

Lecture 3: Types of financial intermediation; risk management

Having discussed the various core competences of banks in the previous week, we now move on to Chapter 2, which is more easily read, and we leave some of it to the reader (whenever this happens – as it will from time to time – it means that what is in the text should be read, but that it will *not* be needed explicitly at the exam).

The introductory part of the chapter stresses that there are many types of financial intermediators, and some of those that we do not consider may actually be quite important. Anyway, there is no need for memorizing the stuff, if we need some particular financial institutions later, we describe them in detail at that point. There is also a brief treatment of the different branches of a contemporary bank, the eight fields of banking activity lined up here will show up again later in our discussion of risk management.

Following that, we turn to some aspects of financial intermediation which has received some attention in later years, namely *relationship banking*. The interaction between a bank and its borrowers may give the bank more information about the borrower than other banks would have. From an intuitive point of view, if the banker and the borrower know each other, then the conditions on which they do business should be more favorable to both, but in particular to the borrower. However, looking closer at the phenomenon, it turns out that it may not be so, since knowing more about a customer may improve the strength in bargaining. The traditional customer may well complain but the only option would be to go to another bank not knowing anything about past performance.

We skip the first part of the section on relationship banking and move directly to the Freixas model (2.4.3). First of all, in this model we have a happy return to the moral hazard model of last week. Now we expand somewhat on the model: We know already that there is a smallest probability of success of the G-technology such that the market will work. For success-probabilities below that, the payoff is too small, and the borrower would turn to the B-technology which on average will never pay off the loan. So the only way out is to use bank loans combined with monitoring. In the Freixas version, there is a further detail added – if loans are given by the banks rather than as impersonal bond sales, the borrower may be treated better in the case of a failure. This has as a consequence that some borrowers, here characterized by their individual success probability π_G , may find it advantageous to use the banks even when they might have used the market. This is perhaps no great discovery, but it introduces a small amount of realism into the model, allowing for banks to have a

particular experience in treating borrowers getting into troubles.

The second part of the Freixas model deals with the problem mentioned above – it may not be of any use to have a special relationship with your bank, in the sense of having used the bank also previously. exploits the moral hazard model from last week, and the point is that the relationship developed may not always be to the advantage of the borrower – or rather, the advantage may be somewhere else. In the model second-year borrowers are not treated better than new borrowers. However first-year borrowers get a better treatment since the bank expects to keep them also next year.

After this, we briefly introduce *shadow banking*, a phenomenon which has been established recently as a topic of research. The name suggests that something illegal is going on, but this is not at all the case. Shadow banking is a phenomenon which came into being in the years before the crisis 2007-8 and it is still in increase. Here the classical idea of a bank which receives funding in the form of deposits from the general public and lends the money to entrepreneurs carrying out investment, is changed in both directions. The funding of a shadow bank comes from other financial institutions such as hedge funds, and they do not take the form of deposits but are made as repo (repurchase) contracts, buying shares which the (shadow) bank has promised to buy back. The loan business, on the other side, is carried out through securitization, which means that the loan contracts are made into marketable securities which can be sold off (and used in repo contracts).

At this point, we are only describing the basic framework, we shall have much more to say about shadow banks as we proceed.

We now turn to the second of our main topics, namely risk management.

The first step is a classification of risks, which is useful not only for pedagogical purposes but also since the regulations of banks and the reserve requirements differ according to type of risk. We shall deal with the different types of risk in due course. Then we move to a general model of risk management; notice that the word “model” has a slightly different meaning than it had in the previous chapters dealing with microeconomics of banks. There, a model is a construction which hopefully should promote our understanding of what is going on. In risk management, a model is a framework for numerical computations of useful indicators of risk, and even though this again means that it should reflect what is going on, it should do it in another way, namely as a support for quantitative assessments of risk.

The description of the model may look formidable, but actually it doesn't take us very far, and the logic behind it is more important than the formalism itself. The main point is that we want to express future losses (which is what we should try to avoid) as a function of certain risk factors, which are chosen depending on the type of risk we are studying. The main point of being formal at this early point is to get a unified approach to risk measurement (“identify risk factors, construct the loss function, find

the loss distribution") which can be used as a guide when dealing with each of the specific risk types.

We read:

Chapter 2, Chapter 3.1-2.