

Answers to End-of-Chapter Questions

Chapter 1

1. *Compare and contrast the relative strengths and weaknesses of the partnership and the public limited company.*

Partnerships, where two or more people own a business, in most cases have unlimited liability (there are, however, some limited liability partnerships). With unlimited liability the business's losses are the partners' losses. Such partnerships should then be avoided where there is a high risk of business failure and/or large amounts of capital are required to get the business going. Nevertheless, with unlimited liability, partners may have a greater commitment to the success of the business.

Public limited companies by contrast are legally separate from their owners, and hence a business's debts belong to the business and not its owners. In a public limited company, owners hold shares in the company and through share issues the business is able to raise finance to fund its growth and investment. Such companies can however, be subject to merger and takeover.

2. *Explain why the business objectives of owners and managers are likely to diverge. How might owners attempt to ensure that managers act in their interests and not in the managers' own interests?*

The business objectives of owners and managers can often diverge because each group is likely to be pursuing its own interests. Owners are assumed, in traditional theory, to be profit maximisers, and would thus require their managers to pursue strategies which were consistent with this. Managers, however, might wish to pursue other goals, such as the maximisation of growth. Profits might consequently be sacrificed in the short term as managers attempt to acquire a greater share of the market. In order to ensure that managers act in the owners' best interests, owners will attempt to ensure that managerial salaries are closely linked to the business's profitability, and that managerial decision making is closely monitored.

3. *Assume you are a UK car manufacturer and are seeking to devise a business strategy for the twenty-first century. Conduct a STEEPLE analysis of the UK car industry and evaluate the various strategies that the business might pursue.*

In devising a STEEPLE analysis, a UK car manufacturer might consider the following:

Social: changing status of the car, patterns of urban and rural living. Also links to environmental and ethical concerns and attitudes.

Technological: engine development; the continued automation of production; the development of bio fuels.

Economic: patterns of income and demand; changing tastes; the impact of the European single market and currency.

Environmental: environmental concerns and attitudes, greener technologies, use of biofuels.

Political:	government attitudes towards the car and motoring (taxation, safety, emissions, congestion, etc); overall transport policy (including rail, buses, road building).
Legal:	industrial regulations legislation; laws concerning product safety standards and checks that must be carried out.
Ethical:	adopting a more socially responsible role in production; ensuring fair working conditions; safe and high quality cars or car parts; ensuring that their advertising and their business practices are honest.

The above list is in no way complete and many other factors might be considered. Different manufacturers might well experience different influences over their actions. For example, factors in the STEEPLE analysis might depend upon the part of the car market in which a producer operates (e.g. luxury cars), or the region/country in which it is located. For example, Japanese car manufacturers located in Japan have, in recent years, had to deal with a highly valued yen and, as a consequence, rising import competition and declining export sales.

4. *What is the Standard Industrial Classification (SIC)? In what ways might such a classification system be useful? Can you think of any limitations or problems such a system might have over time?*

The Standard Industrial Classification (SIC) is the formal means of classification of firms into industries. It is used by the government as a means of collating data on business and industry trends. Such a system of classification is most useful in identifying changing patterns in industrial structure and concentration. The SIC needs regular revision if it is to remain up to date, as it must reflect changing industrial structure and the emergence of new products and industries.

5. *Outline the main determinants of business performance. In each case, explain whether it is a micro- or macroeconomic issue.*

The main determinants of business performance include the following:

Microeconomic issues: market structure; managerial aims; business organisation and the systems it uses; access to, and use of, market information; managerial competence; the quality of labour. These are microeconomic determinants, as they are concerned with individual products, firms, markets or industries.

Macroeconomic issues: economic growth; stability in the economy; the value of the exchange rate; interest rates; the strength of the global economy. These are macroeconomic concerns as they look at factors that affect the whole economy.

6. *Virtually every good is scarce in the sense we have defined it, but are water and air exceptions? If they are not scarce, explain whether it would be possible to charge for them. Does the way in which you define water and air determine whether they are scarce or abundant?*

- (a) *Water.* Whether water is abundant depends on where you live. It also depends on what the water is used for. Water for growing crops in a country with plentiful rain *is* abundant. In such cases, it would be possible only for the *government* to charge for it (e.g. by a tax per unit of consumption, or per hectare, or per tonne of crop harvested). In drier countries, resources have to be spent on irrigation. Water for drinking is not abundant. Reservoirs have to be built. The water has to be piped, purified and pumped. Clearly, in these cases it *is* possible for a charge to be made for water by those supplying these services.
- (b) *Air.* In one sense air *is* abundant. There is no shortage of air to breathe for most people for most of the time. In such cases, it would not be possible to charge for air. But if we define air as clean, unpolluted air, then in some parts of the world it is scarce. In these cases, resources have to be used to make clean air available. If there is pollution in cities or near

industrial plants, it will cost money to clean it up. The citizen may not pay directly – the cleaned-up air may be free to the ‘consumer’ – but the taxpayer or industry (and hence its customers) will have to pay. Think about the restrictions that were placed on traffic in Beijing in the years before of the Beijing 2008 Olympics. Another example is when extractor fans have to be installed to freshen up air in buildings. Even if you live in a non-polluted part of the country, you may well have spent money moving there to escape the pollution. Again there is an opportunity cost to obtain the clean air.

7. *Which of the following are macroeconomic issues, which are microeconomic ones and which could be either depending on the context?*

- (a) *Inflation.*
- (b) *Low wages in certain service industries.*
- (c) *The rate of exchange between the pound and the euro.*
- (d) *Why the price of cabbages fluctuates more than that of cars.*
- (e) *The rate of economic growth this year compared with last year.*
- (f) *The decline of traditional manufacturing industries.*
- (g) *Britain’s referendum about whether to exit the EU.*

- (a) Macro. It refers to a *general* rise in prices across the whole economy.
- (b) Micro. It refers to *specific* industries
- (c) Either. In a *world* context it is a micro issue, since it refers to the price of *one* currency in terms of *one* other. In a national context it is more of a macro issue, since it refers to the euro exchange rate at which all UK goods are traded internationally. (This is certainly less clear-cut than cases (a) and (b) above.)
- (d) Micro. It refers to *specific* products.
- (e) Macro. It refers to the *general* growth in output of the economy as a whole.
- (f) Micro (macro in certain contexts). It is micro because it refers to *specific* industries. It could, however, also help to explain the *macroeconomic* phenomena of high unemployment or balance of payments problems.
- (g) Either. In a world context, it could be seen as a micro issue and the outcome will have significant implications for particular sectors and businesses. However, it is a macro issue, in that it is referring to a large trading area: the impact on UK economic growth, inflation, exports, etc.

8. *Make a list of three things you did yesterday. What was the opportunity cost of each?*

The opportunity cost was the next best thing you sacrificed doing in each case. If it was something you purchased, then it would be the next best thing that you could have purchased for the same money. If it was something you did (such as coming to a class) then the opportunity cost was the next best thing you could have done with your time (such as working in the library, or staying at home and watching TV).

9. *How would you use the principle of weighing up marginal costs and marginal benefits when deciding whether to (a) buy a new car; (b) study for an extra hour? How would a firm use the same principle when deciding whether to (c) purchase a new machine; (d) offer overtime to existing workers?*

- (a) If the extra benefit you gain from purchasing and driving the new car (happiness, envy from friends, savings on petrol if the new car is more efficient, more engine power that might

save you time, lower servicing costs, etc.) is greater than the extra cost of that purchase (what else you could have done with the money and thus are sacrificing by using the money to buy the car), then it would be a rational decision for you to buy the car.

- (b) When deciding whether or not to study for an extra hour, you will weigh up the costs and benefits of doing so. Every extra hour you study will increase your knowledge and give you more confidence in your exams, thus improving the possibility of getting a high mark and potentially a good job – these are the benefits from doing the extra studying. You will need to weigh these up against the costs of the extra studying, such as giving up your leisure time, perhaps spending even more time revising a subject you dislike. If you find that the extra benefits of the extra studying are greater than the costs, then it is rational to study for an extra hour, as the marginal benefit exceeds the marginal cost.
- (c) If the new machine added more to the firm's revenue over any given time period (increased output and/or produced better quality products) than it cost to buy (including any associated costs, such as raw materials, repairs), it would be profitable for the firm to buy the new machine: the marginal benefit from the machine would exceed the marginal cost.
- (d) If the extra revenue earned for the firm by the workers doing the overtime exceeded the amount paid by the firm in overtime (plus any other associated costs, such as raw materials), then it would be worth the firm offering the overtime.

Chapter 2

1. Referring to Table 2.1, assume that there are 200 consumers in the market. Of these, 100 have schedules like Tracey's and 100 have schedules like Darren's. What would be the total market demand schedule for potatoes now?

See the following table:

Price	Total market demand
20	4400
40	2600
60	1400
80	800
100	600

2. Refer to the list of determinants of demand (see page 000). For what reasons might the demand for sofas from a particular outlet, such as DFS, fall? Is the slow recovery from recession relevant here?

Tastes. If tastes shift away from DFS sofas (perhaps towards those from Furniture Village), the demand for them will fall. Tastes might shift away if sofas from DFS are seen as being less fashionable or perhaps of a lower quality.

The number and price of substitute goods (i.e. competitive goods). If the price of sofas from other stores are lower, then the demand for DFS sofas will fall as some people switch to these alternatives.

The number and price of complementary goods. When a new sofa is purchased, it might be the case that a lounge is being re-decorated. Thus, if the price of carpets, curtains, chairs and other soft furnishings go up, people will buy less of them and hence are less likely to be re-decorating and so will be inclined to buy fewer sofas.

Income. If people's incomes fall, they may delay buying a sofa (or re-decorating their house), thus demand will fall. The slow recovery from recession is highly relevant here, as the recession led to a drop in consumer spending across a range of areas, in particular large consumer durables. Households were trying to save money and thus, rather than purchasing a new suite, they simply decided to put up with the one they currently had.

Expectations of future price changes. If people think that the price of sofas and other consumer durables will fall in the near future, they are likely to keep their existing suite and hold off buying until prices do fall. Conversely, if they think that prices may soon rise, they may choose to buy now before the prices do rise.

3. Refer to the list of determinants of supply (see pages 000). For what reasons might (a) the supply of potatoes fall; (b) the supply of leather rise?

(a) The supply of potatoes might fall if:

- ☐ the costs of growing potatoes rises, (e.g. a rise in the price of fertilisers).
- ☐ crops other than potatoes become more profitable to grow.
- ☐ there is a poor harvest.

(b) The supply of leather might rise if:

- ☐ the costs of producing leather fall.
- ☐ the profitability of producing alternative products decreases.

- ☐ the price of beef rises.
- ☐ a long-running industrial dispute involving leather workers is resolved.
- ☐ producers expect the price of leather to fall at some time in the future (*short-run* supply increases).

4. *This question is concerned with the supply of oil for central heating. In each case consider whether there is a movement along the supply curve (and in which direction) or a shift in it (and whether left or right): (a) new oil fields start up in production; (b) the demand for central heating rises; (c) the price of gas falls; (d) oil companies anticipate an upsurge in the demand for central-heating oil; (e) the demand for petrol rises; (f) new technology decreases the costs of oil refining; (g) all oil products become more expensive.*

- (a) Shift right.
- (b) Movement up along (as a result of a rise in price).
- (c) Movement down along (as a result of a fall in price resulting from a fall in demand as people switch to gas-fire central heating).
- (d) Shift left (if companies want to conserve their stocks in anticipation of a price rise).
- (e) Shift right (more of a good in joint supply is produced).
- (f) Shift right.
- (g) Movement up along.

5. *The price of cod is much higher today than it was 30 years ago. Using demand and supply diagrams, explain why this should be so.*

The supply curve has shifted to the left. The reason for this is over fishing. Stocks of cod in areas such as the North Sea have dwindled in recent years. The demand curve has also shifted to the right, with many consumers turning to fish as a healthy alternative to meat. Also many people now buy their fish in supermarkets, which tend to carry more a more limited range of fish than fishmongers. Thus many people, who might have purchased alternative fish, now purchase cod for lack of choice.

6. *What will happen to the equilibrium price and quantity of butter in each of the following cases? You should state whether demand or supply or both have shifted and in which direction: (a) a rise in the price of margarine; (b) a rise in the demand for yoghurt; (c) a rise in the price of bread; (d) a rise in the demand for bread; (e) an expected increase in the price of butter in the near future; (f) a tax on butter production; (g) the invention of a new, but expensive, process of removing all cholesterol from butter, plus the passing of a law which states that butter producers must use this process. In each case assume that other things remain the same.*

- (a) Price rises, quantity rises (demand shifts to the right: butter and margarine are substitutes).
- (b) Price falls, quantity rises (supply shifts to the right: butter and yoghurt are in joint supply).
- (c) Price falls, quantity falls (demand shifts to the left: bread and butter are complementary goods).
- (d) Price rises, quantity rises (demand shifts to the right: bread and butter are complementary goods).
- (e) Price rises, quantity rises or falls depending on relative sizes of the shifts in demand and supply (demand shifts to the right as people buy now before the price rises; supply shifts to the left as producers hold back stocks until the price does rise).
- (f) Price rises, quantity falls (supply shifts to the left).
- (g) Price rises, quantity rises or falls depending on the relative size of the shifts in demand and supply (demand shifts to the right as more health-conscious people start buying butter; supply shifts to the left as a result of the increased cost of production).

7. *Why does price elasticity of demand have a negative value, whereas price elasticity of supply has a positive value?*

The price elasticity of demand has a negative value because demand curves are downward sloping. If price rises (a positive value), quantity demanded falls (a negative value), and if price falls, quantity demanded rises. Thus, in the formula, a negative figure is being divided by a positive figure, or a positive figure is being divided by a negative one. Either way, the resulting elasticity will be a negative figure.

Conversely, given the fact that supply curves are generally upward sloping, the price elasticity of supply will generally have a positive value. The proportionate change in price and quantity supplied are either both positive or both negative; so the answer will always be positive.

8. *Rank the following in ascending order of elasticity: jeans, black Levi jeans, black jeans, black Levi 501 jeans, trousers, outer garments, clothes.*

Clothes; Outer garments; Trousers; Jeans; Black jeans; Black Levi jeans; Black Levi 501 jeans.

Clothes have no substitutes, whereas black Levi 501 jeans have many substitutes (including other types of black Levi jeans, other makes of black jeans, other colour jeans, other types of trousers, etc). The substitution effect, therefore, of a rise in the price of black Levi 501 jeans is a much bigger percentage than the substitution effect of a rise in the price of clothes in general. Other things being equal, therefore, the more specifically defined is the item, the greater will be its price elasticity. (Note, however, that the *income* effect will be greater with general items such as clothes and *this* will tend to make their demand *more* elastic.)

9. *Will a general item of expenditure like food or clothing have a price elastic or inelastic demand? Explain.*

The income effect will be relatively large (making demand relatively elastic). The substitution effect will be relatively small (making demand relatively inelastic) (see page 000). The actual elasticity will depend on the relative size of these two effects.

10. *Explain which of these two pairs are likely to have the highest cross-price elasticity of demand: two brands of coffee, or coffee and tea?*

Two brands of coffee, because they are closer substitutes than coffee and tea.

11. *Would a firm want demand for its brand to be more or less elastic? How might a firm achieve this?*

A firm would want its product and brand to be price inelastic, as this means that demand for the product is less responsive to a rise in price. Designing it and advertising it so that consumers will believe (rightly or wrongly) that there is no close substitute for it will encourage consumers to continue to buy the good, even if its price rises.

12. *Why are both the price elasticity of demand and the price elasticity of supply likely to be greater in the long run?*

Because both consumers and producers have more time to respond to any change in price. In the case of demand, consumers faced with an increase in price will be more likely to find substitutes in the long run. In the case of supply, producers faced with a price increase will be able to expand their capacity in the long run by acquiring extra capital equipment and additional land and premises.

Chapter 3

1. *How would marginal utility and market demand be affected by a rise in the price of (a) a substitute good (b) a complementary good?*

- (a) Marginal utility and market demand would rise (shift to the right). The rise in the price of the substitute would cause less of it to be consumed, thus making the other good more desirable. For example, if the price of a Snickers bar rose and people bought fewer of them, alternatives, such as Mars bars, would become more desirable. Thus the marginal utility of Mars bars would rise and their demand would shift to the right.
- (b) Marginal utility and market demand would fall (shift to the left). The rise in the price of the complement would cause less of it to be consumed. This would therefore reduce the marginal utility of the other good. For example, if the price of lettuce goes up and as a result we consume less lettuce, the marginal utility of mayonnaise will fall.

2. *How can marginal utility be used to explain the price elasticity of demand for a particular brand of a product?*

The more similar one brand is to another (in other words, the closer they are as substitutes), the greater will be the price elasticity of demand for each brand. If there is a cut in the price of Brand A (assuming the prices of other brands stay constant), consumption of Brand A will increase a lot. The reason is that the *MU* of Brand A will fall slowly, since people consume *less of other brands*. Consumption of the product *in total* may be only slightly greater and hence the *MU* of Brand A only slightly lower.

Where brands are not close substitutes for each other, people will be less inclined to switch brands as the price of one of them changes. Thus any change in consumption of a brand resulting from a change in its price will mean that the consumption of the product *as a whole* will have changed significantly (as there is less switching). Thus *MU* will change significantly. The *MU* curve for a brand will thus be steeper and the demand less elastic, the less the similarity between brands.

3. *Why are insurance companies unwilling to provide insurance against losses arising from war or 'civil insurrection'? Name some other events where it would be impossible to obtain insurance.*

Because the risks are *not* independent. If family A has its house bombed, it is more likely that family B will too.

Other events could include natural disasters that affect a large area, such as earthquakes or flooding from hurricanes in low-lying coastal areas.

4. *What has happened to premiums for home insurance for those houses in areas that are at risk of flooding? Which factors have caused this change? Is there a role for the government to intervene in this market?*

With climate change (and perhaps just a few years with a lot rainfall) many areas in the UK have experienced significant flooding over the past few years and this has caused the number of insurance claims for damage due to flooding to increase. The higher risk of flooding has thus pushed up premiums, especially for those households that have had to make successive claims. The growth in the number of claims may also be due to housing shortages, which have led to houses being built on flood planes and in areas which are more susceptible to flooding.

The government has previously intervened in this market to enable all households to buy home insurance, even if they are likely to suffer from flooding. Insurance companies have paid out significant sums of money and thus have had to push up premiums and in some cases, will not

offer insurance. Part of this is due to the independence of risks and the fact that for some households, the probability is so close to 1. By regulating the market, the government guaranteed that insurance companies would offer insurance against flood damage, but the deal that guarantees this is ending. As such, talks are currently on-going to reach a new deal.

5. *What are the relative strengths and weaknesses of using (a) market observations, (b) market surveys and (c) market experiments as a means of gathering evidence on consumer demand?*

- (a) The relative strengths of using market observations to gather evidence on consumer demand are the availability of data, and the ability to isolate the various determinants of demand. The relative weakness of using market observations is that past relationships shown between data will not necessarily hold in the future. Human behaviour is difficult to predict.
- (b) The relative strengths of using market surveys are: the volume of information that can be collected; the method is quick and cheap; and the method can target specific groups of consumers and focus upon particular issues relevant to the business. The drawbacks of this method concern the accuracy of the information, whether the sample has been randomly selected, whether the questions are clear, and whether respondents are being truthful in their responses.
- (c) The strength of the market experiment in gathering information on consumer demand is that it creates an environment where consumer behaviour can be observed under controlled conditions. A business can then design, for example, a marketing strategy based upon consumer responses to a particular advertising campaign. The drawback to this method is that consumers may modify their behaviour because they are being observed.

6. *You are working for a recording company which is thinking of signing up some new bands. What market observations, market surveys and market experiments could you conduct to help you decide which bands to sign?*

In deciding which bands to sign you might look at your existing catalogue of bands and their sales to see which bands, and which types of music, seem most fashionable at the moment. Alternatively you might commission a market research firm to conduct a questionnaire to find out what your target audience is listening to. A third possible approach might be to play demonstration recordings to a representative group of possible consumers, asking for their comments on what they hear and whether the band might be worth signing.

7. *You are about to launch a new range of cosmetics, but you are still to decide upon the content and structure of your advertising campaign. Consider how market surveys and market experiments might be used to help you assess consumer perceptions of the product. What limitations might each of the research methods have in helping you gather data?*

Market surveys would be advantageous in helping you target precise groups of individuals (by age, sex, social group, etc.) who are likely to be your major customers. In addition, if the survey was administered by researchers, they could ensure that respondents fully understood and answered the questions in a similar manner. Results should as a consequence be fairly consistent. Whether the results were an accurate reflection of the views of the group that the company targeted would depend upon the quality of the sample, and in particular whether it was random.

The market experiment involves tightly controlling the research environment and monitoring behaviour. In assessing advertising, the experiment might attempt to identify whether a particular advertising campaign influenced purchasing patterns. The fact that this would need to take place in a controlled environment might seriously modify consumer behaviour, for example over the types of products they might buy or the length of time they might spend choosing a particular product. The more natural and less closely monitored the research environment, however, the less certain the researchers will become as to the factors which are influencing consumer

purchasing decisions, and hence the less certain they will be over the effectiveness of the advertising campaign.

8. *Imagine that you are working for an airline attempting to forecast demand for seats over the next two or three years. What, do you think, could be used as leading indicators?*

Examples include: the rate of growth in income; identified trends in consumer demand (e.g. over holiday destinations); changes in exchange rates (affecting the cost of pre-booked holidays); activities of rival companies (e.g. announcement that new routes will be opened up, or that fares will be adjusted up or down).

9. *How might we account for the growth in non-price competition within the modern developed economy?*

The growth in non-price competition within a modern developed economy reflects two principal trends. The first is the growing oligopolistic nature of business (see section 5.2): this is where there are just a few firms in each industry. Many of these firms see non-price competition as being less likely to invoke a hostile reaction from their rivals than price cuts (which might lead to a 'price war'). The second is the variety and choice of brands that can be found within many markets.

10. *Consider how the selection of the product/market strategy (market penetration, market development, product development and diversification) will influence the business's marketing mix. Choose a particular product and identify which elements in the marketing mix would be most significant in developing a successful marketing strategy for it.*

The product/market strategy will determine whether a business looks to develop an existing product/new product in an existing market/new market. In the case of a new product in a new market, all the determinants of the marketing mix are likely to be crucial. In the case of a new product in an existing market, product, pricing and promotion are likely to be the most important dimensions. With an existing product in a new market, place and promotion considerations are likely to be the major ones. With an existing product in an existing market, promotion considerations would be the most important element in the marketing mix.

11. *Think of some advertisements that deliberately seek to make demand less price elastic. How do they do this?*

Those adverts that strongly promote a brand, so that in the consumer's mind there is no close substitute, would help to create a relatively price inelastic demand. If consumers can be persuaded that a product is unique, they are more likely to be prepared to pay a higher price. Thus, even if substitute products are cheaper, they will not see them as true substitutes. By developing a unique selling point (USP) and differentiating their product, advertisements can help demand for the product to become less price elastic.

12. *Imagine that 'Sunshine' sunflower margarine, a well-known brand, is advertised with the slogan, 'It helps you live longer' (the implication being that butter and margarines high in saturates shorten your life). What do you think would happen to the demand curve for a supermarket's own brand of sunflower margarine? Consider both the direction of shift and the effect on elasticity. Will the elasticity differ markedly at different prices? How will this affect the pricing policy and sales of the supermarket's own brand? Could the supermarket respond other than by adjusting the price of its margarine?*

It depends on the extent to which the consumer is led to believe that sunflower margarines generally help you to live longer, in which case the demand for the supermarket's brand is likely to shift to the right and become less elastic as consumers are less prepared to switch to non-

sunflower margarines. If, however, the consumer was led to believe that it was specifically 'Sunshine' margarine that made you live longer, then the demand for the supermarket's brand (and all others) will shift to the left. In such a case, the supermarket could launch an advertising campaign of its own, attempting to identify the superiority of its product, in whatever respect this might be.

13. *There are many methods of advertising, from newspapers to television to the Internet. What trends can you identify for the amount of spending on the various methods of advertising as a percentage of total advertising expenditure?*

When considering advertising expenditure by the main categories of media, there has been a long historical trend over which total press advertising has fallen from a high of 84.7 per cent in 1938 (although it reached a peak of nearly 90 per cent in 1953) to around 27 per cent in 2012. By contrast, advertising on television (which only started in the UK in the mid-1950s) now accounts for over 26 per cent of total advertising expenditure and direct mail for about 11 per cent. Other types of advertising – posters, radio and cinema – account for less than 10 per cent between them. The most dramatic growth in advertising expenditure, however, is on the Internet, which increased from virtually nothing in 1998 to 26.1 per cent in 2012.

14. *How can advertising help a nation recover from an economic downturn?*

Advertising generates spending, and consumer spending is a key component of an economic recovery. If advertising can encourage consumers to buy goods and services, it may help an economy to recover. Furthermore, any spending on advertising will create jobs, which is another key aspect to stimulate an economic recovery. The study by the Advertising Association and Deloitte in 2013, suggested that for every £1 spent on advertising in the UK, £6 is generated for the wider economy. Thus, according to this research, advertising could be a key component to an economic recovery.

Chapter 4

1. *Are all explicit costs variable costs? Are all variable costs explicit costs?*

Not all explicit costs are variable costs. Rent and business rates are explicit costs, but they do not vary with output.

Not all variable costs are explicit costs, either. The opportunity cost of using factors which the firm already owns can vary with the amount that is produced. Take the case of machinery that could be used to produce either of two types of product. The cost of using it for product A is the sacrifice of profit it could have made by being used to produce product B. The longer it is used for producing A, the greater the opportunity cost, since the greater the amount of B that has been sacrificed.

2. *Up to roughly how long is the short run in the following cases?*

(a) *A karaoke firm;*

(b) *Electricity power generation;*

(c) *A small grocery retailing business;*

(d) *'Superstore Hypermarkets plc'.*

In each case, specify your assumptions.

(a) Two or three days: the time necessary to acquire new equipment or hosts.

(b) Two or more years: the time taken to plan and build a new power station.

(c) Several weeks: the time taken to acquire additional premises.

(d) Likely to be at least two years: the time taken to plan and build a new store.

3. *The following are some costs incurred by a shoe manufacturer. Decide whether each one is a fixed cost or a variable cost or has some element of both.*

(a) *The cost of leather;*

(b) *The fee paid to an advertising agency;*

(c) *Wear and tear on machinery;*

(d) *Business rates on the factory;*

(e) *Electricity for heating and lighting;*

(f) *Electricity for running the machines;*

(g) *Basic minimum wages agreed with the union;*

(h) *Overtime pay;*

(i) *Depreciation of machines as a result purely of their age (irrespective of their condition).*

(a) Variable.

(b) Fixed (unless the fee negotiated depends on the success of the campaign).

(c) Variable (the more that is produced, the more the wear and tear).

(d) Fixed.

(e) Fixed if the factory will be heated and lit to the same extent irrespective of output, but variable if the amount of heating and lighting depends on the amount of the factory in operation, which in turn depends on output.

- (f) Variable.
- (g) Variable (although the basic wage is fixed *per worker*, the cost will still be variable because the total cost will increase with output if the number of workers is increased).
- (h) Variable.
- (i) Fixed (because it does not depend on output).

4. *Why does the marginal cost curve pass through the bottom of the average cost curve and the average variable cost curve?*

When the additional cost of one more unit (the marginal cost) is *less* than the average, then the average cost must fall when that new lower-cost unit is averaged in with all the other units. When the additional cost of one more unit is *greater* than the average, then the average cost must rise. Hence the marginal cost curve will always cut the average cost curve at the lowest point. The relationship between average and marginal variables always holds and as such, the marginal cost curve will also cut the average variable cost curve at its minimum point, as the difference between the average cost and average variable cost curve is simply the average fixed cost.

5. *Does the marginal value of a variable (such as cost, revenue or profit) determine the average value of the variable, or does the average value of the variable determine the marginal value? Explain your answer.*

When the additional cost of one more unit (the marginal cost) is *less* than the average, then the average cost must fall when that new lower-cost unit is averaged in with all the other units. When the additional cost of one more unit is *greater* than the average, then the average cost must rise. Hence the marginal cost curve will always cut the average cost curve at the lowest or highest point. Therefore, we can conclude that the marginal value of a variable will always control or determine the average value of the variable. There are three key rules about averages and marginals:

1. If the marginal equals the average, the average will not change.
2. If the marginal is above the average, the average will rise.
3. If the marginal is below the average, the average will fall.

6. *What economies of scale is a large department store likely to experience?*

Specialised staff for each department (saving on training costs and providing a more efficient service for customers); being able to reallocate space as demand shifts from one product to another and thereby reducing the overall amount of space required; full use of large delivery lorries which would be able to carry a range of different products; bulk purchasing discounts; reduced administrative overheads as a proportion of total costs.

7. *Why are many firms likely to experience economies of scale up to a certain size and then diseconomies of scale after some point beyond that?*

Because economies of scale, given that most arise from increasing returns to scale, will be fully realised after a certain level of output, whereas diseconomies of scale, given that they arise largely from the managerial problems of running large organisations, are likely to set in only beyond a certain level of output.

8. *Normal profits are regarded as a cost (and are included in the cost curves). Explain why.*

Normal profit is the opportunity cost of capital for owners. It is the return they could have earned on their capital elsewhere, and is thus the minimum profit they must make to persuade them to continue producing in the long run and not to close down and move into some alternative business.

9. *What determines the size of normal profit? Will it vary with the general state of the economy?*

Normal profit is the opportunity cost of capital for owners. It is the rate of profit that can be earned elsewhere (in industries involving a similar level of risk). When the economy is booming, profits will normally be higher than when the economy is in recession. Thus the 'normal' profit that must be earned in any one industry must be higher to prevent capital being attracted to other industries.

10. *A firm will continue producing in the short run even if it is making a loss, providing it can cover its variable costs. Explain why. Just how long will it be willing to continue making such a loss?*

Its fixed costs have already been incurred. Provided, therefore, that it can cover its variable costs, anything over can be used to help pay off these fixed costs. Once the fixed costs come up for renewal, however (and thus cease to be fixed costs), the firm will close down if it cannot cover these also. It will thus be willing to make a loss only as long as the fixed costs have been paid (or committed).

11. *Would it ever be worthwhile for a firm to try to continue in production if it could not cover its long-run average (total) costs?*

Only if it expected to be able to make a profit in the near future. Remember that there are no long-run fixed costs (by definition). Thus, by operating at a price below the long-run average cost, the firm would be making a loss. Closing down would avoid that loss. Nevertheless, if it expects demand to pick up, or its *LRAC* curve to shift downward, then that loss may be warranted in terms of keeping its customers happy and avoiding the set up costs of having to re-open at some point in the future when profits *could* be made.

12. *The price of tablet computers and digital cameras fell significantly in the years after they were first introduced and at the same time demand for them increased substantially. Use cost and revenue diagrams to illustrate these events. Explain the reasoning behind the diagram(s) you have drawn.*

The costs of producing them fell significantly as technology rapidly improved. The (short-run) *AC* and *MC* curves shifted downwards (in a diagram like Figure 4.4). These downward shifts were great enough to more than offset the rightward shift in the demand curve. Thus the price fell.

13. *Illustrate on a diagram similar to Figure 4.6 what would happen in the long-run if price were initially below P_L .*

The industry supply curve would initially be to the right of S_e and average revenue would be below AR_L . Firms would be making a loss. They would thus leave the industry. As they did so, the supply curve would shift to the left until it reached S_e . This would raise the market price to P_L and, at that point, normal profits would be restored and firms would cease leaving the industry.

Chapter 5

1. *Think of four different products or services and estimate roughly how many firms there are in the market. You will need to decide whether 'the market' is a local one, a national one or an international one. In what ways do the firms compete in each of the cases you have identified?*

You will see when you think about this question that it is often difficult to identify the boundaries of a market. Take a product like chocolate. If the product is defined as bars of chocolate, then there are probably about three or four different makes available, but maybe only one or two in any one shop. If, however, the product is defined to include filled chocolate bars, then there are many more varieties available, but, of course, several made by each individual company (such as Cadbury's, Mars, Nestlé, etc). You will also notice for many products that there are one or two large producers, and many small producers, making the market a hybrid form of oligopoly if the large producers dominate the market.

The sorts of competition to look out for are: price competition, advertising, product specification, product availability, after sales service, etc.

2. *As an illustration of the difficulty in identifying monopolies, try to decide which of the following are monopolies: a train operating company; your local evening newspaper; the village hairdresser; the Royal Mail; Microsoft Office suite of programs; Interflora; the London Underground; ice creams in the cinema; Guinness; food on trains; the board game 'Monopoly'.*

In each case it depends on how narrowly you define the market. For example, your local evening newspaper may have a monopoly over local printed evening news, but the local radio or television station is another source of local evening news. It may have a monopoly over certain types of advertisement, but various local trade papers may be an alternative source of other types.

3. *For what reasons would you expect a monopoly to charge (a) a higher price, and (b) a lower price than if the industry were operating under perfect competition?*

(a) As Figure 5.2 in the text illustrates, the effect of a monopoly producing an output where $MC = MR$ results in a higher price and lower output than under perfect competition, since under perfect competition output is where $P = MC$ (shown by the intersection of MC and $AR = D$). Even if the monopolist operates with lower marginal costs than a firm under perfect competition (as a result of economies of scale or more efficient processes), although this will have the effect of reducing prices somewhat, the price will still be higher than under perfect competition unless marginal costs are *substantially* lower.

(b) Where the marginal costs *are* substantially lower, so that they have the effect of pulling the price below that under perfect competition. This would only occur if the monopolist's MC curve intersected the MR curve to the right of where the perfectly competitive industry's MC curve intersected the industry demand curve.

4. *Will competition between oligopolists always reduce total industry profits?*

Competition between oligopolists will reduce industry profits to the extent that price is forced below the industry profit-maximising level, or to the extent that costs are driven up by increased expenditure on advertising and marketing. It is possible, however, that the competition could lead to the development of new products and improved quality, which over the *longer term* could lead to a shift in the right of the *industry* demand curve. This could offset the first two effects and lead to larger industry profits than in the case where competition had not taken place.

5. *In which of the following industries is collusion likely to occur: bricks, beer, margarine, cement, crisps, washing powder, blank DVDs or BluRay, carpets? Explain why.*

In all cases collusion is quite likely: check out the factors favouring collusion on page 000. In some cases it is more likely than others: for example, in the case of cement, where there is little product differentiation and a limited number of producers, collusion is more likely than in the case of carpets, where there is much more product differentiation.

6. *Devise a box diagram like that in Figure 5.5, only this time assume that there are three firms, each considering the two strategies of keeping price the same or reducing it by a set amount. Identify the best response for each firm. Is the game still a 'dominant strategy game'?*

The example given below illustrates that it is likely that the game will remain a dominant strategy game. In this example, each of three firms (A, B and C) is considering lowering its price from £2 to £1.80. The cells show the various combinations of prices and their effects on profits for the three firms. No matter what it assumes the other firms do, the best response for each firm is to lower its price. If firm A thinks that both firms B and C will charge £2, firm A's profits are either £10m or £15m. £15m is preferable and this is achieved by lowering its price to £1.80. Likewise if firm A assumes that both will charge £1.80, then firm A will receive profits of £3m from charging £2 or £6m from charging £1.80. Again, the price will be lowered to obtain the higher level of profits. This holds for all firms and all strategies. However, when they all do lower their price, the result is that they will all be worse off than if they had all kept their price at £2 – evidence that the Nash equilibrium is not necessarily in firms' interests.

Dominant strategy game for three firms

		B £2 C £2	B £1.80 C £2	B £2 C £1.80	B £1.80 C £1.80
	A £2	A £10m B £10m C £10m	A £5m B £15m C £5m	A £5m B £5m C £15m	A £3m B £8m C £8m
	A £1.80	A £15m B £5m C £5m	A £8m B £8m C £3m	A £8m B £3m C £8m	A £6m B £6m C £6m

7. *What are the limitations of game theory in predicting oligopoly behaviour?*

- ☐ It would be unable to *measure* all the potential responses to a change in one firm's actions, especially if the market involves many other firms and if the range of possible responses is great. A major problem here is that there may be chain reactions. Even if firm A could predict the likely possible reactions of firm B, it would then have to consider the reactions of firm C, D, etc, to the reactions of firm B.
- ☐ Even if the responses of rivals could be identified, their effects on the original firm's sales could be hard to predict.
- ☐ Oligopolistic behaviour is not consistent, and strategy can change quite radically within a very short space of time.

8. *Make a list of six aims that a manager of a high street department store might have. Identify some conflicts that might arise between these aims.*

Six possible examples are:

1. To increase sales.
2. To seek promotion to a bigger store, head office or some other company.
3. To ensure that staff work efficiently.
4. To ensure that this season's stocks are all sold by the end of the season (without having to make massive reductions at sale time).

5. To stock as full a range of products as possible.
6. To have an easy life.

Conflicts could arise between (4) and (5), and between (6) and virtually any of the others.

9. *When are increased profits in a manager's personal interest?*

When they lead to an increased salary, to promotion, to greater prestige with colleagues and contacts outside the firm, to greater personal satisfaction, to a greater sense of job security, etc. In other words, increased profits would be in managers' interests, if their salaries or some other goal they wished to pursue were directly linked to the firm's level of profit.

10. *Since advertising increases a firm's costs, will prices necessarily be lower with sales revenue maximisation than with profit maximisation?*

No. If advertising could go on increasing total revenue substantially beyond the profit-maximising level of advertising, (and hence go on shifting the demand curve to the right), the effect *could* be to give a higher price.

11. *A frequent complaint of junior and some senior managers is that they are frequently faced with new targets from above, and that this makes their life difficult. If their complaint is true, does this conflict with the hypothesis that managers will try to build in slack?*

No. The changes in targets may result from the fact the senior managers have built slack into their departments and can afford the 'luxury' of changing targets: perhaps experimentally. At the same time, the junior managers, fearing changed targets, may well be trying to increase the amount of organisational slack in their domain (but hoping not to let their bosses know, for fear of being given tougher targets).

12. *Outline the main factors that might influence the size of the profit mark-up set by a business.*

When setting a price mark-up, the business bases the size of the mark-up on what it thinks the market can bear and the likely impact it will have upon its rivals' pricing policy.

13. *If a cinema could sell all its seats to adults in the evenings at the end of the week, but only a few on Mondays and Tuesdays, what price discrimination policy would you recommend to the cinema in order for it to maximise its weekly revenue?*

Offer reduced-price tickets to children in the evenings as well as in the afternoon for the first part of the week, but not for the end of the week.

14. *How will a business's pricing strategy differ at each stage of its product's life cycle? First assume that the business has a monopoly position at the launch stage; then assume that it faces a high degree of competition right from the outset.*

During the launch and growth stage, when competition is low, business can choose between either a high price or low price strategy. A low price strategy would enable the business to acquire market share and operate with a more effective barrier to entry over the longer term. A high price strategy would enable the business to recoup any money spent in product development, and maximise returns from the product as quickly as possible. During the maturity phase, with growing competition, prices are likely to fall, unless some measure of collusion can be established. As the product moves into the decline phase, price competition is likely to intensify as firms compete to survive. Businesses will also seek to reduce costs in order to maintain their profit margins.

Chapter 6

1. *What do you understand by the term 'business strategy'? Explain why different types of business will see strategic management in different ways? Give examples.*

Business strategy refers to the long-term approaches, planning and activities of a business, and how it attempts to achieve various goals, such as expanding its market share, breaking into new markets or diversifying its product range.

Different types of business have different goals; hence the strategy they adopt will reflect these differing objectives. For example, a large firm might be contemplating how to maintain its market position, whereas a small firm might be devising a strategy to enable it to grow. Alternatively, a firm motivated by profits will pursue significantly different goals to a firm concerned with, say, charitable work, where a distinct value system might shape its objectives and hence strategic approach to business.

2. *Outline the Five Forces Model of competition. Identify both the strengths and weaknesses of analysing industry in this manner.*

The Five Forces Model of Competition, illustrated in Figure 6.1, enables us to categorise, on an industry-by-industry basis, which factors are most significant in shaping competitiveness. It enables business to identify its own strengths and weakness and identify appropriate strategies to enhance its position within the marketplace. As a model, it does however suffer from its largely static description of industry, which over time is likely to change. It also suffers from a view of business based solely on competition as a basis for successful business. Increasingly joint ventures and strategic alliances – co-operation rather than competition – seem to be shaping business and industry development in many sectors of the economy.

3. *Investigate a particular industry and assess its competitive environment using the Five Forces approach.*

Clearly, the answer depends on the industry you have selected. Refer to the material on pages 000 to help you. To find an industry, try doing a Web search.

4. *Distinguish between a business's primary and support activities in its value chain. Why might a business be inclined to outsource its support activities? Can you see any weaknesses in doing this?*

A business's primary value chain activities add directly to the process of a product's value creation. Support activities *underpin* value creation without adding directly to value (see Figure 6.2). Many of these support activities (and in certain industries many primary activities too) are being outsourced. The motivation behind such outsourcing is primarily cost driven, in so far as the sub-contracted activity can be provided more cheaply and just as effectively, if not more so, by another firm. The weakness with such a strategy of sub-contracting is that the business loses a certain degree of control over the value creation process. The business may come to depend upon the sub-contractor(s) for its profitability.

5. *What do you understand by the term 'core competence' when applied to a business? What are the arguments for and against a firm narrowly focusing on its core competencies?*

A business's core competence is what it does best: the basis of its competitiveness and success. To be a *core* competence, the competence must be valuable, in terms of the firm using it to deal with competitive threats. It must be rare, and as such not possessed by competitors. It must be costly to imitate by other businesses; and it must be non-substitutable, such that there is no alternative to it.

6. *Explain the two-way relationship between a business's rate of growth and its profitability.*

The relationship between a business's rate of growth and its profitability is two fold. First, growth depends upon profits as profits help contribute to investment. Second, growth affects profitability. In the short run, growth might reduce profitability: i.e. money spent on advertising and marketing to achieve growth will increase costs. In the long run, with growth in output and new economies of scale, and with the capturing of new markets, profitability might be enhanced.

7. *Distinguish between internal and external growth strategy. Identify a range of factors which might determine whether an internal or external strategy is pursued.*

An internal growth strategy is one where the business looks to expand its productive capacity by adding to existing plant or by building new plant. An external growth strategy is one where a business grows by merging with other firms or by taking them over. It could also form strategic alliances with other firms.

The main factor determining whether an internal or external growth strategy was pursued would be the whether the business wished to grow quickly or slowly. If quick growth was the objective then an external growth strategy would be considered. It also depends on the market in which the firm operates. A rapidly expanding market gives more scope for internal growth.

8. *What is meant by the term 'vertical integration'? Why might a business wish to pursue such a growth strategy?*

Vertical integration refers to a growth strategy in which the business expands within an existing market, by moving into a different stage of production. This can be forward (e.g. into distribution or retail), or backwards into the supply chain. The advantages of such a strategy are: greater efficiency via production economies, co-ordination economies, managerial economies and financial economies; reduced uncertainty; increased monopoly power; and barriers to entry.

9. *A firm can grow by merging with or taking over another firm. Such mergers or takeovers can be of three types: horizontal, vertical or conglomerate. Which of the following is an example of which type of merger (takeover)?*

- a) *A soft drinks manufacturer merges with a pharmaceutical company.*
- b) *A car manufacturer merges with a car distribution company.*
- c) *A large supermarket chain takes over a number of independent grocers.*

To what extent will consumers gain or lose from the three different types of merger identified above?

(a) a conglomerate merger; (b) a vertical merger; (c) a horizontal merger.

From both vertical and horizontal mergers consumers might potentially gain from lower prices. Reasons for this include economies of scale and the possibility of the newly merged companies providing more effective competition for other large firms in the market. However, in both cases the enhanced monopoly power of the business might simply mean higher prices and the implementation of more effective barriers to entry. The merged companies may also stop producing certain lines. With conglomerate mergers, the benefits and costs to consumers are likely to be less. Advantages for the consumer include various financial and managerial economies of scale, which might result in lower prices. Disadvantages for the consumer are likely to arise from the use of profits in one sector of the company to subsidise prices in another and thereby drive competitors out of the market.

10. *Assume that an independent film company, which has up to now specialised in producing documentaries for a particular television broadcasting company, wishes to expand. Identify some possible horizontal, vertical and other closely related fields into which it may choose to expand.*

The film company, which specialises in producing documentaries, might look to grow horizontally by producing other types of output. For example it might produce nature programmes or light entertainment. If the company wished to remain in the film industry, but rely less on production, it might consider branching out vertically, such as setting up its own broadcasting company or, by moving back into its supply chain, it might set up a company to manufacture and process film. The company might also seek to create strategic alliances with other media businesses. For example a publishing house might offer the film company the ability to turn documentaries into books. An alliance with a music business might be beneficial in creating programme soundtracks.

11. *What are the advantages and disadvantages for a company in using the stock market to raise finance for expansion?*

Advantages: gives firms access to a large source of finance; investor confidence is stimulated, making it easier for business to raise finance; it makes it easier for firms to pursue a policy of mergers and takeovers in order to achieve growth.

Disadvantages: cost of getting listed; ability to raise finance often depends on short-term share performance, forcing firms to take a more short-term view; firms may be more vulnerable to being taken over.

12. *In what sense can the stock market be said to be efficient? Why is it unlikely to be perfectly efficient?*

An efficient stock market is defined as one in which new information concerning the performance of a business is quickly and rationally transmitted into the business's share price. As much of this information is available only to people within the business, the stock market, although pretty efficient, is not perfectly so. Thus 'insiders' could take advantage of their insider knowledge to predict good or bad news about the company and hence know in advance when share prices are likely to rise or fall. This would allow them to make a large amount of profit from share dealing. To prevent this happening, 'insider dealing' is illegal.

13. *Compare and contrast the competitive advantages held by both small and big business.*

The prime advantages held by small firms are: their flexibility; their ability to provide a high quality service; low overheads; and their ability to identify and operate in niche markets. For the big firm, the primary advantages they hold are: economies of scale; the ability to raise funds for investment and growth; and the fact that size can give credibility to their operations, especially when selling overseas.

14. *How has the weak economic climate since 2008 affected small businesses? Do you think it is easier or more difficult to set up a business during a recession? Explain your answer.*

The weak economic climate we have experienced since 2008 was largely the result of the banking crisis and the ensuing 'credit crunch', with bank lending declining both to businesses and to individuals. It was followed by 'austerity policies, as governments sought to reduce their deficit and debts by reducing government expenditure and raising certain taxes.

Many small firms were directly affected in three ways. First, it became much harder for many of them to obtain credit, not only for investment but also for paying their current bills. Second, the fall in consumer demand badly affected those businesses with a high income elasticity of

demand, such as those providing luxury goods and services. They found their demand falling by more than the average. Third, the fall in investment meant that many firms cut back on their demand for capital equipment and consultancy services, many of which were supplied by small businesses.

Generally it is harder to set up a business in a recession. With falling demand, the opportunities for capturing new markets tend to be fewer and existing firms are likely to compete harder in order to increase their share of a declining market. This can result in falling prices and profit margins. With the recessionary period being prolonged and recovery being very weak, this further added to the problems of many small businesses, as confidence remained very low.

Nevertheless, some entrepreneurs may be able to take advantage of these more difficult times by providing lower-cost, no-frills alternatives to existing products. Also with some existing firms going out of business, this might provide opportunities for new firms to gain their customers.

Chapter 7

1. *Using the FDI database in the statistics section of the UNCTAD website (UNCTADstat) at (<http://unctadstat.unctad.org/EN/>), find out what has happened to FDI flows over the past five years (a) worldwide; (b) to and from developed countries; (c) to and from developing countries; (d) to and from the UK. Explain any patterns that emerge.*

Under each head you should be looking for patterns of rates of growth of FDI inflows and FDI as a proportion of gross fixed capital formation (investment). Then you should see how these patterns correlate with world and regional economic growth rates and the growth in trade (exports and imports).

2. *What are the advantages and disadvantages to an economy, such as the UK, of having a large multinational sector?*

The advantages for the UK of having a large multinational sector are that it provides investment, employment and growth, and, given that many multinationals export, it contributes to the balance of payments. A disadvantage of having a large multinational sector within the economy is that the economy is vulnerable to such businesses deciding to leave. This is a concern with the UK having voted to leave the EU.

In addition, by having a large multinational sector within the economy, and with multinationals being such significant employers and investors, they may be able to exert control over the host state. Such control might, for example, take the form of requesting additional subsidies to help with expansion: otherwise the business will look to expand elsewhere. Finally, much of the profit earned by multinationals does not remain in the country but flows back to the multinational's country of origin.

3. *How might the structure of a multinational differ depending on whether its objective of being multinational is to reduce costs or to grow?*

If the multinational were looking to expand overseas to reduce costs, then it would be more likely to be considering a vertically integrated structure. If, however, it were looking to expand overseas to grow, then it would probably be considering a horizontally integrated structure.

4. *Choose a multinational company and then, by using its website, assess its global strategy.*

You might try doing a web search for your chosen company's global strategy, perhaps under different headings, such as markets, products, affiliates, supply chains, R&D, etc.

5. *How might a business's strategy in the domestic and global economy be affected by the onset of recession?*

During a recession, demand falls and, as a result, firms will begin to reduce production. As less output is needed, firms may begin a process of downsizing. This may be an efficient response for a business, although it could make it harder to build up production again once the recession passes. It will, however, allow a firm to re-organise its business. The firm may also look at its training provision. Cutting back on training may be a way of saving money in the short term, although it is likely to have an adverse effect on productivity over the longer term.

Crucial to surviving a recession is to hold on to existing customers, so a firm's strategy may switch to focus on customer service. This could involve adapting their products, menus and services to suit customer needs. Advertising may be part of this strategy. Advertising can be

costly and so the onset of recession may encourage firms to reduce expenditure on advertising. On the other hand, a firm that has not been focusing on advertising as part of its strategy may now decide that advertising is the best way out of recession. It may be a question of changing the focus of the marketing mix.

Rather than focusing on retaining customers, a firm's strategy may turn towards diversification, whether by product or market. If demand in an existing market is stagnant or falling, looking elsewhere for sales may be a crucial strategy for surviving a recession. A firm that is looking to grow may decide to continue its growth strategy, but change the market, for example by moving abroad and benefiting from a country that is not suffering from recession. However, if a business is aiming to grow, the onset of recession may put a stop to their growth plans. Planned investments are likely to be delayed, as output falls.

6. *If reducing costs is so important for many multinationals, why is it that they tend to locate production not in low-cost developing economies, but in economies within the developed world?*

The location of MNCs in developed rather than developing economies, even when they are pursuing low costs, is due to the fact that many MNCs are seeking workers with skills, which they are more likely to find in developed markets, or in newly industrialised economies, such as Malaysia or, increasingly, China and India. Also developed countries are more likely to offer a better transport, communications and financial infrastructure.

7. *'Going global, thinking local'. Explain this phrase, and identify the potential conflicts for a business in behaving in this way.*

By going global, the business generates a huge opportunity to create and benefit from economies of scale. However, in pursuit of such cost savings the business should not overlook the uniqueness of local market conditions. To do so may mean lost sales and hence profit. The problem with differentiating products for local markets, however, is that costs will rise. Hence a trade-off needs to be made between lowering costs and creating uniqueness.

8. *Explain the link between the life cycle of a product and multinational business.*

When the product reaches its mature phase – the phase when cost considerations become more important, and the domestic market becomes saturated with competition – the business will have to consider how to reduce costs to maintain profits, and how to continue to sell more of the product. An answer to both of these questions might be to locate production overseas in lower-cost production sites which give access to new consumers.

9. *Assess the advantages and disadvantages facing a host state when receiving MNC investment.*

As considered in the answer to question 2 above, the main advantages are to employment, growth, investment and the balance of payments. In addition, a further advantage, especially to less developed economies, might be the possibility of some technology transfer from the MNC to the host state. The disadvantages, as mentioned, might be the uncertainty of MNC investment, the control and influence of the MNC over the host state, as well as the environmental and social impacts that an MNC might have. These problems might be significant in developing economies, where the MNC is less restricted by environmental regulations and social restrictions, such as workers' rights.

Chapter 8

1. *If a firm faces a shortage of workers with very specific skills, it may decide to undertake the necessary training itself. If on the other hand it faces a shortage of unskilled workers it may well offer a small wage increase in order to obtain the extra labour. In the first case it is responding to an increase in demand for labour by attempting to shift the supply curve. In the second case it is merely allowing a movement along the supply curve. Use a demand and supply diagram to illustrate each case. Given that elasticity of supply is different in each case, do you think that these are the best policies for the firm to follow?*

In the first case (skilled workers), the supply curve is less elastic. A rightward shift in demand would mean that the firm would have to give a substantial rise in wages (the second policy) in order to attract sufficient workers from outside. Thus it may be profitable for the firm to undertake the expense of training itself to avoid having to pay these high wages. There is a danger, however, that once it has trained its workers, they could now get a higher wage elsewhere. The effect would be a vertical shift in the supply curve, and the firm may end up having to pay the higher wages anyway.

In the second case (unskilled workers), supply is more elastic: workers can readily transfer from and to other jobs. Thus a rightward shift in demand will only lead to a relatively small rise in wages.

If it used the second policy (of offering a wage rise) in the first case (that of a shortage of *skilled* workers), the wage rise is likely to have to be substantial in order to recruit the necessary extra labour. The less elastic the supply of labour, the higher the wage rate rise would have to be.

2. *The wage rate a firm has to pay and the output it can produce varies with the number of workers as follows (all figures are hourly):*

Number of workers	1	2	3	4	5	6	7	8
Wage rate (AC_L) (£)	3	4	5	6	7	8	9	10
Total output ($TPPL$)	10	22	32	40	46	50	52	52

Assume that output sells at £2 per unit.

- (a) *Copy the table and add additional rows for TC_L , MC_L , TRP_L and MRP_L . Put the figures for MC_L and MRP_L in the spaces between the columns.*
- (b) *How many workers will the firm employ in order to maximise profits?*
- (c) *What will be its hourly wage bill at this level of employment?*
- (d) *How much hourly revenue will it earn at this level of employment?*
- (e) *Assuming that the firm faces other (fixed) costs of £30 per hour, how much hourly profit will it make?*
- (f) *Assume that the workers now form a union and that the firm agrees to pay the negotiated wage rate to all employees. What is the maximum to which the hourly wage rate could rise without causing the firm to try to reduce employment below that in (b) above? (See Figures 8.5 and 8.8.)*
- (g) *What would be the firm's hourly profit now?*

- (a) See the following table:

Number of workers	1	2	3	4	5	6	7	8
AQ_L (£)	3	4	5	6	7	8	9	10
TQ_L (£)	3	8	15	24	35	48	63	80
MC_L (£)		5	7	9	11	13	15	17
TPP_L (units)	10	22	32	40	46	50	52	52
TRP_L (£)	20	44	64	80	92	100	104	104
MRP_L (£)		24	20	16	12	8	4	0

- (b) 5 workers. Employing a fifth worker adds £12 to the firm's total revenue ($MRP_L = £12$), but only £11 to total cost ($MC_L = £11$). It is thus profitable for the firm to employ the fifth worker. Employing a sixth worker, however, is not profitable. The sixth worker would add £13 to costs but only £8 to revenue.
- (c) £35
- (d) £92
- (e) Total cost will be £35 + £30 = £65. The firm thus makes an hourly profit of £92 – £65 = £27.
- (f) A fraction under £12 (= MRP_L) at the profit-maximising employment). So long as additional workers add at least £12 to the firm's revenue - as they do up to 5 workers – they will be profitable to employ. At a wage rate fractionally below £12, if the firm were to reduce employment below 5 workers, it would lose more in revenue than it would save in wages.
- (g) Total cost is fractionally under £90 (i.e. £30 fixed costs plus fractionally under £60 in wage costs). Total revenue is still £92. The firm thus makes a total hourly profit of just over £2.

3. *For what types of reason does the marginal revenue product differ between workers in different jobs?*

- ☐ The productivity of workers differs. Reasons include: differences in ability, qualifications and motivation.
- ☐ Workers differ in the amount of other factors of production with which they are working. Clearly a person working with modern machinery will be much more productive than one working with little or no equipment.
- ☐ The price of the good that is being produced. The higher its price, the greater will be the value of the worker's output.

4. *If, unlike a perfectly competitive employer, a monopsonist has to pay a higher wage to attract more workers, why, other things being equal, will a monopsonist pay a lower wage than a perfectly competitive employer?*

The wage rate for a monopsonist will be lower than for a perfectly competitive employer because the monopsonist employs *fewer* workers. Both the monopsonist and the perfectly competitive employer will employ workers up to the point where the marginal cost of labour equals the marginal revenue product of labour. For the perfectly competitive employer, the marginal cost of labour will equal the wage rate. For the monopsonist, the wage rate (AC_L) will be *below* the marginal cost of labour.

5. The following are figures for a monopsonist employer:

Number of workers (1)	Wage rate (£) (2)	Total cost of labour (£) (3)	Marginal cost of labour (£) (4)	Marginal revenue product (£) (5)
1	100	100		230
2	105	210	110	240
3	110	230	120	240
4	115			230
5	120			210
6	125			190
7	130			170
8	135			150
9	140			130
10	145			

Fill in the missing figures for columns (3) and (4). How many workers should the firm employ if it wishes to maximise profits?

Number of workers (1)	Wage rate (£) (2)	Total cost of labour (£) (3)	Marginal cost of labour (£) (4)	Marginal revenue product (£) (5)
1	100	100		
2	105	210	110	230
3	110	330	120	240
4	115	460	130	240
5	120	600	140	230
6	125	750	150	210
7	130	910	160	190
8	135	1080	170	170
9	140	1260	180	150
10	145	1450	190	130

The firm should employ workers up to the point where $MC_L = MRP_L$: it should employ 7 or 8 workers.

6. *To what extent could a trade union succeed in gaining a pay increase from an employer with no loss in employment?*

In Figure 8.5, a negotiated wage increase from W_1 to W_2 will actually lead to an *increase* in employment (from Q_1 to Q_2). To understand this, we need to realise that wages are now set by negotiation between unions and management. Once the wage rate has been agreed, the employer can no longer drive the wage rate down by employing fewer workers. If it tried to pay less than the agreed wage, it could well be faced by a strike, and thus have a zero supply of labour!

The effect of this is to give a new supply curve that is horizontal up to the point where it meets the original supply curve. For example, let us assume that the union succeeds in negotiating a wage rate of W_2 in Figure 8.5. The supply curve will be horizontal at W_2 . So too, then, will be the MC_L curve. The reason is simply that the extra cost to the employer of taking on an extra worker is merely the negotiated wage rate: no rise has to be given to existing employees. If MC_L is equal to the wage, the profit-maximising employment ($MC_L = MRP_L$) will now be where $W = MRP_L$. At a negotiated wage rate of W_2 , the firm will therefore choose to employ Q_2 workers – an *increase* in employment!

What this means, therefore, is that the union can push the wage right up from W_1 to the level at which the MC_L and MRP_L curves intersect and the firm will still *want* to employ Q_1 . In other words, a substantial wage rise may be able to be obtained *without* a reduction in employment.

The union could go further still. By threatening industrial action, it may be able to push the wage rate even higher and still insist that Q_1 workers are employed (i.e. no redundancies). The firm may be prepared to see profits drop right down to normal level rather than face a strike and risk losses. The absolute upper limit to the wage rate will be that at which the firm is forced to close down.

7. *Drawing on recent examples, consider the extent to which strike action is likely to help trade union members achieve their various aims.*

Here, it would be a good idea to look at Box 8.2: The Winter of Discontent, which looks at some recent strike action in the UK. There have been a number of postal strikes, strikes by bus and rail companies, strikes by cabin crew and even by teachers. It is important to think about what the aims of the trade unions were in each case and to look at what has happened in the negotiations between the union representatives and the management of the various companies. Were the aims related to pay, working conditions, technology, redundancies? Have the demands of the unions been met? In many cases, strike action continued for some time – there were several strikes by BA cabin crew, suggesting that the demands of the unions had not been met at this point.

If a deal has been reached in any strike case, it is unlikely to be exactly what the union was bargaining for. A compromise will inevitably have been reached with concessions on the part of both sides.

The extent to which strike action is likely to be successful will depend on the relative power of both sides. Can the management bring in other workers at relatively low cost? How much disruption will there be from the strikes? These are things to consider when answering this question.

8. *Do any of the following contradict the theory that the demand for labour equals the marginal revenue product: wage scales related to length of service (incremental scales), nationally negotiated wage rates, discrimination, firms taking the lead from other firms in determining this year's pay increase?*

Even if marginal productivity theory were not relevant in these cases, the theory would still be accurate in the sense that *if* firms wanted to maximise profits then they should employ workers to the point where $MC_L = MRP_L$.

But do any of the above four cases necessarily contradict marginal productivity theory?

- (a) *Wage scales related to length of service (incremental scales).* No, not necessarily. A system of incremental scales may be consistent with a profit-maximisation strategy. The employer

can pay less to new recruits and yet still attract them to the firm because of the prospects of higher pay in the years to come. The firm can go on recruiting new staff to the point where their *MRP* was equal to their addition to costs (based on the agreed scale).

- (b) *Nationally negotiated wage rates.* No, not necessarily. Firms may find it convenient (in terms of the costs of negotiating and the avoidance of disputes) to pay nationally agreed wage rates. They then could employ workers up to the point where their *MRP* was equal to this wage rate (which, given that the firm was a 'wage taker' would be equal to the MC_L).
- (c) *Discrimination.* Yes. Discrimination would lead to firms employing those workers against whom they were discriminating below the level where their *MRP* was equal to their MC_L .
- (d) *Firms taking the lead from other firms in determining this year's pay increase.* No, not necessarily. (See answer to (b) above.)

9. *What is the efficiency wage hypothesis? Explain what employers might gain from paying wages above the market-clearing level.*

The efficiency wage hypothesis is that a business, through paying high wages, is able to improve its performance through improved labour productivity. Employers gain as workers become more industrious, labour turnover is reduced, the best workers from outside are attracted to the business and the morale of the workers improves.

10. *'Statutory minimum wages will cause unemployment.' Is this so?*

Whether minimum wages cause unemployment depends on:

- ☐ how high the minimum wage rate is set.
- ☐ how competitive labour markets are: the more competitive, the bigger the impact.
- ☐ the aggregate demand and supply of labour. If demand for and supply of labour in the economy as a whole is relatively inelastic, the impact could be quite small.
- ☐ how far below the marginal revenue product workers are paid.
- ☐ the extent to which a minimum wage improves workers' motivation and increases productivity.

Figure 8.8 shows that raising the minimum wage rate to W_2 for the firm shown will increase its employment of labour. If the minimum wage is raised above W_2 , however, the firm shown will employ fewer people.

11. *Identify the potential costs and benefits of the flexible firm to (a) employers and (b) employees.*

The principal benefits of the flexible firm to the employer are that it is easier to manage resources in times of growth and stagnation, and it is easier to control costs. The costs of the flexible firm are largely born by the employees, and in particular those in the periphery who now have very unstable employment and are likely to receive lower wages.

12. *How have changes in society, laws and technology affected the UK labour market?*

Society: greater labour mobility has arisen from people being prepared to travel longer distances (e.g. through the increase in domestic flights) and from technological development allowing more people to work from home; greater occupational mobility though changing social norms as people become more willing to change jobs – greater mobility increases the elasticity of supply of labour; increased labour supply from immigration, increased part-time working by parents, people working longer hours and people retiring later all increase the supply of labour.

Laws: minimum wage legislation may cause unemployment if the wage is set above the equilibrium, but may motivate people to work more effectively; redundancy legislation may

make firms more reluctant to take on workers, especially in uncertain times, but may make workers more willing to take on jobs; maximum weekly hours may reduce the supply of labour, but again may make workers work more effectively; health and safety legislation may alter the job specifications of employees.

Technology: labour-saving technological developments may reduce the demand for labour, unless there is a sufficient rise in sales to compensate for this; new products employing various technological developments (such as wi-fi technology) will increase demand for workers producing these products – these shifts in demand will affect wages according to the price elasticity of supply – the more elastic the supply (i.e. the greater the labour mobility), the less effect it will have on wage rates; as explained above, better communications technology may allow more home working and less travel for meetings.

13. Provide a case for and against high bonuses.

High bonuses act as an incentive for attracting the most highly skilled and driven workers into an industry. These workers have a high marginal physical product and thus make a big contribution to the economy. Without such large bonuses, these workers may leave the industry or even country, which could have detrimental effects on the sector and the economy. High bonuses can also encourage workers and this may lead to an improved performance.

On the other hand, if bonuses are awarded irrespective of performance, then they do not act as an incentive and instead could be seen as wasted money. They may lead to individuals acting in their own best interest and not doing what is right for the company or indeed its owners. In particular, they may encourage managers to take a short-term perspective rather than considering the long-term interests of the company. High bonuses may be a result of tacit (or not-so tacit) collusion within remuneration committees, where large bonuses are granted by members of the committees, hoping that they in turn will be granted large bonuses when their own remuneration is under consideration.

As we have seen in the banking sector, large bonuses unrelated to the long-term health of organisations have also led to serious financial consequences for individual banks and the sector as a whole. They have generated public fury, especially in the cases of banks that are partly or wholly owned by the public sector. Tax payers finance parts of these bonuses, which leads to outcry when the performance does not appear to match the bonus.

Managers may be sufficiently motivated by smaller bonuses, carefully aligned to the long-term performance of the company.

Chapter 9

1. Assume that a firm discharges waste into a river. As a result, the marginal social costs (*MSC*) are greater than the firm's marginal (private) costs (*MC*). The following table shows how *MC*, *MSC*, *AR* and *MR* vary with output.

Output	1	2	3	4	5	6	7	8
<i>MC</i> (£)	23	21	23	25	27	30	35	42
<i>MSC</i> (£)	35	34	38	42	46	52	60	72
<i>TR</i> (£)	60	102	138	168	195	219	238	252
<i>AR</i> (£)	60	51	46	42	39	36.5	34	31.5
<i>MR</i> (£)	60	42	36	30	27	24	19	14

- (a) How much will the firm produce if it seeks to maximise profits?
- (b) What is the socially efficient level of output (assuming no externalities on the demand side)?
- (c) How much is the marginal external cost at this level of output?
- (d) What size tax would be necessary for the firm to reduce its output to the socially efficient level?
- (e) Why is the tax less than the marginal externality?
- (f) Why might it be equitable to impose a lump-sum tax on this firm?
- (g) Why will a lump-sum tax not affect the firm's output (assuming that in the long-run the firm can still make at least normal profit)?
- (a) 5 units. This is the output where the firm's marginal revenue equals its marginal (private) cost.
- (b) 4 units. This is the output where price (*AR*) equals marginal social cost.
- (c) £17. Marginal external cost is marginal social cost minus marginal private cost (= £42 – £25).
- (d) £5 per unit of output. This would raise the firm's *MC* by £5. At 4 units of output the firm's marginal cost would now be £30, which would be equal to its marginal revenue.
- (e) Because the firm has market power: it faces a downward sloping *AR* curve. This means that its *MR* is below the price (*AR*). At 4 units of output (the social optimum), *MR* is £12 lower than *AR*. Since the firm, in order to maximise profit, equates *MC* with *MR* and not *AR*, the tax needs to be £12 lower than the marginal externality: i.e. £5, not £17.
- (f) Because the firm is not paying the full amount of the externality that it is imposing on society and could thus be argued to be making excessive profit at society's expense. A lump-sum tax can remove this excessive profit.
- (g) Because it is a fixed cost and thus does not affect the firm's marginal cost. Therefore it does not affect the profit maximising output: it simply reduces the amount of profit at that output.

2. *Distinguish between publicly provided goods, public goods and merit goods.*

Publicly provided goods are merely goods that the government or some other public agency provides, whether or not they could be provided by the market.

Public goods are the much narrower category of goods that the market would fail to provide because of their characteristics of non-rivalry and non-excludability. Thus a local government might provide both street lighting and public libraries: they are both publicly provided goods, but only street lighting is a public good.

A *merit good* is either publicly provided or subsidised. It is one that the government feels that people would otherwise underconsume (e.g. health care). It is not normally a public good, however, because it *would* be provided by the market, and is in some countries: it is just that people would consume too little of it.

3. *Some roads could be regarded as a public good, but some could be provided by the market. Which types of road could be provided by the market? Why? Would it be a good idea?*

Roads where there are relatively few access points and where therefore it would be practical to charge tolls. Motorways could have charges imposed, such as the M6 toll road near Birmingham. There are a number of toll roads across France. Charges could be regarded as a useful means of restricting use of the roads in question, or, by charging more at peak times, or encouraging people to travel at off-peak times. Such a system, however, could be regarded as unfair by those using the toll roads, and might merely divert congestion onto the non-toll roads. The extent of this diversion will depend on how high the toll is and how responsive motorists are to its imposition. This elasticity of demand depends on how convenient the alternative non-toll road is.

4. *Make a list of pieces of information a firm might want to know and consider whether it could buy the information and how reliable that information might be.*

Some examples include:

- ❑ The position and elasticity of the demand curve:
Market research can provide some information, but it is very unreliable, especially in an oligopolistic environment, where the actions of rivals is unpredictable.
- ❑ Next year's wages bill:
The information cannot be purchased, but it could use its own past experiences to predict (albeit imperfectly) the outcome of wage negotiations.
- ❑ The costs of alternative inputs:
This information is probably available free from suppliers.
- ❑ Ways of saving taxes:
Employing accountants can help the firm save money here.

5. *Why might it be better to ban certain activities that cause environmental damage rather than to tax them?*

- ❑ Bans are usually simple and clear to understand and are often relatively easy to administer.
- ❑ When the danger is very great, it might be much safer to ban various practices altogether (e.g. the use of various toxic chemicals) rather than to rely on taxes or on individuals attempting to assert their property rights through the civil courts.
- ❑ When a decision needs to be taken quickly, it might be possible to invoke emergency action. For example, in a city like Athens it has been found to be simpler to ban or restrict the use of private cars during a chemical smog emergency than to tax their use.
- ❑ Many consumers might like to avoid consuming products that pollute the environment, but may be unaware of which products fall into this category. Again, it may be simpler to ban such products or ban certain ingredients into such products.

6. *How suitable are legal restrictions in the following cases?*

- (a) *Ensuring adequate vehicle safety (e.g. tyres with sufficient tread or roadworthy vehicles).*
- (b) *Reducing traffic congestion.*
- (c) *Preventing the use of monopoly power.*
- (d) *Ensuring that mergers are in the public interest.*
- (e) *Ensuring that firms charge a price equal to marginal cost.*

- (a) Very suitable, provided that periodic tests and possibly spot checks are carried out.
- (b) Good in certain cases: e.g. one-way systems, banning lorries of a certain size from city centres during certain parts of the day, bus lanes.
- (c) Not very, given that the main problem is excessive profits, which would be difficult to define legally and relatively easy to evade even if they were defined. Various types of unsafe or shoddy goods (which are possibly more likely to be produced by firms not facing competition) could be made illegal, however.
- (d) Good. The law could give the government or some other body (e.g. the CMA) the right to ban any merger it considered not to be in the public interest (see section 8.3).
- (e) Not. It would require an army of inspectors to identify marginal costs, or to check that a firm's reported marginal costs were what it claimed. The scope for evasion and ambiguity would be immense.

7. *In what ways might business be socially responsible?*

A business might be socially responsible in some of the following ways:

- ☐ production strategies that are environmentally sound.
- ☐ high employee welfare standards.
- ☐ insisting that suppliers from developing economies pay fair wages.
- ☐ the use of sensitive and clear advertising in the marketing of its product(s).

8. *What economic costs and benefits might a business experience if it decided to adopt a more socially responsible position? How might such costs and benefits change over the longer term?*

The costs of adopting a more socially responsible business position is that it will lead the business away from maximising profits. Also managers might be making decisions about social issues in which they have little expertise.

A converse view is that over the longer term a business that is socially responsible will be just as, if not more, likely to maximise profits. A business that ignores its social responsibilities will be identified by consumers and the wider community and this will be bad for business.

9. *Using a demand and supply diagram, explain why carbon prices fell at the beginning of the Emissions Trading Scheme (ETS), due to emissions allowances being too generous.*

A criticism levelled at the EU's ETS was that carbon allowances were set too high. It was easy for firms to generate surplus credits and this created an excess supply of credits. It was this that forced the price of carbon down. We can illustrate this on a demand and supply diagram.

The generous level of allowances meant that firms had an excess supply of credits, which they could supply to the market. This caused a rightward shift in the supply curve of carbon credits and the price therefore fell. The effect was similar to that illustrated in Figure 2.5 (b) of the textbook. In this case, however, the supply curve will shift from S_2 to S_1 , pushing the price down from P_{e3} to P_{e1} and increasing the quantity from Q_{e3} to Q_{e1} .

10. *What problems are likely to arise in identifying which firms' practices are anti-competitive? Should the CMA take firms' assurances into account when deciding whether to grant an exemption?*

The main difficulty arises in establishing the extent to which competition would have occurred *without* the agreement. Nevertheless, given the greater powers of the CMA relative to the former OFT, it is easier to establish the extent to which firms are intending to restrict competition by engaging in one or more illegal practices identified in 2002 Enterprise Act. There is still the problem, however, of establishing the extent to which secret collusion is taking place.

The CMA would probably be wise to accept firms' assurances only if a system of monitoring future behaviour were established to ensure that firms adhered to their assurances.

11. *If anti-monopoly legislation is effective enough, is there ever any need to prevent mergers from going ahead?*

The more effective is anti-monopoly legislation, the less is the need for a specific merger policy. Nevertheless, it is probably useful to prevent any mergers that pose considerable dangers to competition, in order to prevent the later disruption of having to conduct investigations and terminate any anti-competitive practices. Only if anti-monopoly and restrictive practice legislation were perfectly effective would there be no case for merger policy.

12. *If two or more firms were charging similar prices, what types of evidence would you look for to prove that this was collusion rather than mere coincidence?*

Profit margins would be a major piece of evidence. If profit margins were typical of those in other industries, then similar prices between the firms could have been established through a process of competition. After all, in *perfect* competition, prices will be identical! If profit margins suggest large supernormal profits are being made, then *some* form of collusion is probable, but whereas this could be the deliberate getting together of firms (openly or secretly) to rig prices, it could be merely a form of perfectly legal price leadership, where one firm takes the lead from another and is reluctant to start a price war. In order to establish whether the collusion contravened the Competition or Enterprise Act, it would be necessary to see whether the firms were engaging in any of the practices specified on pages 000–0.

13. *Should governments or regulators always attempt to eliminate the supernormal profits of monopolists/oligopolists?*

No. If the barriers to competition are not total, then supernormal profits may have the important role of attracting new competitors into the market. Even if there are significant barriers to entry, supernormal profits might not necessarily be a sign of the exploitation of market power (higher revenue): they might arise from increased *efficiency* (lower costs). To eliminate all supernormal profits through regulation could discourage firms from operating more efficiently and from innovating. It is for these reasons that regulation in the UK has been based on an RPI–X formula: the aim being to permit only those supernormal profits that arise from internally generated cost reductions.

13. *Should regulators of utilities that have been privatised into several separate companies permit (a) horizontal mergers (within the industry); (b) vertical mergers; (c) mergers with firms in other related industries (e.g. gas and electricity suppliers)?*

If the aim of regulators is to prevent monopoly abuse and to encourage competition, the test should be whether the mergers restrict competition. Generally horizontal mergers are more likely to restrict competition than vertical ones, and vertical mergers are more likely to restrict competition than mergers with firms in other industries. But even here, competition could be reduced. For example, if a bus company merged with a train company, competition in public transport in a given region could be restricted.

Chapter 10

1. *What are the key macroeconomic objectives of government? Are there likely to be any conflicts between them?*

There are four key areas that governments seek to control: economic growth, inflation, unemployment and the balance of payments. Governments will also aim to achieve a satisfactory budget, to influence the distribution of income and increasingly to protect the environment.

There will be conflicts between the macroeconomic objectives. For example, policies that aim to reduce unemployment through boosting aggregate demand are likely to cause a higher rate of inflation. Policies that aim to accelerate the rate of economic growth are likely to accelerate environmental damage, as production rises and resources are depleted. Policies to promote growth may also cause inflation (unless the productive capacity of the economy rises), and potentially a growing budget deficit, if government spending is used to boost aggregate demand and tax receipts do not rise as quickly. The government, therefore, has to prioritise its objectives.

2. *The table shows index numbers for real GDP (national output) for various countries (2010 = 100).*

	2010	2011	2012	2013	2014	2015	2016
USA	100.0	101.6	103.8	105.3	107.7	110.2	112.6
Japan	100.0	99.5	101.3	102.6	102.6	103.1	103.6
Germany	100.0	103.7	104.3	104.7	106.3	107.8	109.2
France	100.0	102.1	102.3	102.9	103.1	104.2	105.4
UK	100.0	102.0	103.2	105.3	108.2	110.4	112.3

Using the formula $G = (GDP_t - GDP_{t-1})/GDP_{t-1} \times 100$ (where G is the rate of growth, GDP is the index number of output, t is any given year and $t-1$ is the previous year):

- (a) *Work out the growth rate for each country for each year from 2011–16*
- (b) *Plot the figures on a graph. Describe the pattern that emerges.*

(a) See the following table:

	2011	2012	2013	2014	2015	2016
USA	1.6	2.2	1.4	2.3	2.3	2.2
Japan	–0.5	1.8	1.3	0.0	0.5	0.5
Germany	3.7	0.6	0.4	1.5	1.4	1.3
France	2.1	0.2	0.6	0.2	1.1	1.2
UK	2.0	1.2	2.0	2.8	2.0	1.7

In each case the growth rate (G) is found by using the following formula:

$$G = (GDP_t - GDP_{t-1})/GDP_{t-1} \times 100$$

(where G is the rate of growth, GDP is the index number of output, t is any given year and $t-1$ is the previous year:

- (b) See Figure 10.5 in the textbook. Note that figures for France and Germany are not shown. Instead the figures for the members of the eurozone are plotted.

3. *In terms of the UK circular flow of income, are the following net injections, net withdrawals or neither? If there is uncertainty, explain your assumptions.*

- (a) *Firms are forced to take a cut in profits in order to give a pay rise.*
- (b) *Firms spend money on research.*
- (c) *The government increases personal tax allowances.*
- (d) *The general public invests more money in building societies.*
- (e) *UK investors earn higher dividends on overseas investments.*
- (f) *The government purchases US military aircraft.*
- (g) *People draw on their savings to finance holidays abroad.*
- (h) *People draw on their savings to finance holidays in the UK.*
- (i) *The government runs a budget deficit (spends more than it receives in tax revenues).*

Injectors comprise government spending, exports and investment. Withdrawals comprise saving, net taxes and imports.

- (a) Neither, there is merely a redistribution of factor payments on the left-hand side of the inner flow. (The only exception to this would be if a smaller proportion of wages were saved than of profits. In this case there would be a net reduction in withdrawals.)
- (b) Increase in injections (investment).
- (c) Decrease in withdrawals (taxes).
- (d) Increase in withdrawals (saving). Note that 'investing' in building societies is really *saving* not investment.
- (e) Fall in withdrawals (a reduction in net outflow abroad from the household sector).
- (f) Neither. The inner flow is unaffected. If, however, this were financed from higher taxes, it would result in an increase in withdrawals.
- (g) Neither. The inner flow is unaffected. The consumption of domestically produced goods and services remains the same.
- (h) Decrease in withdrawals (saving).
- (i) Net injections. An increase in government expenditure (or decrease in taxes, or both) is not offset by changes elsewhere.

4. *Assume that the multiplier has a value of 3. Now assume that the government decides to increase aggregate demand in an attempt to reduce unemployment. It raises government expenditure by £100 million with no increase in taxes. Firms, anticipating a rise in their sales, increase investment by £200 million, of which £50 million consists of purchases of foreign machinery. By how much will GDP rise? (Assume that nothing else changes.)*

Injectors rise by $\text{£}100\text{m} + (\text{£}200\text{m} - \text{£}50\text{m}) = \text{£}250\text{m}$. Therefore, with a multiplier of 3, national income will rise by $\text{£}750\text{m}$.

5. *What factors could explain why some countries have a higher multiplier than others?*

- The lower a country's national income, the higher will tend to be its mpc_d and thus the higher will be its multiplier. (Poorer people cannot afford to save such a large proportion of their income as can richer people.)
- In some countries there is much more of a 'savings culture' and thus the mpc_d is lower. Those with less of a savings culture will tend to have a higher mpc_d and hence a higher multiplier.
- In some countries, especially large ones, trade accounts for a relatively small proportion of national income. In such countries the mpc_d will be higher, as more of people's consumption goes on domestically produced goods, and hence the multiplier will be higher than in countries with a higher proportion of trade relative to national income.
- The marginal tax rate, differs from one country to another. The lower it is, the higher will be their after-tax income (their 'disposable' income) and hence the higher will be their mpc_d , and the higher will be the multiplier.

6. *At what point of the business cycle is the country now? What do you predict will happen to growth over the next two years? On what basis do you make your prediction?*

Look back over the past few years and see what pattern emerges. What predictions are currently being made for output growth over the next two years in the press by various forecasting organisations and commentators?

7. *Why does a booming economy not carry on booming indefinitely. Why does an economy in recession pull out of that recession?*

The following are reasons why both a boom and recession will always come to an end.

- ❑ Ceilings and floors: Actual output can only grow more rapidly than potential output if there is slack in the economy. As full employment is reached and firms reach fully capacity, a ceiling to output will be reached. Likewise, there is a basic minimum level of consumption that people tend to maintain, even in recession, so there is a floor to output. These industries will need to maintain the level of replacement investment, so there is a floor to investment too.
- ❑ Echo effects: Consumer durables, such as cars and washing machines tend to last several years, but eventually they will need replacing. The replacement of goods purchased in a previous boom may help to bring a recession to an end.
- ❑ The accelerator: For investment to continue rising, consumer demand must rise at a *faster and faster* rate, otherwise investment will fall back and the boom will break.
- ❑ Random shocks: National or international political, social or natural events can affect the mood and attitudes of firms, government and consumers, and thus affect aggregate demand.
- ❑ Changes in government policy: During a boom, inflation can become a problem, so governments may pursue deflationary policies. These policies may bring about an end to the boom. The reverse will happen in a recession.

8. *For what possible reasons may one country experience a persistently faster rate of economic growth than another?*

Any or all of the following are possible reasons:

- ❑ A higher rate of saving and investment.
- ❑ Greater investment in education and training.
- ❑ A faster rate of increase in productivity.
- ❑ A more stable economy.
- ❑ A business environment conducive to investment (e.g. tax relief for investment, a minimum amount of government bureaucracy surrounding investment, an efficient capital market).
- ❑ A better transport and communications infrastructure.
- ❑ A more adventurous and entrepreneurial business culture.
- ❑ Repeated discoveries of new raw materials (e.g. oil).
- ❑ More harmonious industrial relations.
- ❑ A better motivated workforce.

9. *Imagine that the banking system receives additional deposits of £100 million and that all the individual banks wish to retain their current liquidity ratio of 20 per cent.*
- How much will banks choose to lend out initially?*
 - What will happen to banks' deposits when the money that is lent out is spent and the recipients of it deposit it in their bank accounts?*
 - How much of these latest deposits will be lent out by the banks?*
 - By how much will total deposits (liabilities) eventually have risen, assuming that none of the additional liquidity is held outside the banking sector?*
 - What is the size of the deposits multiplier?*
- £80 million (retaining £20 million as reserves): i.e. banks retain $\frac{1}{5}$ and lend out the remaining $\frac{4}{5}$.
 - Increase by a further £80 million.
 - £64 million (i.e. $\frac{4}{5}$ of £80 million).
 - £500 million (given a deposits multiplier of $5 = 1/L = 1/\frac{1}{5}$).
 - $1/L = 1/0.2 = 5$
10. *What effects will the following have on the equilibrium rate of interest? (You should consider which way the demand and/or supply curves of money shift.)*
- Banks find that they have a higher liquidity ratio than they need.*
 - A rise in incomes.*
 - A growing belief that interest rates will rise from their current level.*
- They will increase credit and hence the money supply. M_s will shift to the right. The equilibrium rate of interest will therefore fall.
 - Higher incomes will increase the transactions-plus-precautionary demand for money. M_d will shift to the right. The equilibrium rate of interest will therefore rise.
 - If people believe that interest rates will rise, the speculative demand for money will rise. M_d will shift to the right. The equilibrium rate of interest will therefore rise.

11. *Would it be desirable to have zero unemployment?*

On the surface it would seem desirable that nobody would be suffering from being unemployed. But for an economy to be able to absorb everyone looking for a job, one of three conditions would have to hold, each of which brings serious problems:

- ❑ Either the economy would have to be suffering from such a huge shortage of labour that firms were providing all sorts of inducements to keep labour. The shortage of labour could be a serious constraint on some firms' ability to expand and it would probably lead to considerable inflation, which itself brings problems (see section 10.7 of the text).
- ❑ Or unemployment benefits would have to be so low (or non-existent) that people would be forced to accept work at pittance wages.
- ❑ Or the government would have to provide work for everyone who would otherwise be unemployed. But such schemes, unless carefully devised and managed, could prove an expensive way of reducing unemployment; they might not be seen as 'real work' and they could be demoralising to those involved.

12. Consider the most appropriate policy for tackling each of the different types of unemployment.

Generally economists argue that an economic problem should be tackled at source: i.e. that it is better to tackle the root of a problem than merely treating its symptoms. This means that if unemployment is caused by a deficiency of aggregate demand, then the most appropriate policy would be to ensure that demand is sufficient. Economists disagree, however (as we shall see in later chapters), as to whether it is better to manage aggregate demand over the short term (say, by increasing government expenditure or reducing taxes) or to provide a more stable environment over the longer term in which the economy will be less subject to recessions.

If unemployment is caused by structural or technological change, or by too many 'frictions' in the economy, the best approach is to make the economy adapt more rapidly to these changing conditions. This involves what are called 'supply-side policies'. These could involve 'freeing up' markets to remove impediments to labour and capital mobility (e.g. deregulation or reducing the power of trade unions). Such policies tend to be favoured by the political right. The alternative would be to have interventionist supply-side policy. For example, the government could invest in education and training in order to create a more flexible workforce, or provide better job information, or invest in the transport infrastructure.

13. Under what circumstances will a reduction in unemployment be accompanied by (a) an increase in inflation; (b) a decrease in inflation? Explain your answer.

If the reduction in unemployment is caused by a faster increase in aggregate demand than in aggregate supply, then (demand-pull) inflation is likely to increase. If, however, it were caused by reductions in frictions in the economy, as a result, say, of better job information, better training or more effective incentives to take employment, then it could result in an increase in aggregate supply and a reduction in inflation.

14. Imagine that you had to determine whether a particular period of inflation was demand pull, or cost push, or a combination of the two. What information would you require in order to conduct your analysis?

In practice, it is very difficult since most periods of inflation have a number of different but inter-connected causes. Nevertheless, if there are clear independent rises in demand (say, for example, the government decides to cut income tax and increase benefits just before an election) then it would be fair to categorise any resulting inflation as 'demand pull'. Likewise if there are clear independent rises in costs or reductions in aggregate supply (say, for example, a major oil price increase or a natural disaster) then it would be fair to categorise any resulting inflation as 'cost push'. Of course, in both types of case it would be necessary to have clear evidence that subsequent inflation *was* indeed caused by these events and not by other factors.

The problem is that in most cases cost-push and demand-pull factors interact. A rise in consumer demand (a seemingly demand-pull factor) might have been the result, at least in part, of pay increases secured by trade unions. Those pay rises (a seemingly cost-push factor) might, in turn, have been demanded because unions saw their position being strengthened by a fall in unemployment, itself caused by higher demand. That rise in demand might have been caused, in part, by previous pay increases, and so on.

Chapter 11

1. *'The existence of a budget deficit or a budget surplus tells us very little about the stance of fiscal policy.' Explain and discuss.*

The stance of fiscal policy depends on its effect on aggregate demand. If it is to be expansionary, it must have the effect of increasing aggregate demand. This means that, when the other two injections and withdrawals have been taken into account, planned injections must exceed planned withdrawals at the current level of national income. In other words, it is not enough merely that there is a budget deficit (government expenditure exceeding taxation), since this might be offset by the other withdrawals (saving plus imports) exceeding the other injections (investment plus exports). Likewise, the budget could only be regarded as deflationary if its effect on government expenditure and taxation was to such as to cause *total* withdrawals to exceed total injections.

2. *Adam Smith, the founder of modern economics, remarked in The Wealth of Nations (1776) concerning the balancing of budgets, 'What is prudence in the conduct of every private family can scarce be folly in that of a great kingdom.' What problems might there be if the government decided to follow a balanced budget approach to its spending?*

If the government were to pursue a balanced-budget approach to its spending, without due regard to economic circumstances, this might not suit the needs of the economy. It makes much more sense to pursue a budget which is balanced on *average* over the course of the business cycle. By allowing the budget to move into deficit in recessions and into surplus in boom periods will help to stabilise the economy. *Deliberately* increasing a budget deficit in a recession and deliberately increasing a surplus in a boom (discretionary fiscal policy) can further help to reduce fluctuations. There are problems with discretionary fiscal policy, however (see pages 000).

3. *Imagine you were called in by the government to advise on whether it should attempt to prevent cyclical fluctuations by the use of fiscal policy. What advice would you give and how would you justify the advice?*

It might be better to avoid trying to fine-tune the economy through fiscal policy. Such policies involve considerable time lags and uncertainties and could end up operating in the wrong direction, thus making the problem of instability worse. What is more, *pure* fiscal policy is ineffective. Fiscal policy only works (or appears to) when it is backed up by monetary policy: in which case, it is better to focus on monetary policy. But even here, there are time lags. It is generally better, therefore, to give up short-term demand management and instead set monetary rules (targets) so as to create a more stable long-term environment.

4. *Why is it difficult to use fiscal policy to 'fine tune' the economy?*

Because of:

- ❑ the difficulties in forecasting the course of the economy and any random shocks, and thus the difficulty in deciding on the appropriate magnitude of any changes in G or T ;
- ❑ the difficulties in predicting the magnitude of the effects of any changes in G and T ;
- ❑ the difficulties in predicting the timing of the effects of fiscal policy, given the substantial time lags involved;
- ❑ the difficulties in taking policy measures early enough, again given the time lags involved.

5. *When the Bank of England announces that it is putting down interest rates, how will it achieve this, given that interest rates are determined by demand and supply?*

When the Bank announces that it is putting down interest rates, it achieves this via open market operations in the gilt repo market. When banks run short of liquidity they make a repo agreement with the Bank of England. The Bank buys gilts from the banks (thereby supplying them with money) on condition that the gilts will be bought back on a particular day at a set price. This repurchase price will be above the sale price. This difference is equivalent to the rate of interest being charged. If the Bank wishes the rate of interest to fall then it decreases the repurchase price and hence the repo rate. The banks will be forced to pay this rate because they will be kept short of liquidity by the Bank and thus be forced to sell gilts to the Bank on a repo basis and, in so doing, forced to buy them back later at the Bank's chosen price.

6. *How does the Bank of England attempt to achieve the target rate of inflation of 2 per cent? What determines its likelihood of success in meeting the target?*

If its forecasts of inflation are that inflation will be above target, it announces a rise in interest rates and then uses open market operations (offering liquidity to the banks through gilt repos at a higher rate of interest) to bring this about. If the forecasts are for inflation to be below target, it announces a reduction in interest rates and then conducts open market operations (offering liquidity to the banks through gilt repos at a lower rate of interest) to bring this about. Its success in meeting this target depends on the accuracy of its forecasts and the response of aggregate demand to interest rate changes. These two factors, in turn, depend on people's expectations and on external shocks to the economy (such as a world oil price change or a world stock market crisis).

7. *To what extent did the Bank of England's Monetary Policy Committee and other central banks face a dilemma in 2008, when faced with rising inflation and the onset of recession?*

Traditional theory would suggest that when aggregate demand falls, output will go down and unemployment will rise. At the same time, though, the price level in the economy will fall, so inflationary pressures will not be present. However, in 2008, the MPC faced a dilemma. Not only was the UK plummeting into recession, with falling aggregate demand, but inflation also increased. The higher inflation was the result of cost-push pressures from rising oil, food and raw material prices.

In order to tackle the recession, the MPC could reduce interest rates in a bid to boost investment, reduce saving and hence increase consumption and also to increase disposable income by reducing mortgage repayments. These effects together would cause aggregate demand to rise. However, the boost to aggregate demand from lower interest rates might cause inflation to rise, and inflation in 2008 was already too high.

The key dilemma, therefore, was that to tackle the recession interest rates needed reducing, but to tackle inflation, interest rates needed to rise. In the end, the MPC reduced Bank Rate to 0.5 per cent in a bid to stimulate the stagnant economy. This was also the action taken by many other central banks, including the Fed. The argument used to justify this was that commodity prices were likely to decline as recession took hold and thus the cost-push pressures would disappear. The Bank of England's aim is to get inflation to 2 per cent in 24 months' time. Its forecasts were showing that, with the slowing world economy, inflation would have fallen to the target by then.

8. *What is meant by a Taylor rule? In what way is it a better rule for central banks to follow than one of adhering to a simple inflation target?*

A Taylor rule takes two objectives into account – (1) inflation and (2) either real GDP or unemployment – and seeks to get the optimum degree of stability of the two.

The problem with a simple inflation target is that inflation might become a poor indicator of the overall strength of demand in the economy (Goodhart's Law). This will be especially the case

if there is a supply-side shock to the rate of inflation (e.g. an oil price increase or a war). If a rigid inflation target is adhered to, then interest rates would have to rise in such circumstances, depressing an economy which might already be moving into recession – a recession aggravated by the supply-side shocks. By following a Taylor rule, the reaction to such circumstances will be tempered by having to take into account the overall level of activity in the economy as indicated by the rate of growth of real GDP or the rate of unemployment.

9 *Under what circumstances would adherence to an inflation target lead to (a) more stable interest rates, (b) less stable interest rates than pursuing discretionary demand management policy?*

- (a) This would occur if adhering to inflation targets was accompanied by a belief that inflation *would* be successfully kept at its target by the authorities. This would then not put undue upward or downward pressure on inflation, would help to create a more stable demand for money and would thus avoid the need for significant changes in interest rates. It would also occur if discretionary fiscal policy involved having to make substantial changes to aggregate demand and hence to the demand for money (which would lead to changes in interest rates unless accompanied by changes in money supply), or if discretionary monetary policy involved changing interest rates to achieve changes in aggregate demand.
- (b) This would occur if inflation was initially considerably off-target, or if inflation was subject to external shocks (such as a substantial world oil price change). It would also occur if discretionary policy had the effect of expanding aggregate demand when interest rates were falling (thus helping to arrest the fall) and reducing aggregate demand (or its rate of growth) when interest rates were rising (thus helping to arrest the rise).

10. *Define demand-side and supply-side policies. Are there any ways in which such policies are incompatible?*

Demand-side policies (such as fiscal and monetary policy) shift the aggregate demand curve, whereas supply-side policies (such as improving tax incentives for business or investing in the country's transport infrastructure) shift the aggregate supply curve.

Changing government expenditure and taxation can have both demand-side and supply-side effects and it is important to ensure that these are compatible. For example, cutting taxes will stimulate aggregate demand (a demand-side effect). It may also alter incentives (a supply-side effect).

11. *What types of tax cuts are likely to create the greatest (a) incentives, (b) disincentives to effort?*

Cuts in income tax will tend to encourage people to work more/harder, because they increase the opportunity cost of leisure. This is the substitution effect: an incentive. However, by increasing after-tax incomes, they will also tend to make people feel that they can afford to work less. This is the income effect: a disincentive. Cutting marginal rates of tax, especially for those just into a given tax bracket, will have a substitution effect, but very little income effect, and therefore have a net incentive effect. Increasing allowances, however, will have an income effect, but no substitution effect, since the marginal rate of tax is not altered. Cutting the marginal rate for those already paying a considerable amount of the tax, will have a large income effect relative to the substitution effect. In both these cases there is a net disincentive effect.

Tax cuts for business will tend to have more of an incentive effect, the more that the benefits of the tax cuts are conditional upon increasing investment or cutting costs. Simple cuts in corporation tax (tax on profits), like cuts in income tax, will have both an income and a substitution effect. When the cut is first made, the windfall rise in profits may have a net disincentive effect. However, a country with relatively low corporation taxes is likely to encourage more investment over the longer term, both domestic and inward.

12. *Imagine that you are asked to advise the government on ways of increasing investment in the economy. What advice would you give and why?*

Tax incentives for business, such as tax relief on investment or reductions in taxes on profits, would be one possible policy. An alternative or additional policy measure would be to fund public-sector research and development or investment in transport infrastructure. In either case, the short-term effect would be to increase the size of the public-sector deficit. Thus you would need to establish the current state of the macroeconomy to establish whether this would be possible within the government's overall macroeconomic policy.

If the size of the public-sector deficit could not be increased then such measures would have to be accompanied by cuts in government expenditure elsewhere or increases in other taxes.

An alternative would be to cut various forms of 'red tape' that discourage investment.

13. *In what ways can interventionist industrial policy work with the market, rather than against it? What are the arguments for and against such policy?*

By providing various forms of modern infrastructure (roads, railways, telecommunications, etc.) to help private-sector firms operate more effectively; by subsidising or giving tax relief for private-sector investment and training.

By relying on such measures, rather than on regulation, the government is still allowing the market to continue providing the incentives to firms to innovate and invest, and at the same time the government can use the policy to correct for various market failures (such as externalities). However, when there is a serious problem of the abuse of monopoly power or serious externalities, then regulation or direct government provision (e.g. educational establishments) may be more appropriate (see the arguments developed in section 9.1).

Chapter 12

1. *Imagine that two countries, Richland and Poorland, can produce just two goods, computers and coal. Assume that for a given amount of land and capital, the output of these two products requires the following constant amounts of labour:*

	Richland	Poorland
1 computer	2	4
100 tonnes of coal	4	5

Assume that each country has 20 million workers.

- (a) If there is no trade, and in each country 12 million workers produce computers and 8 million workers produce coal, how many computers and tonnes of coal will each country produce? What will be the total production of each product?*
 - (b) What is the opportunity cost of a computer in (i) Richland; (ii) Poorland?*
 - (c) What is the opportunity cost of 100 tonnes of coal in (i) Richland; (ii) Poorland?*
 - (d) Which country has a comparative advantage in which product?*
 - (e) Assuming that price equals marginal cost, which of the following would represent possible exchange ratios?*
 - (i) 1 computer for 40 tonnes of coal; (ii) 2 computers for 140 tonnes of coal; (iii) 1 computer for 100 tonnes of coal; (iv) 1 computer for 60 tonnes of coal; (v) 4 computers for 360 tonnes of coal.*
 - (f) Assume that trade now takes place and that 1 computer exchanges for 65 tonnes of coal. Both countries specialise completely in the product in which they have a comparative advantage. How much does each country produce of its respective product?*
 - (g) The country producing computers sells 6 million domestically. How many does it export to the other country?*
 - (h) How much coal does the other country consume?*
- (a) Richland: 6 million computers; 200 million tonnes of coal
 Poorland: 3 million computers; 160 million tonnes of coal
 Total: 9 million computers; 360 million tonnes of coal*
 - (b) (i) 50 tonnes of coal (for every 2 workers diverted to computer production, 50 tonnes of coal are sacrificed).
 (ii) 80 tonnes of coal (for every 4 workers diverted to computer production, 80 tonnes of coal are sacrificed).*
 - (c) (i) 2 computers (i.e. $4/2$)
 (ii) $1\frac{1}{4}$ computers (i.e. $5/4$)*
 - (d) Richland has a comparative advantage in computers (it can produce them at a lower opportunity cost than can Poorland).
 Poorland has a comparative advantage in coal (it can produce it at a lower opportunity cost than can Richland)*
 - (e) Before trade 1 computer exchanges for 50 tonnes of coal in Richland and for 80 tonnes of coal in Poorland. If the computer:coal trade ratio is anywhere between 1:50 and 1:80, both countries can gain from trade, and therefore trade would take place.
 Ratios (ii) and (iv) meet this condition, and are therefore possible exchange ratios. In the case of (i) it would benefit neither country to export computers. In the cases of (iii) and (v) it would benefit neither country to export coal. Thus (i), (iii) and (v) are not possible exchange ratios.*

- (f) Richland: 10 million computers
Poorland: 400 million tonnes of coal
- (g) 4 million (i.e. 10 million – 6 million)
- (h) Poorland must import 4 million computers, for which it must export 260 million tonnes of coal (i.e. 4 million × 65 tonnes). It will therefore consume the remaining 140 million tonnes of coal.

2. *Why doesn't the USA specialise as much as General Motors or Texaco? Why doesn't the UK specialise as much as Unilever? Is the answer to these questions similar to the answer to the questions, 'Why doesn't the USA specialise as much as Luxembourg?' and 'Why doesn't Unilever specialise as much as the local florist?'*

There are two elements to the answer. One concerns costs, one concerns demand and revenue.

In terms of costs, as a firm or country specialises and increases production, so the opportunity costs of production are likely to fall at first, due to economies of scale, and then rise as resources become increasingly scarce. The local florist may not have reached the point of rising long-run opportunity costs. Also it is too small to push up the price of inputs as it increases its production. It is a price taker. General Motors and Texaco, however, probably will have reached the point of rising opportunity costs. Countries certainly would have if they specialised in only one product. Thus the larger the organisation or country, the more diversified they are likely to be.

Turning to the demand side: the local florist supplies a relatively small market and faces a relatively elastic demand. It is therefore likely to find that complete specialisation in just one type of product is unlikely to lead to market saturation and a highly depressed price. Large companies, however, may find that complete specialisation in one product restricts their ability to expand. The market simply is not big enough. Countries would certainly find this. The USA could hardly just produce one product! The world market would be nowhere near big enough for it. The general point is that overspecialisation would push the price of the product down and reduce profits.

3. *To what extent are the arguments for countries specialising and then trading with each other the same as those for individuals specialising in doing the jobs to which they are relatively well suited?*

The arguments are very similar. Individuals will gain by specialising in jobs in which they have a comparative advantage and using the money they earn to buy items which they could only have produced themselves relatively inefficiently.

4. *The following are four items that are traded internationally: wheat; computers; textiles; insurance. In which one of the four is each of the following most likely to have a comparative advantage: India; the UK; Canada; Japan? Give reasons for your answer.*

India: textiles

UK: insurance

Canada: wheat

Japan: computers

The reason in each case is that the products are intensive in factors that are relatively abundant in that country (e.g. Canada has an abundance of land that is suited for growing wheat; India has an abundance of labour and land suited to growing cotton).

5. *It is often argued that if the market fails to develop infant industries, then this is an argument for government intervention, but not necessarily in the form of restricting imports. In what other ways could infant industries be given government support?*

Examples include: subsidies, tax concessions, the construction of infrastructure that supports these industries, placing government contracts with these industries.

6. *Does the consumer in the importing country gain or lose from dumping? (Consider both the short run and the long run.)*

In the short run the consumer will gain from cheaper products. In the long run the consumer could lose if domestic producers were driven out of business, which then gave the foreign producer a monopoly. At that point, it is likely that prices would go up above the pre-dumping levels.

7. *What is fallacious about the following two arguments? Is there any truth in either?*

(a) *'Imports should be reduced because money is going abroad which would be better spent at home.'*

(b) *'We should protect our industries from being undercut by imports produced using cheap labour.'*

(a) Imports are consumed and thus add directly to consumer welfare. Also, provided they are matched by exports there is no net outflow of money. Trade, because of the law of comparative advantage, allows countries to increase their standard of living: to import products that could only have been produced relatively inefficiently at home.

(b) Importing cheap goods from, say, Hong Kong, allows more goods to be consumed. The UK uses less resources by buying these goods through the production and sale of exports, than by producing them at home. However, there will be a cost to *certain* UK workers whose jobs are lost through foreign competition. Policy makers must weigh up the benefits of trade to consumers and export industries against the costs to specific workers.

8. *Go through each of the arguments for restricting trade and provide a counter-argument for not restricting trade.*

The infant industry argument. Infants may never 'grow up': the support may allow them to remain inefficient; not all those industries claiming and receiving infant-industry protection are genuine infants (i.e. those which have a potential comparative advantage); infants may be better promoted through subsidies or other support, rather than by restricting trade - imposing tariffs, by raising prices, cuts down on the consumption not only of imported substitutes, but also of the goods produced by the infant itself.

To prevent dumping and other unfair trade practices. In the short run, consumers will *gain* from cheap imports. Even if the country loses in the long run from the dumping, the use of protection to stop the dumping may contribute to growing world-wide protectionism. It would be better to try to negotiate an end to the dumping, perhaps through the auspices of the World Trade Organisation.

To prevent the establishment of a foreign-based monopoly. There might be *international* competition to prevent individual foreign companies gaining monopoly power. Also, in practice it would be very difficult to decide when protection is warranted, given that many domestic companies would want to make a case for protection for themselves.

To spread the risks of fluctuating markets. If countries are vulnerable to fluctuations in international markets, then individual companies trading in such markets will also be vulnerable, and therefore may themselves decide to diversify.

To reduce the influence of trade on consumer tastes. Given the global nature of mass communication, it is very difficult in practice to prevent people's tastes being influenced by the products and marketing of multinational companies.

To take account of externalities. If the externalities are within the country, then they are better dealt with by tackling them at source: e.g. taxing production or consumption that involves negative externalities and subsidising production or consumption that involves positive externalities.

To improve a country's terms of trade by exploiting its market power. Although the export monopoly argument is valid in a static context for certain products, it is likely that export taxes will erode the country's monopoly power over the longer term. By driving up the price of exports in which the country has monopoly power, other firms in other countries are likely to break into the international market. In practice there are few goods in which individual countries do have significant monopoly power (except for a few raw materials). There are even fewer where countries have significant monopsony power in importing: with a growing process of globalisation, companies have many alternative markets in which to sell.

To protect declining industries. There are various ways of helping individuals cope with the adjustment costs of economic change that are not as drastic as cutting down on trade. For example, retraining and special redundancy settlements could help workers who lose their jobs in declining industries.

9. *If countries are so keen to reduce the barriers to trade, why do many countries frequently attempt to erect barriers?*

This is an example of the prisoners' dilemma (see page 000). There may be a net gain to all countries from a reduction in trade barriers, but any one individual country may gain if it alone erects a barrier against other countries, and will suffer if it does not erect barriers and other countries do. The effect of this is that countries will all tend to increase their protection unless international agreements (such as those under the auspices of the WTO) can be signed, binding the signatories to refrain from increasing the protection of their industries.

10. *If rich countries stand to gain substantially from freer trade, why have they been so reluctant to reduce the levels of protection for agriculture?*

Even though there may be a net gain to the country, farmers stand to lose. Given that farmers often have considerable political power or are particularly vociferous, governments are unwilling to upset them. Also there is the desire by many governments that their countries should be as self-sufficient in food production as possible (perhaps for strategic reasons). Also agriculture is particularly vulnerable to fluctuations in world prices. Commodity prices generally are much more volatile than the prices of manufactured products.

11. *Why is it difficult to estimate the magnitude of the benefits of completing the internal market of the EU?*

- ☐ Removing barriers to trade creates opportunities. The degree to which firms and individuals will take advantage of those opportunities is uncertain
- ☐ It depends on whether any barriers remain (e.g. administrative barriers).
- ☐ It depends on the rate of economic growth and other macroeconomic factors. The macroeconomy is difficult to forecast more than a few months ahead.
- ☐ It is difficult to predict the degree to which the increased competition in the single market will stimulate increased technical progress and the increased spread of skills and information over the long term.

12. *Look through the costs and benefits that we identified from the single European market. Do the same costs and benefits arise from a substantially enlarged EU?*

The possible benefits of trade creation, economies of scale and greater competition all apply, as do the costs of adverse regional multiplier effects, the costs of change and the possible increase in monopoly power. The bigger the Union becomes, however, the less the likelihood of trade diversion. These arguments were used in the debates during the UK referendum on EU membership.

13. *How did the financial crisis of 2008/9 and the subsequent economic downturn affect the costs and benefits of the latest EU enlargement?*

Prior to the financial crisis, there was 1.5 per cent annual growth in employment in new members and a solid 1 per cent growth in job creation in old members. Trade between all the member states grew from €175 billion in 1999 to €500 billion in 2007. In the same period, there was also a five-fold growth in trade among the new members from just under €15 billion to €77 billion.

At the moment it is probably too soon to tell what the long-term impact of the financial crisis will be, especially given the ongoing debt crisis in the eurozone. However, what is clear is that it caused problems for all countries in the EU, with growth falling and unemployment rising everywhere. The new member states did suffer in terms of lower exports, but a particular problem for some new members stemmed from easy access to finance. Countries were able to borrow increasing amounts, due to their increased economic stability and this led to rapid domestic credit growth that was insufficiently monitored and regulated. “The credit to GDP ratio jumped from 54% to 81% in Hungary between 2000 and 2008, and from 25% to 96% in Estonia following aggressive Scandinavian bank penetration in the Baltic States. But it remained stable at around 50% in the Czech Republic and 57% in Slovakia, while rising from 27% to 50% in Poland. Spectacular credit growth in Romania throughout the period lifted its ratio from 14% to 40%.”¹

Rapid credit growth has been destabilising, because, by sustaining aggregate demand, it has put pressure on consumer prices and on the prices of residential property. It also exposed the central and eastern European countries to exchange rate risk. All of this contributed to an overheating economy, with rapidly rising labour costs, which increased at a faster rate than increases in productivity and hence adversely affected their competitiveness. Foreign debt also increased, especially in Hungary, Latvia, Estonia and Bulgaria (to 136%, 130%, 120% and 102% of GDP respectively).

All of this contributed to the need for massive structural changes in the new member states. Once the eurozone debt crisis, a consequence of the financial crisis, has been brought under control, we will get a clear picture of just how the original and new members of the EU have been affected.

¹ Vincent, A; CEECS: convergence tested by the crisis; January 2010

Chapter 13

1. The following are the items in the UK's 2014 balance of payments:

	£ billions
Exports of goods	293.7
Imports of goods	416.9
Exports of services	219.7
Imports of services	130.9
Net income flows	-32.9
Net current transfers	-25.2
Net capital transfers	-0.4
Direct investment	+81.6
Portfolio investment	+114.7
Other financial flows	-88.2
Reserves	-7.1

Calculate the following:

- The balance on trade in goods.
- The balance on trade in goods and services
- The balance of payments on current account.
- The financial account balance.
- The total current plus capital plus financial account balance
- Net errors and omissions.

Compare your answers with the UK's 2015 balance of payments, which can be found in Table 13.1. What has happened to the UK's balance of payments over the past year?

- Deficit of £123.2 billion (i.e. £293.7bn – £416.9bn).
- Deficit of £34.4 billion (i.e. -£123.2bn + £219.7bn – £130.9bn).
- Deficit of £92.5 billion (i.e. -£34.4bn – £32.9bn – £25.2bn).
- Surplus of £101.0 billion (i.e. £81.6bn + £114.7bn – £88.2bn – £7.1bn).
- Surplus of £8.1 billion (i.e. £-92.5bn – £0.4bn + £101.0bn).
- £8.1 billion

The balance of payments on current account was fairly stable between 2014 and 2015. It declined a little from a deficit of £92.5 billion in 2014 to a deficit of £96.2 billion in 2015. This was the largest annual deficit as a percentage of GDP at current market prices since annual records began – it equated to 5.2 per cent of GDP. All aspects of the current account showed marginal changes, with total trade in goods, primary and secondary income moving into larger deficits (though only marginal changes on each). Services was the only component that was in surplus and the surplus here fell very slightly.

There was a worsening of the capital account, which moved from a deficit of £0.4 billion to a larger deficit of £1.1 billion in 2015. The financial account remains in surplus, but that surplus has fallen from 2014 to 2015. There was a big drop in direct investment from £81.6 billion to £66.1 billion, but portfolio investment increased significantly from £114.7 billion in 2014 to £269.3 billion in 2015. This increase was offset by a big decrease in other financial flows (including other investment and net financial derivatives) from -£88.2 billion to -£220.5 billion.

2. Assume that there is a free-floating exchange rate. Will the following cause the exchange rate to appreciate or depreciate? In each case you should consider whether there is a shift in the demand or supply curves of sterling (or both) and which way the curve(s) shift(s).

- (a) More video recorders are imported from Japan.
Demand curve shifts left/shifts right/does not shift
Supply curve shifts left/shifts right/does not shift
Exchange rate appreciates/depreciates
 - (b) UK interest rates rise relative to those abroad.
Demand curve shifts left/shifts right/does not shift
Supply curve shifts left/shifts right/does not shift
Exchange rate appreciates/depreciates
 - (c) The UK experiences a higher rate of inflation than other countries.
Demand curve shifts left/shifts right/does not shift
Supply curve shifts left/shifts right/does not shift
Exchange rate appreciates/depreciates
 - (d) Speculators believe that the rate of exchange will appreciate.
Demand curve shifts left/shifts right/does not shift
Supply curve shifts left/shifts right/does not shift
Exchange rate appreciates/depreciates
- (a) Demand curve *no shift*; supply curve shifts to the *right*; exchange rate *depreciates*.
 - (b) Demand curve shifts to the *right*; supply curve shifts to the *left*; exchange rate *appreciates*.
 - (c) Demand curve shifts to the *left*; supply curve shifts to the *right*; exchange rate *depreciates*.
 - (d) Demand curve shifts to the *right*; supply curve shifts to the *left*; exchange rate *appreciates*.

3. What is the relationship between the balance of payments and the rate of exchange?

The credit items in the balance of payments represent a demand for the country's currency. The debit items represent a supply. To the extent that the exchange rate, under a freely floating exchange rate system, balances the demand and supply of currency, so it will ensure an *overall* balance in the balance of payments. There is no guarantee, however, that there will be a balance on the individual parts of the account, as we saw in question 1. For example, there may be a current account deficit and a capital account surplus.

4. Consider the argument that in the modern world of large-scale short-term international financial movements, the ability of individual countries to affect their exchange rate is very limited.

The answer is that it depends on the effect of government policy on the views of speculators. The point is that the power of speculation to influence the exchange rate is likely to exceed the power of governments. The reason is that the exchange rate is dependent on the demand for and supply of the domestic currency on the foreign exchange market. If there are very large-scale short-term international capital movements, these will be the major short-term determinant of the rate of exchange – far more important than central bank intervention from the reserves. If speculators believe that the government is not going to be able to maintain the current exchange rate at such a high level, no matter how much it intervenes on the foreign exchange market or raises interest rates, then their actions will virtually ensure that the government will fail. This is why the UK was forced out of the ERM in September 1992.

If, however, the government can convince speculators that it intends to maintain interest rates above international ones and that therefore the current rate of exchange is not too high, then speculators will not sell the currency and the rate of exchange will be maintained.

The main conclusion is that speculative movements in international capital are normally too hard to resist merely by the government trying to create flows in the opposite direction by intervention

from the reserves or by changing interest rates. What is necessary is to stop the speculation itself. This is as much an art as a science: persuading speculators that the current rate will remain the equilibrium rate.

5. *Why may capital inflows damage the international competitiveness of a country's businesses?*

Because the inflows create a demand for the domestic currency on the foreign exchange market thereby driving up the exchange rate. This will make it harder for the country's exporters to compete abroad as they would have to charge a higher price to earn the same amount in the domestic currency. It will also make it harder for domestic producers to compete with imports as the higher exchange rate will make imports cheaper.

6. *What adverse effects on the domestic economy may follow from (a) a depreciation of the exchange rate and (b) an appreciation of the exchange rate?*

- (a) It may fuel inflation by increasing the price of imported goods and reducing the need for export industries to restrain cost increases.
- (b) It may damage export industries and domestic import-competing industries, which would now find it more difficult remain competitive (see answer to question 5).

7. *What are the causes of exchange-rate volatility? Have these problems become greater or lesser in the past 15 years? Explain why.*

- ❑ Inflation targets. To keep to these targets means allowing interest rates to fluctuate as necessary. This in turn causes exchange rate fluctuations.
- ❑ A huge growth in international financial markets. Banking throughout the world has become increasingly international rather than national. This has encouraged the international transfer of money and finance.
- ❑ The abolition of exchange controls in virtually all major countries.
- ❑ The growth in information technology. With the simple use of a computer and a VDU, finance can be transferred internationally virtually instantaneously.
- ❑ The preference for liquidity. With the danger of currency fluctuations, companies prefer to keep their financial capital as liquid as possible. They do not want to be locked into assets denominated in a declining currency.
- ❑ The growing speculative activities of trading companies. Many large companies will put together a team of dealers to help manage their liquid assets: to switch them from currency to currency to take advantage of market movements.
- ❑ The growing speculative activities of banks and other financial institutions.
- ❑ The growing belief that rumour or 'jumping on the bandwagon' are more important determinants of currency buying or selling than cool long-term appraisal. If people *believe* that speculation is likely to be destabilising, their actions will ensure that it is. Many companies involved in international trade and finance have developed a 'speculative mentality'.
- ❑ The growing belief that governments are powerless to prevent currency movements. As short-term finance or ('hot money') grows relative to official reserves, it is increasingly difficult for central banks to stabilise currencies by intervening in foreign exchange markets.

Most of these problems have grown in the past fifteen years as world trade has expanded, as short-term financial movements have increased even faster and as interest rates are increasingly being used to target inflation rather than exchange rates.

8. *Did the exchange rate difficulties experienced by countries under the ERM strengthen or weaken the arguments for progressing to a single European currency?*

They had little bearing on the debate between those advocating a single currency and those advocating flexible exchange rates between members. They did highlight the dangers, however, of fixed exchange rates when economies are not in harmony. There is therefore a problem for any group of countries in *progressing* to a single currency if it involves an intermediate stage of fixed exchange rates. Once sufficient harmony has been achieved, it is better to move *directly* to a single currency: there can be no speculation between the members if they all have the same currency (any more than there can be between the English pound and the Scottish or Welsh pounds, or the Californian and Maryland dollar).

9. *By what means would a depressed country in an economic union with a single currency be able to recover? Would the market provide a satisfactory solution or would (union) government intervention be necessary, and if so, what form would the intervention take?*

The market solution would be for the lower demand for its products and the resulting higher unemployment to push its rate of inflation below the average in the Union, so that its exports and domestic import substitutes became more competitive. This may be difficult if it has a higher rate of cost-push inflation, and considerable unemployment could result before market forces drove inflation down sufficiently. The government, or the Union as a whole, could help by diverting resources into supply-side measures in the country, such as building infrastructure.

10. *Assume that just some of the members of a common market like the EU adopt full economic and monetary union, including a common currency. What are the advantages and disadvantages to those members joining the full EMU and to those not joining?*

One advantage of adopting full economic and monetary union is that it might encourage investment, both inward and domestic. Another is that the members may have greater influence than the non-members in determining future policy of the union. Those that do not join, however, will be able to take advantage of exchange rate movements to deal with any economic shocks specific to their own economy. They may be vulnerable, however, to speculative international capital movements between their currency and others, including the common currency: movements which are not merely a reflection of their *trade* account divergences.

11. *What are the economic (as opposed to political) difficulties in achieving an international harmonisation of economic policies so as to avoid damaging currency fluctuations?*

A list of problems in harmonising policy can be found on pages 000. The main issue underpinning these difficulties is that different countries are likely to be experiencing different problems at any given time. As such, convergence and then harmonisation are difficult. In addition, in the background, we have the power of the speculator. In recent years it has been found that the speculator has been decisive in determining the outcome of co-ordinated policy actions between the G7/G20 economies.

12. *To what extent can international negotiations over economic policy be seen as a game of strategy? Are there any parallels between the behaviour of countries and the behaviour of oligopolies?*

There is a collective gain to countries from agreement over harmonisation and the greater international macroeconomic stability that would result. Each individual country, nevertheless, would have to agree to take decisions which might be directly against its short-term national interests. Each country may therefore be tempted to break the agreement.

Clearly there is a parallel with oligopoly. Collusion is in the collective interests of oligopolists, but each will be tempted to cheat. The greater the number of countries/oligopolists in an agreement, and the more divergent their individual economic circumstances, the greater the likelihood of one country/oligopoly breaking the agreement, and the less the commitment, therefore, of countries/oligopolists in general to the agreement.

13. Who are the winners and losers from globalisation?

It is recognised that not all countries benefit equally from globalisation. Those countries that have wealth and economic power will have more opportunities to benefit from the process of globalisation, through the control of capital, political agreements or cultural experiences. Poorer countries will face fewer opportunities. They may gain, however, from access to technology and the ability to produce goods for markets in the rich world. Although wages of the workers in many factories in the developing world are very low, the increased demand for their products from the rich world, and hence for the workers producing such goods, does have the potential for increasing wages in these factories. It depends on the power of the multinational employers to keep wages down. But, whatever the distribution of gains, supporters of globalisation argue that all countries will benefit from it.

It is generally believed that Japan, the US and Europe will benefit from globalisation. However, there has been concern expressed that economic activity and employment in developed countries will fall, as production is moved towards developing countries, which have lower unit labour costs. Although richer countries are likely to gain, relatively unskilled workers in these countries may lose out, as growing numbers of unskilled workers become available at a lower cost in developing countries. Take the example of call-centre work, with much of it having moved to countries such as India and the Philippines. Generally, those workers in both rich and poor countries who are educated and relatively highly skilled are likely to benefit, while those lacking education will tend to lose out. Globalisation may therefore create growing income inequality and greater job insecurity and also a threat of structural unemployment in industries where demand for labour falls.

Consumers are likely to benefit from more choice, increased competition, improved quality of products and hence an improvement in welfare. Opponents of globalisation claim that large multinationals will gain at the expense of smaller firms, who are unable to compete. They also argue that local communities and cultures will suffer, as traditions become lost and there may be irreversible damage to the environment.

Whatever the views on globalisation and whatever the consequences, one thing is clear: globalisation is here to stay.