BS2243 – Lecture 8
Strategic pricing and price discrimination

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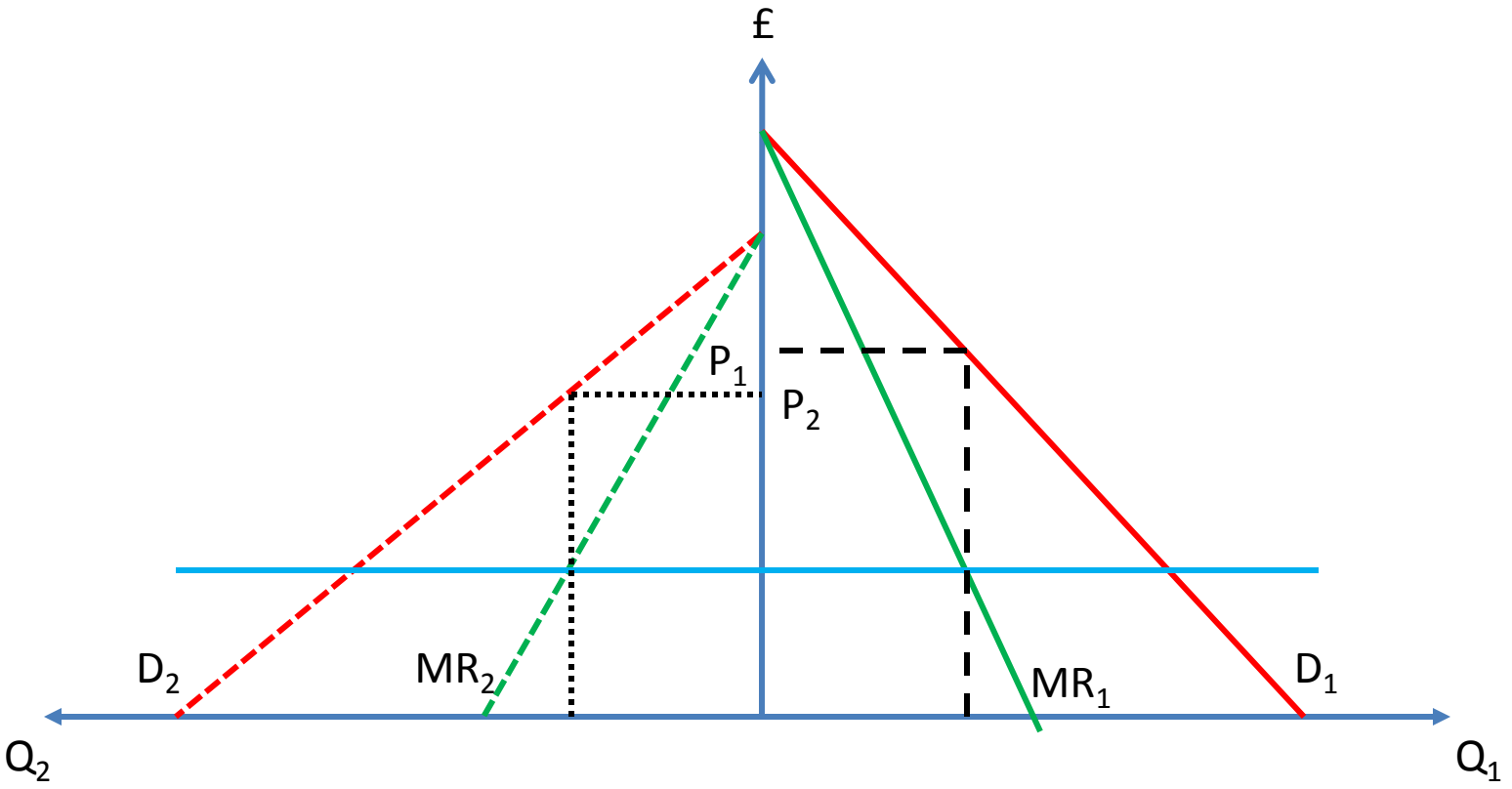
Strategic pricing

- Simple price discrimination
- Two-part tariff
- Tie-in sales
- Quantity and quality choice

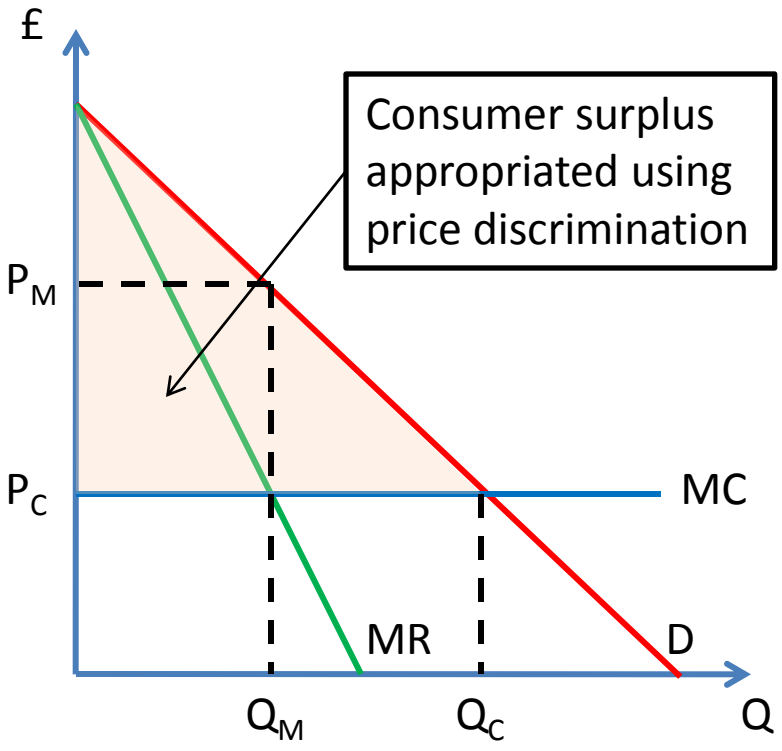
Simple price discrimination - conditions

- Firm must have market power to set price
- Firm must be able to infer willingness to pay
- Firm must be able to prevent resales
  - Services
  - Warranties
  - “Adulteration” of product
  - Transactions cost
  - Government/contractual intervention

Simple price discrimination – opportunity

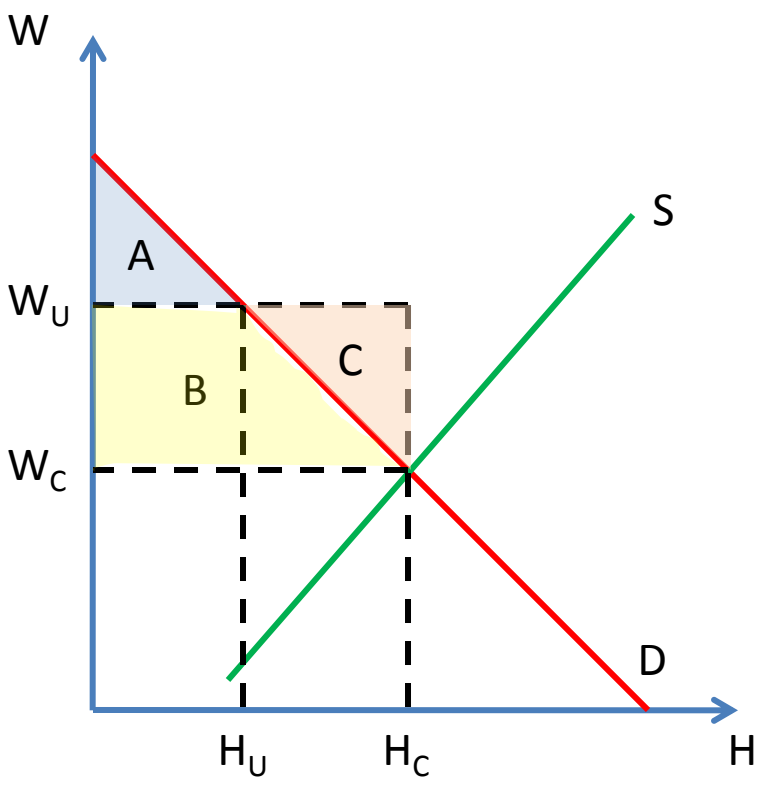


Simple price discrimination – gains



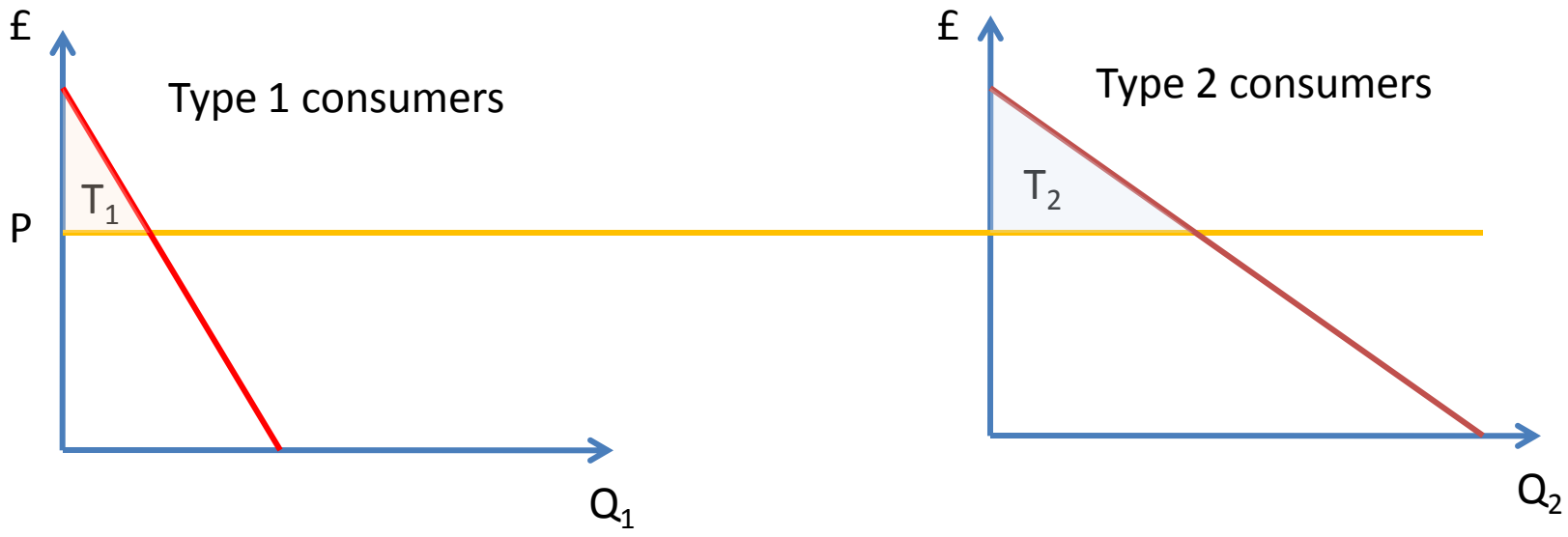
- Competition: (P_C , Q_C)
- Monopoly: (P_M , Q_M)
- Discriminating monopolist:
  - D is the MR curve
  - MC = MR at Q_C
  - Appropriates the consumer surplus generated in a competitive market

Simple price discrimination – example



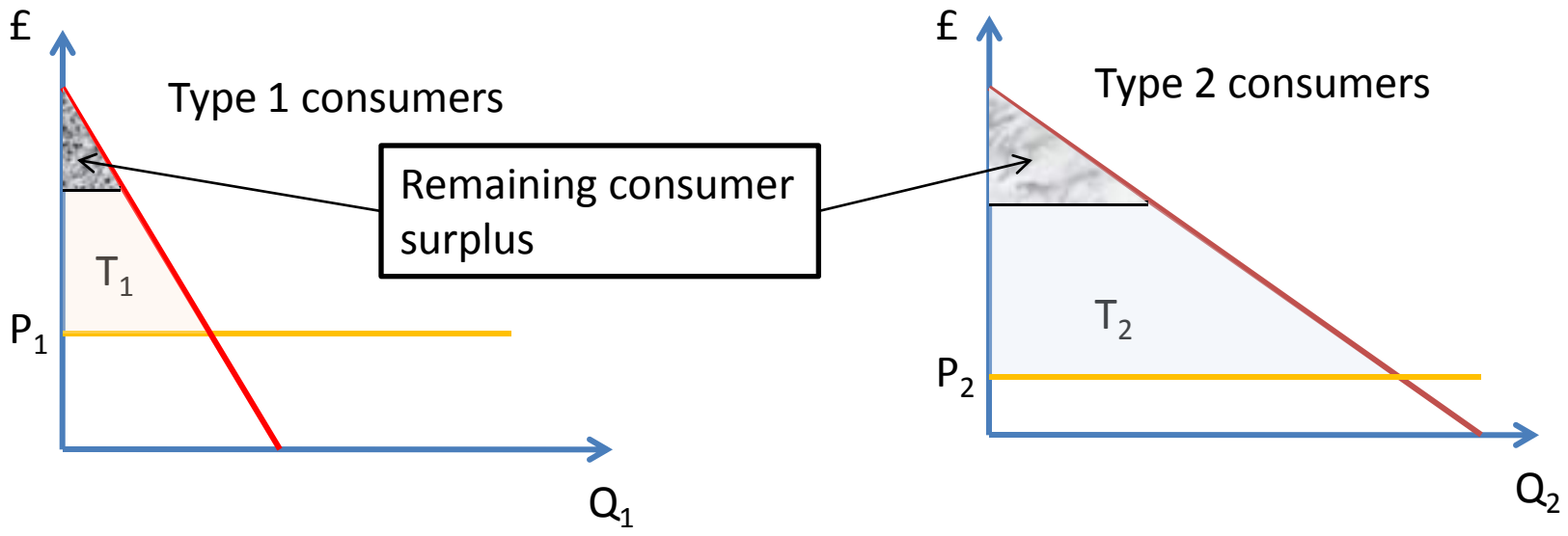
- Market: (W_C , H_C)
  - If labourers are not unionised, firm's surplus is (A + B)
- Labourers are unionised
  - Either fully price discriminate, charging W_c for the last hour of labour supplied
  - Or set wage at W_U and simultaneously set H_C as the minimum number of hours

Two-part tariff – basics



- A fixed charge for one product and a marginal charge for another
- If the firm reduces price, it can charge a higher lump sum fee
- If it cannot distinguish between the two types of customers, it will not be able to charge more than T_1 as lump sum fee
- Strategy would have two components: (1) the trade off between price and lump sum fee, and (2) whether or not to focus on Type 2 consumers only

Two-part tariff – strategy



- The firm offers two combinations (T_1, P_1) and (T_2, P_2): $T_1 < T_2$ and $P_1 > P_2$
- Type 1 consumers choose (T_1, P_1) because the lump sum fee is low and they do not lose all their consumer surplus
- Type 2 consumers choose (T_2, P_2) because the low price generates a lot of consumer surplus, not all of which is lost to the lump sum fee
- The consumers self select themselves, revealing their type to the firm

Tie-in sales – justifications

- Efficiency
- Evade regulations
- Hidden price discounts
- Quality assurance

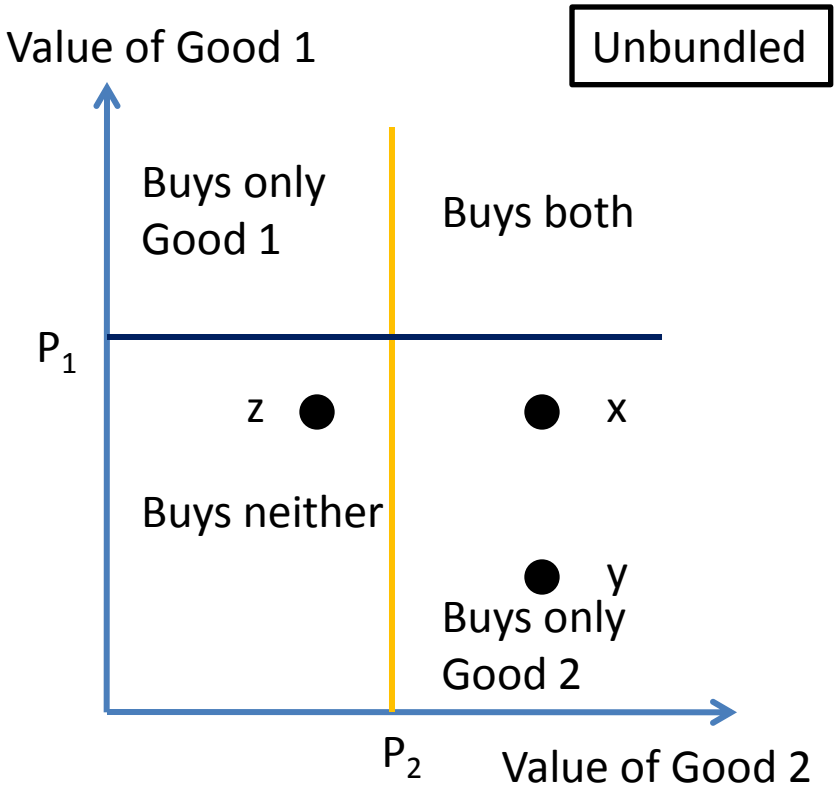
Tie-in sales – monopolised products

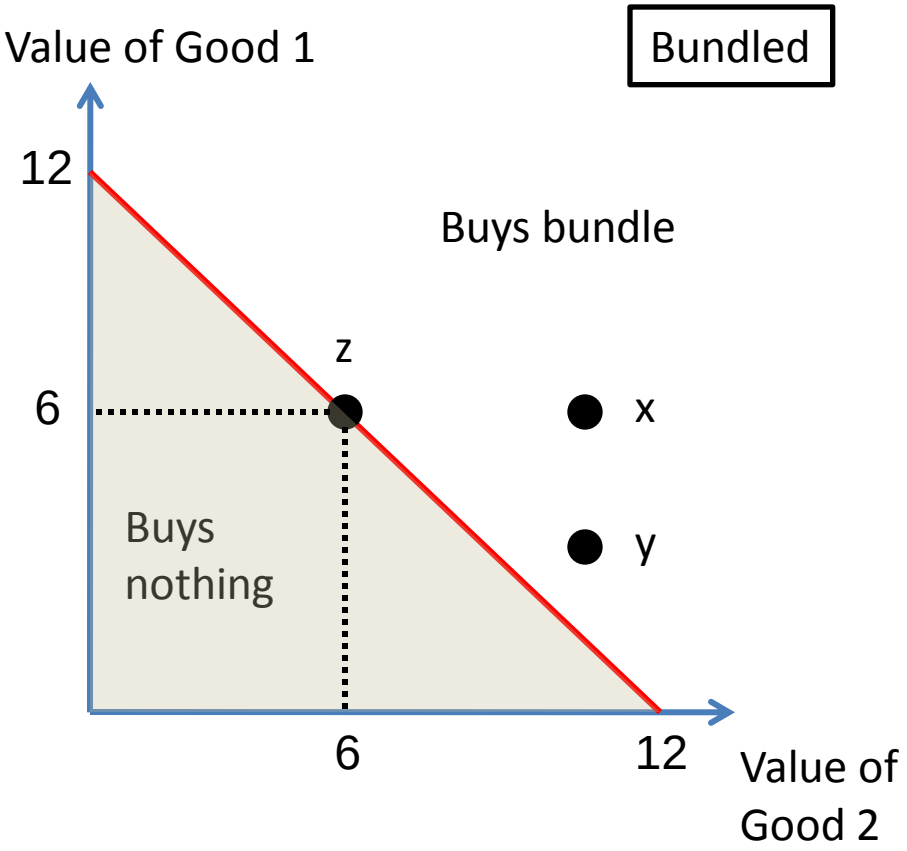
	Type 1 consumers	Type 2 consumers
Amount willing to pay for Good A	£ 9,000	£ 10,000
Amount willing to pay for Good B	£ 3,000	£ 2,000
Amount willing to pay for Goods A and B	£ 12,000	£ 12,000
Revenue from separate sales = (9,000 x 2) + (2,000 x 2) = £22,000		
Revenue from tied-in sales = (12,000 x 2) = £24,000		

	Type 1 consumers	Type 2 consumers
Amount willing to pay for Good A	£ 9,000	£ 10,000
Amount willing to pay for Good B	£ 500	£ 2,000
Amount willing to pay for Goods A and B	£ 9,500	£ 12,000
Revenue from separate sales = (9,000 x 2) + (500 x 2) = £19,000		
Revenue from tied-in sales = (9,500 x 2) = £19,000		

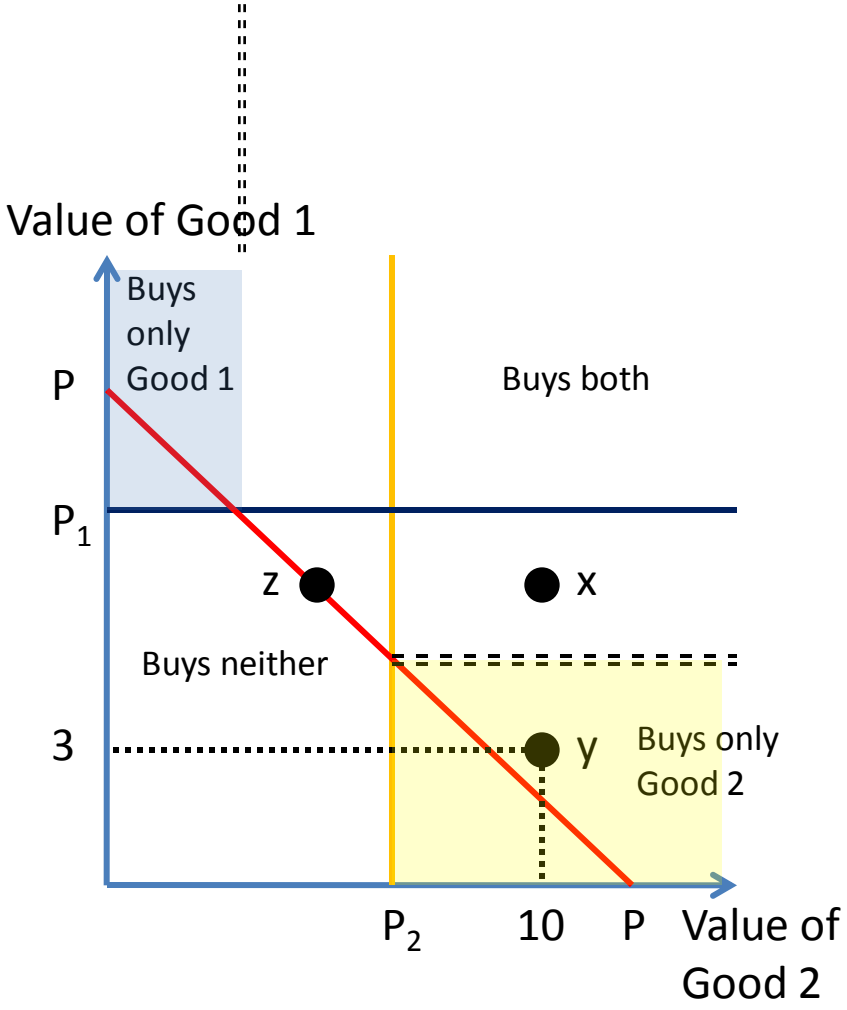
Lesson: Tie-in sales work when the willingness to pay for different goods is inversely correlated for different consumer types.

Tie-in sales – mixed bundling – I





Tie-in sales – mixed bundling – II



- Prices:
  $P_1 = 8$, $P_2 = 8$, $P = 12$

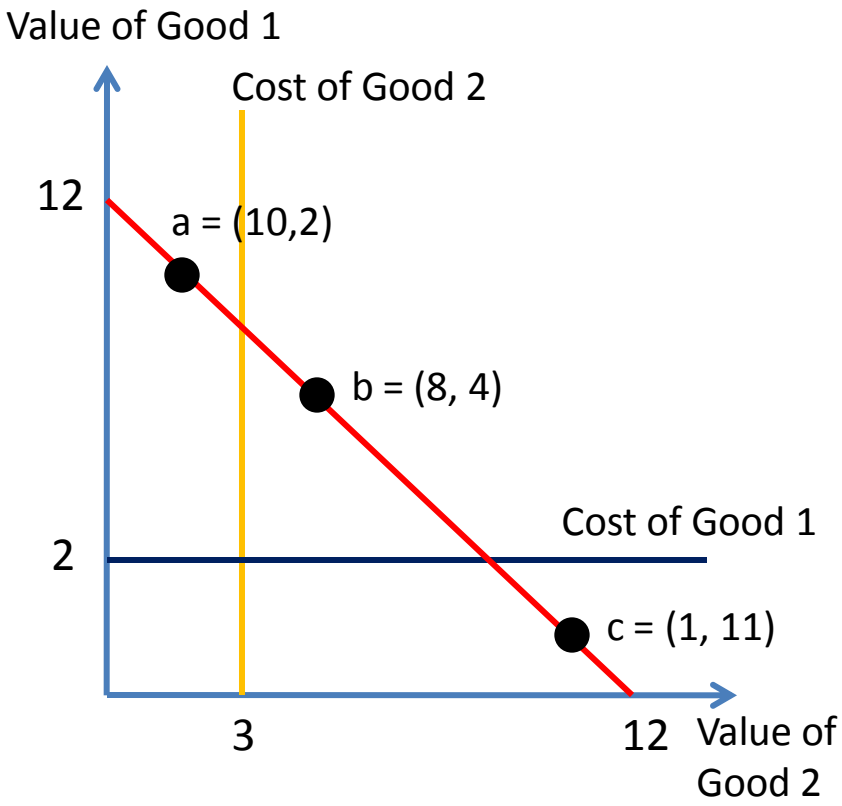
  <u>Consumers</u>:

- At *y* (3, 10):
  CS of Good 2 = 10 – 8 = 2
  CS of bundle = 13 – 12 = 1
  Buy only Good 2

- At *x* (6, 10):
  CS of Good 2 = 10 – 8 = 2
  CS of bundle = 16 – 12 = 4
  Buys fixed price bundle

Mixed bundling

Tie-in sales – mixed bundling – III



- Three types of consumers: a, b, c
- Cost:
  Good 1 = 2, Good 2 = 3
- Pricing separately:
  P_1 = 8, Profit = (8 – 2) x 2 = 12
  P_2 = 11, Profit = (11 – 3) = 8
  Total profit = 20
- Bundling:
  P = 12, Profit = (12 – 5) x 3 = 21
- Mixed bundling:
  P_1 = 9.99, P_2 = 10.99, P = 12
  a buys only Good 1, *b* buys bundle, *c* buys only Good 2
  Profit = 7.99 (from *a*) + 7 (from *b*) + 7.99 (from *c*)
  = 22.98

Mixed bundling

Quantity and quality choice

- Purchasing a minimum quantity
- Selection of price schedules before demand is realised
- Premium for priority
- Auctions
- Quality choice