

Chapter 17.1.1
Fixed-price deposit insurance



The effect on deposit rates

- ▶ Deposit insurance is often unpriced or any charges are fixed
- ▶ Deposit insurance eliminates the risk to depositors, which would obtain lower deposit rates
- ▶ This will affect the incentives of banks when lending

Bank profits without deposit insurance

- ▶ Banks obtain the repayment of loans and in turn repay their depositors and equity owners
 - ▶ $\Pi_B = \pi (1 + r_L) L - (1 + r_D) D - E$
 - ▶ In competitive markets, banks make no profits: $\Pi_B = 0$
- $\Rightarrow 1 + r_L = \frac{(1+r_D)D+E}{\pi(D+E)}$

Maximizing risks

- ▶ With deposit insurance, banks have to pay the insurance premium
 - ▶ $\hat{\Pi}_B = \pi ((1 + r_L) L - (1 + r_D) D) - P - E$
 - ▶ Assume loan rates are set competitively as without deposit insurance
- $$\Rightarrow \hat{\Pi}_B = (1 - \pi) (1 + r_D) D - P$$
- $$= (1 - \pi) (1 + r_D) \frac{1}{1 + \kappa} L - P$$
- ▶ Bank profits are maximized if loan risks are maximized and leverage is maximized

Optimal deposit insurance pricing

- ▶ Deposit insurance premia should take into account the risks of banks
 - ▶ Set premium such that $\hat{\Pi}_B = 0$
- $\Rightarrow P = (1 - \pi) (1 + r_D) \frac{1}{1+\kappa} L$
- ▶ The premium is increasing in loan risks and bank leverage
 - ▶ This would provide no incentive to increase risks

Summary

- ▶ Deposit insurance premia that do not take into account the risks banks take, provide incentives to increase risks
- ▶ Deposit insurance causes moral hazard as any losses to depositors are covered, allowing them to be unresponsive to bank risks
- ▶ Any such incentives to increase risks must be countered by other regulatory measures, such as capital requirements



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