The Model of Monopoly

What do we mean by market concentration?

When we focus on industries where one or more firms have significant market power we often use the term **concentration ratio**. This measures the market share of the top n firms in the industry. Share can be by sales, employment or any other relevant indicator. The value of n is often five, but may be three or any other small number. If the top n firms gain a greater market share the industry is said to have become more highly concentrated. Our example below is taken from the June 2008 figures for market share in the UK food retail sector.

- The 3 firm concentration ratio is measured at 63.9%

- The 5 firm concentration ratio is measured at 83.4%

- This market structure suggests an oligopoly – but each of the businesses has 'market power' in the sense that each has control over the products it sells and the prices it charges.

- The data is for the national economy – local and regional concentration ratios might be very different from that shown – e.g. the local monopoly power enjoyed by one or more businesses. The UK competition authorities are very aware of this when they investigate markets.

|	Market Share (%)	Cumulative market share (%)
Tesco	31.2	31.2
Asda (Wal-Mart)	16.8	48.0
Sainsbury's	15.9	63.9
Morrisons (Safeways)	11.4	75.3
Co-operative (Somerfield)	8.1	83.4
Waitrose	3.9	87.3
Aldi	2.9	90.2
Lidl	2.3	92.5
Iceland	1.7	94.2

1. **A pure monopolist** in an industry is a **single seller**. It is quite rare for a firm to have a pure monopoly – except when the industry is state-owned and has a legally protected monopoly. The Royal Mail used to have a **statutory monopoly** on delivering household mail. But this is now changing fast as the industry has been opened up to fresh competition.

2. **A working monopoly**: A working monopoly is any firm with greater than 25% of the industries' total sales. In practice, there are many markets where businesses enjoy some degree of monopoly power even if they do not have a twenty-five per cent market share.

Price and output under a pure monopoly

A **pure monopolist** is a single seller in an industry – in this case, the firm is the industry – and it can take market demand as its own demand curve. The firm is a **price maker** but a monopoly cannot charge a price that the consumers in the market will not bear. In this sense, the price elasticity of the demand curve acts as a *constraint* on the pricing-power of the monopolist.

Assuming that the monopolist aims to maximise profits (where MR=MC), we establish a short run price and output equilibrium as shown in the diagram below.

Short run price and output under a pure monopoly – the average revenue curve is assumed to be the market demand curve. A pure monopoly is a single seller of a product in a given market. The firm is the industry and has a 100% market share
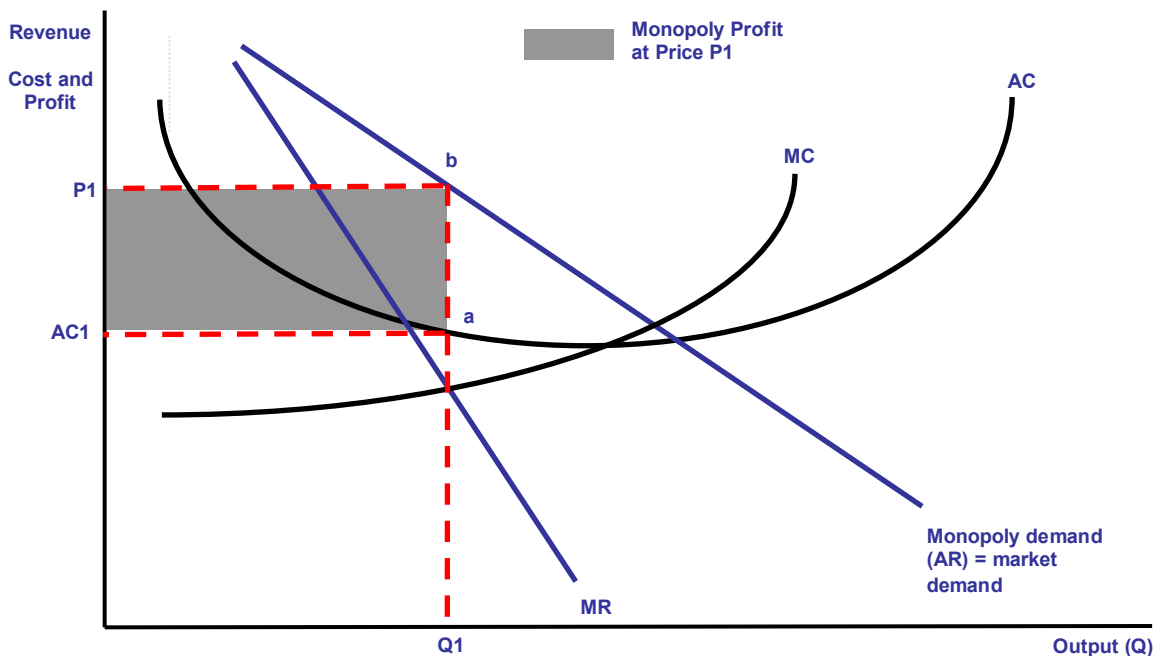
The profit-maximising level of output is at Q1 at a price P1. This will generate total revenue equal to OP1aQ1, but the total cost will be OAC1aQ. As total revenue exceeds total costs the firm makes abnormal (supernormal) profits equal to P1baAC1.

The effect of a rise in costs on monopoly price and profits
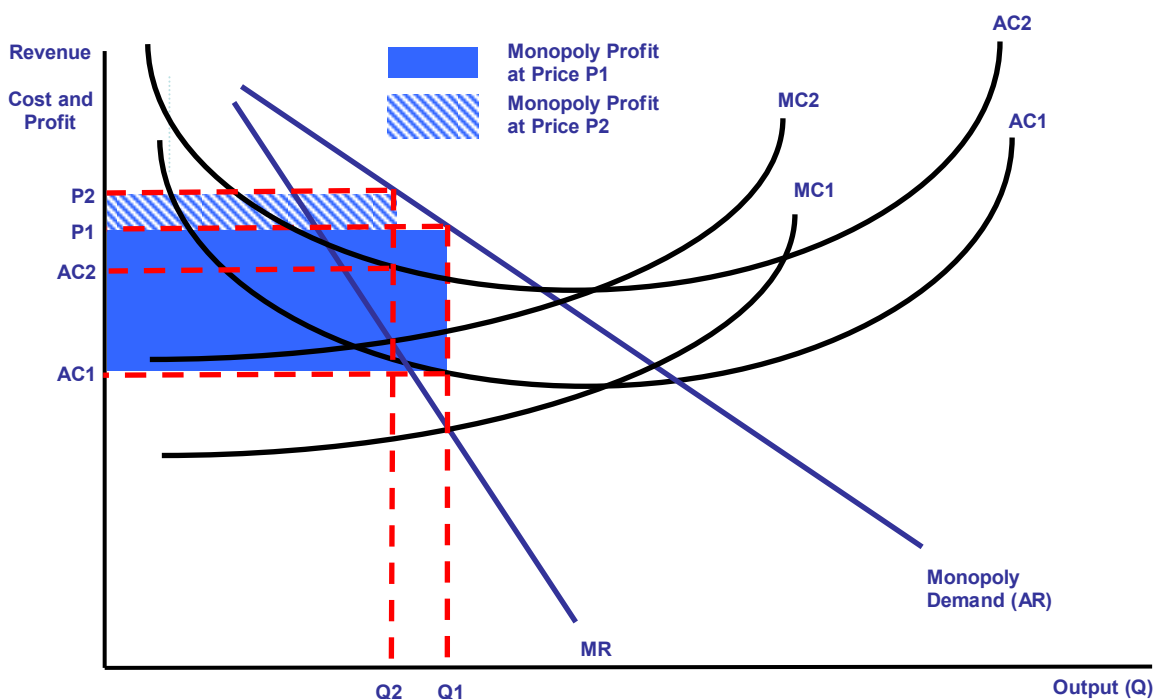
The rise in price from P1 to P2 helps the monopolist to absorb some of the rise in costs, but the net effect is a reduction in profits and a contraction in output from Q1 to Q2. The extent to which

a business can pass on a rise in costs depends on the price elasticity of demand – 'pricing power' is greatest when demand is price inelastic, i.e. consumers are not price-sensitive.