

## 2.2 Government intervention in markets

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

Total: 30 marks

**KEY WORDS** maximum price • government failure

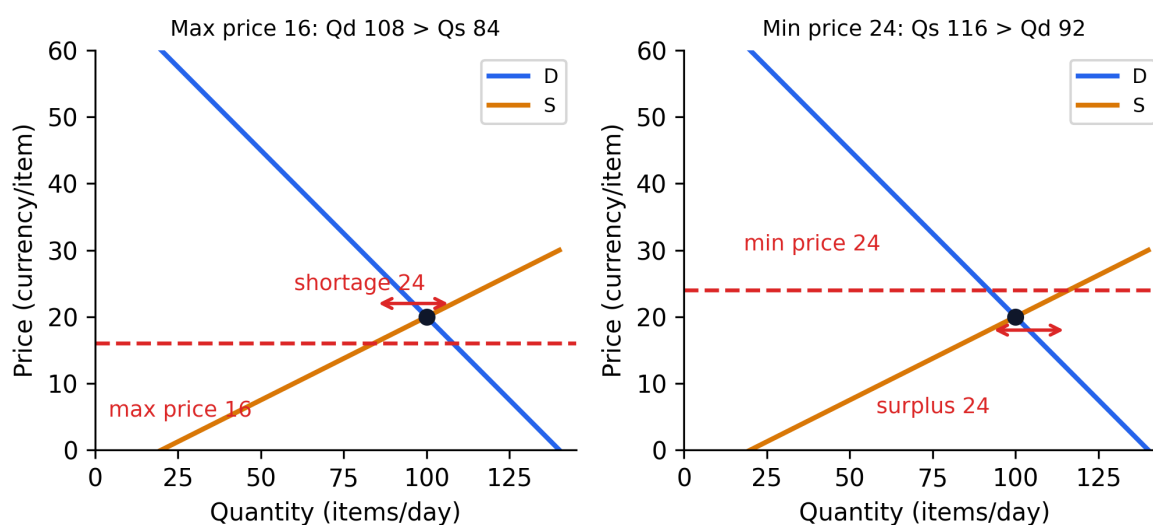
### Government intervention in markets

#### Objective

Apply the eight methods of intervention with their purpose, compute the effects of price controls, Pigouvian taxes, subsidies and permits on the shared model, and evaluate interventions for government failure (spec 1.3.6, rows 1–2).

#### 1 Key knowledge and worked examples

**Intervention arithmetic.** On the shared model (market (100, 20)): a maximum price of 16 gives  $Q_d = 108 > Q_s = 84$ , a shortage of 24; a minimum price of 24 gives  $Q_s = 116 > Q_d = 92$ , a surplus of 24; a Pigouvian tax of 6 (the external cost) moves the market to the social optimum (92, 24); a subsidy of 6 corrects a positive externality to (108, 16) at a cost of  $6 \times 108 = 648$  per day; a permit cap of 84 meets demand at a permit price of 28. Every intervention answer ends by weighing the correction against government failure.



*Original model; the shortage and surplus of 24 are computed in the worked examples.*

## 2 Practice

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**2.1** State the purpose of government intervention and name any five of the eight methods. [3]

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**2.2** A maximum price of 16 is set on this market. Calculate the shortage and describe two consequences. [3]

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**2.3** A minimum price of 24 is guaranteed to producers. Calculate the surplus and state one way the government might handle it. [3]

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**2.4** The marginal external cost of production is 6. State the Pigouvian tax that internalises it and the resulting quantity. [2]

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**2.5** In a permit system with a cap of 84, explain what fixes the quantity of emissions and what fixes the permit price. [2]

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### 3 Exam-style questions

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**3.1** (*Original.*) Evaluate a maximum price of 16 on this market: identify the winners and losers, describe how the shortage of 24 might be allocated, and give one reason the policy could cause government failure. [5]

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**3.2** (*Original.*) A positive externality of consumption of 6 per unit is corrected with a subsidy of 6. Calculate the new equilibrium and the daily cost to the government, and explain why that cost (648) is so much larger than the welfare gain (24). [5]

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**3.3** (*Original.*) Define government failure and apply any two of its five causes to a minimum price of 24. [4]

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**3.4** (*Original.*) Explain how extending property rights can correct a negative externality, and state one limitation of the method. [3]

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