Reorganising the Banks: Focus on the Liabilities, Not the Assets

Jeremy Bulow and Paul Klemperer – March, 2009[*]

[Now printed on several "blogs" including VoxEU, 21-3-09]

Summary

1. We cannot efficiently value or transfer "toxic" assets - so a good plan cannot depend upon this.

2. The UK's Special Resolution Regime, or one similar to that of the US FDIC, can cleanly split off the key banking functions into a new "bridge" bank, leaving liabilities behind in an "old" bank, thus also removing creditors' bargaining power.

3. Creditors left behind in the old bank can be fairly compensated by giving them the equity in the new bank.

4. We can pick and choose which creditors we wish to "top up" beyond this level, but should **not** *indiscriminately make all creditors completely whole as in recent bailouts.*

5. Coordinating actions with other countries will reduce any risks.

As we pour good money after bad in trying to save the banks, far too much time and attention has been focused on attempting to value or transfer or shore up the so-called "toxic" assets. This is natural enough, since they arguably caused the crisis, but it's also wrong. Here's why:

Flaws of the Current Approach

First, the toxic assets are very difficult to value. Many are held by only one or two owners so there is no real market even in good times. And even if a hedge fund buyer and a bank seller both thought that an asset was worth 50, the bank might demand 80 in the hopes of receiving that price in the next government bailout. Furthermore, the banks may be the "natural" owners of these assets. Say a bank makes a construction loan. Even if the

[*] While presented in the form of a plan, what follows is intended to raise questions that deserve answers, rather than make definitive recommendations; some of this might require other legal means than those suggested here.

loan sours, the bank may be the most knowledgeable party to hold and possibly renegotiate the loan.

Purchasing or guaranteeing “toxic” assets creates other problems too. Putting aside the obvious inequity of paying bank creditors a “risk premium” for having invested in failed businesses, how can we ever again rely on market signals to allocate capital efficiently among banks if their capital structures are effectively guaranteed by the government? And under schemes like the recent Citigroup, RBS and Lloyds bailouts, banks’ incentives to manage the “insured” assets are drastically reduced, as the government bears up to 90 percent of any marginal losses.

Perhaps most important, the obvious fiscal risks associated with the huge incremental costs of current policies may undermine confidence far more than paying off creditors in full may temporarily boost it, however superficially-attractive the latter approach may seem.

Re-establishing a healthy banking system is crucial, but doing so through the purchase of toxic assets is costly, inefficient, and risky.

How to reorganize the banks

How then can we make banks healthy without separating the “bad assets”? The answer is, instead, to separate the “bad liabilities”.

Take Citigroup, for example. At the end of 2008 the bank had roughly $1.8 trillion in liabilities on its consolidated balance sheet, of which less than $800 billion were deposits. Say Citi’s assets were worth $1.5 trillion. A new (“bridge”) bank that included all the assets plus say $1 trillion of the old bank’s most senior liabilities would still be comfortably well capitalized, even if the asset values were overestimated. The original bank would be left with all the equity in the new bank, worth $500 billion, and the remaining $800 billion in liabilities.

The original bank would still be insolvent, but that would not prevent the healthy new bank from operating efficiently and making good loans. If a risky original bank's marginal cost of funds is, say, 10 percent it will not be profitable for it to make new riskless loans at 7 percent, even if the market riskless rate is zero. By contrast, because the new bank is well capitalized, it can borrow on sensible terms if it has a profitable investment to fund.[1]

Giving the old bank an equity stake in the new bank is the best way to compensate the holders of old bank’s liabilities to the full liquidation value -- but not more than that value -- of their claims. It may also facilitate the reorganization of the old bank if, as is likely, it goes into bankruptcy, since creating marketable equity in the new bank resolves the difficulty of valuing the old bank's assets, and avoids any need to sell the new bank on to a third-party -- a transaction from which the government might be unlikely to get full value.[2]

The reorganization could be managed under a regime like the UK’s Special Resolution Regime (SRR) or similar to that of the US Federal Deposit Insurance Corporation (FDIC)[3] (there may be other possibilities too). The government’s role ends when the old bank has sold its shares or allocated them amongst its creditors.

Who loses?

Paying all creditors at least their liquidation claims is probably a pre-requisite for maintaining market confidence. It is anyway mandated by the Fifth Amendment in the US and by Human Rights legislation in Europe, and it is enshrined as the “no creditor worse off” principle in the recently-enacted UK Banking Act. So both the FDIC and the SRR assure the non-guaranteed creditors of the banks that they will be paid at least as much as they would receive under a liquidation of the institution, but *not* that they will get back every penny they are owed.[4]

Under a liquidation the junior creditors would suffer losses of $300 billion in our example (and the old bank's shareholders would be wiped out), unless there were further government subsidies. A key virtue of isolating the junior liabilities rather than the troubled assets is that while the government may then *choose* to subsidize some of the junior creditors' losses, it can more easily get off its current path towards subsidizing them 100 percent.

For example, in the U.S. system the order of priority for debts is the following: (1) administrative expense of liquidation; (2) secured claims up to the value of collateral; (3) domestic deposits (both insured and uninsured); (4) foreign deposits and other general creditor claims; (5) subordinated creditor claims; and (6) equity investors. Recently issued subordinated debt has been guaranteed by the government, which would therefore take any loss on those securities in a reorganization. (The UK prioritisation is a little different; in particular, it does not make domestic deposits senior to foreign deposits or other general creditors).

For a large bank like Citi or Bank of America the first three categories would be placed in the new bank, and so would be fully protected. Foreign depositors should probably also be made whole. As when the Icelandic banks defaulted, countries will try to "ring fence" the operations within their borders if their deposits are not paid. Furthermore, not paying foreign deposits would lead to tit-for-tat behavior and might increase systemic risk. Making these depositors whole, and protecting domestic depositors in a jurisdiction like the UK that does not have depositor preference, may give them more than their liquidation values, so the government would have to either infuse the new bank with enough capital that the claims of the remaining creditors would be worth as much as in a no-intervention insolvency, or make a cash payment directly to the old bank. (The infusion to the new bank makes its equity more valuable and therefore raises the value of the claims of the "original bank" creditors in insolvency. The amount of the equity infusion or cash payment is easily calculable if the new bank's stock is traded, as explained in this note.[5])

However, other general creditors (other than those with a government guarantee) including non-guaranteed bondholders and owners of credit default swaps that are not fully collateralized need not be paid in full. The government may, if it wishes, choose to pay these creditors more than they would receive in liquidation. (It can even buy their claims from the old bank at full value and place them in the new bank.) But because the old bank's creditors' leverage would be reduced to their financial claims, and they would not have the threat of bankrupting the new healthy bank were they not paid in full, this need only be done when not doing so would contribute to systemic risk.

If there is still concern that the new bank is undercapitalized, the government can infuse more equity, but in contrast to the current situation the infusion would no longer have to be large enough to pay off the junior creditors.

Finally, coordinating actions with other countries would resolve the concern that some have expressed that if one country alone fails to bail out a category of creditors, its institutions will find it hard to raise funding in the future. International coordination may also make it politically much easier to favour some groups of systemically-important creditors (especially foreign ones) over others.

For some banks, particularly those whose liabilities are almost entirely deposits, this approach may save little money relative to the current bailouts. And, of course, if it is systemically important to make *every* creditor *completely* whole, then there is no saving at all. But if the authorities do not believe that *any* bank creditors can be asked to lose a penny then they should say so. We can then stop worrying about things like whether, if the government buys (or "insures") the troubled assets from the banks the government pays fair price or an extra couple of hundred billion, since in this case any overpayment simply reduces the amount the government will ultimately have to pay to make good all the creditors, by an equal amount.

If governments feel that they need to absorb more of the risk in the system, they should consider whether providing subsidies to bank creditors is the most effective use of their funds.

Conclusion

A plan that isolates the bad liabilities rather than the bad assets of the banks, and pays the owners of those claims everything they legally deserve in liquidation but does not fully immunize them from losses, will achieve three major objectives. It will help unfreeze the credit markets by creating healthy banks able to lend. It will assure that depositors are paid in full, and all creditors are paid at least their entitlement. And it will make the bailout cheaper for the government, increasing its flexibility. Finally, as an additional benefit, paying creditors based on market values rather than government guarantees reduces moral hazard in bank finance, and increases the prospect of better monitoring by sophisticated private creditors in determining the future allocation of capital across financial institutions.

There will be a lot more we will need to do to solve the financial crisis -- let's not make the bank bailouts more expensive than absolutely necessary.

[1] Why do undercapitalized banks have difficulty funding good, relatively safe loans?

First, because any new capital raised is effectively bailing out the senior creditors: if any capital raise has to come primarily from junior creditors, as is likely since the supply of depositors' funds is relatively fixed, the senior creditors benefit because there will be more collateral available to secure their claims. If the new funds are used for any new zero net present value investment, then any gain of the senior creditors must be matched by an equal loss for the junior creditors --- regardless of the riskiness of the new investment. So an undercapitalized bank will need a higher return on even the riskiest investments, if the funding must come from issuing more equity or junior debt.

Second, shareholders in a risky bank are biased against safe investments. Say that a bank that wished to borrow 80 pounds had to promise to return 100 – reflecting a 20% chance of not paying -- even when the riskless interest rate is zero. Say that it could make a riskless investment with these funds that would pay off 90-- well above the riskless market rate (of zero). The sum of these two transactions would be a bad deal for the shareholders, because they will receive 10 pounds less if the bank is able to pay all its obligations in full, and nothing otherwise. In addition, the probability that they will wind up with nothing will increase, because the risky assets the bank already holds will need a 10 pounds higher payoff to pay off the bank's debts in full.

[2] We have put all the assets, including the "toxic" assets, into the new bank, because this avoids the need to value or trade them (except to the extent that the market will estimate the value when putting a price on the new bank's equity). A possible danger--depending in part upon regulatory rules--is that the new bank might nevertheless feel under pressure to sell these assets to improve its regulatory capital position. In that case, the "bad assets" might be better left behind in the old bank *if* the old bank's liquidation procedures did not create even greater pressures to sell rather than to run to maturity or renegotiate, etc., as appropriate. (A plan that credibly focuses the government's bailout efforts on liabilities rather than assets should reduce the difficulties of trading the troubled assets, but it may still be inefficient to trade them.)

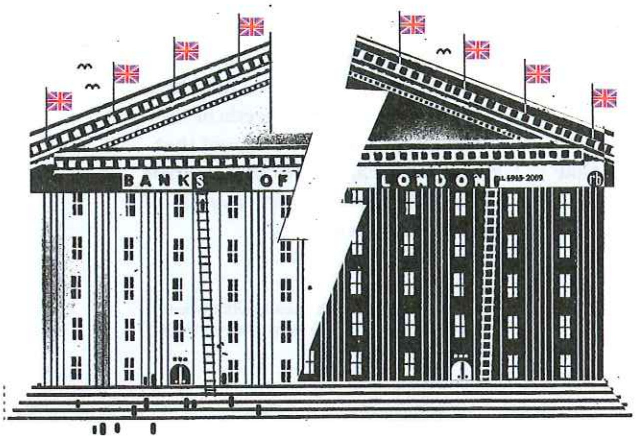
[3] An important difficulty in the US is that the FDIC procedures cannot be applied at the bank holding company level (where some large US banks hold significant assets and liabilities) rather than at the bank level, and subsidies may also be required at the holding company level to curtail system risk. It is easy to imagine a situation where the operating banks are themselves insolvent and perhaps appropriate for a "bridge" bank reorganization, while at the same time the holding company would be required to go through Chapter 11 of the bankruptcy code in the US. In this case the US government might perhaps provide Debtor in Possession financing to the holding company as it resolved its affairs.

[4] In fact, the SRR guarantees only that creditors will get back what would have been their liquidation values in the absence of *prior* government assistance. So the benefits they gained from the recent government schemes to insure their assets could be discounted from their liquidation values to compute their guaranteed minima. Whether the benefits that some groups of creditors gained from earlier bailouts, including the Lloyds/HBOS merger, can also be "taken back" by the government is beyond our legal expertise.

[5] Say for example, that a bank had liabilities in the amounts of L1 and L2, both equal priority, but the government wished to elevate the seniority of L1 by making it a debt of the new bank. If the new bank, with this liability, establishes an equity value of E and a debt value of L1, the value of the L2 claim becomes E, whereas its previous value as an equal priority claim was ((E+L1) times L2/(L1+L2)), so the amount of a fair cash payment to the old bank is the difference between these values, which equals (L2-E) times L1/(L1+L2). (This reflects the facts that the excess of liabilities over assets is (L2-E), and the owners of L1 originally bore share L1/(L1+L2) of these losses).

The Undercover Economist

A capital idea to get the banks to start lending again



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I'VE BEEN WEIGHING UP A VERY ELEGANT TREATMENT FOR THE BANKING CRISIS THAT HAS BEEN BUZZING AROUND THE ECONOMICS BLOGS – so elegant, in fact, that it took me several days to convince myself that it wasn't just a logical sleight of hand, the kind of subtle fallacy that mathematicians use to "demonstrate" that 1+1=1.

One way to understand the banking crisis is that the banks cannot raise new money and lend it to people who could use it. This is not because there is no money, or no deserving investment projects. It is because the banks, whose assets are worth less than they hoped, are now weighed down by their existing promises to repay depositors and other creditors. They cannot raise fresh money because nobody wants to lend money to a near-bankrupt bank.

So far, governments have been trying to raise or at least stabilise the value of bank assets, but an alternative is to reduce the burden of their liabilities.

The elegant approach I've been examining has been developed by long-time collaborators Jeremy Bulow and Paul Klemperer. They suggest splitting crippled banks such as Citigroup or RBS into a good "bridge" bank and a bad "rump" bank. The bridge bank gets all the assets, even the so-called "toxic" assets. These are not truly toxic, simply worth less than everyone hoped. The bridge bank also inherits sacred liabilities such as deposits. The rump bank gets no assets, only the debts the old bank used to owe to creditors.

With a leap and a bound, the bridge bank is well-capitalised and capable of raising new funds to lend out to good projects. Depositors feel secure and the economy acquires a functioning bank. The rump bank, of course, is a basket case, so one might think that the shareholders and creditors in the rump bank have suffered expropriation. They have not: Bulow and Klemperer propose giving all the equity in the bridge bank to the rump bank – this is full and fair compensation. The rump bank may well go bankrupt and the creditors will have to see what they can salvage – which will include shares in the bridge bank. But the bankruptcy process will not damage the bridge bank, nor prevent it from raising new money and making fresh loans.

The plan may not work, for a number of reasons. The most serious objection is that everything is now systemic, and that allowing creditors to lose a percentage of their claims – despite the fact that they lent money to the banks without any government guarantee – may cause further bankruptcies. Even so, the Bulow-Klemperer plan allows the government to pour further money into the banks in a more transparent way: to the bridge bank if the concern is to ensure well-capitalised banks; to the rump bank's creditors if the concern is to prevent a chain reaction of bankruptcies. Transparency, of course, may be the last thing governments want, given the possible sums involved.

> *The confusing thing about the financial crisis is that the physical economy is the same as ever*

If you are still blinking at the idea that one can produce a healthy bridge bank like a rabbit from a troubled-bank top hat, without injecting new funds and without resorting to expropriation, you should be. But it is true. The confusing thing about the financial crisis is that the physical economy is in the same shape as ever, but it can be paralysed if investment money cannot flow from those who have it to those who can use it. A tangle of – unpayable? – claims against the banks is, like some modern-day Jarndyce and Jarndyce case, stemming that flow. Bulow and Klemperer try to set the tangle to one side to be resolved while the banks continue their business. Put like that, the idea does not seem like such a conjuring trick.

Tim Harford's "The Logic of Life" is out now in paperback.