Lecture 5c: Banking & Bank Regulation

Economic Analysis of Bank Regulation

→ Banks acquire expertise that enables them to distinguish between good & bad credit risks (solves the adverse selection problem)

→ Banks place restrictive covenants in debt contracts & structure the debt contracts so that the need for costly monitoring is reduced (so long as loan not in default) (solves the moral hazard problem)

→ But a bank's depositors do not know the quality of a bank's loan portfolio thus creating a new asymmetric info problem

→ Prior to the establishment of the FDIC (legislation: 1933; operations: 1934), when a bank failed, depositors had to wait until the bank's assets were liquidated before they could regain their deposits & even then they might only receive a fraction of what they had deposited ⟹ BANK [redacted] PANIC (i.e. a "run on the bank")

~~Strictly~~

→ As a matter of accounting (strictly) there is no reason why a run on the bank should cause a bank failure

→ but the effect of the bank ~~run~~ run ~~triggers~~ on economic activity triggers the failure

→ Suppose that the initial balance sheet looks like this →

Assets		Liabilities	
loans	90	80	deposits
reserves	10	20	capital
	100	100	

→ Then an adverse shock causes the loan portfolio to fall to 85
capital absorbs the loss

Assets		Liabilities	
loans	85	80	deposits
reserves	10	15	capital
	95	95	

→ But if a bank run occurs, deposits fall to ZERO + reserves not sufficient to pay all depositors immediately

Assets		Liabilities	
loans	85	0	deposits
reserves	0	15	capital
		70	immediate obligations
	85	85	

→ so bank must "call in" 70 of loans

→ ASSUMING that the bank can quickly call in 70 then there is ~~no reason~~ why bank would fail

Assets		Liabilities	
loans	15	0	deposits
reserves	0	15	capital
		0	immediate obligations
	15	15	

→ Strictly as a matter of accounting there is no reason why a bank run should cause the bank to bail

→ This ASSUMES that the bank can quickly call in enough loans to satisfy depositors' demands

→ In practice however, calling in all of those loans will cause the loan portfolio to deteriorate

- If a business cannot obtain a line of credit, it will not be able to purchase supplies & will not be able to generate income to repay debt
- Selling the assets, collateral, etc. in a fire sale will cause the price of the asset (or collateral) to fall

  so bank cannot recover previous value of the asset ∴ portfolio deteriorates

→ Deterioration of the loan portfolio causes the bank to bail

⇒ By providing deposit insurance depositors do not need to engage in a run on the bank

→ In handling a bank failure, the FDIC can:

- allow bank to fail, liquidate the assets + pay depositors (payoff method) but process takes years
- find another bank that will assume the failed bank (purchase + assumption method) (sometimes necessary for FDIC to provide subsidized loan +/or purchase weaker loans)

Deposits that exceed limit sometimes get $0.90 on dollar

No depositor loses a penny

⇒ Purchase + assumption method enables FDIC to effectively guarantee ALL deposits (not just those under the limit)

⇒ Moral Hazard effect of deposit insurance

Mishkin argues that →

- depositors know they will not suffer losses, so they do not bother to impose market discipline by withdrawing deposits when they suspect bank taking on too much risk
- Trouble is it would be hard for depositors to discern whether bank too risky or not

→ Adverse Selection effect of deposit insurance

- protected depositors do not ingore market discipline or monitor bank
- so risk-loving entrepreneurs know that they will be able to engage in risky activities
- NEED for government oversight

→ "Too Big To Fail"

- failure of a very large bank would increase likelihood of financial crisis
- so FDIC (and other regulatory agencies) bail it out & no depositor or creditor suffers a loss
- amplifies the moral hazard problem & banks may engage in more risky activities

→ Financial consolidation has made banks both larger & more complex

LARGER
- amplifies the moral hazard problem associated w/ "too big to fail"

MORE COMPLEX
- extends gov't safety net into new activities (underwriting of securities, insurance & real estate)

→ Gov't safety net (provided by deposit insurance) must be balanced by effective gov't oversight esp. in presence of "too big to fail"

→ Mishkin also points out that even in the absence of the gov't safety net, banks still have incentive to take on too much risk because risky assets provide bank shareholders w/ high returns when they pay off, but depositors stuck w/ cost when those risky assets do not pay off

→ Restrictions on Bank Assets

- banks may not hold common stock
- banks must diversify
  - limits on loans in particular categories
  - limits on lending to individual borrowers

→ Capital Requirements

- when bank must hold large amt of equity capital, shareholders have more to lose if bank fails

- leverage ratio $\equiv \frac{\text{capital}}{\text{assets}}$
  - "well-capitalized" bank has leverage ratio in excess of 5%
  - when bank's leverage ratio falls below 3%, regulatory restrictions on bank increase
- bankers' off-balance sheet activities also expose banks to risk (e.g. trading activities)
  - Basel Accord requires banks to hold as capital at least 8% of their risk-weighted assets

→ Chartering + Examination

→ on-site examinations

C apital Adequacy
A sset Quality
M anagement
E arnings
L iquidity
S ensitivity to Mkt Risk

→ cease + desist orders
→ closure if CAMELS rating sufficiently low
→ prevents banks from taking on too much risk

→ chartering

dual banking system

- national bank – OCC
- state bank – NYSBD or other state agency

- must submit application detailing how they plan to run bank + amt of initial capital, etc.
- must also show that they have the necessary expertise to run a bank ← big issue
  - → Should venture capital firm (which usually wants to be out in a few years) be allowed to own + operate a bank?

→ periodic reporting (quarterly call reports)

- assets + liabilities
- income, expenses + dividends

[redacted]

→ consumer protection

- "truth in lending" (Consumer Protection Act (1969))
- Fair Credit Billing Act (1974)
- Equal Credit Opportunity Act (1974)
- Community Reinvestment Act (1977)

The S&L Crisis of 1980s

→ look for parallels w/ current crisis

→ by 1980s banks had lost advantages on both sides of balance sheet

- paying depositors higher interest rates
  - → due to higher inflation in 1970s
  - → due to competition
- DIDMCA (1980) → • abolition of Reg Q ceilings on interest rates on time deposits
  - money mkt mutual funds
- businesses could acquire funds in commercial paper market to finance short-term needs, so banks received lower interest rates on loans

→ responded by assuming more risk in order to maintain profit margins

- more of loan portfolio in real estate loans
- more of loan portfolio in credit for corporate takeovers + leveraged buyouts

→ new financial instruments (e.g. futures, junk bonds, swaps, etc.) made it easier to assume more risk

→ deregulation

- DIDMCA (1980) + Garn-St Germain (1982) allowed S&Ls to have:
  - max 40% in CRE (Commercial Real Estate)
  - max 30% in consumer lending
  - max 10% in commercial loans & leases
- S&L regulators also allowed up to 10% in junk bonds or direct investments (common stock, real estate, service corporations & operating subsidiaries)

→ DIDMCA (1980) also raised deposit insurance from $40,000 to $100,000

- increased available funding for risky investments

→ other factors

- S&L managers lacked expertise in managing risks associated with new lines of business
- even if expertise was initially available the rapid growth of new lending (esp. to real estate sector) outstripped available expertise in short period of time

result: excessive risk taking

- as S&L activities expanded in scope + complexity there was no corresponding increase in regulatory oversight
  - ⇒ regulators lacked expertise
  - ⇒ and also lacked examiners

⇒ fixed interest rate loans that were originated in 1970s were losing value in real terms due to the inflation of late 1970s

- so interest rates on deposits had to rise (after abolition of Reg Q in 1980)
- but interest rates on those loans remained fixed
- Federal Reserve also raised interest rates to combat inflation, which resulted in severe economic recession in early 1980s

⇒ recession triggered numerous defaults on S&L loans

⇒ many S&Ls insolvent by end of 1982

☆→ Instead of closing the insolvent S&Ls, their regulators (Federal Home Loan Bank Board & its subsidiary, the Federal S&L Insurance Fund) adopted Regulatory Forbearance by adopting irregular accounting principles that effectively lowered capital requirements

→ WHY?

- Federal Home Loan Bank Board & FSLIC did not have sufficient funds in its insurance fund to close the S&Ls
- Federal Home Loan Bank Board established to promote the S&Ls, so it became too cozy with the industry it regulated
- Federal Home Loan Bank Board & FSLIC hoped that ignoring the problem would make it go away ← did not want to admit that their agency was in trouble

→ RESULT

- dramatic increase in moral hazard as "zombie ~~banks~~ S&Ls" have nothing left to lose

→ "Zombie S+Ls"

- not living to lose + everything to gain by taking big risks
- they were insolvent anyway, so hoped to recover losses by investing in high risk ventures (eg shopping malls in desert, plants to convert manure to methane + billions of dollars in high-risk, high-yielding junk bonds)
- offered higher rates to attract deposits offered lower rates on loans than infecting healthy S+Ls who had to compete on interest rates

Vampire S+Ls

→ 1986 – losses growing huge, but Congress + Reagan Admin failed to respond

(CEBA, 1987) ↑ Competitive Equality in Banking Act

- Reagan requested inadequate $15 billion for FSLIC + Congress gives even less: $11 billion
- legislation included provisions to continue regulatory forbearance
- Losses in 1988: $10 billion
  in 1989: $20 billion

as real estate market collapsed

→ WHY?

- principal → taxpayer/voter
- agent → politicians + regulators
- taxpayer needs lower risk (otherwise stuck w/ cost of large bailout)
- politicians need funds for campaigns
- regulators need to stay in good graces of politicians who can influence their careers
- so the S&Ls lobbied for + obtained:
  - deregulation: DIDMCA (1982) + Garn-St Germain (1982)
  - regulatory forbearance
  - less funding for regulators to conduct on-site examinations
  - Congress did not allocate adequate funding to close insolvent S&Ls (Competitive Equality in Banking Act, 1987)

→ RESULT:

- $150 billion bailout
- under administration of Pres Bush I (1989)
- Resolution Trust Corporation (1989-1995) placed insolvent S&Ls in conservatorship or receivership and liquidated their assets
- 25 percent of the S&L industry failed