tutor2u

Cross price elasticity of demand

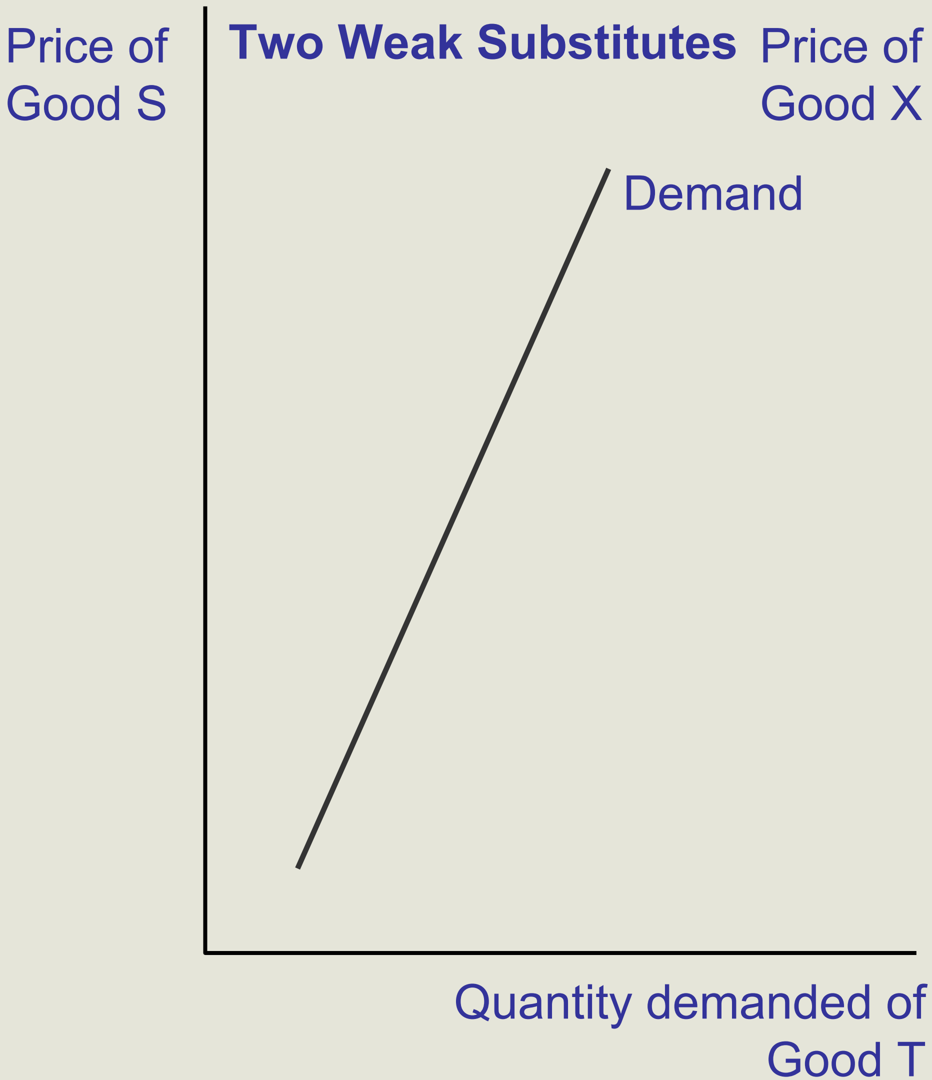
AS Economics revision presentation on cross price elasticity of demand, the impact of changes in the prices of substitutes and complements and the applications that a business can make of values for cross price elasticity of demand

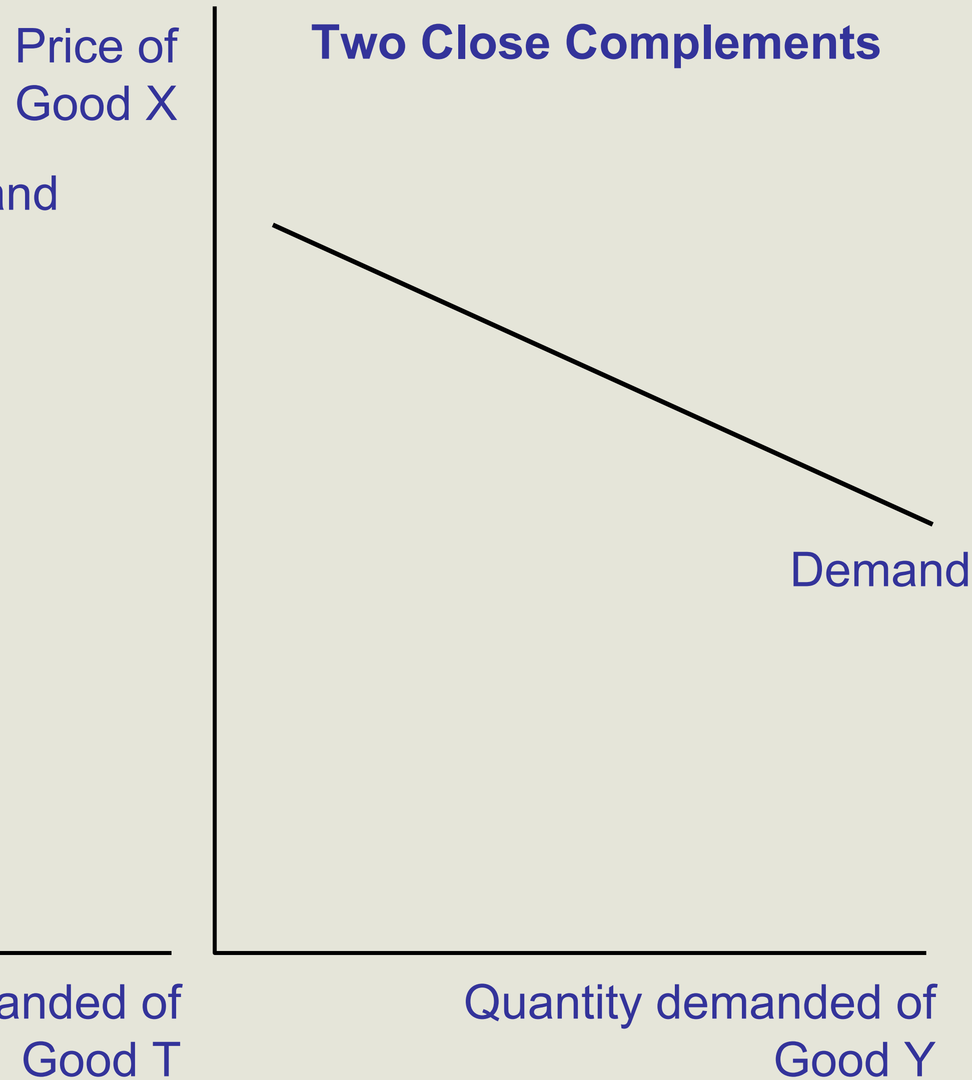
WINNER BETT AWARDS

Cross Elasticity of Demand (CPed)

- Cross price elasticity (CPed) measures the responsiveness of demand for good X following a change in the price of good Y (a related good)
- With cross price elasticity we make an important distinction between substitute products and complementary goods and services
- Substitutes: With substitute goods such as brands of cereal an increase in the price of one good will lead to an increase in demand for the rival product. Cross price elasticity will be positive
- Complements: With goods that are in complementary demand when there is a fall in the price of e.g. DVD players we expect to see more DVD players bought, leading to an expansion in market demand for DVD videos. The cross price elasticity of demand for two complements is negative

Substitutes and Complements





Cross Price Elasticity for Substitutes

Product	Close Substitute	Weak Substitute	Good with no relationship
Coca Cola			
Camembert Cheese			
Euro Star Journey from London to Paris			
Dowe Egberts Filter Coffee			
Ticket to a film at the UGC Cinema in Slough			

Complementary Goods

Product	Close Complement	Weak Complement	Good with no relationship
Personal Computer			
Camembert Cheese			
Short Break Weekend in Paris			

Estimated Elasticity for Alcohol

Estimated elasticities for the UK, 1993-96			
		Change in quantity of	
Change in price of			
	Beer	Wine	Spirits
Beer	-0.76	-0.6	-0.59
Wine	-0.17	-1.69	0.66
Spirits	-0.21	0.77	-0.86
Source: Crawford and Tanner (IFS, Fiscal Studies 1999)			

Importance of cross price elasticity for businesses

- Firms can use cross elasticity of demand (XED) estimates to predict:
- The impact of a rival's pricing strategies on demand for their own products:
  - If a competitor cuts the price of a rival product, firms use XED to predict the effect on the quantity demanded and total revenue of their own product.
- Pricing strategies for complementary goods:
  - Popcorn and cinema tickets are strong complements. Popcorn has a very high mark up i.e. pop corn costs pennies to make but sells for more than a pound. If firms have a reliable estimate for XED they can estimate the effect, say, of a two-for-one cinema ticket offer on the demand for popcorn

Applications of Cross Price Elasticity of Demand

- Effects of the national minimum wage on demand for younger and older workers (might younger workers be replaced?)
- Effects of an appreciation in the exchange rate on the demand for imported goods (higher sterling makes imports cheaper – switch in consumer demand towards overseas output)
- Higher indirect taxes on de-merit goods such as tobacco – the impact on demand for nicotine patches and other substitutes
- Effect on demand for mass transport following introduction of road pricing schemes in urban areas (e.g. the London congestion charge)
- Fall in average rents for housing – impact on the market demand for owner-occupied housing
- Rise in the price of natural gas – effect on the demand for coal used in power generation