal Reserve Bank of Kansas City's Jackson Hole Symposium, 2008.
- [5] Calomiris, C.W. (2008) "Statement of Charles W. Calomiris Before the Committee on Oversight and Government Reform," United States House of Representatives, December 9, 2008.
- [6] C.W. Calomiris, and P.J. Wallison. (2008) "The Last Trillion-Dollar Commitment: The Destruction of Fannie Mae and Freddie Mac," *Financial Services Outlook*, American Enterprise Institute, September 2008.
- [7] Cole, H.L., and L.E. Ohanian. (2001) "New Deal Policies and the Persistence of the Great Depression: A General Equilibrium Analysis," Federal Reserve Bank of Minneapolis Working Paper 597.
- [8] Friedman, M. and A.J. Schwartz. (1963) *A Monetary History of the United States, 1867-1960*, Princeton University Press, Princeton, N.J.
- [9] Furfine, C.H. (2003) "Interbank Exposures: Quantifying the Risk of Contagion," *Journal of Money, Credit, and Banking* 35(1), 111-128.
- [10] Taylor, J.B. (2009) "Defining Systemic Risk Operationally," in *Ending Government Bailouts As We Know Them*, George Shultz, Kenneth Scott, John B. Taylor (Editors), Hoover Press, Stanford University.
- [11] Thornton, D.L. (2009) "The Fed, Liquidity, and Credit Allocation," *Federal Reserve Bank of St. Louis Review* 91(1), 13-21.

⁵Rather the Fed has merely indicated the desire to neutralize the effects of its liquidity provision on inflation, see Thornton [12].

- [12] Thornton, D.L. (2009) “Negating the Inflation Potential of the Fed’s Lending Programs,” Federal Reserve Bank of St. Louis *Economic Synopses*, No. 29.
- [13] Thornton, D.L. (2009) “Would Quantitative Easing Sooner Have Tempered the Financial Crisis and Economic Recession?” Federal Reserve Bank of St. Louis *Economic Synopses*, No. 37.
- [14] Wheelock, D.C., and P.W. Wilson. (2009) “Are U.S. Banks too Large?” Federal Reserve Bank of St. Louis Working Paper 2009-054B.