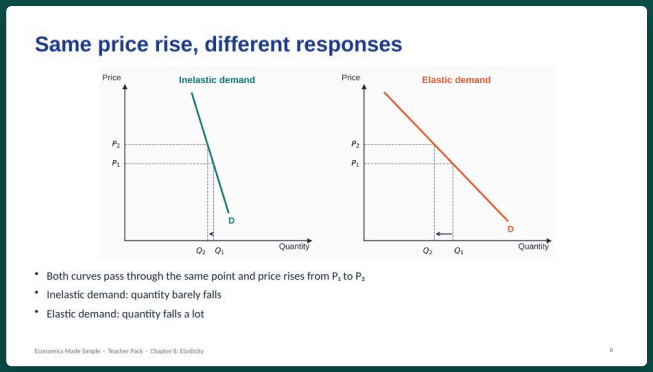
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Economics Made Simple

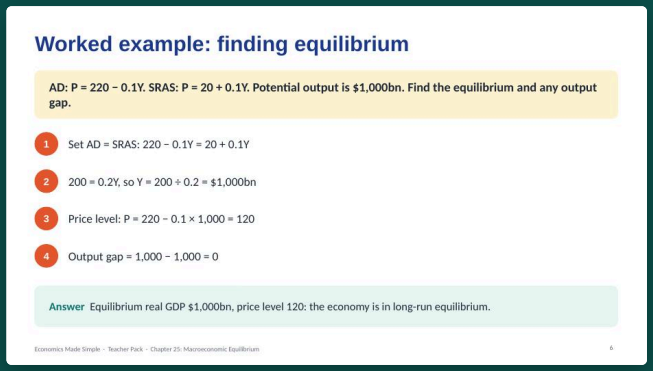
TEACHER PACK

30 ready-to-teach chapters for AP, Cambridge 9708 and IB

EDITABLE SLIDES · LESSON PLANS · WORKSHEETS · TESTS · MARK SCHEMES









THE ECONTUTORIALS TEAM

ECONTUTORIALS.COM

CHAPTER 8

Elasticity

8

Two ready-to-teach lessons · Economics Made Simple

AP Microeconomics 2.3–2.5
Cambridge 9708 AS 2.2–2.3
IB Economics 2.5–2.6

EconTutorials

Learning objectives

1. Define and calculate price elasticity of demand (PED), including the midpoint method
2. Explain the determinants of PED and use the total revenue test
3. Calculate and interpret income elasticity (YED) and cross elasticity (XED)
4. Calculate PES and explain what makes supply elastic or inelastic
5. Apply elasticity to taxes, pricing decisions and government policy

Syllabus alignment

AP Micro
Unit 2: 2.3, 2.4, 2.5

Cambridge 9708
AS 2.2 and 2.3 (2026–2028)

IB Economics
Unit 2: 2.5 and 2.6 (SL/HL)

Starter: what would you do?

5 min The price of each item rises by 20% tomorrow. For each one, would you buy a lot less, a little less, or the same amount?

Petrol for the family car

Your favourite brand of crisps

Salt

Cinema tickets

A phone charger cable

Holidays abroad

Price elasticity of demand

Key term

The responsiveness of quantity demanded to a change in the good's own price: %ΔQd ÷ %ΔP.

PED = %ΔQd ÷ %ΔP

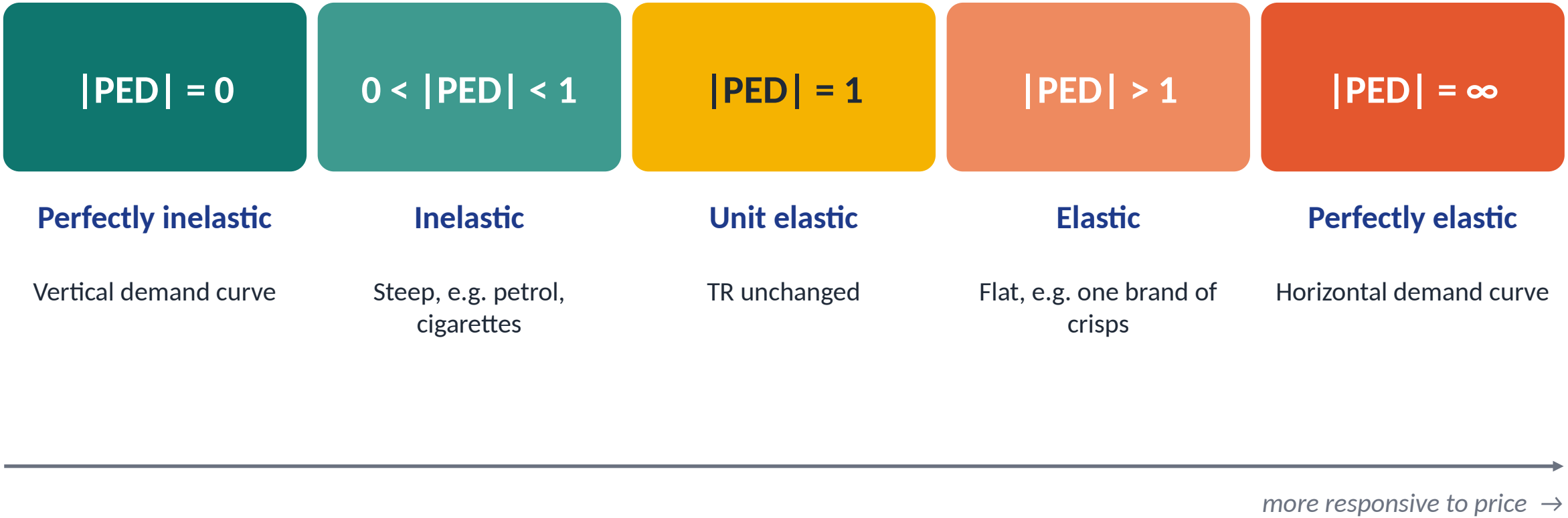
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PED is almost always negative (the law of demand), so we compare its absolute value with 1

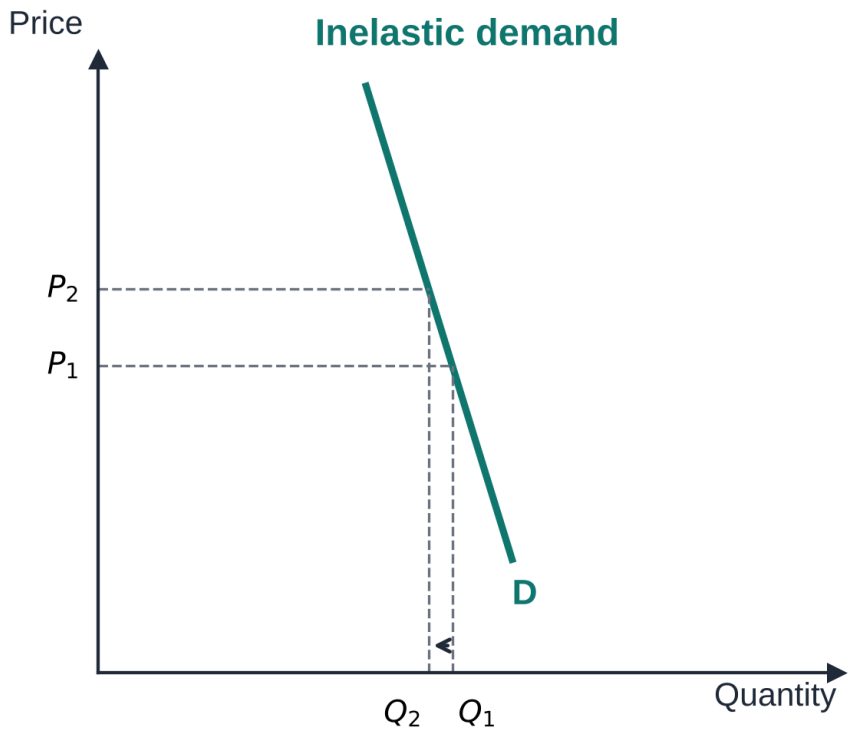
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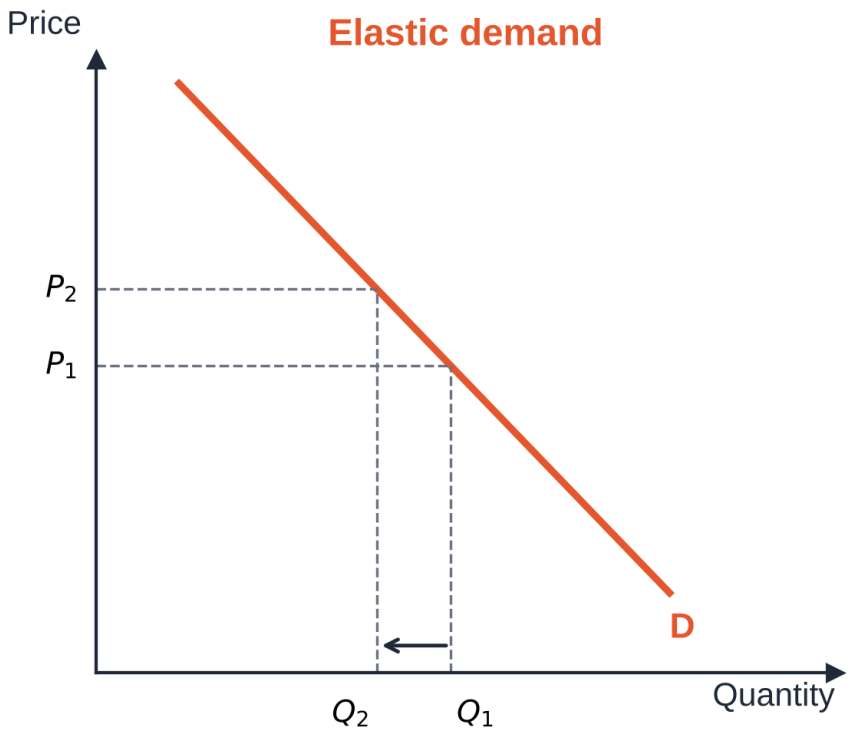
Elasticity is about percentages, not slopes: the same curve can be elastic in one place and inelastic in another

The elasticity scale



Same price rise, different responses





- Both curves pass through the same point and price rises from P_1 to P_2
- Inelastic demand: quantity barely falls
- Elastic demand: quantity falls a lot

Worked example: calculating PED

The price of a sandwich rises from $4 to $5. Daily sales fall from 120 to 84. Calculate PED.

1. Simple method: %ΔQd = (84 − 120) ÷ 120 × 100 = −30%
2. %ΔP = (5 − 4) ÷ 4 × 100 = +25%, so PED = −30 ÷ 25 = −1.20
3. Midpoint method (AP): %ΔQd = −36 ÷ 102 = −35.29%, %ΔP = 1 ÷ 4.5 = +22.22%
4. PED (midpoint) = −35.29 ÷ 22.22 = −1.59

Answer PED = −1.20 (simple) or −1.59 (midpoint): demand is elastic either way. Use the method your exam board expects.

Check for understanding

Price falls by 10% and quantity demanded rises by 25%. PED is...

A −0.4, inelastic

B −2.5, elastic

C −1.5, elastic

D −25, elastic

Show answers on mini-whiteboards: A, B, C or D

CHAPTER 8 · LESSON PLAN

Elasticity

Two 60-minute lessons · Slides: Ch08-Elasticity-Slides.pptx · Worksheet, test and exit tickets in this pack

AP	AP Microeconomics Unit 2: topics 2.3 (PED and the total revenue test), 2.4 (PES), 2.5 (income and cross-price elasticity)
Cambridge	Cambridge International AS & A Level Economics 9708 (2026–2028), AS topic 2.2 (price, income and cross elasticity of demand) and 2.3 (price elasticity of supply)
IB	IB Economics (SL/HL) Unit 2: 2.5 Elasticity of demand and 2.6 Elasticity of supply
Prior learning	Demand and supply curves, shifts versus movements, calculating percentage changes
Resources	Slide deck, student worksheet (one per student), mini-whiteboards, calculators, exit tickets

Learning objectives

1. Define and calculate price elasticity of demand (PED), including the midpoint method.
2. Explain the determinants of PED and use the total revenue test.
3. Calculate and interpret income elasticity (YED) and cross elasticity (XED).
4. Calculate PES and explain what makes supply elastic or inelastic.
5. Apply elasticity to taxes, pricing decisions and government policy.

Key vocabulary

Term	Meaning
Price elasticity of demand (PED)	The responsiveness of quantity demanded to a change in the good's own price: %ΔQd ÷ %ΔP.
Elastic	|PED| > 1: quantity changes by a larger percentage than price.
Inelastic	|PED| < 1: quantity changes by a smaller percentage than price.
Unit elastic	|PED| = 1: quantity and price change by the same percentage, so total revenue is unchanged.
Income elasticity of demand (YED)	%ΔQd ÷ %ΔIncome. Positive for normal goods, negative for inferior goods, above 1 for luxuries.
Cross elasticity of demand (XED)	%ΔQd of good A ÷ %ΔP of good B. Positive for substitutes, negative for complements.
Price elasticity of supply (PES)	%ΔQs ÷ %ΔP. Depends mainly on spare capacity, stocks and time.
Total revenue (TR)	Price × quantity sold. The total revenue test uses the direction TR moves to infer elasticity.

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CHAPTER 8 · STUDENT WORKSHEET

Elasticity

Show your working for every calculation. Round percentages to two decimal places.

Name: Class: _____ Date: _____

_____

_

Formulas PED = %ΔQd ÷ %ΔP YED = %ΔQd ÷ %ΔIncome XED = %ΔQd(A) ÷ %ΔP(B) PES = %ΔQs ÷ %ΔP %Δ = (new − old) ÷ old × 100

Task 1: Calculating PED [8 marks]

The table shows the demand for a café's smoothies. For each price change, calculate %ΔQd, %ΔP, PED (simple method) and total revenue before and after. State whether demand is elastic or inelastic.

Price	Quantity	%ΔQd	%ΔP	PED	Total revenue ($)
$10	20				
$8	30				
$6	40				
$4	50				

Elastic or inelastic between each pair of prices? _____

Task 2: The total revenue test [6 marks]

(a) A bus company raises fares by 8% and total revenue rises. What can you say about PED? Explain.

(b) A phone maker cuts prices by 15% and total revenue rises. What can you say about PED? Explain.

(c) Draw a diagram to show why a price rise reduces total revenue when demand is elastic. Shade the gain and the loss.

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Diagram

Task 3: YED and XED [6 marks]

(a) Incomes rise by 4%. Demand for organic vegetables rises by 10%. Calculate YED and classify the good.

(b) Incomes rise by 4%. Demand for instant noodles falls by 2%. Calculate YED and classify the good.

(c) The price of printers falls by 20% and demand for ink cartridges rises by 12%. Calculate XED and state the relationship.

Task 4: PES [4 marks]

(a) The price of strawberries rises by 25% and quantity supplied rises by 5% in the same week. Calculate PES and explain the value.

(b) Give two reasons why the supply of a factory-made T-shirt is likely to be more elastic than the supply of strawberries.

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CHAPTER 8 · CHAPTER TEST MARK SCHEME

Elasticity

Total 50 marks. Award marks for correct economics even where wording differs.

Section A: Multiple choice

Q	Answer	Reason
1	C	−4 ÷ 10 = −0.4.
2	B	Tap water has no close substitute and takes a tiny share of income.
3	D	Price and TR moved in opposite directions, so |PED| > 1.
4	B	Negative YED means inferior.
5	A	They are complements, so XED is negative.
6	C	Upper half elastic, lower half inelastic.
7	B	Stocks allow quick increases in supply.
8	C	%ΔQs = 20%, %ΔP = 25%, PES = 0.8.
9	D	Quantity does not change, so price rises by the full tax.
10	A	Inelastic demand means quantity (the tax base) falls little.

Question 11: Cinema pricing [10]

(a) %ΔQd = (2300 − 2000) ÷ 2000 = +15%; %ΔP = (8 − 10) ÷ 10 = −20%; PED = 15 ÷ (−20) = −0.75. [2]

(b) TR before = 10 × 2,000 = $20,000; after = 8 × 2,300 = $18,400. Revenue fell by $1,600 because demand is inelastic (|PED| = 0.75). [3]

(c) Any two, explained: availability of substitutes (streaming, other cinemas); proportion of income (family tickets); time (habits change). [2 + 2]

(d) Examples: costs per extra customer, rivals' likely response, sales of snacks (complements), capacity limits. [1]

Question 12: Fuel tax [10]

(a) Few close substitutes in the short run; journeys to work are necessary; switching car or moving home takes time; habit. [3]

(b) Steep demand, supply shifts up by the tax; consumer price rises by most of the tax; producers bear a small part. [4]

(c) Over time drivers buy fuel-efficient or electric cars, use public transport, car-share or move closer to work. [3]

Question 13 [20]

Indicative content (credit any valid, well-applied points):

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