Market Demand

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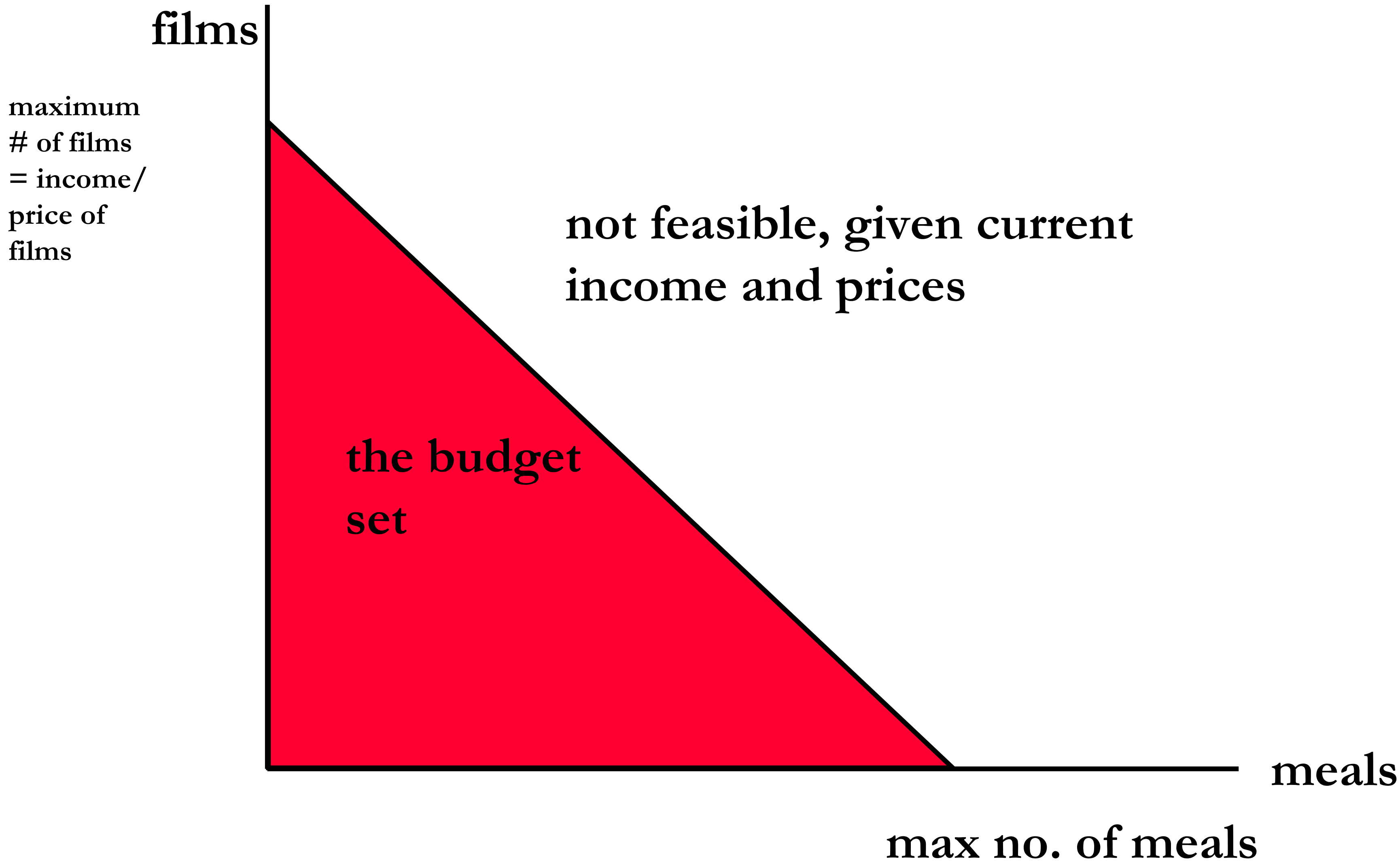
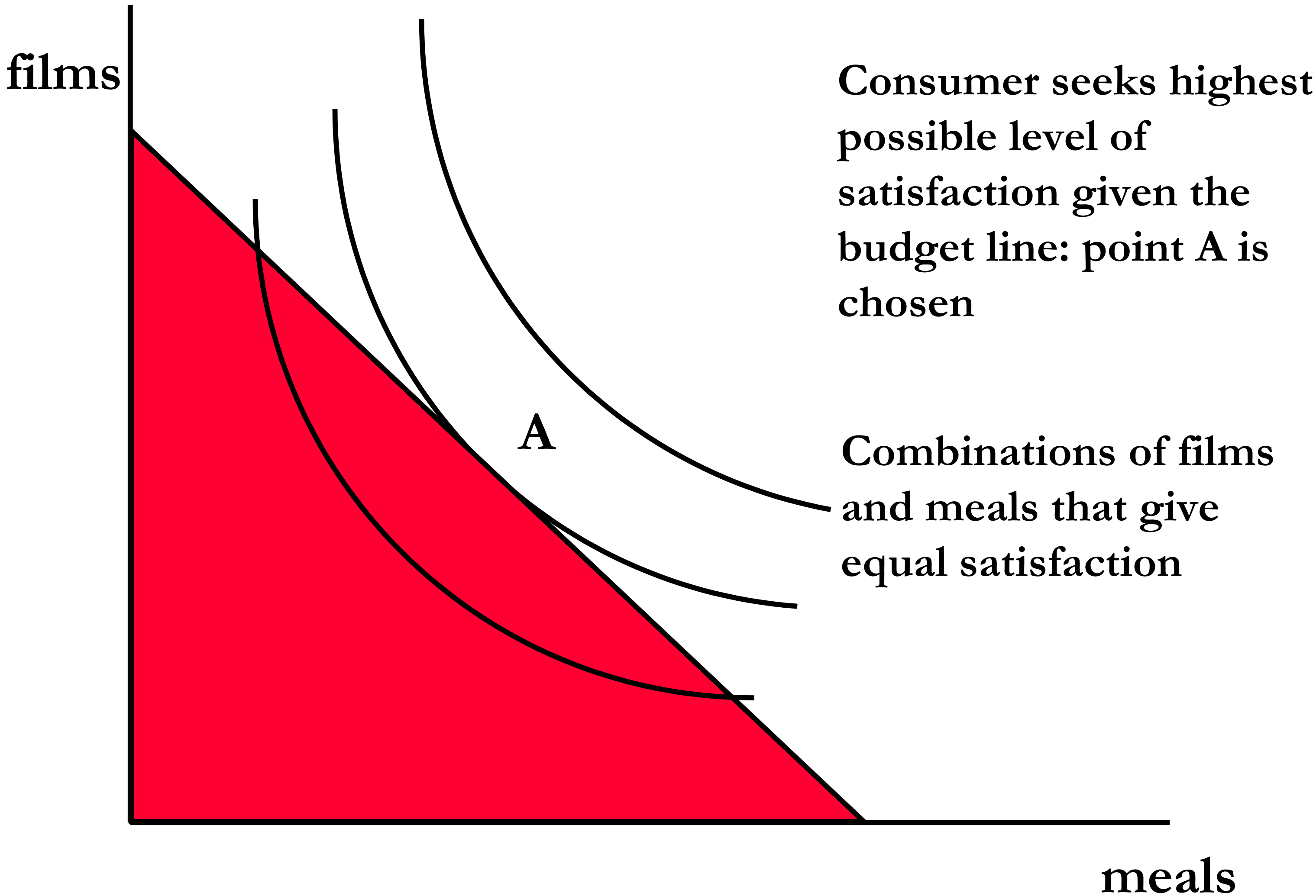
outline

- what determines the demand for a good?
  - the household budget
  - the price of the product
  - the price of other products
  - consumer tastes
- how does a change in income affect demand?
  - normal, luxury, necessity, inferior and Giffen goods
- how does a change in price affect demand?
  - substitution and income effects

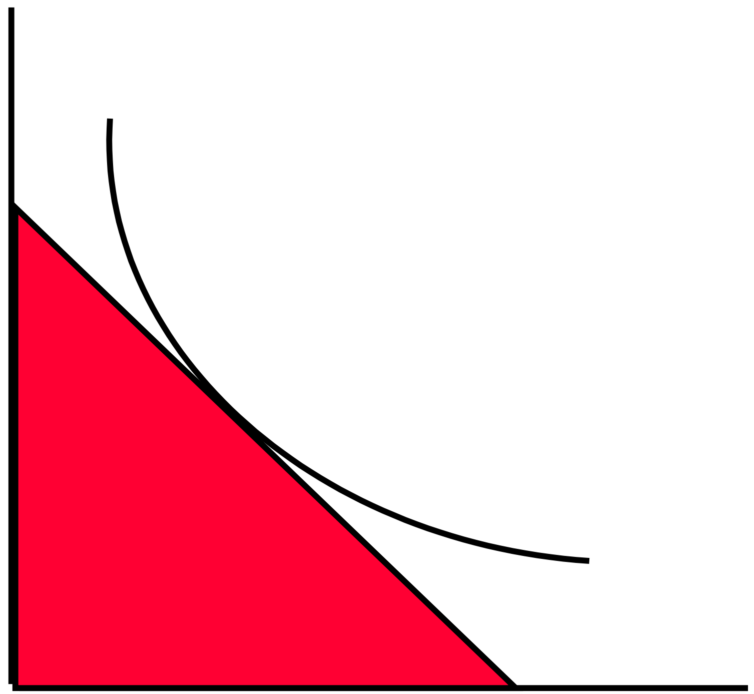
the budget line



indifference curves

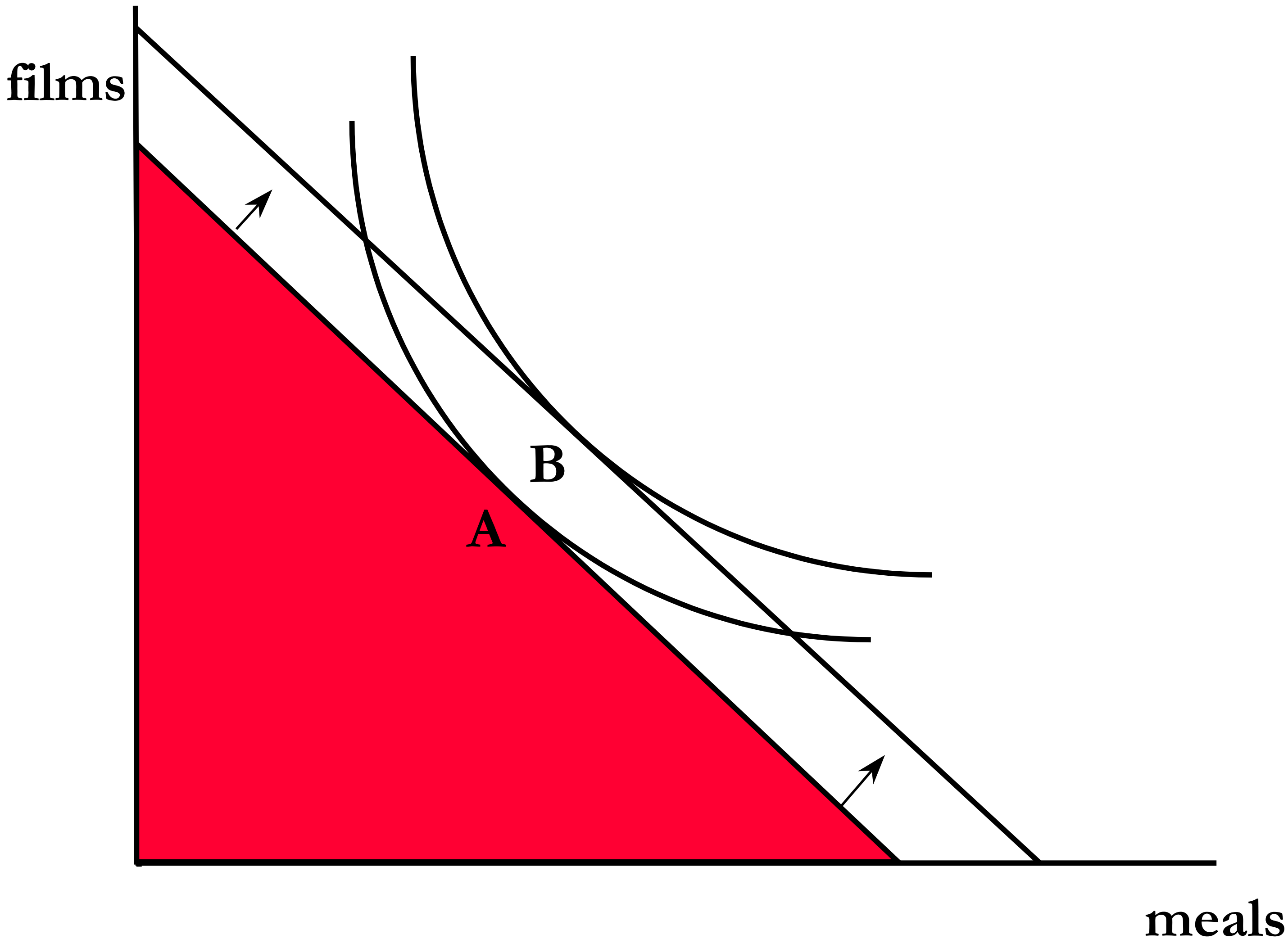


market and personal exchange rates



- The slope of the budget line reflects the trade-off between the goods given by relative prices: the market exchange rate. This is usually called the price-ratio.
- The slope of the indifference curve reflects the trade-off between the goods given by relative preferences: the private exchange rate. This is usually called the marginal rate of substitution.
- Everyone consuming the good has the same private exchange rate, regardless of their preferences.

a rise in income



income elasticity of demand

- measures sensitivity of demand to changes in income

  % change in demand for a good/

  % change in income
- good is:
  - *normal* if elasticity is positive
    - *luxury* if greater than 1
    - *necessity* if less than 1
  - *inferior* if elasticity is negative

estimates of income elasticities

• Tobacco	-0.50
• Fuel and Light	0.30
• Food	0.45
• Alcohol	1.14
• Clothing	1.23
• Durables	1.47
• Services	1.75

Source: Begg et al., page 67, taken from Muellbauer (1977).

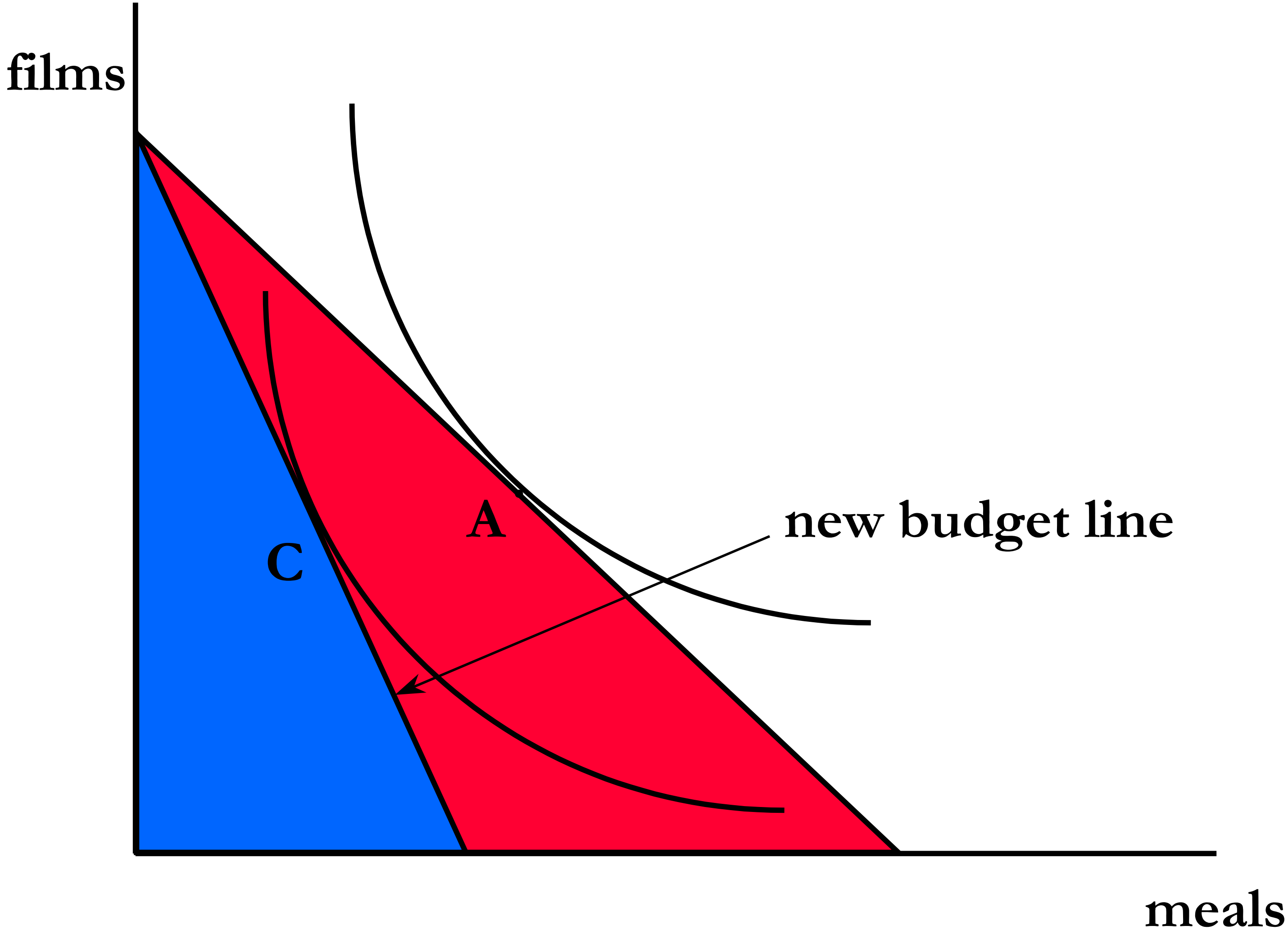
effect of general inflation

- suppose that all prices, and income, increase in the same proportion
- what happens to demand?
- nothing
  - tastes do not change
  - the budget line remains in the same place

a rise in price of one good

- suppose the price of meals increases, while income and the price of films remain constant
- the budget line rotates inwards
- can still buy as many films as before, but not as many meals
- budget line rotates with price rise

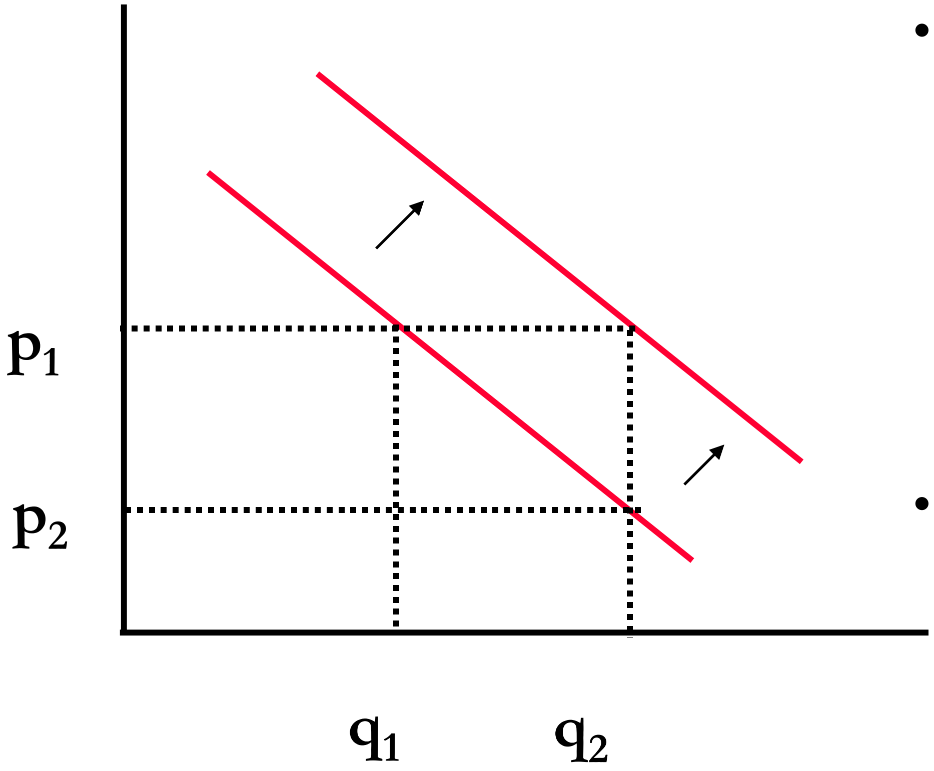
budget line rotates with price rise



substitution and income effects

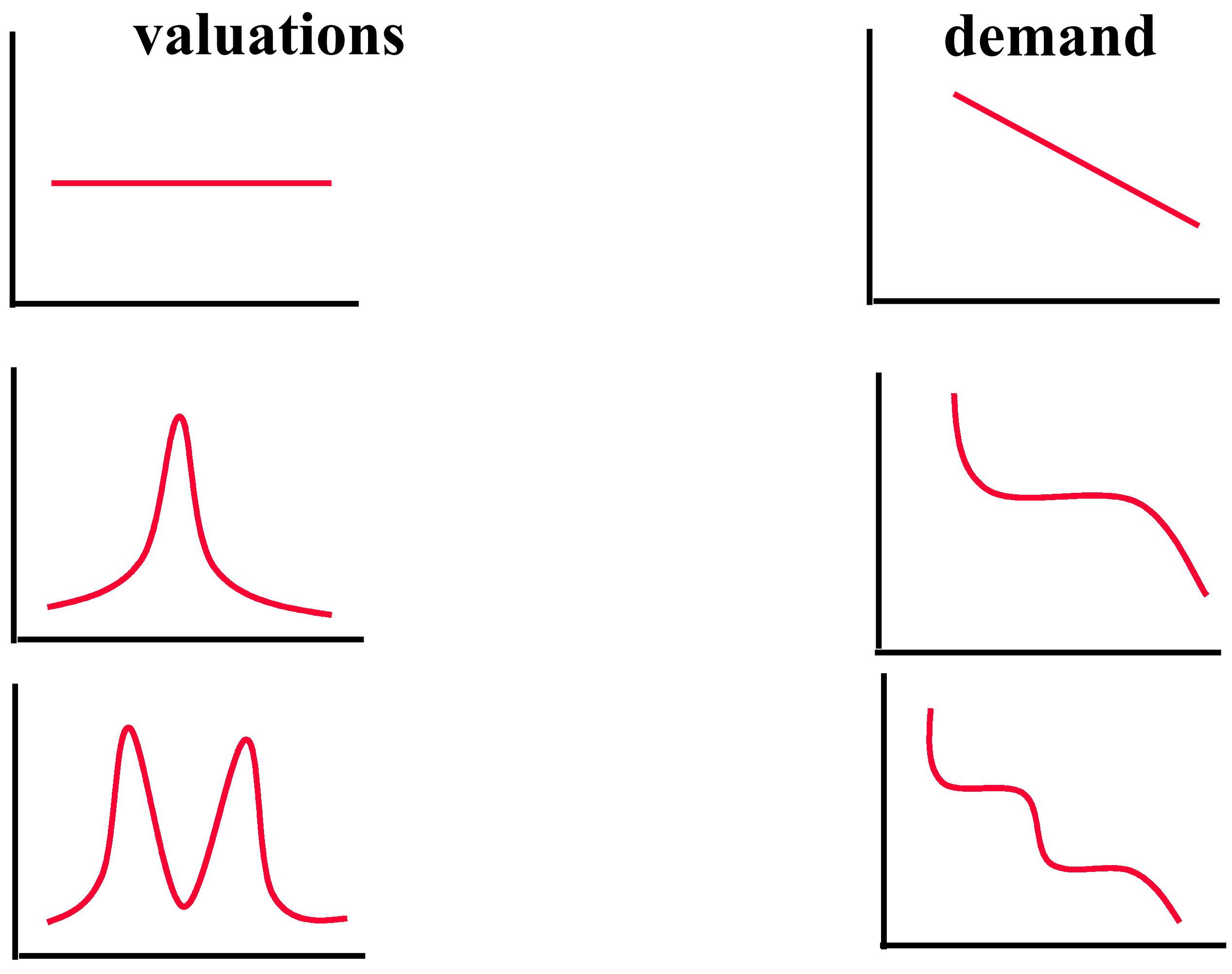
- the rise in price causes demand for meals to fall for *two* reasons:
- meals are more expensive relative to films
  - *the substitution effect*
- the customer's real income has fallen
  - *the income effect*
- the substitution effect is always negative
- the income effect can be positive or negative
  - normal, inferior and Giffen goods
- for a normal good, both effects are negative. Hence, for a normal good, the demand curve always slopes downwards.

the demand curve



- A reduction in price yields a movement *along* the demand curve. A change in income or tastes, or the prices of other products, will shift the demand curve.
- Demand could rise from q1 to q2 either because price has fallen from p1 to p2, or because the demand curve has shifted out.

demand curves and consumer tastes



measures of sensitivity to price

- the slope of the demand curve tells us how much demand changes in response to a change in the price
- own-price elasticity of demand

  % change in quantity of *meals* demanded/

  % change in price of *meals*
- cross-price elasticity of demand

  % change in quantity of *films* demanded/

  % change in price of *meals*
  - positive for substitutes, negative for complements

cross-price and own-price elasticities

	Cigarette Elasticities		
	Per Day	Participation	Per Day Among Smokers
Cigarettes	-0.32	-0.18	-0.14
Beer	-0.14	-0.19	0.04
Income	-0.13	-0.09	-0.01

	Beer Elasticities		
	Per Day	Participation	Per Day Among Drinkers
Cigarettes	0.50	0.39	0.12
Beer	-0.97	-0.73	-0.23
Income	0.19	0.19	0.02

Source: Decker and Schwartz, 2000

own-price elasticity and spending

- if elasticity = -1, spending is constant
- if elastic (elasticity < - 1),
  - total spending rises as price falls
  - total spending falls as price rises
- if inelastic (elasticity > - 1)
  - total spending rises as price rises
  - total spending falls as price falls
- If the elasticity is zero, the demand curve is vertical. If the elasticity is infinite, the demand curve is horizontal. If the elasticity is -1, the demand curve is a rectangular hyperbola.

Brazilian coffee exports

	1993	1994	1995
Price $/lb	0.9	2.0	2.1
Quantity	113.0	102.0	85.0
Total Revenue	101.7	204.0	178.5

summary

- theory of consumer choice analyses the responses of customers to income and price changes
- these responses are measured by elasticities, which can be estimated
- the effect of a price rise on the demand for a good depends upon the balance between the substitution and income effects
- theory of consumer choice doesn’t just apply to goods and services, can also be used to think about the allocation of time, labour supply decisions and saving behaviour
- useful for businesses and policymakers

syndicate topics

- if people don't spend their lives solving mathematical problems, why do economists pretend that they do?
- what other shapes could indifference curves take?
- do demand curves always slope downwards?
- is it better to give asylum seekers cash or food vouchers?
- if interest rates rise, do consumers save more?
- if the government introduces an energy tax, how, and by how much, should the government compensate pensioners?
- if income tax rates fall, will workers work harder?