Andreas Krause

Bank runs and deposit insurance

Fractional reserve banking

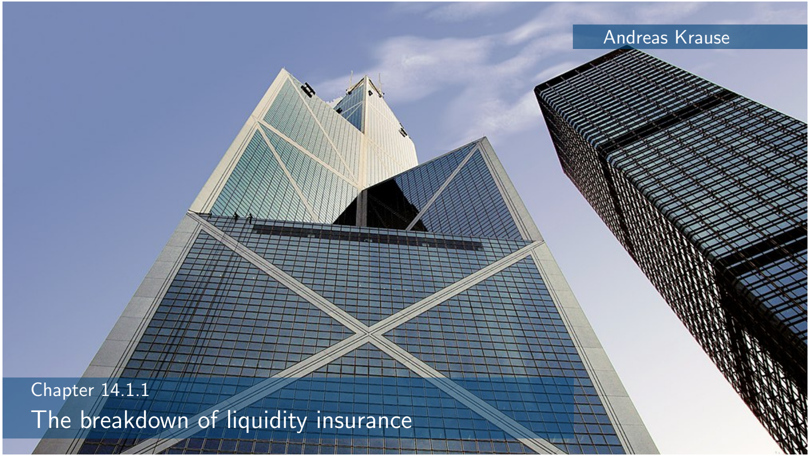
- Banks retain only a small amount of deposit as cash reserves to accommodate deposit withdrawals
- This is knows as fractional reserve banking
- If the withdrawals are higher than the cash reserves, a bank may fail
- This is known as a bank run

Causes and prevention of bank runs

- If loans are not repaid, banks may not be able to repay deposits, causing depositors to withdraw if they have this information
- It is not necessary to have such information, we will see how the expectation of others withdrawing will cause a bank run
- Bank runs can be avoided if depositors do not face losses from a failing bank
- Deposit insurance affects the incentives of banks when taking risks and the competition between them

Expectations about other depositors

- Banks hold cash for some depositors to withdraw
- Banks can obtain additional cash to repay more deposits
- Banks are repaying deposits on a first-come-first-served basis, making expectations about the behaviour of other depositors essential
- If a depositor expects many others to withdraw, it would be beneficial to withdraw yourself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Chapter 14.1.1
The breakdown of liquidity insurance

Discussion of model results

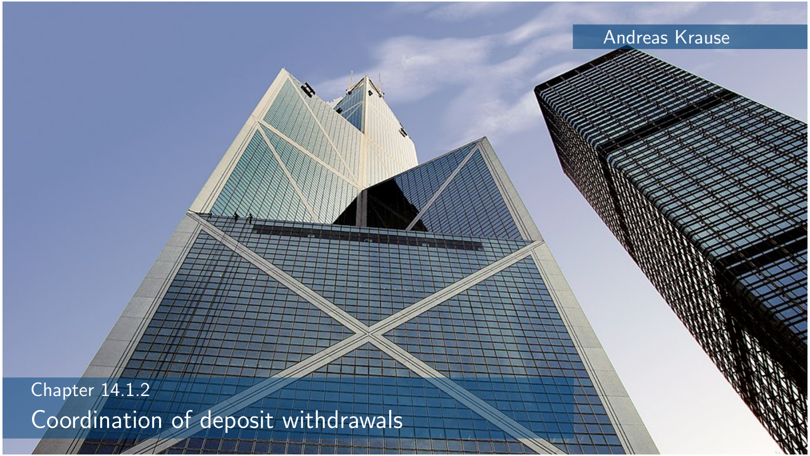
- Bank runs can become self-fulfilling, no fundamental reason needs to exist
- Expecting others to withdraw, makes it rational to withdraw

? If a bank faces a liquidity problem from deposit withdrawals, is it always best to withdraw yourself?

! Banks might obtain liquidity support from the central bank or other banks through interbank loans, making staying with the bank more attractive

Bank risks and withdrawals

- Banks' abilities to repay deposits depend on the risks in their loans and the withdrawal rate of depositors
- Allowing bank to liquidate assets increases their ability to meet withdrawals
- The remaining assets are then used to repay the remaining depositors, each obtaining a larger share
- This trade-off will be investigated



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Chapter 14.1.2

Coordination of deposit withdrawals

Discussion of model results

- A bank run may occur even if it is not profitable and not withdrawing deposits would yield a higher profit
- The equilibrium exhibits a coordination problem between depositors whether to withdraw or not

? Can banks easily and quickly sell their assets?

! The market for bank assets will be limited as the valuation of loans is difficult and buyers are subject to adverse selection

Insuring deposits

- Banks or depositors could purchase insurance against any losses, this would avoid a bank run
- Such deposit insurance is often provided by governments for free or a fixed premium, based on total deposits
- Depositors would not demand a risk premium for their deposits
- This might affect the incentives of banks about the type of loans they give

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Chapter 17.1.1

Fixed-price deposit insurance

Discussion of model results

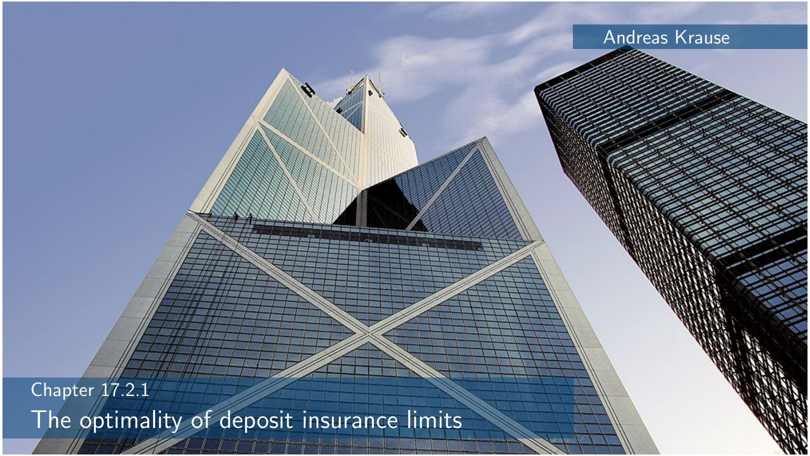
- Fixed-price deposit insurance induces banks to increase risks, creating moral hazard
- The price of deposit insurance needs to take into account the risk banks take to avoid moral hazard

? With many governments providing free deposit insurance, why are bank failures not more common?

! Banks are heavily regulated, in terms of capital requirements; the time delay of repayments and inconvenience of deposit insurance makes depositors not indifferent to bank failures

Incomplete deposit insurance coverage

- Deposit insurance is usually limited to a certain amount of deposits per bank
- With deposit insurance competition between banks is affected as there the value of insured deposits is higher than uninsured deposits
- We will assess how this competition affects the preferences of banks for deposit insurance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Chapter 17.2.1
The optimality of deposit insurance limits

Discussion of model results

- Banks balance lower deposit rates due to deposit insurance with higher competition due to offering a more valuable 'product'
- This results in a limit on the amount of deposits that are insured

? Would a retail bank providing loans to low-income borrowers and financing these with many small deposits advocate for a limit on deposit coverage?

! This is unlikely as we need $\pi > \frac{1}{1+2\lambda}$ and the bank would need to be very safe; they would rather have no deposit insurance to limit competition

Summary of key results

- Bank runs can occur due to depositors forming expectations about other depositors' behaviour
- Bank runs can be self-fulfilling and need not have a fundamental reason
- Deposit insurance prevents bank runs, but it affects the incentives of banks to take higher risks
- Banks are also concerned about the impact deposit insurance has on competition between them and seek to limit the amount of deposits insured

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