

Exercise walk-through

## 2.7

# Price elasticity of supply (PES)

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IGCSE Economics

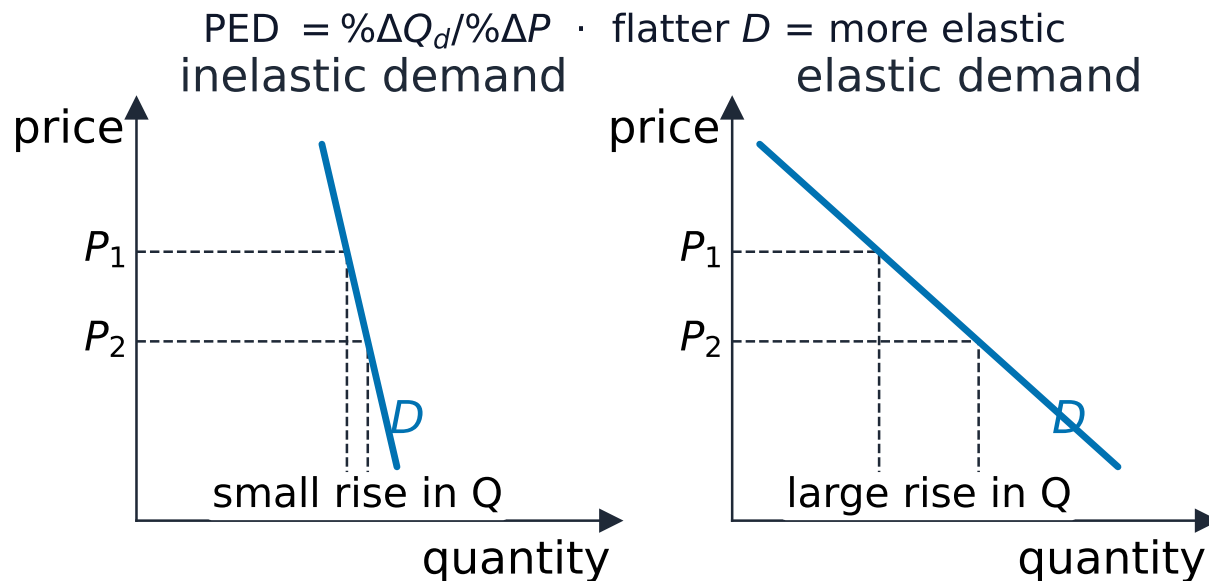
# Price elasticity of demand

**Price elasticity of demand**  
price.

measures how much quantity responds to

- **inelastic**                    – little response
- **elastic**                      – big response

# Price elasticity of demand, in detail



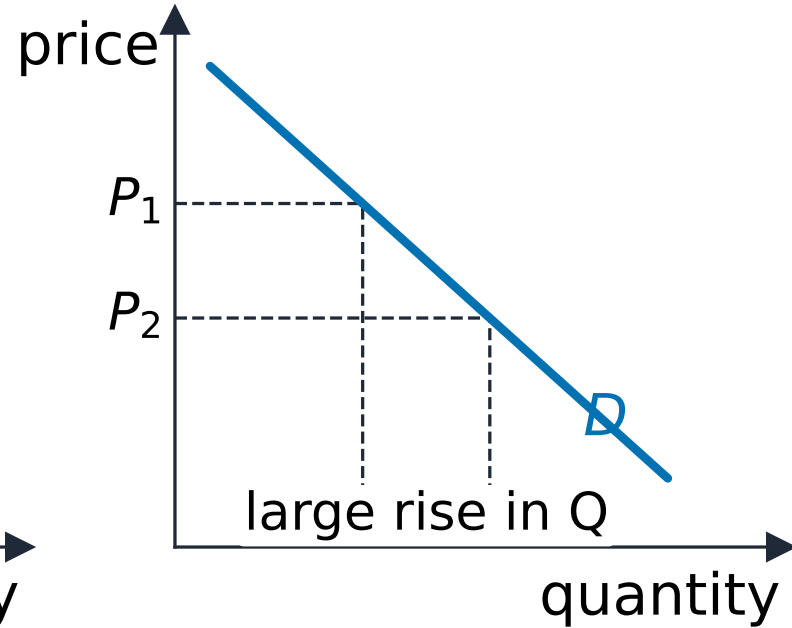
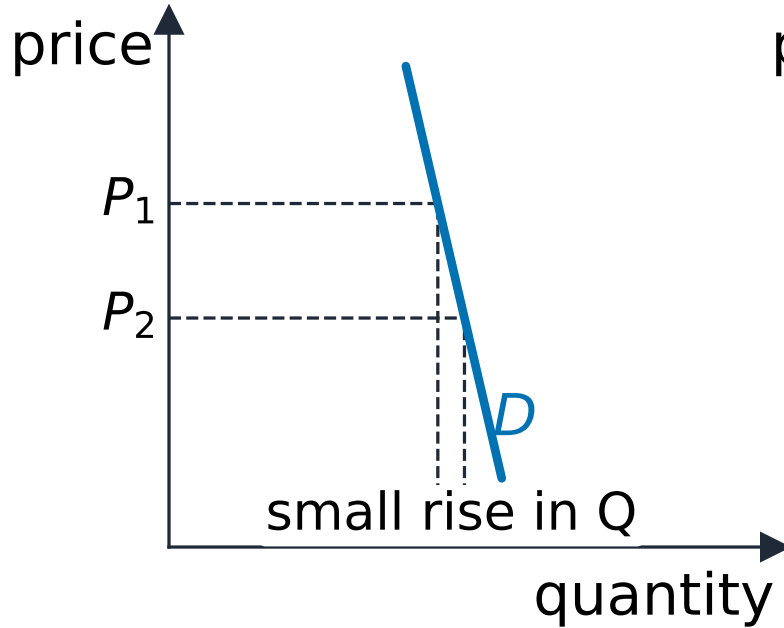
When demand is inelastic (steep) a price change barely changes quantity; when it is elastic (shallow) the same change moves quantity a lot.

# Reading the elasticity value

- $PED > 1$ : **elastic**  
brand of crisps.
  - quantity changes by a large %. Many substitutes, like one
- $PED < 1$ : **inelastic**  
petrol, salt.
  - quantity barely moves. Needs with few substitutes:
- $PED = 1$ : **unit elastic**  
.

# Reading the elasticity value, in detail

$PED = \% \Delta Q_d / \% \Delta P$  · flatter  $D$  = more elastic  
inelastic demand elastic demand



Steep is inelastic; shallow is elastic

## Elasticity decides what a price rise does to revenue

If demand is **inelastic**, raising the price raises revenue – customers stay. If it is **elastic**, raising the price **lowers** revenue, because enough customers leave to outweigh the higher price.

## Exercises 2.1-2.2

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**2.1** Define *price elasticity of supply (PES)*.

[2]

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**2.2** Price rises by 20% and quantity supplied rises by 10%. Calculate the PES and classify the supply.

[2]

## Exercises 2.1-2.2

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2.1 Define *price elasticity of supply (PES)*. [2]

2.1

- **PES** measures how much quantity supplied responds to a change in price (K)
- $$\text{PES} = \frac{\% \text{ change in quantity supplied}}{\% \text{ change in price}}$$

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2.2 Price rises by 20% and quantity supplied rises by 10%. Calculate the PES and classify the supply. [2]

2.2

- quantity supplied rises 10% when price rises 20%

$$\text{PES} = \frac{10}{20} = \mathbf{0.5}$$

- less than 1, so supply is **inelastic** (K)

## Exercises 2.3-3.1

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**2.3** State two factors that make supply more elastic.

[2]

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**3.1** Supply is most likely to be price **inelastic** when:

[1]

☐

**A** the firm has spare capacity

**B** the good can be stored as stock

**C** the good takes a long time to produce

**D** factors move easily into the industry

## Exercises 2.3-3.1

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**2.3** State two factors that make supply more elastic.

[2]

**2.3**

- any **two** of: **more time** / **spare capacity** / **stocks held** / **easily switched factors** (K, K)

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**3.1** Supply is most likely to be price **inelastic** when:

[1]

☐

- A** the firm has spare capacity
- B** the good can be stored as stock
- C** the good takes a long time to produce
- D** factors move easily into the industry

**3.1 C**

- a **long production time** makes supply slow to respond, so it is **inelastic** (K)
- A, B and D all make supply *more* elastic

## Exercises 3.2-3.3

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**3.2** Explain why the supply of fresh vegetables is often price inelastic in the short run.[4]

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**3.3** Analyse why the supply of a manufactured good is usually more elastic than the supply of a farm crop. [6]

## Exercises 3.2-3.3

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**3.2** Explain why the supply of fresh vegetables is often price inelastic in the short run.[4]

### 3.2

- fresh vegetables take a **growing season** and cannot be stored long (K)
- if the price rises, farmers cannot quickly grow more this season (An)
- quantity supplied responds little → supply is **inelastic in the short run** (An)

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**3.3** Analyse why the supply of a manufactured good is usually more elastic than the supply of a farm crop. [6]

### 3.3

- a manufactured good can be made faster: extra shifts, spare capacity, or stocks (K)
- when the price rises, firms raise output quickly → supply is **elastic** (An)
- a farm crop takes a whole season → output cannot rise quickly → supply is **inelastic** (An)

## Exercise 3.4

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**3.4** Using initial values, price rises from \$20 to \$22 and quantity supplied rises from 200 to 210, with other supply influences unchanged. Calculate PES, classify supply and explain one reason supply may become more elastic over a longer period. [4]

## Exercise 3.4

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**3.4** Using initial values, price rises from \$20 to \$22 and quantity supplied rises from 200 to 210, with other supply influences unchanged. Calculate PES, classify supply and explain one reason supply may become more elastic over a longer period. [4]

### 3.4

Price rises 10% and quantity 5%;  $PES = 5/10 = 0.5$ , inelastic; a explained time-related response, such as expanding capacity or training workers to increase output, can increase elasticity.