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Economics Revision Focus: 2004

AS Economics

Interrelationship between Markets

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Revision Focus on the Interrelationship between markets

AS Syllabus Requirements:

The Interrelationship between Markets

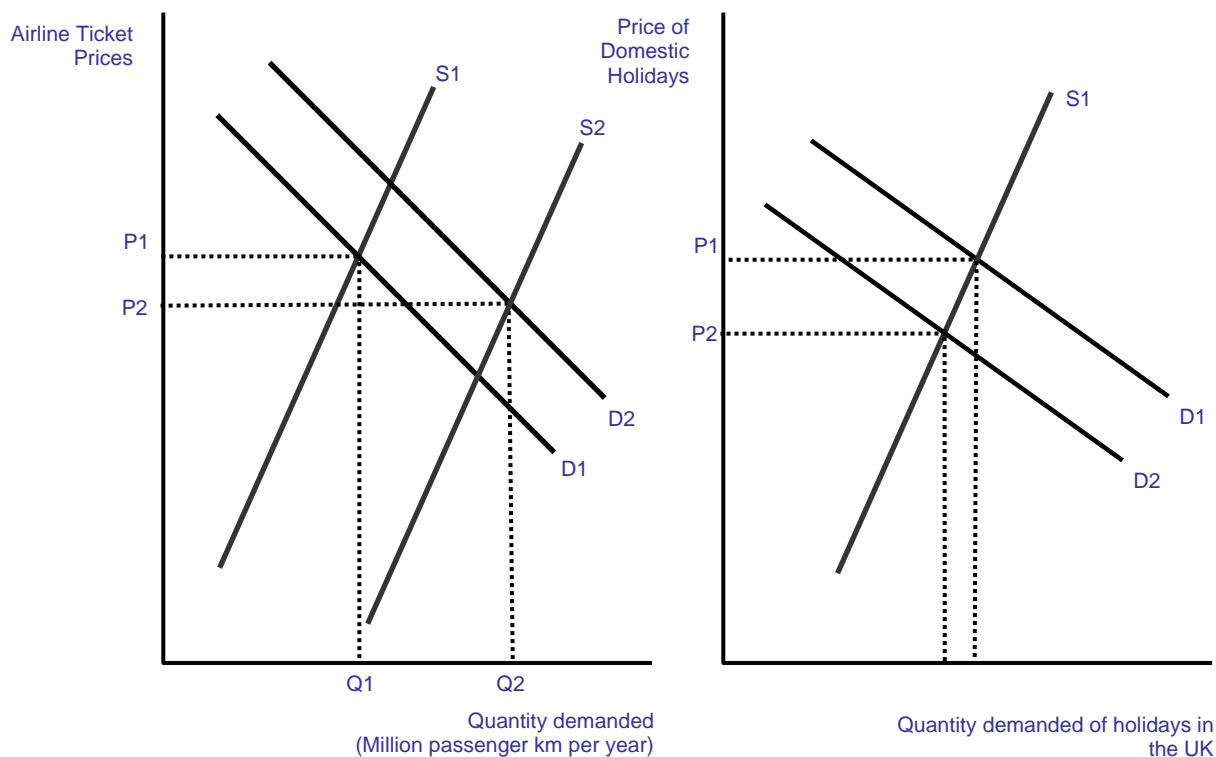
Candidates should be aware that changes in a particular market are likely to affect other markets. They should, for example, be able to explore the impact of the **introduction of a new product** and a **new supplier in a competitive market**. Candidates should understand the implications of **composite demand**, **derived demand** and **joint supply**

Inter-relationships between markets

Supply and demand analysis can be used to explain and understand inter-relationships between different markets and industries. For example, fluctuations in supply and demand conditions in one market inevitably affect the incentives and decisions made by producers and consumers in other markets. In this revision focus we will consider some examples of such inter-relationships and bring in concepts such as

- Cross price elasticity of demand for substitutes and complements
- Derived demand
- Composite demand
- Joint supply

A change in market supply and demand in two markets



In the first example we consider the huge increase in the market supply of low-cost flights available from airports across the United Kingdom. The market supply of flights has shifted out to the right, probably by far more than the increase in market demand. (New low cost airlines have entered the market and existing airlines have expanded their route network and fleet capacity). The net result is a reduction in the average real price of flights to short-haul destinations in Europe. Consider the possible effect on the domestic UK tourist industry. Assuming other factors remain constant (for example the exchange rate and the growth of incomes in other countries whose tourists might choose the UK as a venue for a holiday). A fall in the relative price of airline flights increases the market demand for overseas holidays (short city breaks, package holidays for example). Assuming that British tourists can choose to holiday at home or overseas and regard the two products as substitutes, then the effect is to reduce the demand for holidays in the UK – putting downward pressure on prices, profit margins and leading to the risk of excess capacity in the UK tourist industry.

The growth of market demand for digital cameras

Consider this example using an extract drawn from an article in USA Today in April 2004.

Global demand for digital cameras is expected to climb 39% in 2004 and top 100 million units by 2008, according to an industry report. Demand for digital cameras, which record images on memory chips instead of film, continues to grow as consumers become more comfortable with capturing, storing and printing their images. The dramatic year-over-year rise in shipments is likely to slow each year as the market becomes more mature and as mobile phone makers increase the picture-taking powers of their handsets. Point-and-shoot digital camera makers are expected to counter by offering more potent cameras, with higher resolution at prices comparable to current levels.

Sony led the global digital camera market in 2003, with an 18% share of units shipped. Canon was second at 16% share, followed by Olympus and Eastman Kodak.

What are the inter-relationships between markets in this example?

1. **Substitute products:** The growing demand for digital cameras is causing a fall in demand for analogue cameras that rely on taking film to developers – some producers including Eastman Kodak have stopped producing traditional film cameras due to falling demand. If others follow suit, then market supply will also shift inwards
2. **Complementary products:** As demand for digital cameras increases, so too does demand for printing paper, inks and other accessories used by people who want to print out their favourite images from their desktop or notebook PC
3. **Demand-side threat to other markets:** The change in consumer demand represents a competitive threat to mobile phone manufacturers – they are having to respond by becoming more innovative in terms of what their mobile phone handsets can do

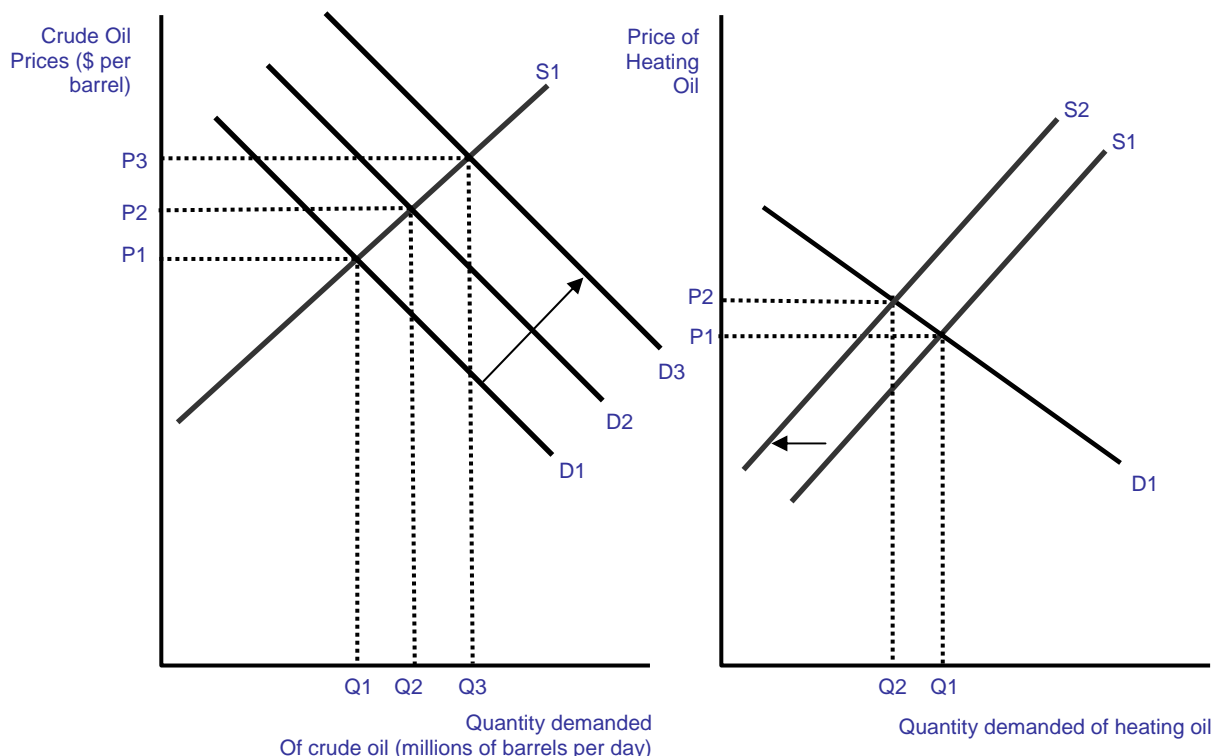
Another good example of inter-relationships is how macroeconomic developments in one country affect the prices of goods and services that we consume in our own economy. Consider the recent phenomenal growth of the Chinese economy and the impact that it has had on demand for and prices of many important internationally-traded raw materials and commodities

China's voracious appetite for raw materials has driven up prices worldwide and created shortages. In 2003, China consumed 55 percent of the world's cement, 40 percent of its steel and 25 percent of its aluminium. China's growing demand for oil has been one reason crude prices are so high. Talk of an economic slowdown engineered by the Chinese government is pricking up ears from Chilean copper mines

to Minnesota soybean fields. China has 4,813 cement plants - more than the rest of the world combined - and they still aren't enough to supply the cement for mammoth projects such as the Three Gorges Dam on the Yangtze River or the stadiums and housing for the 2008 Beijing Olympic Games.

Consider how rising oil prices can feed through to related markets

Increasing demand for crude oil forces up the world market price (P1 – P2 – P3)
Crude oil is used as a raw material in producing heating oil for central heating systems – the higher price of crude causes an increase in costs and



Derived demand

The demand for a product X might be strongly linked to the demand for a related product Y. For example, the demand for steel is strongly linked to the market demand for new cars, the construction of new buildings and many manufactured products. The **demand for labour** is derived from the final demand for the goods and services that we employ labour to produce. So when the economy is enjoying a strong upturn in aggregate demand, so too the demand for labour increases. Conversely in a recession, as real national output declines, so we see a fall in the demand for labour at each prevailing wage rate.

Composite demand

Composite demand exists where **goods or services have more than one use** so that an increase in the demand for one product leads to a fall in supply of the other. The most commonly quoted example is that of **milk** which can be used for cheese, yoghurts, cream, butter and other products. If more milk is used for manufacturing cheese, ceteris paribus there is less available for butter. Another good example is **land** – land can be developed in many different ways – for commercial property, residential properties, leisure

facilities, farming, common land and so forth. Likewise **oil** has numerous alternative uses – for heating oil, petrol fuel, use in petrochemicals etc.

Joint supply

Joint supply describes a situation where an increase or decrease in the supply of one good leads to an increase or decrease in supply of another. For example an expansion in the volume of beef production will lead to a rising market supply of beef hides. A contraction in supply of lamb will reduce the supply of wool