Exercise walk-through

The Effects of Government Intervention in Markets ▪ 2.8

eXercise

You must be able to

- analyse a **price ceiling 价格上限** and a **price floor 价格下限**
- show how a binding price control creates a **deadweight loss 无谓损失**
- analyse the impact of a **per-unit tax 从量税** on price, quantity, and revenue
- explain how **tax incidence 税负归宿** depends on relative elasticities

Method — Price controls

A **binding ceiling** (below equilibrium) causes a **shortage**; a **binding floor** (above equilibrium) causes a **surplus**. Both reduce total surplus, creating a **deadweight loss**.

Method — A per-unit tax

Raises the price buyers pay, lowers the price sellers keep, and **reduces the quantity** traded; the gap is government revenue.

Method — Tax incidence

The **more inelastic** side of the market bears the **larger** share of the tax.

Practice 2.1 ▪ 1 mark

State the effect of a binding price ceiling.

Solution 2.1

Method: Price controls

Worked steps

it causes a shortage (quantity demanded exceeds quantity supplied) **B1**.

Practice 2.2 ▪ 1 mark

State who bears more of a tax: the more elastic or the more inelastic side.

Solution 2.2

Method: Tax incidence

Worked steps

the more inelastic side **B1**.

Practice 2.3 ▪ 2 marks

A $\$2$ per-unit tax is placed on a good. State its effect on the price buyers pay and the quantity traded.

Solution 2.3

Method: A per-unit tax

Worked steps

the price buyers pay rises and the quantity traded falls **B1** **B1**.

Exam-style 3.1 ▪ 1 mark

A binding price floor causes a

A shortage

B surplus

C higher quantity traded

D no change

Solution 3.1

Method: Price controls

A shortage

B surplus ✓

C higher quantity traded

D no change

Worked steps

B.

Exam-style 3.2 ▪ 1 mark

A per-unit tax creates a

A gain in total surplus

B deadweight loss

C shortage

D subsidy

Solution 3.2

- **A** gain in total surplus
- **B** deadweight loss ✓
- **C** shortage
- **D** subsidy

Worked steps

B.

Exam-style 3.3 ▪ 1 mark

A per-unit tax is placed on a good with very **inelastic** demand.
(a) State who bears most of the tax.
(b) State the effect on the quantity traded.
(c) Name the loss of total surplus that the tax creates.

Solution 3.3

Method: Price controls

Worked steps

(a) buyers (demand is more inelastic) **B1**. (b) it falls only a little **B1**. (c) deadweight loss **B1**.