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Economics Revision Focus: 2004

A2 Economics

Perfect Competition

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Revision Focus on Perfect Competition

A2 Syllabus Requirements:

A formal diagrammatic analysis of the perfectly competitive model in the short and long run is expected. Candidates should be able to discuss the implications of the following for the behaviour of firms and the industry: large numbers of producers, identical products, freedom of entry and exit, and readily available information.

Competition and the Efficient Allocation of Resources

Candidates should understand the proposition that, given certain assumptions, perfect competition will result in an efficient allocation of resources. Candidates should also be able to assess critically this proposition.

Perfect competition describes a **market structure** whose assumptions are extremely strong and highly unlikely to exist in most real-time and real-world markets. The reality is that most markets are **imperfectly competitive**. Nonetheless, there is some value in understanding how price, output and equilibrium is established in both the short and the long run in a market that holds true to the tough assumptions of a world of perfect competition.

Economists have become more interested in pure competition partly because of the rapid growth of **e-commerce** as a means of buying and selling goods and services. And also because of the popularity of **auctions** as a rationing device for allocating scarce resources among competing ends.

Basic assumptions for pure competition to exist

1. **Many small firms**, each of whom produces an insignificant percentage of total market output and thus exercises no control over the ruling market price.
2. **Many individual buyers**, none of whom has any control over the market price – i.e. there is no monopsony power
3. **Perfect freedom of entry and exit from the industry**. Firms face no sunk costs - entry and exit from the market is feasible in the long run. This assumption ensures all firms make normal profits in the long run
4. **Homogeneous products** are produced that are perfect substitutes for each other. This leads to each firm being price takers and facing a perfectly elastic demand curve for their product
5. **Perfect knowledge** – consumers have readily available information about prices and products from competing suppliers and can access this at zero cost – in other words, there are few transactions costs involved in searching for the required information about prices
6. **No externalities** arising from production and/or consumption which lie outside the market

The real world of imperfect competition!

Clearly the assumptions of pure competition do not hold in the vast majority of markets. Some suppliers may exert a degree of control over market supply and exploit their **monopoly power**. On the demand-side, some consumers may have **monopsony power** against suppliers because they purchase a significant percentage of total demand. There are nearly always some **barriers to the contestability of the market**

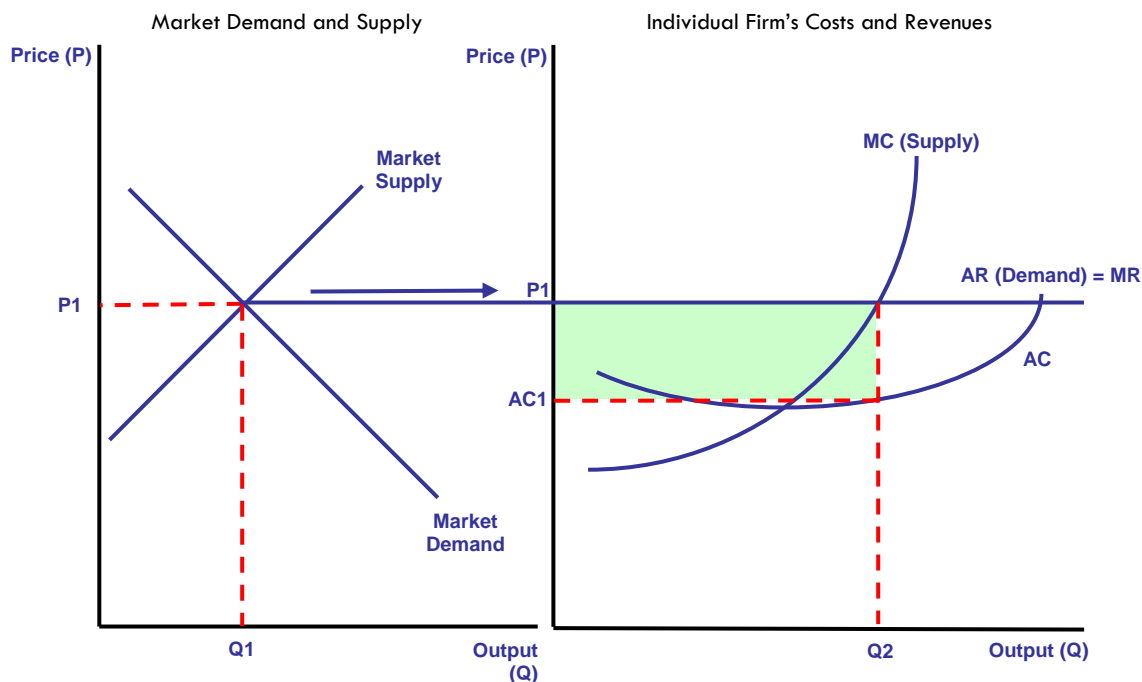
(see revision notes on barriers to entry) and far from being homogeneous, most markets are full of **heterogeneous products** due to **product differentiation**.

Consumers nearly always have **imperfect information** (for example **information gaps**) and their preferences and choices can be influenced by the effects of **persuasive marketing** and **advertising**. In every industry there is always **asymmetric information** where the seller knows more about quality of good than buyer. The real world is one in which **negative and positive externalities** from both production and consumption are numerous – both of which can lead to a divergence between private and social costs and benefits. Finally there may be imperfect competition in related markets such as the market for essential raw materials, labour and capital goods.

We can come close to a world of perfect competition but in practice there are nearly always barriers to pure competition – even in the new brave world of the internet, the nirvana of perfect competition is some way off despite this claim in the Economist in an article published in 2000.

“The Internet cuts costs, increases competition and improves the functioning of the price mechanism. It thus moves the economy closer to the textbook model of perfect competition”

Establishing price and output in the short run under perfect competition



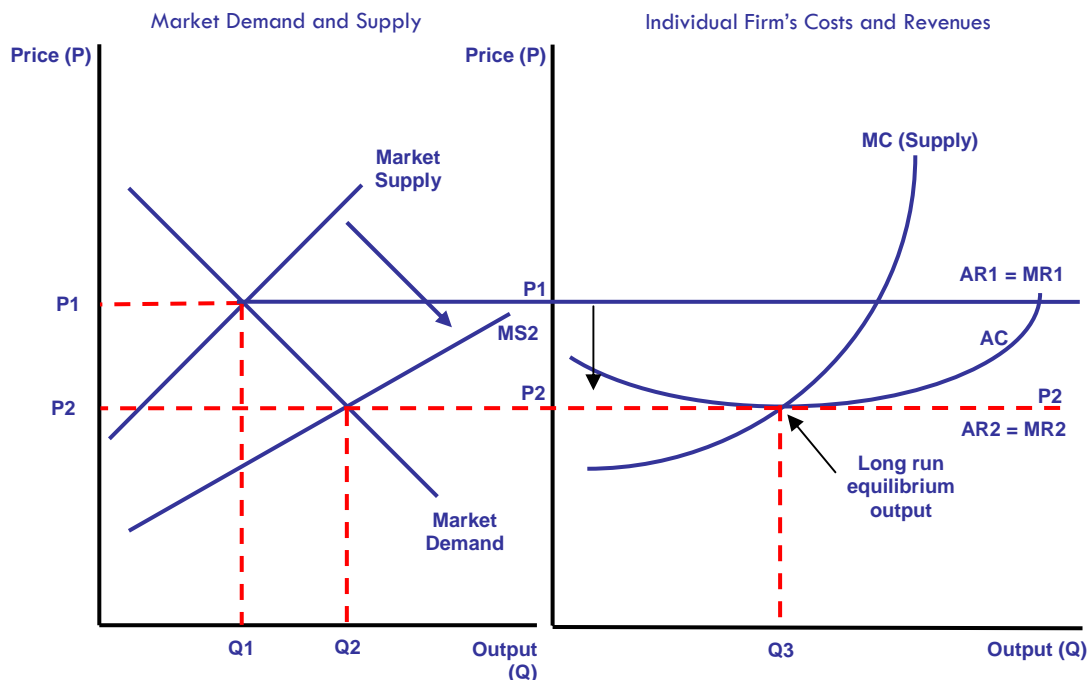
Key revision points:

1. Always draw two diagrams – one to show the interaction between market demand and supply and the other to show the profit maximising equilibrium for a single supplier (firm) within the market
2. Supernormal profits are not guaranteed in the short run – it depends on the ruling market price (in this case price P_1) and the short run production costs of each supplier
3. We are assuming here that perfectly competitive firms seek to maximise profits – this assumption is of course now widely questioned because of the complexity of organisation and multiplicity of objectives pursued by modern corporations

4. In the diagram above, market price P_1 is greater than AC_1 where $MC=MR$ so this firm is enjoying supernormal profits. Normal profits are included in the average cost curve of the supplier

The adjustment to the long-run equilibrium

If most firms are making abnormal (supernormal) profits, this encourages the entry of new firms into the industry, causing an outward shift in market supply and forcing down the price. The increase in supply will eventually reduce the market price until price = long run average cost. At this point, each firm is making normal profit. There is no further incentive for movement of firms in and out of the industry and a long-run equilibrium has been established. This is shown in the next diagram.



We are assuming in the diagram above that there has been now shift in market demand, i.e. we are considering an outward shift in market supply brought about by the entry of new competing firms each of whom is supplying a new homogeneous product to the market. The effect of increased supply is to force down the prevailing market price and cause an expansion along the market demand curve. But for each supplier, the price they “take” is now lower and it is this that drives down the level of profit made towards the normal profit equilibrium.

You may be asked to trace and analyse what would happen if

1. **There was a change in market demand** (e.g. arising from changes in the relative prices of substitute products or complements)
2. **There was a cost-reducing innovation** affecting all firms in the market or an external shock that increases the variable costs of all producers.

Use the dual diagram to show the possible effects of these changes bearing in mind how the adjustment process to the long-run equilibrium will take place

Pure competition and economic efficiency

Perfect competition is used as a yardstick to compare with other market structures because it displays high levels of economic efficiency.

(1) Allocative efficiency:

In both the short and long run, price is equal to marginal cost ($P=MC$) and allocative efficiency is achieved. At the ruling market price, consumer and producer surplus are maximised. No one can be made better off without making some other agent at least as worse off – i.e. the conditions are in place for a Pareto optimum allocation of resources.

(2) Productive efficiency:

Productive efficiency occurs when price is equal to average cost at its minimum point. This is not achieved in the short run, but is attained in the long run equilibrium.

(3) Dynamic efficiency

We assume that a perfectly competitive market produces homogeneous products – in other words, there is little scope for innovation designed purely to make products differentiated from each other and thereby allow a supplier to develop and then exploit a competitive advantage in the market to establish some monopoly power. Some economists claim that perfect competition is not an optimal market structure for high levels of research and development spending and the resulting product and process innovations. Indeed it may be the case that monopolistic or oligopolistic markets are more effective in creating the environment for research and innovation to flourish. A cost-reducing innovation from one producer will, under the assumption of perfect information, be immediately and without cost transferred to all of the other suppliers.

That said, a “competitive market” (i.e. a contestable market) provides the discipline on firms to keep their costs under control, to seek to minimise wastage of scarce resources and to refrain from exploiting the consumer by setting high prices and enjoying high profit margins. In this sense, a more competitive market can stimulate improvements in both static and dynamic efficiency over time. It is certainly one of the main themes running through the recent toughening-up of UK and European competition policy as this introductory passage to a competition white paper demonstrates

Competitive markets provide the best means of ensuring that the economy's resources are put to their best use by encouraging enterprise and efficiency, and widening choice. Where markets work well, they provide strong incentives for good performance - encouraging firms to improve productivity, to reduce prices and to innovate; whilst rewarding consumers with lower prices, higher quality, and wider choice. By encouraging efficiency, competition in the domestic market - whether between domestic firms alone or between those and overseas firms - also contributes to our international competitiveness. Source: www.dti.gov.uk

The long run of perfect competition, therefore, exhibits optimal levels of economic efficiency. But for this to be achieved all of the conditions of perfect competition must hold – including in related markets. When the assumptions are dropped, we move into a world of imperfect competition with all of the potential that exists for various forms of market failure.

Allocative efficiency illustrated

