

Unit 11

PRICES, RENT-SEEKING, AND MARKET DYNAMICS

OUTLINE

A. Introduction

B. Market Equilibration

C. Assets and asset price bubbles

D. Non-clearing markets

E. Economic rents

A. Introduction

The Context for This Unit

Competitive equilibrium is when buyers and sellers are both price-takers, and markets clear.

Equilibrium price responds to exogenous shocks, which are changes from outside the model (Unit 8)

Characteristics of competitive equilibrium e.g. Law of One Price may not hold in actual markets

- Why might markets not clear in equilibrium?
- In what ways can prices adjust to exogenous shocks?

This Unit

- Explains how market equilibrium is reached:
Endogenous responses to exogenous shocks
- Describes asset valuation and analyses what causes asset price bubbles
- Discusses the importance of economic rents in a capitalist economy
- Looks at non-clearing markets

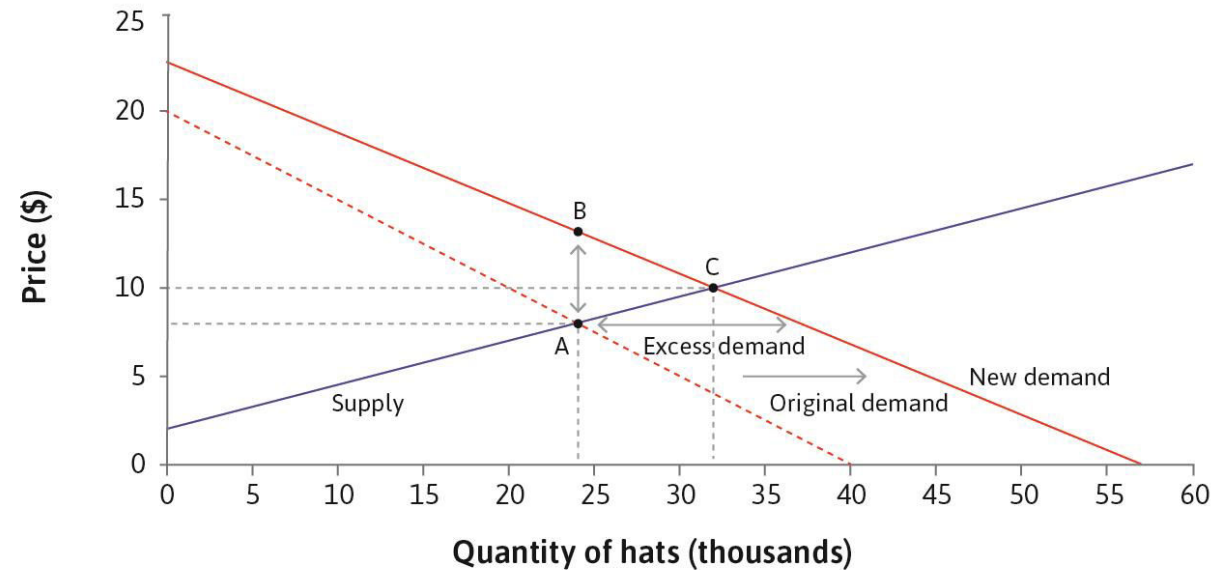
B. Market Equilibration

Market equilibration

An **exogenous** shift in supply or demand means that the price has to change for the market to reach a new equilibrium.

The market equilibrates through rent-seeking behaviour on the short side of the market, in response to excess supply or demand.

This is called market equilibration through rent-seeking.



Market organization

Prices ultimately come from the interests of and relationships between buyers and sellers.

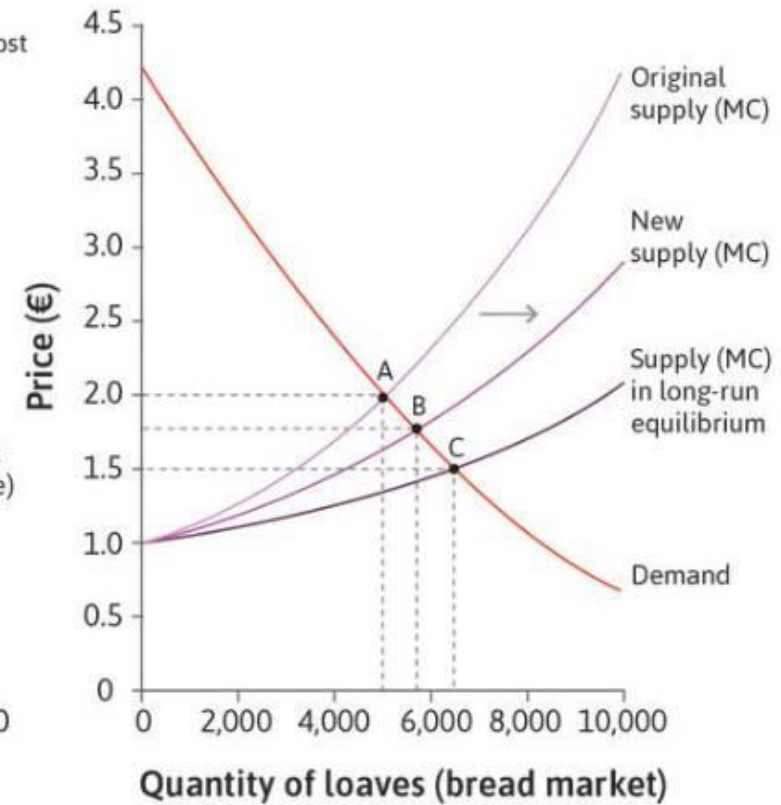
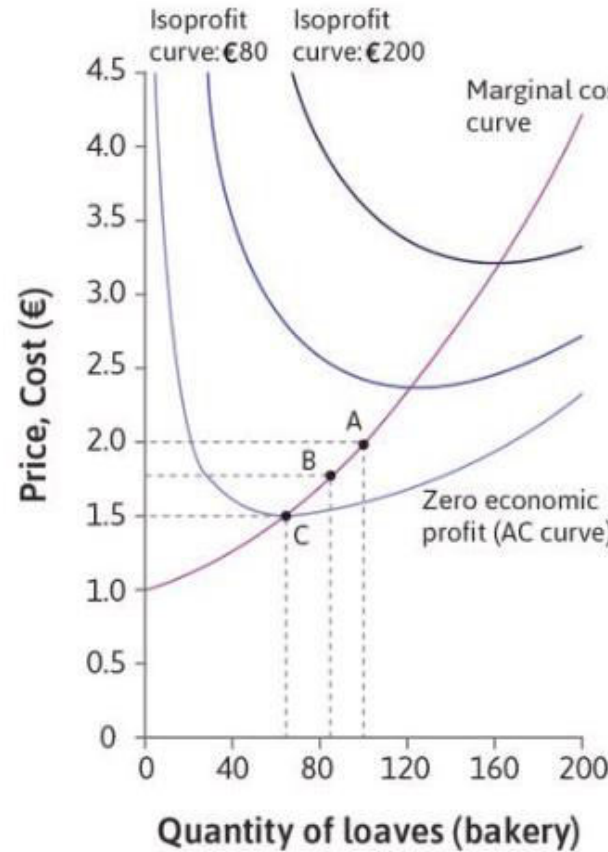
Market organization determines precisely how these relationships influence prices.

- Example: trading between two parties/individuals vs. auctions

Short-run and long-run equilibria

Point A is the short-run equilibrium. We are holding something constant: the number of firms in the market. Firms are earning rents.

The long-run equilibrium (C) is where a firm's rent is zero:
 $P = MC = AC$

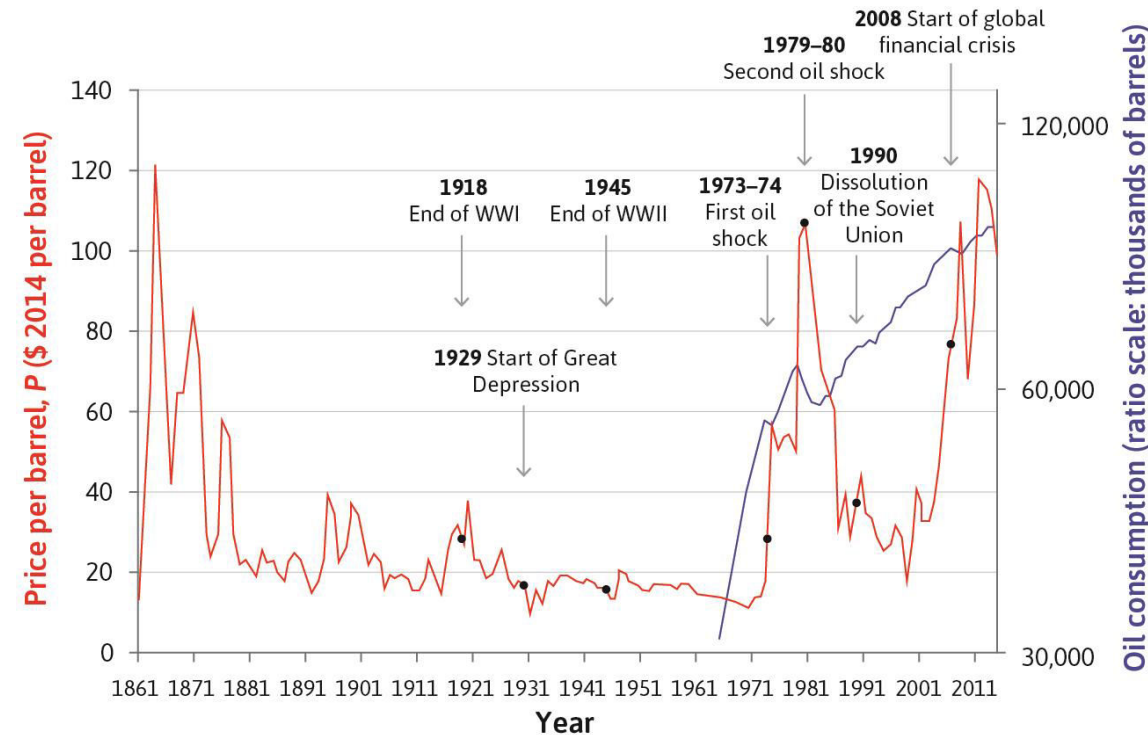


Short-run and long-run elasticities

The number of firms is exogenous in the short run, but endogenous in the long run.

This means that supply is more elastic in the long run, as more firms enter production.

Market dynamics at work: oil prices



Prices reflect scarcity: if a good becomes scarcer (more costly to produce), the supply will fall and price will tend to rise.

- **Peak oil** not evident: high prices stimulate further exploration

Market dynamics at work: oil prices

The short-run fluctuations reflect short-run scarcity:

1. Demand is inelastic in the short run because of the limited substitution possibilities.
2. Supply is inelastic in the short run because
 - oil wells are expensive to drill, and their capacity is fixed
 - **OPEC**

A negative supply shock: the percentage increase in price is much larger than the percentage decrease in quantity.

C. Assets and asset price bubbles

The value of assets

People buy assets for two reasons:

1. To benefit from owning it
2. To be able to sell it later

The value of a financial asset (a security) depends on:

1. the size of the cash flows that it is expected to generate (dividends)
2. the uncertainty in one's forecasts of these cash flows.

Bonds

When the stream of payments from an asset is fixed, the price of the asset will be inversely related to the interest rate it yields.

Bond = A security that promises to pay fixed amount of money at specific intervals.

- the risk of default on government bonds is usually negligible
- corporate bonds are not risk-free: high risk of default → high interest rate demanded by investors → lower bond price

Stocks

Stocks (shares) = A claim on a part of assets of a firm, and hence on its profits.

Stocks offer no specific promised stream of payments, and the time period over which payments will be made is not fixed.

Firms expected to generate greater net earnings will have higher valuations = higher share price.

Risk

Value of both bonds and stocks depends on uncertainty over its earnings.

- **Systematic risk:** Events that simultaneously affect broad classes of financial assets. **Undiversifiable.**
- **Idiosyncratic risk:** Events that affect only a given firm/asset. **Diversifiable** and hence irrelevant for valuation.

The rate of return that will induce investors to buy shares in a company is the **market capitalization rate.**

- higher for companies subject to greater systematic risk.

Trading strategies

The **fundamental value of a security** = share price based on anticipated future earnings and the level of systematic risk.

Trading strategies:

1. Buy assets that are priced below their perceived fundamental value, and vice versa.
2. Look for momentum in asset prices, buying when expecting prices to rise further, and vice versa.

Both types of trading are a form of **speculation**.

Continuous double auction

The trading mechanism in the financial market is called a **continuous double auction**.

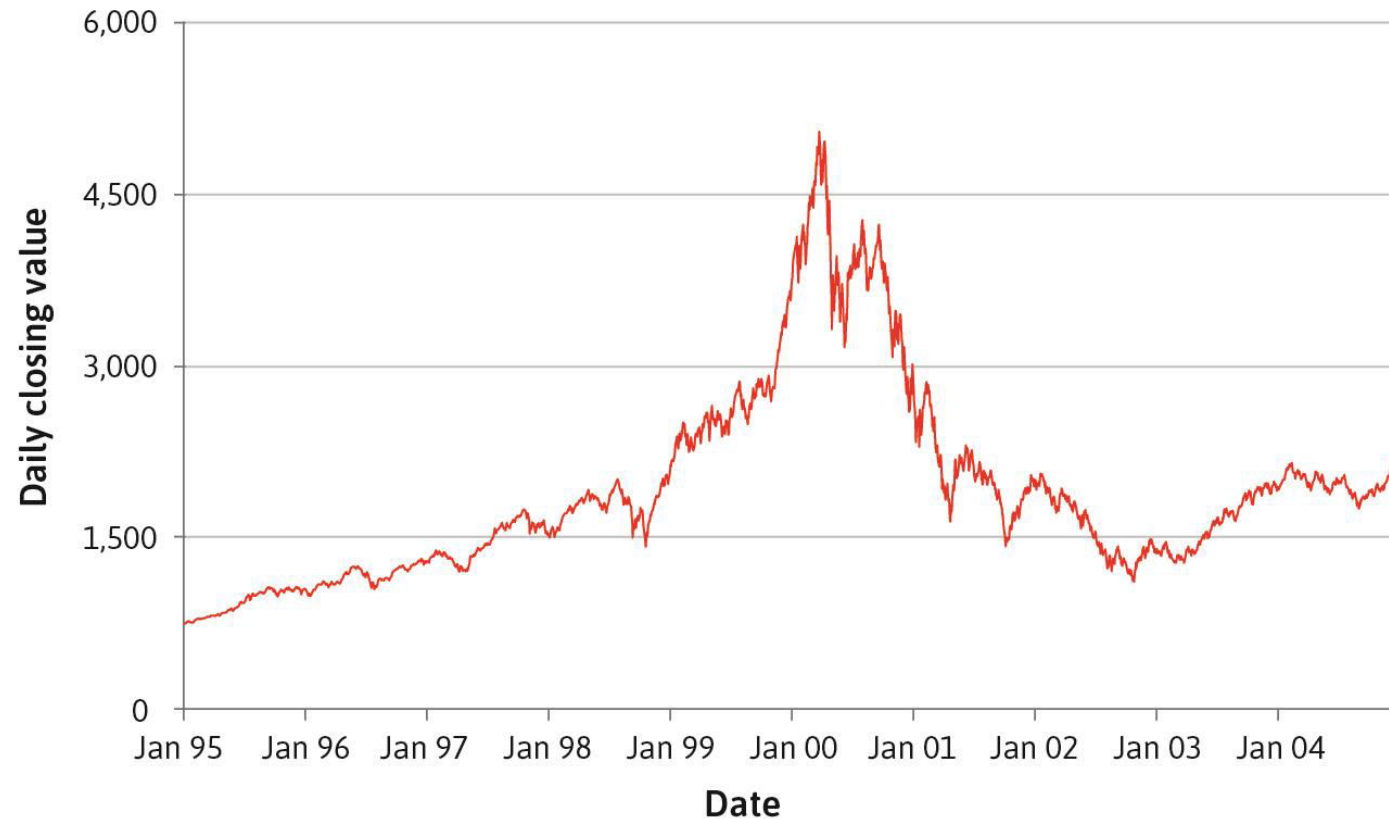
1. To buy, submit a **limit order** (quantity and reservation price)
 - **Bids** are orders to buy and **asks** are orders to sell.
2. A trade takes place if there is a match between a bid and an ask
3. If there isn't anyone to trade with, the bid will be recorded in **order book**

The price is always adjusting to reconcile supply and demand and hence clear the market (equilibration through rent-seeking).

Continuous double auction

Bid		Ask	
PRICE(\$)	SIZE	PRICE(\$)	SIZE
16.56	400	16.59	500
16.55	400	16.60	700
16.54	400	16.61	800
16.53	600	16.62	500
16.52	200	16.63	500

Asset market bubbles



Bubble = a sustained and significant departure of the price of any asset from its fundamental value.

Asset market bubbles

Changes in asset prices are messages containing information about the firm's health, etc.

If markets are to work well, traders must respond to these messages.

But when they interpret a price increase as a sign of further price increases (**momentum trading**) the result can be self-reinforcing cycles of price increases (**bubbles**) followed by sudden price declines (**crashes**).

- resale value, ease of trading, availability of borrowing may all make bubbles more likely

Modelling bubbles

Good news about future profitability



Demand curve shifts to the right



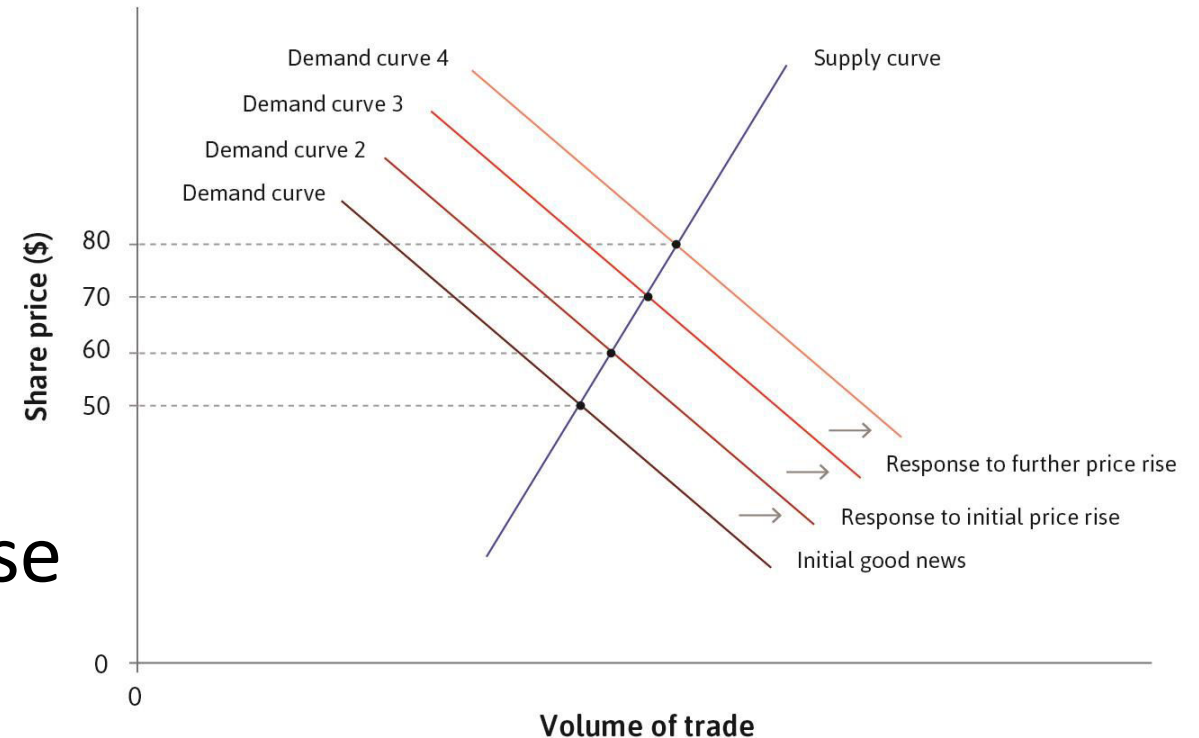
Price increases



Positive feedback: the price increase is interpreted as signal of future good news



Further increases in demand



Prices and beliefs



Beliefs dampen price rises



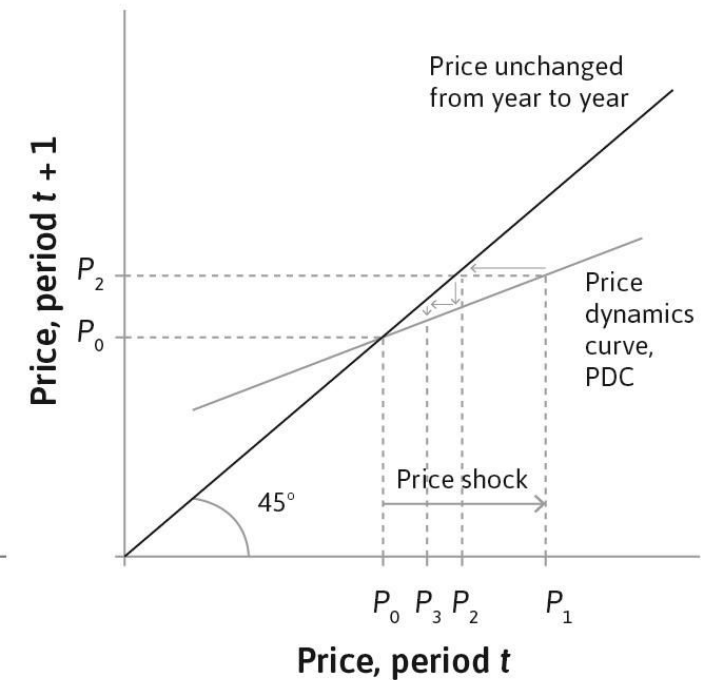
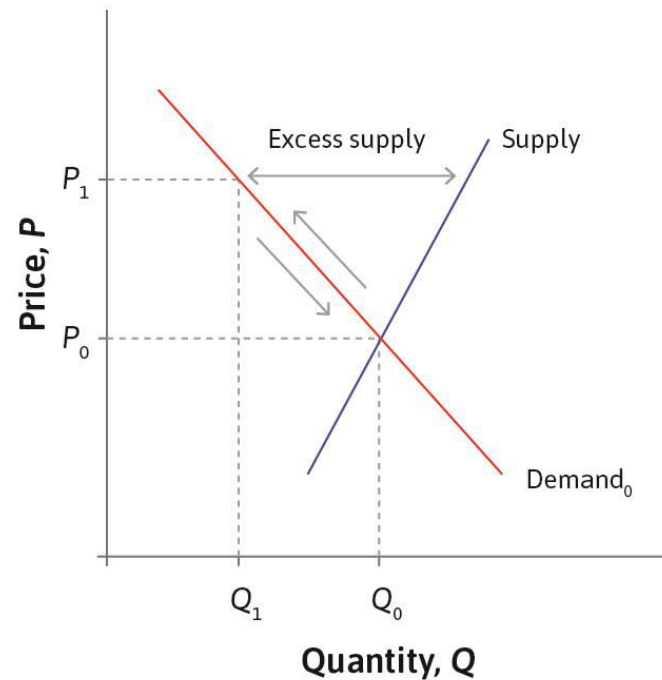
Beliefs amplify price rises:
a bubble

Beliefs may dampen or amplify price rises

Stable equilibrium

An equilibrium is **stable** if there is a tendency for the equilibrium to be restored after it is disturbed by a shock.

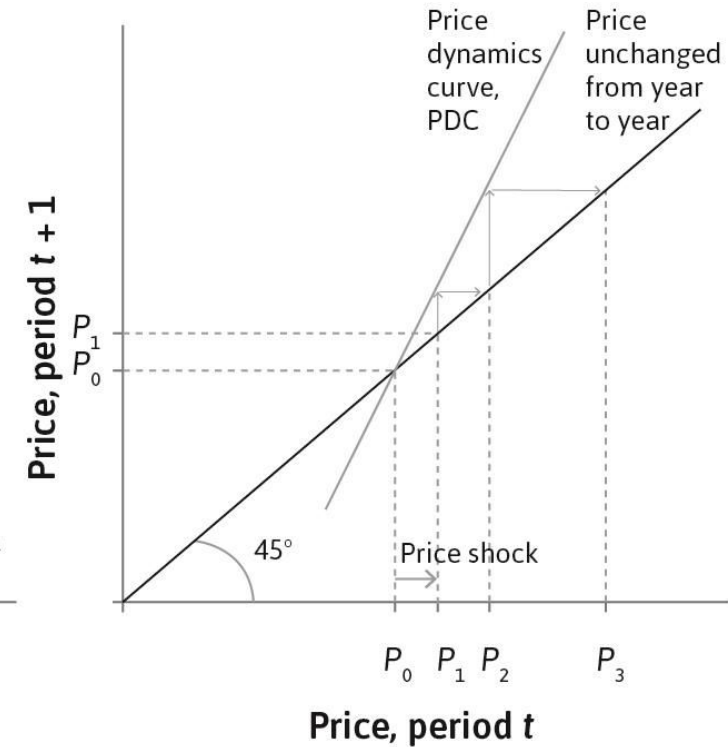
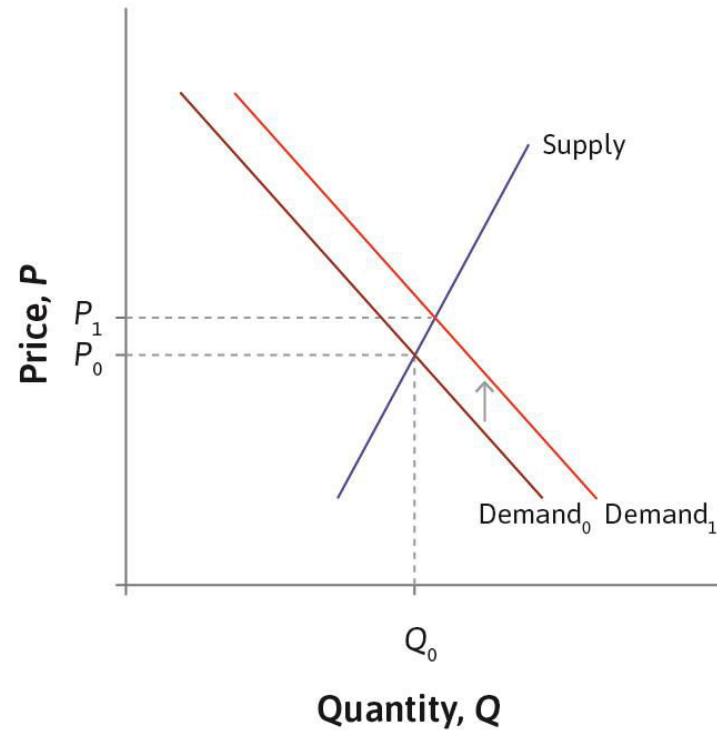
The price dynamic curve is flatter than the 45° line.



Unstable equilibrium

An equilibrium is unstable if, when a shock disturbs the equilibrium, there is a subsequent tendency to move even further away from the equilibrium.

The price dynamic curve is steeper than the 45° line.



Instability and bubbles

A self-reinforcing bubble is the outcome of an unstable equilibrium.

This instability can only happen in markets for goods that can be resold.

Modelling crashes

The positive feedback process can continue indefinitely, until something happens to change the expectation of continuously rising prices.

A trader can attempt to profit from identifying a bubble by short-selling.

Short-selling = The sale of an asset borrowed by the seller, with the intention of buying it back at a lower price.

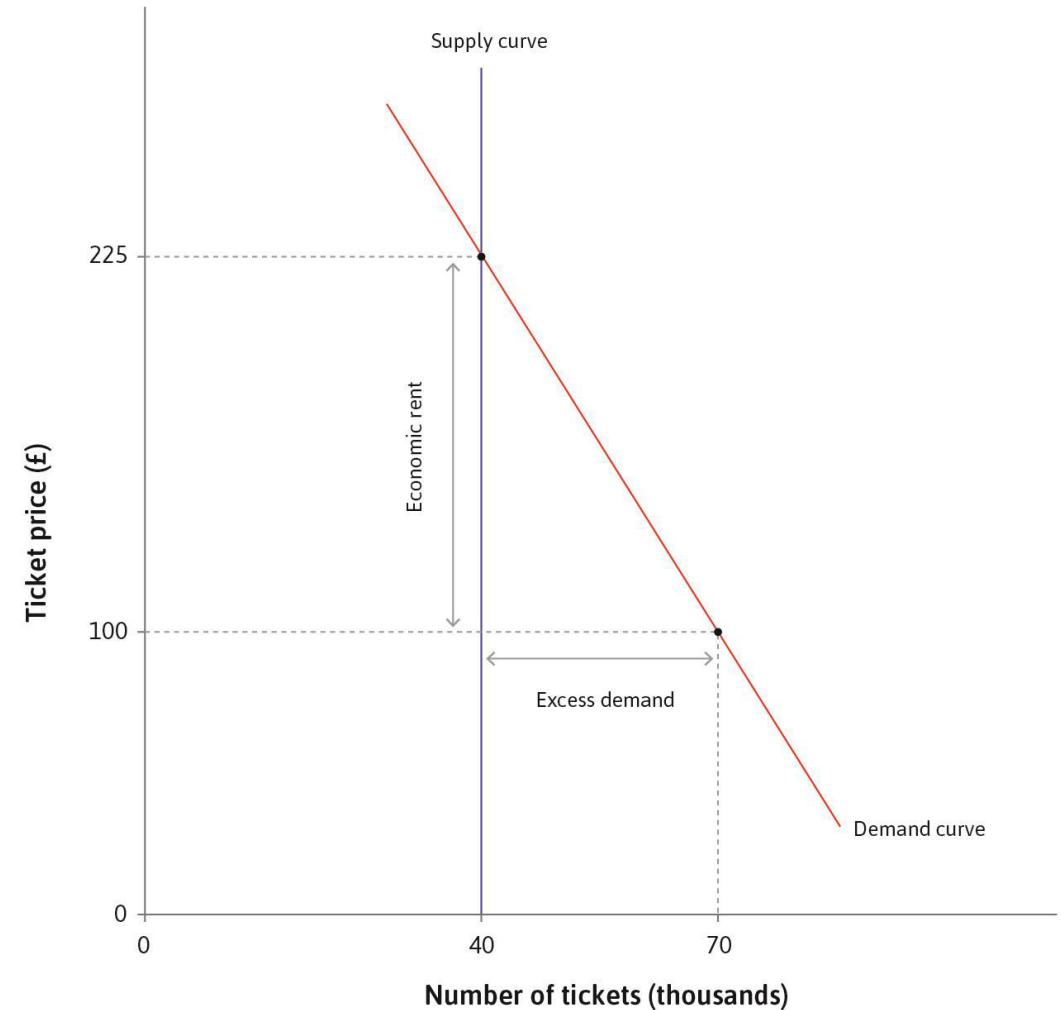
D. Non-clearing markets

Non-clearing markets

Sometimes markets do not clear.

Instead, goods may be rationed.

The potential for rents may create a secondary market (e.g. scalpers)

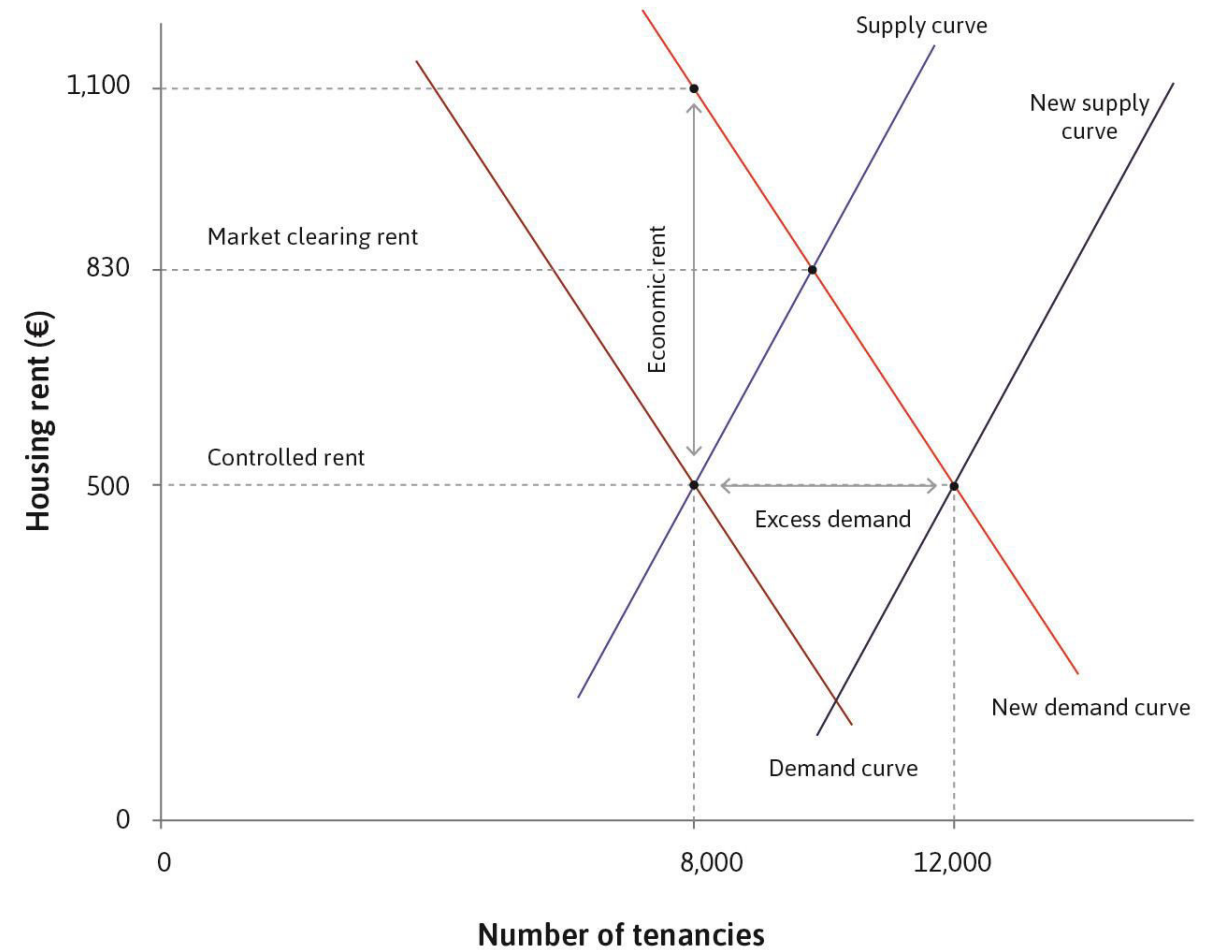


Markets with controlled prices

Rent ceiling is an example of price control.

These are put in place if the main concern is something else than Pareto efficiency (e.g. fairness).

Price controls create rents, which may lead to trade on a secondary market.



E. Economic rents

Economic rents

Stationary economics rents arise in equilibrium and are persistent
e.g. consumer/producer surplus, rents from bargaining

Dynamic economic rents occur in disequilibrium and are eliminated
via a rent-seeking process
e.g. disequilibrium price-setting, speculation

Some types of economic rents help capitalist economies function well

e.g. employment rents, innovation rents

Summary

1. Role of economic rents in market equilibration
 - Market disequilibrium induces rent-seeking behaviour, which may help to clear the market
 - Rents can be stationary or dynamic
2. The value of assets is uncertain, and they can be resold
 - They are prone to positive feedback process that can generate bubbles
 - Systematic vs. idiosyncratic risk
3. Not all markets clear
 - Rationing, price controls, secondary market

In the next unit

- Market failure: Sources and solutions
- The role of private bargaining and government policy