Week 19
Closing banks, SIFI, Capital regulation

We stopped in the middle of the Dewatripont-Tirole model on closing a bank with or without a manager having an incentive contract, but I have commented in last handout on this model and on the Repullo and the Mailath-Mester models as well. The question of whether or not to assist a bank in trouble takes us into another type of problem: Some banks have a size or influence so large as to make their default too costly for society, they are too big to fail. A situation of this type is considered in the Acharya-Yorulmazor model of Section 5, which resembles a model that we have considered earlier in the context of deposit insurance: Banks may or may not choose correlated investments, and the regulator may or may not assist them in the case of trouble. However, the choices of the banks depend on the fact that they may be bailed out, so the resulting equilibrium may be one where banks are assisted more often than what is desirable for society. When coordinating investments, the banks have become systemically important. The message of the model is important, but the details are not, so we treat it only superficially (meaning as usual that it will not show up at exam).

The problem of SIFIs (systemically important financial institutions) is sufficiently important in practice, so that it has been taken up both by Basel and by national regulations. It is however not quite easy to measure systemically importance, and to some extent it is not even clear what is meant by it. The final section in Chapter 17 is an attempt to measure the systemic influence of a bank, something which is not as straightforward as one might think. Here – and in most of theoretical models about systemic importance – the problem is reduced a problem of correlation of assets, perhaps not exactly what one wants to capture by the idea of systemic importance. Anyway, we skip this section.

This takes us to the final Chapter 18 on capital regulation and the Basel rules. Capital regulation has been with us almost from Chapter 1, so by now there can be few surprises. Over the years, and particular following the financial crises, the capital charges have increased considerably, and all the way there has been criticism of this from the banks arguing that equity is costly and demands for a high percentage of equity leads to higher cost for borrowers.

We get to this debate in Section 18.3. Before getting there we look at a couple
of models showing that capital regulation is not absolutely trivial: Since the very
of capital regulation – forcing banks to keep a reserve in the form of equity against
losses and thereby inducing them to take smaller risks – is so intuitive, it is useful to
observe that this intuition is not necessarily confirmed by a closer study. We start with
a simple model (Allen-Carletti-Marquez) in which the capital regulation produces
somewhat unexpected results, since the capital reserves are higher without than
with regulation. Then we proceed with another one (the Hakenes-Schnabel model,
also rather easy-going) showing that stricter capital regulation may induce more
risk-taking in the bank. Thus, here as elsewhere, one cannot rely on intuition.

The details of Basel I-III have been mentioned already, Basel IV is now on its
way, the main innovation being the so-called floor rule: Risk weighted capital as
found using internal methods cannot be lower than 72.5% of its value according to
the standard approach, thus limiting the reduction of equity to be obtained from
the internal methods. Some recent issues, for example the widespread use of CoCo
(contingent convertible) bonds as a substitute for equity, is not mentioned in the
book, but a theoretical version is discussed in the final Section 4 (not curriculum).

We read: (Rest of) Chapter 17 except Section 5, Chapter 18 except Section 2.7, 3.2 and
4.