Week 17  
Lenders of last resort

We covered deposit insurance last week except for the last section which takes a somewhat different approach to the problem: We consider a model which looks at deposit insurance from a new angle: If banks are better at preventing losses than individual investors (this may be explained by the monitoring approach to banking, but it could also be due to deposit insurance), and if society wants as many and as successful investments as possible, then those not using banks (and losing more on investments) should be encouraged to use banks instead, and this could be done by taxing non-bank investors, that is financing the specific cost of the banks by general taxes. This means that the cost of deposit insurance should be carried not only by banks and their customers, but also by the general public.

In the model, taxes obtained from banks, depositors and non-depositors are used for investment, administered by the bank system, and the repayment on these investments is redistributed among the private depositors. Since the use of banks (provided that they do not fall into moral hazard) is better than not using them, deposits will be rationed, and the arrangement amounts to forcing some depositors out while securing the remaining depositors a better outcome (losses are covered by the public investments). This is admittedly a somewhat strange form of deposit insurance, but it has the advantage of allowing for bank-administered investment on a larger scale than before.

After this, we move on to lenders of last resort. One of the standard tools for assisting banks in trouble is to offer them credits from the central bank, which then acts as a lender of last resort. The first model treated shows that it makes sense to have a bank which steps in and provides liquidity in the case of a liquidity crisis. As always, such things come with side effects – if the bank knows that it will be bailed out, it will adjust its credit decisions correspondingly. We skip the model by Freixas in Section 2 but take a look at the Ratnovski model in Section 3, which resembles the model with two banks in the previous chapter. Here the model focusses on the liquidity choice for the bank, given that the LLR has a policy of intervening only if both banks are in trouble. Clearly, optimal reserves then depend on the choices of the other bank, so the banks may act strategically.

We conclude with a model which explains that lenders of last resort perform an important role, not only for society (preventing losses of deposits after bank runs)
but also for the banks themselves, and they would create such a lender if it wasn’t there already.

In the model, banks are vulnerable to bank runs based on random signals in the market, since depositors may become afraid of not getting their money back. This vulnerability is larger when there are many independent banks than if there is only one big bank, basically since the big bank may close down those of its branches which seem to be in trouble, thereby restoring confidence for the other banks.

Where does the central bank come into the picture? If there are many small banks, then they can improve their situation if they could act in the same way as the big bank. However, banks are independent and one bank cannot close down another. Instead, one needs a coalitional arrangement so that some banks will be liquidated in the sense that their obligations towards depositors are taken over by other banks, which then have to pay back the depositors in the end. This will be advantageous – even if not quite as much as if they were merged into a single bank – since confidence will be restored and the number of bank runs will be smaller than if they were independent.

The model is quite detailed, in particular the coalitional arrangement which has to take the form of voluntary participation. Our emphasis will be on the two first parts, discussing the case of many small banks and of a big bank, leaving the rest to more intuitive discussion.

**We read:** Chapter 15, last section, Chapter 16 except section 2.