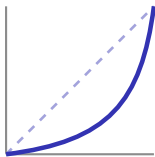


Government Microeconomic Intervention

A-Level Economics ■ Topic 8

A-Level Economics



What we will cover

- 1 Correcting market failure
- 2 Equity vs equality
- 3 Measuring inequality
- 4 Redistribution
- 5 The labour market
- 6 Minimum wage & wages



inequality side by side

1

Market failure

Find the private outcome before choosing a policy

Illustrative journeys per period; £ per journey

$MPB = 100 - Q$, $MPC = 20 + Q$. Each journey also harms others by 20. What quantity would private choice give if that harm is ignored?

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$$MPB = MPC$$

$$100 - Q = 20 + Q$$

$$Q_m = (100 - 20)/2 = 40 \text{ journeys per period}$$

$$C_m = 20 + Q_m = 20 + 40 = \text{£}60 \text{ per journey}$$

Include external harm once, then find efficient output

Same journeys; benefit-side representation

External harm 20 gives $MSB = 80 - Q$ and $MSC = MPC = 20 + Q$. Find the efficient quantity and the loss from the extra private journeys.

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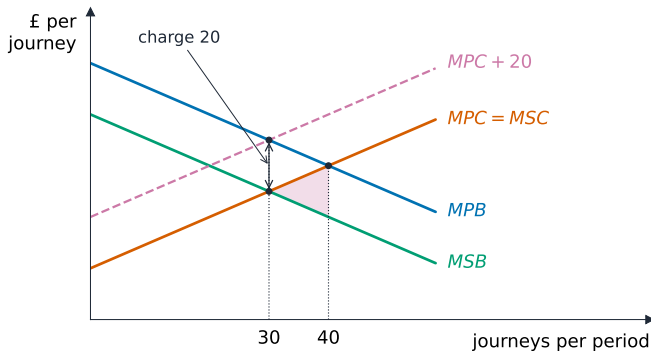
$$MSB = MSC$$

$$80 - Q = 20 + Q$$

$$Q^* = (80 - 20)/2 = 30 \text{ journeys per period}$$

$$DWL = \frac{1}{2}(Q_m - Q^*)MEC = \frac{1}{2}(40 - 30)(20) = \text{£}100 \text{ per period}$$

Read the private, social and charged outcomes



Private choice: 40; efficient quantity: 30
Harm is counted once: $MSB = MPB - 20$

A £20 charge reduces journeys from 40 to the efficient 30.

Verify how a specific charge changes the decision

Same model; a £20 charge per journey

The traveller now faces $MPC + t$. Calculate quantity and the marginal journey cost including the charge.

Verify how a specific charge changes the decision

Same model; a £20 charge per journey

The traveller now faces $MPC + t$. Calculate quantity and the marginal journey cost including the charge.

$$MPB = MPC + t$$

$$100 - Q = 20 + Q + 20$$

$$Q_t = (100 - 40)/2 = 30 \text{ journeys per period}$$

$$C_{\text{faced}} = 20 + Q_t + t = 20 + 30 + 20 = \text{£}70 \text{ per journey}$$

Revenue, harm and welfare loss are different amounts

Charge revenue

$$R = tQ_t$$

$$R = 20(30) = \text{£}600 \text{ per period}$$

Remaining external harm

$$H = MEC \cdot Q_t$$

$$H = 20(30) = \text{£}600 \text{ per period}$$

Revenue is a transfer. Harm is a real cost. Removing the £100 deadweight loss does not mean zero journeys or zero harm.

A toll that fits this model may not fit every road

Identify conditions for the model's conclusion

A uniform charge 20 reaches 30 journeys here. Peak-time harm differs between roads; some drivers may divert and alternatives may be poor.

Costs here include time and money. The private cost excluding the charge is 50; do not call it a company's cash fare receipt.

A toll that fits this model may not fit every road

Identify conditions for the model's conclusion

A uniform charge 20 reaches 30 journeys here. Peak-time harm differs between roads; some drivers may divert and alternatives may be poor.

Check marginal harm at the efficient quantity, route coverage, responses, enforcement and costs. Diversion may move congestion. Check who bears the burden and how revenue is used.

Costs here include time and money. The private cost excluding the charge is 50; do not call it a company's cash fare receipt.

A percentage tax and a specific tax are different rules

Taxable product prices £50 and £80

An **ad valorem tax** 从价税 is 20% of the taxable price. Compare its amounts with a specific tax of £10 per unit.

An **indirect tax** 间接税 can affect incentives. Evaluate the quantity and welfare effects as well as revenue.

A percentage tax and a specific tax are different rules

Taxable product prices £50 and £80

An **ad valorem tax** 从价税 is 20% of the taxable price. Compare its amounts with a specific tax of £10 per unit.

The percentage tax gives £10 and £16; the specific tax remains £10 at both prices. Neither rule by itself proves that the charge equals marginal harm.

An **indirect tax** 间接税 can affect incentives. Evaluate the quantity and welfare effects as well as revenue.

Work out the separate bus-market subsidy

£ per bus trip; trips per period

Demand $P = 50 - Q$, supply $P = 10 + Q$. Initially $Q = 20/P = 30$. A producer payment 10 per trip shifts buyer-facing supply to $P = Q$. Find quantity and both prices.

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Demand $P = 50 - Q$, supply $P = 10 + Q$. Initially $Q = 20/P = 30$. A producer payment 10 per trip shifts buyer-facing supply to $P = Q$. Find quantity and both prices.

$$P_D = P_S - s$$

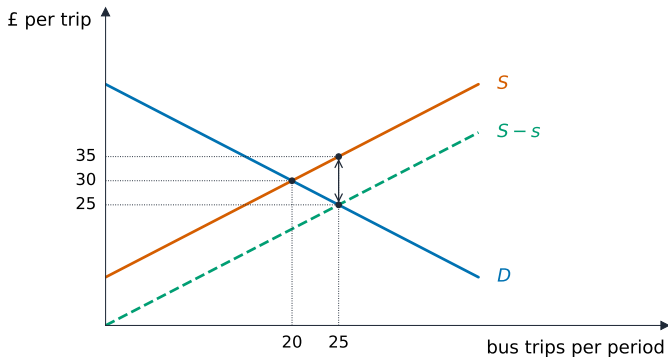
$$50 - Q = 10 + Q - 10$$

$$Q_1 = 50/2 = 25 \text{ trips per period}$$

$$P_b = 50 - Q_1 = 50 - 25 = \text{£}25 \text{ per trip}$$

$$P_s = P_b + s = 25 + 10 = \text{£}35 \text{ per trip}$$

A subsidy separates passenger price and producer receipts



Subsidy £10 per trip: passenger pays £25; producer receives £35
Government spending: $10 \times 25 = £250$ per period

£10 subsidy: buyer pays £25; seller receives £35 per trip.

Five extra bus trips do not prove five fewer car trips

Check the policy's cost and actual objective

At subsidy 10 and Q 25, government spends $G = sQ = 10(25) = \text{£}250$ per period.
What evidence would establish a congestion benefit?

A **subsidy** 补贴 changes one market. A congestion judgement needs the link to the other market, not just an increase in bus use.

Five extra bus trips do not prove five fewer car trips

Check the policy's cost and actual objective

At subsidy 10 and Q 25, government spends $G = sQ = 10(25) = \text{£}250$ per period.
What evidence would establish a congestion benefit?

Find how many passengers switched from cars on congested routes at relevant times.
Some may switch from walking. Check capacity, frequency, travel time and opportunity cost.

A **subsidy** 补贴 changes one market. A congestion judgement needs the link to the other market, not just an increase in bus use.

Compare the two policies through their mechanisms

Policy	Mechanism	Condition to assess
Road charge	Raises private journey cost	Harm, diversion, alternatives
Bus subsidy	Lowers passenger price or supports capacity	Substitution from cars and service access

Explain each diagram and expected output change. Compare effectiveness, finance, distribution and time before defending one policy or a combination.

A lower legal price does not guarantee more availability

Separate competitive market: $Q_d = 30 - P$, $Q_s = P$

Price and quantity initially equal 15. At ceiling 12, find demand, supply and shortage.

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Separate competitive market: $Q_d = 30 - P$, $Q_s = P$

Price and quantity initially equal 15. At ceiling 12, find demand, supply and shortage.

$$Q_d = 30 - P_c = 30 - 12 = 18 \text{ units per period}$$

$$Q_s = P_c = 12 \text{ units per period}$$

$$\text{shortage} = Q_d - Q_s = 18 - 12 = 6 \text{ units per period}$$

This **price control** 价格管制 leaves legal supply at 12 units per period.

Quantity rules still need implementation

Different rules, different mechanisms

A **production quota** 生产配额 caps a quantity; a **prohibition** 禁令 bans an activity; a **licence** 许可证 allows it subject to conditions.

Regulation 管制 includes standards and conditions as well as bans and caps. It is not always a direct quantity limit.

Quantity rules still need implementation

Different rules, different mechanisms

A **production quota** 生产配额 caps a quantity; a **prohibition** 禁令 bans an activity; a **licence** 许可证 allows it subject to conditions.

Specify the target, who must comply, exemptions and how violations are detected. An announced limit does not establish the actual quantity.

Regulation 管制 includes standards and conditions as well as bans and caps. It is not always a direct quantity limit.

Use a permit cap to compare real abatement costs

Two firms initially emit two units each

Cap total emissions at two. Each of A's two possible reductions costs £10; each of B's costs £30. Compare one reduction each with two by A.

Tradable permits 可交易许可证 need monitoring and feasible trade. Hotspots and market power matter; the permit payment is not an additional resource cost.

Use a permit cap to compare real abatement costs

Two firms initially emit two units each

Cap total emissions at two. Each of A's two possible reductions costs £10; each of B's costs £30. Compare one reduction each with two by A.

One each costs £40. Two by A costs £20 and meets the same cap. A trade can reward the cheaper reductions.

Tradable permits 可交易许可证 need monitoring and feasible trade. Hotspots and market power matter; the permit payment is not an additional resource cost.

Can rights and agreement improve the outcome?

Factory noise and one neighbouring household

Noise reduction costs £80 and benefits the household by £120. Could an agreement create a gain? What if thousands of people are affected?

Clear **property rights** 产权 can assist bargaining. Government is not the only possible actor, and bargaining is not an automatic cure.

Can rights and agreement improve the outcome?

Factory noise and one neighbouring household

Noise reduction costs £80 and benefits the household by £120. Could an agreement create a gain? What if thousands of people are affected?

There is a possible £40 gain to share. Negotiation requires identifiable parties, measurable harm, clear rights and enforceable agreement; coordinating thousands may be costly.

Clear **property rights** 产权 can assist bargaining. Government is not the only possible actor, and bargaining is not an automatic cure.

Match information, nudges and provision to the barrier

Barrier	Possible intervention	What it cannot guarantee
Routes are unknown	Credible information	A bus that does not exist
Habitual choice	A default transport suggestion	Use without a practical alternative
Insufficient capacity	Extra services	Affordable access and good quality automatically

A **nudge** 轻推 leaves options available. **State provision** 政府提供 supplies or arranges a service; it need not be free.

An ownership change alone does not remove market power

The same sole transport operator changes owner

Nationalisation 国有化 moves it into public ownership; **privatisation** 私有化 moves it into private ownership. Has a competitor or a congestion charge necessarily appeared?

A policy answer identifies how behaviour and resource use change, not just who owns the company.

An ownership change alone does not remove market power

The same sole transport operator changes owner

Nationalisation 国有化 moves it into public ownership; **privatisation** 私有化 moves it into private ownership. Has a competitor or a congestion charge necessarily appeared?

No. Compare incentives, objectives, investment, accountability, entry and regulation. The ownership label alone does not establish the outcome.

A policy answer identifies how behaviour and resource use change, not just who owns the company.

Assess competition policy with a concrete merger claim

Two providers propose a merger

They claim lower operating costs; customers fear less rivalry and higher prices.
What should the authority investigate?

Competition policy 竞争政策 addresses harmful **monopoly power** 垄断势力. A large firm is not automatically inefficient or beyond competition.

Assess competition policy with a concrete merger claim

Two providers propose a merger

They claim lower operating costs; customers fear less rivalry and higher prices.
What should the authority investigate?

Compare credible cost savings, barriers to entry, substitutes, customer effects and conduct. Address price-fixing or exclusion where evidence supports it.

Competition policy 竞争政策 addresses harmful **monopoly power** 垄断势力. A large firm is not automatically inefficient or beyond competition.

Government failure and the feasible alternatives

Evaluate the proposed congestion package

An imperfect charge reduces some harm but costs money to run. Does this alone prove that intervention made allocation worse?

Government failure 政府失灵 means worse resource allocation. Costly or imperfect is not a sufficient verdict; evaluate the actual alternative.

Government failure and the feasible alternatives

Evaluate the proposed congestion package

An imperfect charge reduces some harm but costs money to run. Does this alone prove that intervention made allocation worse?

Compare benefits, administration and compliance costs with no policy and a feasible alternative. Poor information, diversion, delay or narrow interests can reduce the net gain.

Government failure 政府失灵 means worse resource allocation. Costly or imperfect is not a sufficient verdict; evaluate the actual alternative.

Deregulation depends on which restriction is removed

An exclusive bus-route licence blocks other operators

The authority permits entry but keeps safety standards. How could rivalry improve service? What barriers or external costs could remain?

Deregulation 放松管制 relaxes a restriction; identify its effects rather than assuming that all rules disappear or welfare must improve.

Deregulation depends on which restriction is removed

An exclusive bus-route licence blocks other operators

The authority permits entry but keeps safety standards. How could rivalry improve service? What barriers or external costs could remain?

Entry may increase choice and pressure on prices. Depot access, scale and scarce road space may still constrain it. More services may add congestion.

Deregulation 放松管制 relaxes a restriction; identify its effects rather than assuming that all rules disappear or welfare must improve.

2

Equity and inequality

Equal cash and fair opportunity

Two households each receive £100

One household needs costly disability support. Are their payments equal? Does this establish equal opportunities or a fair outcome?

An efficient allocation maximises net social benefit under its assumptions. It need not satisfy every standard of fairness.

Equal cash and fair opportunity

Two households each receive £100

One household needs costly disability support. Are their payments equal? Does this establish equal opportunities or a fair outcome?

The cash amounts are equal. Different needs may prevent equal opportunity.

Equity 公平 requires a judgement about fairness; **equality** 平等 requires a stated comparison.

An efficient allocation maximises net social benefit under its assumptions. It need not satisfy every standard of fairness.

Income and net wealth use different units

Monthly pay £2000; home £150000; mortgage £100000

Classify the flow and the stock. Calculate net housing wealth before other assets and debts.

A picture of different homes does not measure **inequality** 不平等 or prove its cause. Do not add monthly income to an asset stock.

Income and net wealth use different units

Monthly pay £2000; home £150000; mortgage £100000

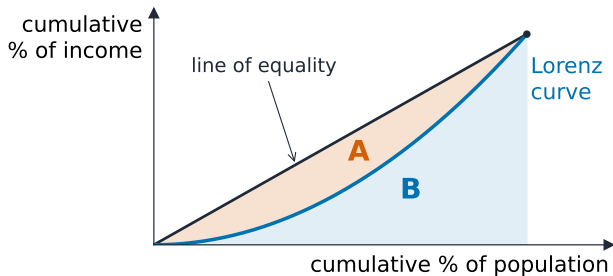
Classify the flow and the stock. Calculate net housing wealth before other assets and debts.

Income 收入 is £2000 per month. **Wealth** 财富 is measured at a date:

$$W_{\text{housing}} = \text{assets} - \text{debt} = 150000 - 100000 = \text{£}50000.$$

A picture of different homes does not measure **inequality** 不平等 or prove its cause. Do not add monthly income to an asset stock.

The Lorenz curve and Gini area ratio



$$\text{Gini} = A/(A + B) \cdot 0 = \text{equal}, 1 = \text{most unequal}$$

Lorenz curve 洛伦兹曲线:
cumulative income share against
cumulative population, poorest
first.

Gini coefficient 基尼系数 $= \frac{A}{A + B}$

Zero: perfect equality. Nearer
one: greater overall inequality.

Build cumulative shares before drawing the curve

Each row is one fifth of the population, poorest first

Income shares are percentages of each economy's total. Calculate cumulative shares.

Fifth	1	2	3	4	5
A income share	5	10	15	20	50
B income share	2	18	20	25	35

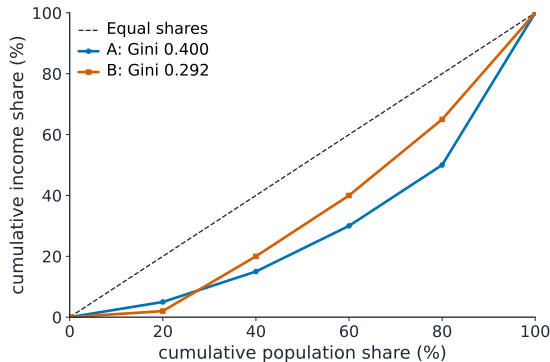
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Fifth	1	2	3	4	5
A income share	5	10	15	20	50
B income share	2	18	20	25	35
A cumulative	5	15	30	50	100
B cumulative	2	20	40	65	100

Crossing curves limit a Gini comparison



Poorest fifth: A gets 5%; B gets 2%
Grouped shares, with straight segments between points

B's Gini is lower, but its poorest fifth has a smaller income share: 2% versus 5%.

Poverty and inequality measure different things

The median rises, but one household's real income is unchanged

Could its relative position worsen without a fall in its purchasing power? Does a lower Gini establish that basic needs are affordable?

State the threshold, household adjustment and price basis. A Gini does not establish absolute living standards or each group's position.

Poverty and inequality measure different things

The median rises, but one household's real income is unchanged

Could its relative position worsen without a fall in its purchasing power? Does a lower Gini establish that basic needs are affordable?

Yes to the first; no to the second. **Relative poverty** 相对贫困 uses a standard relative to society. **Absolute poverty** 绝对贫困 uses a specified basic-needs standard.

State the threshold, household adjustment and price basis. A Gini does not establish absolute living standards or each group's position.

A poverty trap can leave little gain from extra work

Pounds per week; calculate disposable income

Earnings 100 to 150; tax 0 to 20; benefits 80 to 55. How much of the extra 50 remains?

A poverty trap can leave little gain from extra work

Pounds per week; calculate disposable income

Earnings 100 to 150; tax 0 to 20; benefits 80 to 55. How much of the extra 50 remains?

$$Y_d = Y - T + B$$

$$Y_{d0} = 100 - 0 + 80 = \text{£}180 \text{ per week}$$

$$Y_{d1} = 150 - 20 + 55 = \text{£}185 \text{ per week}$$

Only £5 remains: a **poverty trap** 贫困陷阱 can weaken the financial return to extra work.

Tax and benefit withdrawal combine

Same household: extra earnings £50; extra disposable income £5

Calculate the combined effective marginal withdrawal rate. What further evidence affects the decision to work more?

The rate identifies a financial incentive. It does not prove what this household will decide.

Tax and benefit withdrawal combine

Same household: extra earnings £50; extra disposable income £5

Calculate the combined effective marginal withdrawal rate. What further evidence affects the decision to work more?

$$m = \frac{\Delta T - \Delta B}{\Delta Y} = \frac{20 - (-25)}{50} = 90\%.$$

Check travel and childcare costs, health, care responsibilities and available hours.

The rate identifies a financial incentive. It does not prove what this household will decide.

Negative income tax changes smoothly with earnings

Illustrative weekly net tax $T = 0.5Y - 80$

Negative T is a payment to the household. Find disposable income $Y_d = Y - T$.

Earnings Y	0	100	160	200

This **negative income tax** 负所得税 leaves 50 p of each extra £1 before other taxes, transfers and costs. Check adequacy and finance.

Negative income tax changes smoothly with earnings

Illustrative weekly net tax $T = 0.5Y - 80$

Negative T is a payment to the household. Find disposable income $Y_d = Y - T$.

Earnings Y	0	100	160	200
Net tax T	-80	-30	0	20
Disposable income	80	130	160	180

This **negative income tax** 负所得税 leaves 50 p of each extra £1 before other taxes, transfers and costs. Check adequacy and finance.

Universal and means-tested payments have different reach

100 eligible households; 40 meet a low-income test

Compare gross costs of £80 each to all 100 versus only the 40. Which costs and outcomes are still unknown?

Universal benefits 普惠福利 cover a defined category; **means-tested benefits** 经济状况审查福利 depend on resources. Gross spending is not the whole verdict.

Universal and means-tested payments have different reach

100 eligible households; 40 meet a low-income test

Compare gross costs of £80 each to all 100 versus only the 40. Which costs and outcomes are still unknown?

Universal within this category: $G = 80(100) = \text{£}8000$. Means-tested:
 $G = 80(40) = \text{£}3200$. Assess tax recovery, administration, take-up, exclusion and withdrawal incentives.

Universal benefits 普惠福利 cover a defined category; **means-tested benefits** 经济状况审查福利 depend on resources. Gross spending is not the whole verdict.

A child benefit is not automatically a basic income

Compare two payment rules

Rule A pays every eligible child. Rule B pays every individual in a defined population regularly and unconditionally. Which describes a universal basic income?

Payment design, tax finance and service access jointly determine distribution and incentives.

A child benefit is not automatically a basic income

Compare two payment rules

Rule A pays every eligible child. Rule B pays every individual in a defined population regularly and unconditionally. Which describes a universal basic income?

Rule B. A **universal basic income** 全民基本收入 is not limited to a low-income test or to the child category. Specify the population, payment and funding.

Payment design, tax finance and service access jointly determine distribution and incentives.

Redistribution can change opportunity and incentives

A government proposes tax, transfers and more school places

Explain how each may affect disposable resources or future earnings. Could the package improve both fairness and efficiency?

Redistribution 再分配 may affect work, saving and investment. Compare feasible designs; do not assume either an inevitable conflict or a guaranteed joint gain.

Redistribution can change opportunity and incentives

A government proposes tax, transfers and more school places

Explain how each may affect disposable resources or future earnings. Could the package improve both fairness and efficiency?

A **progressive tax** 累进税 takes a higher average share at higher incomes.

Benefits 福利金 are **transfer payments** 转移支付. Places may ease a skills barrier if capacity and quality improve.

Redistribution 再分配 may affect work, saving and investment. Compare feasible designs; do not assume either an inevitable conflict or a guaranteed joint gain.

3

Labour markets

Extra output and extra revenue are different steps

One extra worker produces three extra units per hour

Compare MRP when marginal revenue is £6 versus £4 per output unit.

Marginal revenue product 边际收益产品: use output price only if it equals MR.
Labour demand is **derived demand** 派生需求.

Extra output and extra revenue are different steps

One extra worker produces three extra units per hour

Compare MRP when marginal revenue is £6 versus £4 per output unit.

$$MRP = MPP \times MR$$

$$MRP_{MR=6} = 3(6) = \text{£}18 \text{ per worker-hour}$$

$$MRP_{MR=4} = 3(4) = \text{£}12 \text{ per worker-hour}$$

Marginal revenue product 边际收益产品: use output price only if it equals MR.
Labour demand is **derived demand** 派生需求.

Whole-worker hiring need not give exact equality

Fixed hourly wage £14; no other changing employment costs

Extra hourly revenues for workers 1–5: £28, £24, £18, £12, £8. How many should the employer hire?

Compare MRP with marginal employment cost. Equality describes a smooth interior maximum; the wage shortcut needs wage-taking assumptions.

Whole-worker hiring need not give exact equality

Fixed hourly wage £14; no other changing employment costs

Extra hourly revenues for workers 1–5: £28, £24, £18, £12, £8. How many should the employer hire?

Three. Worker 3: $\Delta\pi_3 = MRP_3 - w = 18 - 14 = \text{£}4$ per hour. Worker 4: $\Delta\pi_4 = MRP_4 - w = 12 - 14 = -\text{£}2$ per hour. No worker has MRP exactly equal to 14.

Compare MRP with marginal employment cost. Equality describes a smooth interior maximum; the wage shortcut needs wage-taking assumptions.

The competitive occupational market determines wage

£ per worker-hour; L worker-hours per period

Market demand $w = 30 - L$; market supply $w = 6 + 0.5L$. Find equilibrium.

The competitive occupational market determines wage

£ per worker-hour; L worker-hours per period

Market demand $w = 30 - L$; market supply $w = 6 + 0.5L$. Find equilibrium.

$$D = S$$

$$30 - L = 6 + 0.5L$$

$$L^* = (30 - 6)/1.5 = 16 \text{ worker-hours per period}$$

$$w^* = 6 + 0.5L^* = 6 + 0.5(16) = \text{£}14 \text{ per hour}$$

A separate small firm takes that wage as given

Firm MRP = $30 - 2l$; wage £14 per hour

The firm can hire without changing the market wage. Find its hiring and explain the shape of supply to the firm.

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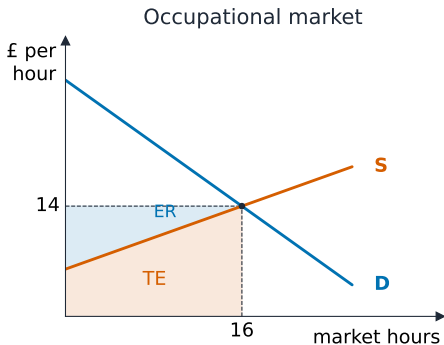
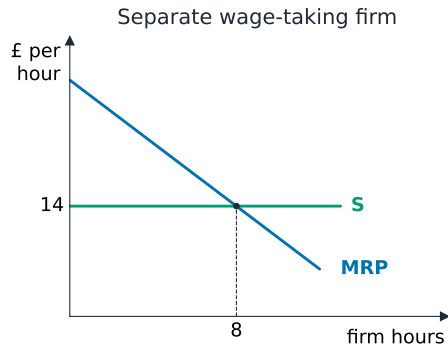
$$MRP = w$$

$$30 - 2l = 14$$

$$l^* = (30 - 14)/2 = 8 \text{ worker-hours per period}$$

Supply to this firm is horizontal at 14. Occupational supply can still slope upward.

Market supply and firm supply are different curves



Quantities are worker-hours per period; wage is £ per hour
Market shaded areas: transfer earnings (TE), economic rent (ER)

Separate illustrations: market L 16/w 14; small firm I 8 at the given wage 14.

Own productivity and a market-wide shift differ

Compare two separate changes, holding supply assumptions fixed

A: only the small firm's MRP becomes $34 - 2l$. B: market demand becomes $w = 36 - L$. Calculate the outcomes.

Perfectly elastic supply to one firm does not mean the market wage never changes.

Own productivity and a market-wide shift differ

Compare two separate changes, holding supply assumptions fixed

A: only the small firm's MRP becomes $34 - 2l$. B: market demand becomes $w = 36 - L$. Calculate the outcomes.

A: $l = (34 - 14)/2 = 10$, wage stays 14.

B: $L = (36 - 6)/1.5 = 20$, wage $w = 6 + 0.5(20) = 16$.

Perfectly elastic supply to one firm does not mean the market wage never changes.

A wage change moves along a given curve

Change	Mechanism to analyse
Higher wage alone	Movement along given demand for labour 劳动力需求 and supply of labour 劳动力供给
More product demand	MRP and labour demand may shift
Training or migration	Available skills and occupational supply may shift
Labour-saving machine	Substitution may lower hiring; output expansion may offset it

Specify occupation, location and period. An individual's hours need not rise at every wage.

Monopsony marginal cost exceeds the uniform wage

Separate local market: $MRP = 30 - L$; supply $w = 6 + 0.5L$

Hiring more requires raising existing workers' pay too. Total wage cost $TC_L = 6L + 0.5L^2$, so $ME = 6 + L$. Find employment and wage.

Monopsony marginal cost exceeds the uniform wage

Separate local market: $MRP = 30 - L$; supply $w = 6 + 0.5L$

Hiring more requires raising existing workers' pay too. Total wage cost $TC_L = 6L + 0.5L^2$, so $ME = 6 + L$. Find employment and wage.

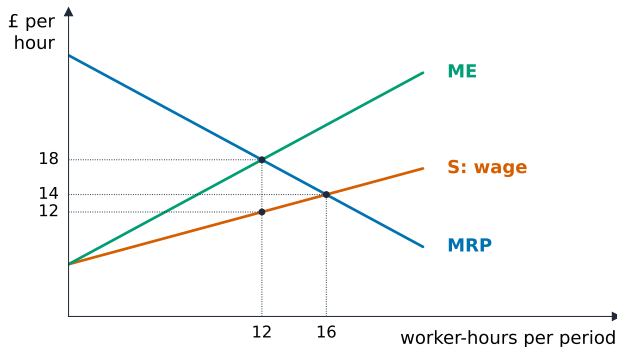
$$MRP = ME$$

$$30 - L = 6 + L$$

$$L_m = (30 - 6)/2 = 12 \text{ worker-hours per period}$$

$$w_m = 6 + 0.5L_m = 6 + 0.5(12) = \text{£}12 \text{ per hour}$$

Choose monopsony employment, then read the wage



Unregulated monopsony: L 12, wage 12, ME 18

Competitive benchmark with the same curves: L 16, wage 14

Monopsony 买方垄断: hire 12, pay £12. ME £18 differs from the wage.

A moderate wage floor can expand monopsony hiring

Same monopsony, now a floor of £14 per hour

Supply at 14 is 16. Marginal cost stays 14 while hiring up to 16. Compare MRP with this cost and the original $L = 12/w = 12$.

A **national minimum wage** 全国最低工资 affects covered workers. The floor's level and market structure are essential.

A moderate wage floor can expand monopsony hiring

Same monopsony, now a floor of £14 per hour

Supply at 14 is 16. Marginal cost stays 14 while hiring up to 16. Compare MRP with this cost and the original $L = 12/w = 12$.

At 16, $MRP = 30 - 16 = 14$. Hire 16 and pay 14. Above 16, raising the uniform wage makes marginal cost jump above 14. Both wage and employment rise in this model.

A **national minimum wage** 全国最低工资 affects covered workers. The floor's level and market structure are essential.

A higher floor reverses the employment gain

Same curves, now a floor of £20 per hour

Find labour demanded and available supply. Compare hiring with the unregulated monopsony and competitive benchmark.

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$$L_d = 30 - w = 30 - 20 = 10$$

$$L_s = 2(w - 6) = 2(20 - 6) = 28$$

$$\text{excess supply} = L_s - L_d = 28 - 10 = 18$$

Employment 10 is below original 12 and competitive 16. The floor level matters.

Union bargaining needs a market-structure argument

Workers negotiate higher pay with an employer

Would employment necessarily fall? Compare competitive wage-taking and employer buying power; identify what else could change.

A **trade union** 工会 bargains collectively; the agreement and employer's response determine the result.

Union bargaining needs a market-structure argument

Workers negotiate higher pay with an employer

Would employment necessarily fall? Compare competitive wage-taking and employer buying power; identify what else could change.

Along fixed competitive labour demand a higher wage may lower hiring. Bargaining against monopsony power may move towards the competitive benchmark. Productivity, training, coverage and an employment agreement may alter the curves or constraints.

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A large pay gap does not measure productivity by itself

Executives' average wage is 100 times employees' average wage

Give a demand explanation, a supply explanation and one reason the ratio need not equal a ratio of personal output.

For a **wage differential** 工资差异, analyse both sides of the **labour market** 劳动力市场. A ratio alone does not prove merit or **discrimination** 歧视.

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MRP depends on product revenue and contribution. Scarce skills and long training can restrict supply. Team production, bargaining and pay-setting institutions make individual contributions difficult to infer.

For a **wage differential** 工资差异, analyse both sides of the **labour market** 劳动力市场. A ratio alone does not prove merit or **discrimination** 歧视.

Transfer earnings depend on the feasible alternative

A worker earns £20 per hour; best feasible alternative pays £16

Divide the payment into the amount needed to retain the worker and the excess.
What if the alternative changes?

State whether the alternative is another employer or leaving the occupation. Economic rent is not house rent or automatic discrimination.

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A worker earns £20 per hour; best feasible alternative pays £16

Divide the payment into the amount needed to retain the worker and the excess.
What if the alternative changes?

Transfer earnings 转移收入 are 16. **Economic rent** 经济租金 is $20 - 16 = £4$ per hour. Better alternatives raise the payment needed to retain the worker, other things equal.

State whether the alternative is another employer or leaving the occupation. Economic rent is not house rent or automatic discrimination.

Occupational rent is the area above supply

Competitive market: L 16, wage 14, supply $w = 6 + 0.5L$

The supply intercept is 6. Divide total payment into transfer earnings and economic rent.

Payment, TE and ER are all in £ per period. More elastic occupational supply tends to reduce the rent share.

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Competitive market: L 16, wage 14, supply $w = 6 + 0.5L$

The supply intercept is 6. Divide total payment into transfer earnings and economic rent.

$$\text{payment} = wL = 14(16) = 224$$

$$TE = \frac{1}{2}(w_0 + w^*)L = \frac{1}{2}(6 + 14)(16) = 160$$

$$ER = wL - TE = 224 - 160 = 64$$

Payment, TE and ER are all in £ per period. More elastic occupational supply tends to reduce the rent share.

4

Application

Check yourself

Use the stated data, then defend a conclusion

A: Wage floor 20 must increase monopsony jobs.

B: A lower Gini proves a larger income share for the poorest fifth.

C: Equal cash payments guarantee equal opportunities.

Show the mechanism and evidence, then state the conditions and limits.

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A: employment falls 12 to 10 here. B: crossing curves give B's lower Gini but poorest share 2% versus 5%. C: the disability-support example separates equal cash from needs and opportunity.

Show the mechanism and evidence, then state the conditions and limits.