The Financial Crisis of 2008:
What needs to happen after TARP

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Abstract

The Trouble Asset Relief Program (TARP), signed into law on October 3, 2008, is an insufficient policy initiative to end the current credit crisis. In addition to modifications in implementing the program, other policy initiatives are necessary. My proposals include: establish a Bank Capitalization Fund that would immediately jump start our credit system, protect savings and checking deposits of all Americans, abandon the hold to maturity target purchase price and obtain the trouble assets at a price closer to fair value, do not bail out the financial institutions that are already insolvent by purchasing their assets at a premium price, recapitalize the FDIC and undertake measures to reduce bank runs, and initiate a program to incentivize mortgage cram-downs. So far, policy makers have reacted to one crisis after another. My proposals are proactive and are guided by lessons learned in previous financial crises, in particular, the Swedish banking crisis.

Current Situation

Troubled Asset Relief Program (TARP) was signed into law on October 3, 2008. It is an insufficient step to deal with our current credit crisis.[2] The real economy depends on well-functioning capital markets, money markets, and banking system. The capital markets, especially debt markets, have been under the greatest stress in 75 years. We have

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[2] The Troubled Asset Relief Program is section 1 of the Emergency Economic Stabilization Act.

seen the largest bankruptcy in U.S. history[3] – Lehman Brothers, the largest bank failure in U.S. history,[4] Washington Mutual, and the end of the road for the traditional Wall Street investment banks. Despite huge injections by the central banks in the U.S. and abroad, the money markets have come under severe pressure, driven by fears of counterparty risk.

While most of the focus has been on Wall Street, there are hundreds, if not a thousand banks, that may be insolvent if their assets, which include capital market instruments, were set at fair value (marked-to-market). Over the next six months, we are faced with the specter of a massive number of bank failures. Although trouble assets must be dealt with, we have several other major issues to address in the capital markets, money markets, and banking system.

Some historical perspective is important here. During the 1929-33 period, there were over 9,000 bank failures. The deposit base of the failed institutions was $7.1 billion or $90.4 billion in 2008 dollars. Washington Mutual had a deposit base of $188.3 billion as of June 30, 2008.

The Resolution Trust Corporation was initiated in 1989. Initially it was assigned approximately $125 billion in assets of almost 300 failed S&Ls. They added about $400 billion over a six year period from other institutions that were insolvent. Hence, the total assets targeted for disposal were $550 billion over this period which is roughly $900 billion in 2008 dollars.

Today's situation is larger in scale than the S&L crisis. The combined assets of just two firms, Lehman Brothers and Washington Mutual, $946 billion, exceeds the assets targeted during the S&L crisis.

Note the total assets of Wachovia Corporation were $812 billion as of June 30, 2008.[5] National City's assets were $153 billion as of the same date.

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[3] While there have been bigger bankruptcies, a good comparable is the failure of Drexel Burnham Lambert in 1990. At that time, Drexel's assets were $3.5 billion which is $6 billion in 2008 dollars. Lehman's assets were $639 billion.

[4] Continental Illinois failed in 1984 had $40 billion in assets which is $85 billion in 2008 dollars. Washington Mutual has $307 billion in assets. Note IndyMac had $32 billion in assets.

[5] On Monday September 30, 2008, Wachovia's banking operation was sold to Citibank. Citibank assume $42 billion dollars in potential losses on the Wachovia mortgage portfolio and the government assumed the rest. The Wachovia mortgage portfolio exceeded $300 billion. The government received $12 billion in preferred stock from

It is naïve to think that the $700 billion TARP program will solve our financial crisis. In addition, there are some serious flaws with the current TARP proposal. We need to get out ahead.

Today's crisis has two other dimensions. First, the so called 'deleveraging' is not just coming from Wall Street investment banks. Even healthy banks are selling assets because almost all assets have become more risky and their risk management systems are telling them to switch into safer assets. There is also tremendous pressure from hedge funds to reduce their risk. These hedge funds will likely be accelerating their selling as investors begin to give redemption notices.

Second, many of the troubled assets are remarkably complicated. The complexity is often a result of derivative features. While RTC mainly had to dispose of real estate, the new RTC will have to deal with assets that are far less straightforward.

If we want to get our system back on track, we must be thinking proactively – rather than initiating ad hoc solutions to extinguish the fire of the day. It is well known that if the credit problem is not solved there will be serious consequences for the real economy. These consequences include continued depreciation of home prices, negative job growth, and sluggish capital spending.

The following are my proposals.

1. Troubled Assets

The TARP program is fraught with execution risk. This risk damages the confidence that investors have in the successful implementation of the policy.

a) TARP should not pay "hold to maturity" prices for the assets they purchase as recently suggested by the Federal Reserve Chairman in his Congressional Testimony. The hold to maturity prices for most assets are unrealistic and an awkward (or inefficient) subsidy to financial institutions. In addition, it is infuriating to average Americans that the government proposes to pay high prices for assets of little value.

Importantly, it seems like an ill-thought out policy to pay a premium price for a troubled asset from a financial institution that is already insolvent. It is bad enough to throw good money at bad assets. It

Citibank. Effectively, the fourth largest bank in the U.S. failed. On October 3, 2008 and after Wachovia had agreed to the Citibank deal, Wells Fargo made an offer for all of Wachovia which was accepted by Wachovia. The Wells Fargo deal does not contain any government guarantees.

is even worse to throw the good money at an institution that might collapse anyways.

I believe that a fundamental change in the approach is necessary. The implementation of the TARP is vague enough that I believe that this idea is feasible.

I do not disagree that some of the most illiquid assets need to be removed from the balance sheets of viable financial institutions. I suggest that the valuation models for the securities are run with a 3-5 year window that makes the assumption that markets will recover in the third year. Hence, purchasing at these prices will help financial institutions (because the price is above the current fire-sale market price). The price is also a “fair price” for the Treasury given that it is based on their prospective holding period and their belief in a recovery. This would greatly increase the chance that the Treasury will make a positive return on their investment. This plan ensures both the sellers get a good price and the taxpayers get a fair return. It also means that the plan need not cost $700 billion.

The reason the above proposal works has to do with the liquidity premium. This premium differs depending on your holding period. If I have to sell my house by 5pm today, I will have to take a huge discount and sell it for, say $50,000. If my holding period were 3-6 months, I could sell it for much more – even in a tough housing market. The Treasury has a longer holding period. They should pay fair value reflecting that holding period – and a lower liquidity premium.

b) Under the current proposal, the management of TARP will outsourced to private managers. This is a mistake. Managers should be recruited to a new division of the Treasury to manage the TARP. There are too many conflicts of interest that arise when TARP is subcontracted out. Furthermore, with the recent restructuring in the industry, there should be plenty of talent to recruit. The Treasury would probably need to buy some modeling expertise. Any government program should begin to unwind in five years and expire in seven years.

However, it looks as if the management will be outsourced. To minimize the conflicts of interest, outside managers should not focus on the assets where their companies’ have major exposures.

2. Direct equity injections to banks

Another problem with the TARP proposal is that TARP mixes the purchasing of troubled assets and equity investment. The current TARP proposal involves some equity compensation for TARP in the form of preferred stock.

We should also learn from previous experiences. In the early 1990s, Sweden had a banking crisis that has some striking similarities to ours. Indeed, the loan losses at the time represented the equivalent of 12% of their GDP. The Swedish approach was not to overpay for troubled assets – or to buy time by allowing losses to be spread through time. Sweden enforced writing down of all assets to reasonable market values and, at the same time, made equity investments into the banks. In the end, the banking system survived. The taxpayers of Sweden also earned a positive return when these equity positions were sold by the government.[6]

Note that other countries have taken different approaches to the current crisis. On Tuesday September 30, 2008, the government of Ireland introduced the Credit Institutions (Protection) Act 2008. This provides $563 billion in loan guarantees to the six major banks in Ireland. The bill will likely be approved on Wednesday October 1, 2008. The GDP of Ireland is $258 billion. Hence, this action represents more than double the country's GDP. An equivalent guarantee in the U.S. would amount to a staggering $30 trillion.

The FDIC reports that as of June 30, 2008, the total deposit base of the U.S. is $8.6 trillion. This includes banks and savings and loan institutions. This number includes deposits by FDIC institutions held outside the U.S. The total domestic deposits are $7 trillion. Of that base, $4.6 trillion is insured by the FDIC.

Guarantees and direct equity investments happen quickly. In contrast, the TARP proposal could take months to execute. It involves the valuation of very complex assets. We need a policy that provides immediate liquidity to the banking system. A policy like paying interest on reserve deposits helps but it is not enough.

a) Establish a Bank Capitalization Fund (BCF). There are two prongs necessary to get credit markets running again – the removal of illiquid assets from banks' balances sheets and restoring confidence so that banks are willing to make loans. Bebchuk (2008) has eloquently made the point that it is crucial to separate the buying of distressed assets and from bank capital injections. These should be separate policy initiatives. While TARP will strengthen banks' balance sheets, it is not an initiative designed to increase loans. In contrast, the BCF is targeted to directly

[6] See Bäckström (1997).

improve the credit conditions. BCF should target 2-5% of each bank's stock. Banks would have the choice of taking the BCF investment or privately raising the equity. The equity investment would be mandated for all financial institutions.[7] Obviously, those banks that are already insolvent would be relegated to the RTC rather than the BCF. Importantly, BCF could be implemented and executed within weeks. TARP will take considerably longer to set up.[8]

b). The first RTC cost tax payers more than $200 billion. RTC was designed to dispose of failed assets. BCF and TARP are designed to minimize the number of failures and to effectively minimize taxpayer cost and the work of the RTC. I estimate that $300b is necessary in to fund the BCF. Taxpayers should expect a positive return on this investment. Indeed, the cost of the program could be reduced by allowing private investors to contribute to the BCF. The cash from the BCF investments should feed through to the real economy as banks use that capital for loan creation.

c). After three years, banks would be able to buy back the BCF investment. BCF would be terminated in October 2013. At that point, it would be mandatory for banks to buy back the BCF investment or BCF would feel free to dispose of the investment to other buyers.

3. FDIC

a). The FDIC should be recapitalized sooner rather than later. Even though the FDIC is guaranteed by the Treasury, it would be a boost of confidence to have more funding immediately available in the FDIC. We face a significant number of bank failures that could easily exhaust the FDIC funding. While the FDIC dodged the bullet with Washington Mutual and Wachovia's failures, it is best to have the funding in place for the inevitable surge in bank closings. Here is an opportunity for policymakers to get in front of a problem, unlike what the Fed and Treasury have done with Bear, Fannie, Freddie, AIG, WaMu, and

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[7] A 2% mandate is proposed by Diamond et al. (2008).

[8] Belgium took actions consistent with this approach by investing $16.2 billion in Fortis on Monday September 29, 2008. On October 7, 2008, BNP Paribas SA, too control of Fortis' units in Belgium and France for 14.5 billion euros. Belgium, France and Luxembourg invested $9.2 billion in Dexia on Tuesday September 29, 2008. On October 5, a $59 billion ECD and Bundesbank initiative to recapitalize Hypo Real Estate, the German property lender, broke down. The plan was resurrected on October 6, 2008 with the Bundesbank contributing 20 billion euros and 30 billion euros from German financial institutions (total $68 billion). The Bundesbank also granted a 35 billion euro bridge loan to Hypo. As of October 5, it seemed like the government of Iceland would have to inject $12 billion into Glitnir, the troubled bank in Iceland.

Wachovia, which have been mostly ad hoc/reactive actions. The recapitalization will also instill extra confidence among the depositors and reduce the probability of bank runs.

b). For a period of three years, guarantee all demand and savings deposits at FDIC insured institutions.[9] Importantly, the insurance premium that the banks pay the FDIC should be frozen at current levels for the three year period. After that period, increase the FDIC limit to $300,000. This will greatly reduce the chance of a bank run by customers with more than $100,000 in deposits. It will immediately give a boost of confidence to the banking system. While there are not many of these large customers, the effect of their withdrawals is identical to thousands of smaller customers running on the bank. This is particular helpful to families who want a safe haven for their savings and small businesses with working capital needs. The FDIC last increased their limit from $40,000 to $100,000 in 1980. If the FDIC limit had been indexed to inflation, it would be $280,000 today. [10]

4. Federal Reserve/Treasury

a). Mechanisms should be in place to have a contingency plan for 750-1,000 bank failures over the next six months. This involves aggressive hiring and training of new staff *now* to deal with the future surge in failures. Hopefully, we will not need all the staff – but given the recent hard lessons of risk management, we need to be prepared.

b). Re-establish the Resolution Trust and fund it now. Given the predicted surge in bank failures, we need a system in place to deal with the problems quickly. In the past, the RTC was successful in disposing of assets of failed S&Ls and it is best to plan ahead for its inevitable redeployment. There are only so many times you can call on JP Morgan, Citibank and Bank of America.

[9] This should included checking deposits, regular savings deposits, and certificate of deposit time deposits. Money market savings should be capped at $100,000.

[10] On Tuesday September 30, 2008 the FDIC made the request to Congress to grant authority to increase the deposit insurance. The increase to $250,000 was approved in the EESA on October 3, 2008.

5. The Real Economy

The availability of credit does impact the real economy – but only indirectly. The current disruption of credit markets will surely have a negative impact on jobs, capital spending and housing prices. We also need to proactively think about how to minimize the negative effects on the real economy.

a). The nationalization of Fannie and Freddie should reduce mortgage rates. However, that is not sufficient because: (1) you need a bank to lend to you at the lower rate and (2) some people are 'stuck' in their houses because they have negative equity (the mortgages are worth more than their properties).

It is well known that it is very costly for banks to foreclose. The bank does not want to force a sale in our current housing environment. In addition, foreclosure firesales have a negative effect on the values of other houses in the surrounding neighborhood – and reduces the value of other mortgages in the bank portfolio.

While I think it would be a bad idea for the government to force a reset of the principal amount of these mortgages, there could be ways to jump start the process. First, the bank has a natural incentive to reset (or cram-down) some of the principal. I propose that certain loans should qualify for a government incented program where the mortgage principal is reset (crammed down) to reflect market conditions with the government assuming 50% of the reset adjustment. The bank (and government indirectly) will hold an option on the difference between the original loan amount and the reset principal. This ensures some recovery if the house is sold for more than the reset amount.[11]

b) Two year moratorium on all pre-payment penalties for mortgages.

c) There has been no attention paid to non-financials. Let us not forget that there are many highly leveraged industries such as the automobile manufacturing and the air transport. Ford alone has $166 billion in debt. General Electric was forced to give Warren Buffet an extraordinary deal (in terms of stock options) in order to get an equity infusion.[12] It is highly likely that some of the problems we have seen in the financial sector could spill over into the non-financial sector.

[11] One important feature of the option is that the difference between the reset and the original loan amount would be adjusted through time to reflect general level of inflation.

[12] Buffet through Berkshire Hathaway invested $3 billion in preferred stock which carried a 10% dividend rate. In addition, he received warrants on 134 million shares to purchase at $22.25. A conservative valuation of the warrants is $1 billion. Hence, GE paid an extraordinary (if not usurious) price for this equity infusion.

We want to avoid expensive government bailouts that occur after the problem reaches a crisis. Instead, prophylactic measures should be directed at some of the industries at highest risk. For example, the government might incent banks to provide lines of credit for some of these firms most at risk. That is, for banks participating in the TARP, there must be some explicit *quid pro quo.* This should apply not just to large companies but to small and medium sized companies. The engine of growth in our economy is small and medium sized businesses.

Summary

Over the past year, we have bounced from one problem to the next. It is time to develop a comprehensive and proactive set of policies. These policies will greatly reduce the chance of severe damage to the real economy and contribute to increased confidence in our financial institutions.

We need action and we need it quickly. I suggest that we broaden the scope of actions. We need a comprehensive initiative that focuses on all key drivers of the real economy.

1. Establish a Bank Capitalization Fund (BCF) with the goal of purchasing small amounts equity of all viable financial institutions. This equity injection can be done quickly and will immediately impact the availability of loans.

2. For a period of three years, guarantee all demand and savings deposits at FDIC insured institutions. Premiums that the banks pay the FDIC are frozen for three years. Afterwards, reset the FDIC maximum insured amount to $300,000. This will immediately boost confidence in the banking system.

3. The TARP is fraught with execution risk. In implementing the TARP, Treasury avoid paying “hold to maturity” prices for troubled assets. The price should be set in between the firesale and hold to maturity. This insures a fair price for both the government and the financial institution. It reduces the cost of the program. In addition, the TARP should not purchase troubled assets at a premium price from any insolvent institution.

4. Immediately fund the BCF investment fund with $300 billion. Allow private investors to contribute capital.

5. BCF should expire in seven years.

6. Management of any government purchase of troubled assets should either not be outsourced or designed in a way so that the

manager has minimum conflict of interest with their company's portfolio.

7. Recapitalize the FDIC both in anticipation of future bank failures and to instill confidence among depositors.
8. Fed/Treasury needs to quickly put in place the staff to handle the potential of 750-1,000 bank failures.
9. Reestablish the Resolution Trust Corporation. This entity is mandated to dispose of assets of failed financial institutions.
10. Government incented principal resets of mortgages (cram downs). Resets determined by banks and both have the option to recover some of the reset if house price appreciates.
11. Two year moratorium on mortgage prepayment penalties.
12. Explicit *quid pro quo* for banks participating in TARP that credit should not be cut off from non-financial companies, particularly, small and medium sized companies that are the engine of growth and jobs in our economy.

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