A bank restructuring plan to deal with a euroexit

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Effects of a euroexit on banks

• Any form of euroexit
  – Weak country leaving the euro
  – Strong country leaving the euro
  – Complete euro break up

will cause a large currency realignment and huge losses in the banking sector

• Possibly a strong country (Germany) could afford to bail out its banking sector (not obvious politically)

• Anybody else will not

• What else can we do?
Effects of bank losses -1

• After substantial losses banks’ debt will trade below its face value -> debt overhang problem:
  – Since debt claims are senior, incentives to put new equity into the bank are greatly reduced (any new capital will have the immediate effect of raising the value of impaired debt rather than creating any new equity).
• Until that debt has recovered its value, any equity funding that is raised amounts to a transfer to the debt holders.
• This will impede the ability of the bank to become recapitalized.
• If the bank remains undercapitalized depositors may choose to run rather than risk any losses.
Effects of bank losses -2

• Second problem: kind of loans that a seriously undercapitalized bank would be willing to make.
• Pulling its loans would only force a bank to recognize losses, while keeping them in place preserve the small chance of a recovery and substantial repayment.
• Equity owners do not suffer the cost of the additional losses because they only get a return if loans recovers in value -> huge incentives to “extend and pretend.”
• See Japan’s so-called lost decade
Goal

• Avoid these problems
  – Not burdening taxpayers
  – Not violating *de facto* priority of claims
  – Not making any claimholders worse than in what they would receive in an orderly liquidation

• This is possible because the deadweight losses of a bank’s debt overhang are very large (at least 22% of value of assets (Veronesi and Zingales (2010))).
Good Bank/Bad Bank

• Split into a good bank/bad bank:
• Assets responsible for the losses are moved into **bad** bank.
• Performing assets are moved into **good** one.
• Equity + run-prone liabilities moved into **good** bank
• Long-term debt moved **bad** one
• Equity in **good** bank is owned by **bad** bank
• Equity in **bad** bank owned by initial shareholders
• To balance the account, create a senior liability of the **bad** bank owed by the **good** bank.
Balancing the Accounts

- We can write the balance sheets of the two banks as

\[ \text{Assets}^G + X = \text{Liabilities}^G + Y \]

\[ \text{Assets}^B + Y = LTD + X + \text{Original Equity} \]

- \( Y > 0 \) is the equity in the good bank owned by the bad bank
- \( X > 0 \) is the liability of the bad bank owned by the good one
- \( E \) the equity in the overall bank, which will be transferred to the bad bank.
- Many values of \( X \) and \( Y \) solve this pair of equation.
- We can eliminate the indeterminacy by requiring that the good bank should be well capitalized, let us say 10% of assets

\[ Y \geq 0.1(\text{Assets}^G + X) \]
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Benefits

• For BNP, the senior loan from the good bank to the bad bank will be €848 billion.

• If the company is solvent, everybody is paid off in exactly the same way as if the bank was never split up.

• If the value of the toxic assets is reduced by 20%, and BNP were a single entity, it would face a loss of €181 billion, which would make it insolvent (because the original equity was only €75 billion.)
Benefits -2

• By contrast, if the same 20% drop occurs for the reorganized pair of banks, it will wipe out the entire amount of equity and 74% of the value of the long-term debt.

• Yet, the senior debt owed to the “good” bank would be untouched and so will be the value of the “good” bank.

• As a result the “good” bank will be functioning and well capitalized without any government intervention.
Legal Issues - 1

• Most bank debt includes covenants prohibiting exactly these splits, which might benefit the shareholders at the expense of the bondholders.

• In our example, the equity holders do not gain, but the short-term creditors do.

• So were the government interested in pursuing this type of reorganization it would wise to pass a law that mandates the reorganization.
Legal Issues - 2

• The law would likely trigger lawsuits by bondholders who would claim to have been expropriated. The success of this kind of suit is uncertain. For instance, in the recent Chrysler reorganization in the United States, the U.S. government got away with expropriating the bondholders in bankruptcy (Roe and Skeel, 2010).

• While the legal outcome would be uncertain, a natural benchmark is whether the bondholders are being asked to take less than they would have gotten more in an outright liquidation.
Compare with liquidation

• In the bankruptcy scenario, the bondholders will receive a fraction pro-rata of the value of the assets.

• So suppose there is a loss \( S \) and it is large enough to make the bank insolvent. In that case, the total losses that creditors have to absorb are

\[
S + 0.22(\text{Original Assets} - S) - \text{Orig. Equity}
\]
• These losses are shared by all the non-equity creditors, whose total claims are Original Assets – Original Equity.

• This means that each euro of long-term debt would bear a loss equal to a fraction

\[
\frac{S + 0.22(\text{Original Assets} - S) - \text{Original Equity}}{\text{Original Assets} - \text{Original Equity}} = 0.78 \frac{S - \text{Original Equity}}{\text{Original Assets} - \text{Original Equity}} + 0.22
\]

• So the loss-bearing capacity of a “good” bank/“bad” bank arrangement equals

\[
[0.78 \frac{S - \text{Original Equity}}{\text{Original Assets} - \text{Original Equity}} + 0.22] \ast LTD + \text{Original Equity}
\]
• In the BNP case, this number is roughly €113 billion.

• Therefore, if the total loss is equal to €181 billion the government will still have to recapitalize the “good” bank to ensure an adequate capital ratio, but will have to come up with only €70 billion instead of €308 billion.
Conclusions

• A euro exit will create a collapse of most banks.
• We propose a simple bad bank/good bank split to prevents debt overhang that
  – might distort new lending
  – means equity injections could bail out debt
• It will also minimize the cost for taxpayers.