

# Principles of Economics II

## Lecture 11: Recap and exam

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# Lecture outline

**Lec1-2: Markets, efficiency and public policy**

**Lec3: Political Economics**

**Lec4: Introduction and the competitive labour market model**

**Lec5: The labour market: Wages, profits, and unemployment**

**Lec6: Economic fluctuations and unemployment**

**Lec7: Unemployment and fiscal policy**

**Lec8: Inflation, unemployment, and monetary policy**

**Lec9: Technological progress, employment, and living standards in the long run**

# Units from the Economy

- **Unit 12: Markets, efficiency, and public policy**
- **Unit 22: Economics, politics, and public policy**
  - Units 22.1, 22.4-22.8, 22.11-22.14
- **Unit 9: The labour market: Wages, profits, and unemployment**
- **Unit 13: Economic fluctuations and unemployment**
- **Unit 14: Unemployment and fiscal policy**
- **Unit 15: Inflation, unemployment, and monetary policy**
- **Unit 16: Technological progress, employment, and living standards in the long run**

**Short recap**

# External effect (externality, spillover)

**External effect** = an effect of an economic decision that is not specified as a benefit or liability in the contract

- Can be **negative** (pollution, congestion) or **positive** (vaccines)
- Also called **spillovers, externalities**

**Leads to Pareto-inefficiency**

- **Negative externality**: the social cost of the activity is higher than the private cost
- **Positive externality**: the social benefit of the activity is higher than the private benefit

# Incentives

If we want to know whether we have too much or too little of some activity, we need to pay attention to the **incentives** faced by the relevant decision-makers

**Ask:**

- Do they bear **all the costs** of their activity or do some costs **spillover to others**?
- Do they get **all the benefits** of their activity or do some benefits **spillover to others**?

**If not, there is an externality problem**

**Solutions:** bargaining, government policies

# Private and public goods

	<u>Rival</u>	<u>Non-rival</u>
<u>Excludable</u>	<b>Private goods</b> <i>(food, clothes, housing)</i>	<b>Club goods</b> <i>(subscription TV, WiFi, knowledge subject to intellectual property rights)</i>
<u>Non-excludable</u>	<b>Common-pool resources</b> <i>(fish stocks, common grazing land, public roads)</i>	<b>Public goods</b> <i>(national defence, public broadcasts, rules of calculus)</i>

# Asymmetric information

**When information is asymmetric, one party knows something relevant to the transaction, but the other party does not**

**Two forms of asymmetric information:**

**Hidden action – leads to a moral hazard problem**

- Example – Involuntary unemployment because employers cannot observe employees' exact work effort (Unit 6)

**Hidden attributes – leads to an adverse selection problem**

- Example – Buyers of second-hand cars do not know all the attributes of the car e.g. quality, but the sellers do (**lemons problem**)

Decision	How it affects others	Cost or benefit	Market failure (misallocation of resources)	Possible remedies	Terms applied to this type of market failure
A firm uses a pesticide that runs off into waterways	Downstream damage	Private benefit, external cost	Overuse of pesticide and overproduction of the crop for which it is used	Taxes, quotas, bans, bargaining, common ownership of all affected assets	Negative external benefit, environmental spillover
You take an international flight	Increase in global carbon emissions	Private benefit, external cost	Overuse of air travel	Taxes, quotas	Public bad, negative external effect
You travel to work by car	Congestion for other road users	Private cost, external cost	Overuse of cars	Tolls, quotas, subsidised public transport	Common pool resource, negative external effect
A firm invests in R&D	Other firms can exploit the innovation	Private cost, external benefit	Too little R&D	Publicly funded research, subsidies for R&D, patents	Public good, positive external effect
An employee on a fixed wage decides how hard to work	Hard work raises employer's profits	Private cost, external benefit	Too little effort; wage above reservation wage; unemployment	More effective monitoring, performance related pay, reduced conflict of interest between employer and employee	Incomplete labour contract, hidden action, moral hazard
Someone who knows he has a serious health problem buys insurance	Loss for insurance company	Private benefit, external cost	Too little insurance offered; insurance premiums too high	Mandatory purchase of health insurance, public provision, mandatory health information sharing	Missing markets, adverse selection
Someone who has purchased car insurance decides how carefully to drive	Prudent driving contributes to insurance company's profits	Private cost, external benefit	Too little insurance offered; insurance premiums too high	Installing driver monitoring devices	Missing markets, moral hazard
Borrower devotes insufficient prudence or effort to the project in which the loan is invested	Project more likely to fail, resulting in non-repayment of loan	Private benefit, external cost	Excessive risk; too few loans issued to poor borrowers	Redistribute wealth; common responsibility for repayment of loans (Grameen Bank)	Moral hazard, credit market exclusion
Bank that is "too big to fail" makes risky loans	Taxpayers bear costs if bank fails	Private benefit, external cost	Excessively risky lending	Regulation of banking practices	Moral hazard
A monopoly, a firm producing a differentiated good, or a firm with declining AC sets $P > MC$ (Unit 7)	Price is too high for some potential buyers	Private benefit, external cost	Too low a quantity sold	Competition policy, public ownership of natural monopolies	Imperfect competition, decreasing average costs, natural monopoly

# Political economics

- **Political economics applies the methods of economics to study how the government and the political system works**
- **Aggregating individual preferences into group preferences is difficult**
  - Condorcet paradox, Arrow's impossibility theorem
- **Parties as suppliers of the political agenda, voters as the demand side**
  - Median voter model
- **Special interest politics**

# Competitive labour market model

- **The model assumes that the labour market is simply a re-labelled product market with complete contracts**
- **Unrealistic, but is the model useful?**
  - Yes! Real-world markets are typically not perfectly competitive, but some policy problems can be analysed using this rather simple demand and supply model
  - You will see lots of more applications in future courses (especially in product markets)
- **On the other hand, it is too simple to for some markets and questions**

# The Economy's labour market model

## Behaviour of firms sets wages and employment in an economy

- The **wage-setting curve** tracks the combinations of wages and unemployment feasible with workers' effort
- The **price-setting curve** determines the real wage corresponding to profit-maximising price

**There will always be involuntary unemployment due incomplete contracts**

# Economic fluctuations

## **Economic growth is not a smooth process – the economy goes through a business cycle**

- Households try to smooth their consumption over the business cycle (problem: credit constraints)
- Investment is more volatile than GDP; the outcome of a self-reinforcing coordination game
- Inflation moves with the business cycle

## **System of national accounts to measure the economy**

- $GDP = C + I + G + X - M$

## **Measuring GDP and inflation**

# Multiplier model

- **The aggregate demand function and its components:**
  - $AD = C + I + G + NX$
- **Shocks to aggregate demand are amplified by the multiplier**
- **Government can stabilise economic fluctuations**
  - Automatic stabilisers
  - Fiscal stimulus – offset decline in aggregate demand from the private sector
  - Austerity policies amplify the negative demand shock
- **Fiscal stimulus in a recession must be reversed in a boom to prevent government debt from escalating (sovereign debt crisis)**

# Inflation and unemployment: the Phillips curve

## **Inflation is caused by bargaining gaps and capacity constraints**

- **Phillips Curve:** tradeoff between inflation and unemployment
- Positive bargaining gap leads to persistently high inflation
- The trade-off isn't stable: expectations matter

## **Central banks can stabilize the economy by changing the policy rate**

- Four channels of monetary transmission mechanism: interest rate, asset prices, profit expectations, exchange rates
- Zero lower bound puts a limitation on monetary policy

# Technological progress and living standards in the long run

## **Job destruction is a constant feature of capitalist economies**

- Technological changes tend to raise productivity and put some workers out of their jobs
- A well-functioning economy will feature high levels of investment ensuring that jobs are created at least as fast as they are destroyed

## **Fundamental incentive problems of a capitalist economy**

- Ensuring that firms will invest both in technological progress and in job creation
- Ensuring that workers have the incentive to put in sufficient effort to do their jobs (and finding them)

# Models to study the aggregate economy

Unit	Run	What is exogenous?	What is endogenous	Problem to be addressed	Appropriate policies	Model to use
13, 14	Short	Prices, wages, capital stock, technology, institutions	Employment, demand, output	Demand shifts affect unemployment	Demand side	Multiplier
14, 15	Medium	Capital stock, technology, institutions	Employment, demand, output, prices, wages	Demand and supply shifts affect unemployment, inflation and equilibrium unemployment	Demand side, supply side	Labour market; Phillips curve
16	Long	Technology, institutions	Employment, demand, output, prices, wages and capital stock	Shifts in profit conditions and changes in institutions affect equilibrium unemployment and real wages	Supply side	Labour market model with firm entry and exit

# Exam

## **Main topics from the lectures and exercises**

- I'll prepare questions by reading the slides and answers to exercises
- Do the same and read the corresponding material from the book to make sure you understand the lecture material

## **Question types**

- True or false statements with explanation
- Drawing figures and explaining them
- No long essays
- Read the instructions carefully!

# Exam

## **There is material in the slides that I will not ask about**

- The empirical examples and papers were just examples to make the lectures interesting: I will not ask about the papers, the research design or the results of the papers
- I will not ask about the tax rates, unemployment or other numbers in the lecture slides

**Good luck!**