A-LEVEL ECONOMICS • HOLIDAY HOMEWORK 假期作业

2 Price determination – Part 2

Name: ____________ Class: ________ Date: __________

Vocabulary 词汇

Write each word three times. 把每个单词抄写三遍。

English	中文	Write it 3 times (English)
Price elasticity of demand	需求价格弹性	
elastic	富有弹性	
inelastic	缺乏弹性	
total revenue	总收益	
income elasticity of demand	需求收入弹性	
normal good	正常品	
inferior good	低档品	
cross elasticity of demand	需求交叉弹性	
substitutes	替代品	
complements	互补品	
consumer surplus	消费者剩余	
producer surplus	生产者剩余	

Recall

In **Part 1** you met demand, supply, and the **equilibrium price** where they meet. Part 2 looks at how strongly demand reacts to a change (**elasticity**), and the gains buyers and sellers get (**surplus**).

New ideas

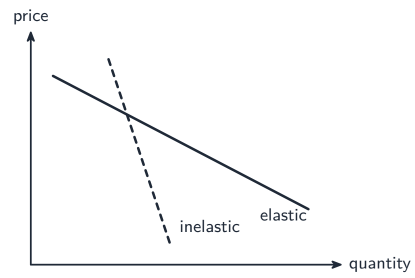
1 Price elasticity of demand

Price elasticity of demand 需求价格弹性 (PED) measures how much the quantity demanded reacts when the price changes:

$$\text{PED} = \frac{\%\text{ change in quantity demanded}}{\%\text{ change in price}}.$$

- demand is **elastic** 富有弹性 when PED is more than 1 — quantity reacts a **lot**;
- demand is **inelastic** 缺乏弹性 when PED is less than 1 — quantity reacts only a **little**.

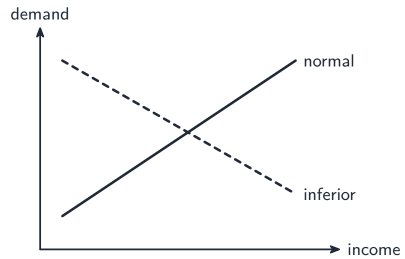
PED and **total revenue** 总收益 (= price × quantity): if demand is **inelastic**, raising the price raises revenue; if **elastic**, cutting the price raises revenue.



Micro-check. Price rises 10% and quantity falls 30%. Is demand elastic or inelastic? [1]

2 Income and cross elasticity

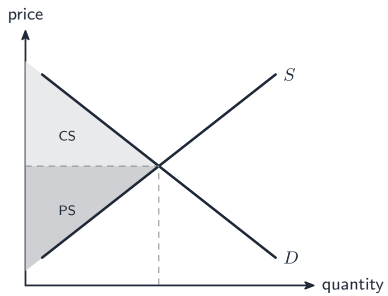
- **income elasticity of demand** 需求收入弹性 (YED) measures how demand reacts to a change in income. A **normal good** 正常品 has **positive** YED (demand rises as income rises); an **inferior good** 低档品 has **negative** YED (demand falls as income rises — people switch to better goods).
- **cross elasticity of demand** 需求交叉弹性 (XED) is **positive** for **substitutes** 替代品 and **negative** for **complements** 互补品.



Micro-check. Cheap instant noodles sell **less** as people get richer. Are they a normal or inferior good? [1]

■ 3 Consumer and producer surplus

- **consumer surplus** 消费者剩余 is the gain to buyers — the difference between the most they would have paid and the price they actually pay;
- **producer surplus** 生产者剩余 is the gain to sellers — the difference between the price they get and the least they would have accepted.



Micro-check. You would pay \$10 for a book but buy it for \$7. State your consumer surplus. [1]

Watch out: PED = %ΔQ ÷ %ΔP; if *elastic* (> 1) cut the price to raise revenue, if *inelastic* (< 1) raise it. Normal goods have *positive* YED, inferior goods *negative*; substitutes have *positive* XED, complements *negative*.

Practice

2.1 The price of a good rises by 20% and the quantity demanded falls by 10%. Find the **PED**, and state whether demand is elastic or inelastic. [2]

2.2 A firm sells a good with **inelastic** demand. State what happens to its total revenue if it **raises** the price. [1]

2.3 State whether each is a **normal** or an **inferior** good: (a) restaurant meals (demand rises with income); (b) bus travel (demand falls with income). [2]

2.4 State the sign of the **XED** (positive or negative) for (a) substitutes, (b) complements. [2]

2.5 Explain what **consumer surplus** is. [2]

2.6 Challenge. A 10% rise in the price of tea causes a 15% rise in the demand for coffee. Find the XED, and state what it shows about the two goods. [2]