

LECTURE 21: HOW BANKS WORK

- I. Fractional reserve system
 - a. Banks are *financial intermediaries*: they connect savers with borrowers. They make money by turning their liabilities (debts) into assets, such as lending out a deposit.
 - i. *Reserve requirements* refer to a regulation requiring the bank to hold a certain percent of deposits (typically 10%).
 - ii. *Required reserves* are those deposits.
 - iii. *Excess reserves* are holdings beyond the required reserves and are often used for lending.
 - iv. This system is called the *fractional reserve system*; banks keep a fraction of what's deposited and the rest is lent out.
 - b. A house of cards?
 - i. So banks get money from depositors and then lend most of it out to others. But you can still stake a claim 100% of the money you deposited. How? It's not there anymore!!!
 - ii. If you close your bank account, you'll be taking other people's deposits. This isn't a big deal—these individuals still have a claim to their money. People only want a fraction of the money in their checking account at any one time.
 - iii. Every day, the bank brings in money from people paying back loans and from new deposits in accounts. Every day, money flows out in the form of loans and withdraws. On average, it balances out just fine.
 - iv. The problem occurs when people take more out than what is there. This is called a bank run and when it happens, it becomes a disaster very quickly.
 - c. FDIC
 - i. Stopping a bank run is very hard. The more people try to take money out, the more urgent it is to withdraw money. In emergencies, the government might declare a "holiday" and close the banks, but that doesn't really solve the problem.
 - ii. The Federal Deposit Insurance Corporation insures all deposits under \$250,000. If the bank fails, you'll still get your money. Just make sure your bank is a member of FDIC (it's a really shady bank if it's not).

d. Money creation

- i. If a bank gets new deposits, most of that money is lent out; that's the point of the system.
- ii. But that means that a single dollar is counted twice as part of the money supply. Once as deposit—fulfilling the role as an asset of the depositor—and once as a loan—fulfilling the role as an asset of the bank.
- iii. Resist the temptation to freak out. Unlike GDP, where we hate counting things twice, this isn't a big deal. The money *should* be counted twice; the same dollar is doing two things; it's just like the velocity of money. The same money is involved in multiple transactions.
- iv. Though no money was printed, this is money creation. Loans count as money.
- v. When a loan is paid back or defaulted on or the bank fails, the money is destroyed.

II. Asymmetric Information

- a. *Asymmetric information* is when two parties don't have equal information concerning the other (e.g. lending, hiring, buying a used car, dating). Two problems appear:
- b. *Adverse Selection* is when a person makes a choice that was never the right one. In adverse selection, the problem occurs *before* the transaction was made. You can think of adverse selection as dealing with static troubles, the moment you encounter something or someone, there's already some quality you won't like.
 - i. Ex: Most short-term relationships, used cars, hiring an established slacker, lending to a con artist
- c. *Moral Hazard* is when a person chooses someone who then becomes the bad choice after the decision is made. In moral hazard, the problem occurs *after* the transaction was made (hence the name, as there's an implicit ethic dilemma). You can think of moral hazard as dealing with dynamic troubles, people respond to the incentives engendered from the deal.
 - i. Ex: Most long-term relationships, national health care, hiring a potential slacker, lending to MC Hammer
- d. Banks care a lot about asymmetric information.
 - i. They want to make sure they are lending to the right person.
 - ii. They want to make sure that person remains the right person after they get their money.