

BANKING AND THE FINANCIAL SYSTEM

1. *Early banking*: private banks would keep gold and silver coins for safekeeping, issue notes that could be exchanged on demand for “specie” (gold and silver)

They quickly discovered that they did not have to keep all the specie on hand, since not everyone would demand specie on the same day. Some (most) of the coin could be lent out at interest. Result: *fractional banking*

2. *Modern banking*: Paper notes are issued by the government. However, still inconvenient to carry large sums of cash. Banks accept cash (often paying interest on deposits), allow customers to withdraw it on demand. Again, no need to keep all of the cash on hand; most can be lent out, earning interest

ECONOMIC ROLE OF BANKS

Banks are one of a class of *financial intermediaries*. Such intermediaries help resolve a problem. Individuals want *liquidity* - the ability to spend when they choose. This means that other things equal they prefer “liquid” assets, like cash. But returns on investment are higher when funds are committed for extended periods: you can’t finance a new generation of aircraft with short-term money.

A financial intermediary typically offers people highly liquid assets - e.g. bank deposits - but invests only part of those funds in liquid assets like Treasury bills, putting the rest into long-term, relatively illiquid assets (like real estate loans) that promise high returns. This is possible because of “law of large numbers” - in any given period only some depositors will want to withdraw funds, and others will probably be putting cash in.

Good news: financial intermediation creates liquidity while allowing long-term investment, greatly reducing both problems of illiquidity and the incentive to invest in lower-return but easily liquidated projects. Banks are productive!

Bad news: Financial intermediation poses risks, and the fixups to those risks pose further risks.

THE BIG RISK: BANK RUNS

A bank's balance sheet:

Assets	Liabilities
Loans	Deposits
Reserves	Owners' capital

Suppose that for some reason depositors become nervous about the bank's health, and many of them begin withdrawing deposits. Reserves are insufficient, so the bank must raise additional cash - either demanding quick repayment of loans, or selling the loans to someone else. But if this is done in a hurry, borrowers may go bankrupt or loans may have to be sold at discount - and a bank whose assets are larger than its deposits may nonetheless fail. This means in turn that depositors may run a bank not because they think there is something fundamentally wrong with it, but because they think *other* depositors will run.

Hence, risk of self-fulfilling bank runs, sparked by rumor.

Worse yet, *contagion*: collapse of one bank may lead to runs on others. Partly this is through self-fulfilling expectations. Also, if many banks are trying to sell loans to raise cash, prices will be depressed, so many may suddenly be insolvent.

Great bank panics: US 1930-31, Indonesia January 1998

DON'T WORRY - WE HAVE SAFEGUARDS

1. *Deposit insurance*: Most bank deposits insured, so failure of a bank does not mean loss of money
2. *Reserve requirements*: Banks required to hold more reserves than they would voluntarily, in order to provide cushion
3. *Lender of last resort*: In crisis, Fed will lend banks the cash to pay depositors

TROUBLE IN PARADISE

How to get rich: open a bank, offer high interest rates to attract lots of deposits. Then lend the money out at even higher rates to dubious clients - e.g., highly speculative real estate developers. The depositors won't care- they're insured. If all goes well, you have made a lot of money. If not, you just walk away. Heads you win, tails the taxpayers lose.

OK, the gov't knows about this *moral hazard* problem. Two main responses:

1. *Capital requirements*: owners of banks must put substantial amounts of their own money at risk
2. *Regulation*: Banks are prohibited from excessively risky investments

These measures don't always work! Savings and loan problem, Swedish banks, Thai finance companies, Japanese banks.

NON-BANK FINANCIAL INTERMEDIARIES

Many institutions do “bank-like” functions, but are not regulated like banks. Two problems:

1. Panic and contagion: can the failure of an investment house spark a financial “meltdown”?
2. Moral hazard: do investors think some institutions are safe because they are “too big to fail”?

today’s headlines: the Long-Term Capital Management fiasco