Labour markets and government intervention

Pearson Edexcel · International A-Level · Economics

Scope and prerequisites

This package now covers the full IA2 targets of specification sections 3.3.4 and 3.3.5 (17 objectives: 3.3.4.1a–b, 3.3.4.2c–d, 3.3.4.3a–c, 3.3.4.4a–b, 3.3.5.1a–f, 3.3.5.2a–b), grounded in specification pages 41–42 and the WEC13 January 2024 and June 2023 papers and mark schemes. Read the native introduction first.

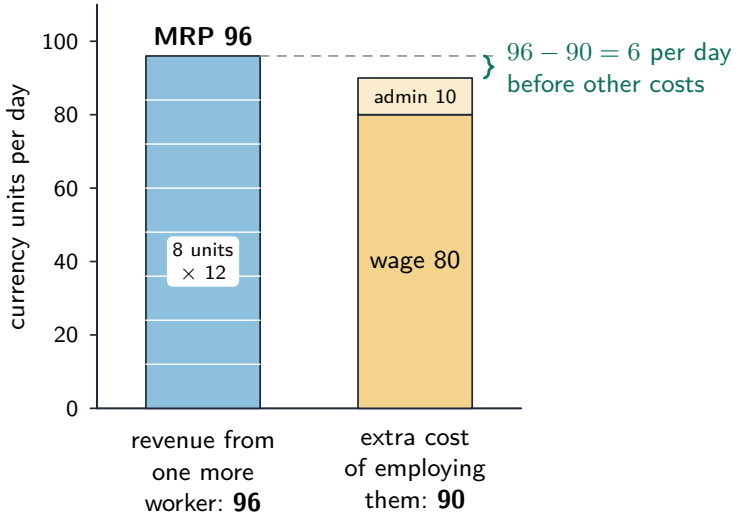
Key terms

marginal revenue product 边际收益产品; **wage floor** 工资下限; **derived demand** 派生需求; **elasticity of demand for labour** 劳动需求弹性; **net migration** 净移民; **trade union** 工会; **minimum wage** 最低工资; **maximum wage** 最高工资; **deregulation** 放松管制; **privatisation** 私有化; **nationalisation** 国有化; **regulatory capture** 监管俘获.

Supported explanation

Labour demand is derived from the output workers help produce. In the simplified price-taking output model, marginal revenue product (MRP) equals additional physical output times the constant selling price. Compare it with the relevant additional employment cost over the same time period. A wage difference alone does not establish a productivity difference: scarce skills, job conditions, bargaining and discrimination can also matter.

A union can bargain collectively for pay or conditions. Its effect depends on bargaining strength, employer response and the labour-market setting. A minimum wage is a legal wage floor. In the simple competitive model a binding floor can increase labour supplied relative to labour demanded; it does not imply the same employment response under every institutional setting. Competition policy addresses restrictions on competition through investigation and enforceable responses; it cannot be evaluated solely by counting large firms. For each policy identify the objective, mechanism, affected people and a material limitation. These are introductory distinctions, not a substitute for the held detailed wage-setting and competition-policy targets.



Worked case

One additional worker produces eight saleable units per day, each adding 12 currency units of revenue. The wage is 80 currency units/day and additional administration costs 10/day. Calculate the additional contribution before other costs and state a hiring condition.

MRP = 8 units/day × 12 currency units/unit = 96 currency units/day. Additional employment cost = 80 + 10 = 90 currency units/day. The model's additional contribution is 96 − 90 = 6 currency units/day, before any other relevant costs. Hiring is supported only if the output can actually be sold at that marginal revenue and the full additional cost does not exceed the additional revenue. If marginal revenue falls, a constant-price calculation may overstate MRP. This is not an instruction to equate a person's worth with revenue.

Independent transfer

A union negotiates training and a higher wage. A newspaper predicts employment must fall. Evaluate the prediction and distinguish this from a competition-policy decision.

Checked original model

The higher wage raises cost, while useful training may raise saleable output or quality and therefore MRP. The employment effect needs the sizes, timing, product demand and actual employer response. Training attendance alone does not establish a productivity gain. Compare outcomes for workers retained, applicants and consumers. A competition investigation instead needs evidence of restrictive behaviour, entry and alternatives; a wage agreement alone does not establish product-market abuse. The

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full monopsony, wage-setting and competition-policy models are now taught in the sections below and in topic 5's supplement.

The demand for labour

Labour demand is a **derived demand**: a firm wants workers only because of the goods or services they produce. The demand curve for an occupation is its marginal revenue product (MRP) – the extra revenue one more worker adds. Demand for labour in an occupation rises when demand for the final product rises, when labour productivity rises, when the product's price rises, and when the wage falls relative to the price of capital (machines become relatively expensive, so firms substitute labour for capital).

The **elasticity of demand for labour** measures how strongly employment responds to a wage change. Demand is more elastic when capital can easily replace labour, when labour is a large share of total costs, when demand for the final product is price-elastic (a wage rise passed into prices loses many sales), and over longer time periods (firms can reorganise production). A workforce that cannot easily be replaced by capital faces inelastic demand – in the January 2024 WEC13 paper this explained why the elasticity of demand for construction workers was estimated at only −0.18.

The supply of labour

The supply of labour to a particular occupation depends on: the size of the working-age population; **net migration** (immigration minus emigration); income-tax rates (higher marginal rates can reduce the incentive to work or to enter a profession); the level of welfare benefits (generous out-of-work benefits can lower labour supply); government regulations (licences, qualifications, retirement rules); and **trade unions** (which can restrict entry or bargain over pay and conditions).

The elasticity of supply of labour to an occupation is higher when entry needs few qualifications and little training, when skills transfer from other jobs, and when workers are geographically mobile. Supply is inelastic for occupations needing long, specific training – surgeons cannot be trained in a month – so wage changes move employment little in the short run.

Wage determination

In a competitive labour market the equilibrium wage and employment sit where labour demand (MRP) meets labour supply. Shifts move both: higher productivity or product demand shifts demand right (higher wage and employment); net migration or lower income tax shifts supply right (lower wage, higher employment). Always read both the wage and the employment change, and say which curve shifted and why.

Wage setting in the public sector and **state-owned enterprises** 国有企业 works differently: the government is the employer, so pay is set through budgets, national pay scales and independent pay-review bodies rather than by MRP alone. Governments

weigh recruitment and retention needs against the opportunity cost of tax revenue, comparability with private-sector pay, and fairness between regions and occupations.

Labour immobility as market failure

Geographical immobility 地理不可流动性 means workers cannot or will not move to where jobs are: causes include housing cost differences, family and social ties, poor transport, and lack of information about distant vacancies. **Occupational immobility** 职业不可流动性 means workers' skills do not match the jobs on offer: declining industries release workers whose specific skills are not wanted elsewhere, and retraining takes time and money. The consequences are structural unemployment (unfilled vacancies and jobless workers at the same time), persistent regional or occupational wage differences, wasted output, and higher welfare spending.

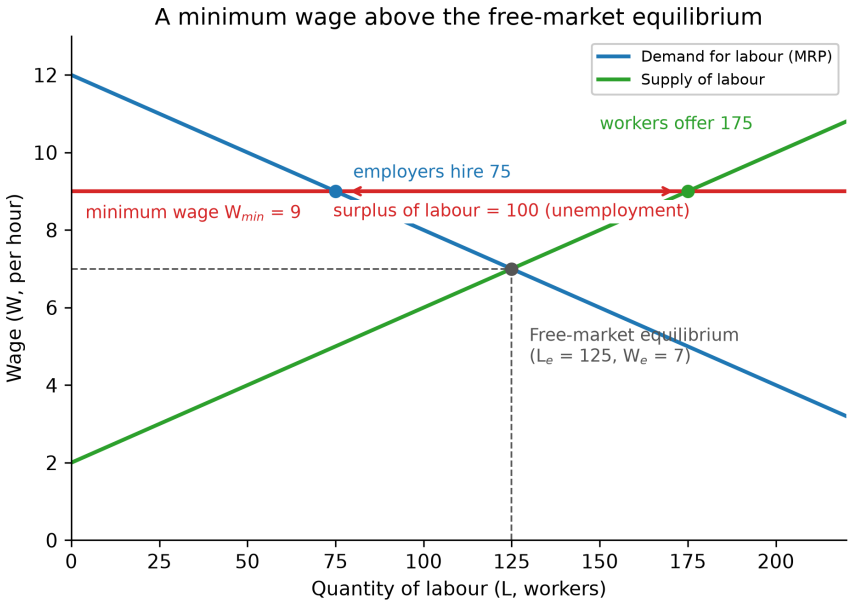
Government intervention in product markets

The case for intervention rests on market power, inefficiency and unfair outcomes. To control monopolies and mergers, governments use price regulation (such as RPI − X caps that force real price falls), profit regulation, quality standards, performance targets, referral of mergers and conduct to regulatory authorities, and legislation blocking anti-competitive takeovers. To promote competition and contestability they use tax incentives and grants for small businesses and foreign direct investment, **deregulation** (removing entry rules), **privatisation** (moving state firms into private ownership), **competitive tendering** 竞争性招标 for public contracts, and **trade liberalisation** 贸易自由化 (opening markets to foreign firms). To protect suppliers and employees they can require local sourcing, pass employment-protection legislation, restrict entry of foreign firms, restrict the monopsony power of large buyers, or nationalise a firm.

Each measure must be traced to its effect on price, profit, efficiency, quality and choice – regulation can lower prices and protect quality, but may cut profit-funded investment; privatisation may raise efficiency or may create a private monopoly. And intervention has limits: **regulatory capture** (the regulator comes to serve the industry it regulates), asymmetric information and information gaps, inadequate resources for enforcement, and weak legal powers. These limits are the bridge to government failure.

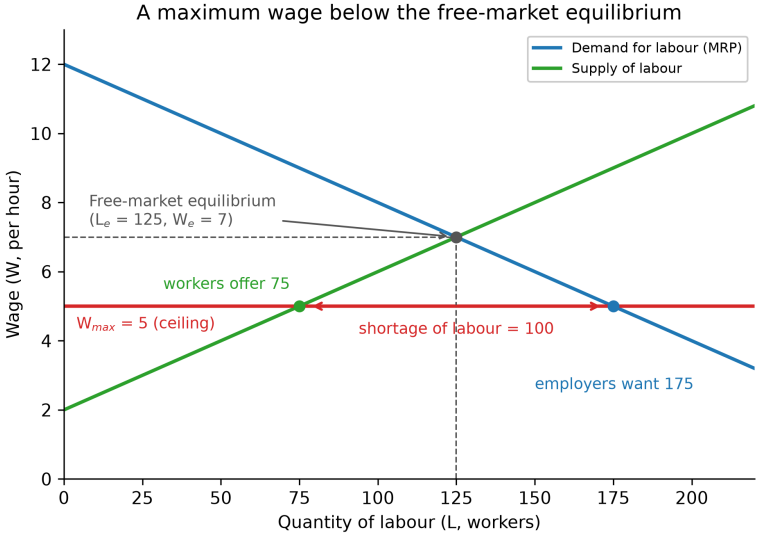
Government intervention in labour markets

The case for intervention includes exploitation by powerful employers, inequality, discrimination and immobility. Measures include minimum and maximum wage controls, direct taxes (income tax, national insurance contributions paid by employers and employees, and corporation tax on profits), measures to reduce geographical and occupational immobility (retraining grants, relocation support, better job information), and anti-discrimination and anti-exploitation legislation.



A **minimum wage** is a legal wage floor. Binding means above the free-market equilibrium. In the model above, demand $W = 12 - 0.04L$ meets supply $W = 2 + 0.04L$ at $L_e = 125$, $W_e = 7$. Raising the floor to $W_min = 9$ contracts the quantity of labour demanded to 75 and extends the quantity supplied to 175: unemployment of 100, shown by the gap, not by the old equilibrium. Note what the examiners demand: when a rate rises, the diagram must show the increase, with a contraction of demand and an extension of supply – not the introduction of a brand-new floor. Employment loss is not automatic in reality: inelastic demand for labour (the construction example above), higher motivation and productivity, and monopsony labour markets all soften it; the January 2024 mark scheme credits exactly these reservations.

A **maximum wage** is a legal wage ceiling, binding below the equilibrium.



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The model predicts a labour shortage – employers want 175 workers at W_max = 5 but only 75 are willing – plus weaker incentives, emigration or resignation of high earners (in Egypt's 2015 public-sector cap, examined in June 2023, banking executives resigned), and evasion through non-pay benefits. Evaluation weighs the fairness aim against these distortions.

Direct taxes work through incentives and costs: employer national-insurance contributions raise the cost of hiring (labour demand falls); income tax affects the return to work (labour supply); corporation tax leaves less profit to fund wages and investment. Mobility measures and anti-discrimination laws attack the immobility and fairness failures directly, but all intervention faces the same government-failure limits listed for product markets.

WEC13 assessment demand for this topic

Section B is a 34-mark source-based question on a supplied figure and extracts: a 2-mark calculation from the data, a 4-mark explanation of a defined term, an 8-mark examine question requiring a diagram (with up to 2 marks of evaluation), a 6-mark analyse question marked 2 knowledge + 2 application + 2 analysis where application means citing the extract's own figures, and a 14-mark discuss question marked 8 (levels) + 6 evaluation (levels). Section A multiple choice has tested the determinants of labour-demand elasticity and the definition of limit pricing. Section C essays (20 marks, 12 + 8 as certified for topic 5) have set maximum-wage and nationalisation evaluations, both requiring diagrams.

Source boundary

XEC11/YEC11, 2018 specification, Issue 2. Evidence: specification pages 41–42 (sections 3.3.4–3.3.5), WEC13 January 2024 QP/MS (Section A Q5–6, Section B Q7 with Figure 1 and Extracts A–B) and WEC13 June 2023 QP/MS (Section C Q8–9). Local authored marking guidance is not an official qualification scheme.

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