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Credit rationing

# Equilibria in economics

- An equilibrium is usually a price and quantity at which markets clear, hence demand and supply are equal
- Such an equilibrium exists if the supply is increasing in price and demand decreasing
- If demand or supply is not monotonous, market clearing might not exist, giving us excess demand or supply
- The equilibrium would then be where the price setter maximizes its profits

# Excess demand for loans

- It might be that companies apply for a loan, but are granted only a smaller loan
- Even if offering a higher loan rate, they are not granted a larger loan
- In this case we have excess demand by companies for loans
- This is referred to as credit rationing

# Loan rates and repayments

- If investment outcomes are unknown, banks do not know how much of their loan is repaid
- A higher loan rate requires a higher investment outcome to repay the loan fully
- A higher loan rate therefore does not necessarily increase profits to the bank
- Banks will anticipate this relationship and might not be willing to lend as much as loan rates increase

Chapter 7.1

# The consequences of uncertain outcomes

# Discussion of model results

- A higher loan rate makes the repayment of the full loan less likely, this induces a non-monotonous supply function
- If the loan demand is sufficiently high, this demand cannot be met and credit rationing occurs

? If companies anticipate credit rationing, would they apply for larger loans than they need?

! This would not alleviate the problem as banks have a maximum loan size they are willing to give, regardless of the size the company seeks; it is not a case of limited resources where these are allocated through rationing

# Decisions by companies

- Companies obtaining loans decide on how much risks they take with their investments
- Banks will always prefer companies to take lower risk, hence a moral hazard in the decision of the company exists
- Banks will anticipate this moral hazard and how it affect their profits
- This assessment will then determine how much they are willing to lend

Chapter 7.2

# Credit rationing caused by moral hazard

# Discussion of model results

- Banks use the loan size to induce companies to reduce the risks they are taking
- For intermediate loan demand this can lead to credit rationing

? Would providing a collateral alleviate the problem of credit rationing?

! Losing the collateral if defaulting, provides additional incentives to reduce risks; this might avoid credit rationing

# Summary of key results

- Credit rationing can occur if the demand for loans by a company is sufficiently high and the supply of bank loans is not monotonous
- Credit rationing occurs due to higher loan rates inducing more risky behaviour or increasing the risk of default due to higher repayments
- Companies with good prospects seeking loans for additional investments may be subject to credit rationing if they demand large loans

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