

Chapter 10 Government intervention and government failure

Answers to Knowledge checks

- 10.1** A merit good is a good that brings unanticipated benefits to consumers, such that government believes it will be underconsumed in a free market: examples would be museums or art galleries. A demerit good is a good that the government believes will be overconsumed in a free market: examples would be tobacco or alcohol — or petrol, where overconsumption damages the environment.
- 10.2** After the tax is removed, the quantity demanded (and therefore traded) will rise, unless demand is perfectly price-inelastic.
- 10.3** A key reason for inelastic demand for tobacco is that the drug is addictive. Once people start smoking they find it difficult to give up as the habit becomes ingrained. There may also be social pressure to smoke. Furthermore, it may also be that people do not fully appreciate the damage to health caused by smoking, in spite of repeated government warnings. People who take up smoking at an early age may discount the future damage they may suffer.
- 10.4** If the government imposes too high a tax on pollution, too much of society's resources will be devoted to tackling pollution. This is because the marginal cost of reducing pollution is higher than the marginal benefits that it delivered.
- 10.5** If demand is relatively more elastic, then the subsidy will have a greater impact on quantity traded as consumers will react more strongly to a fall in price.
- 10.6** The free-rider problem arises because if people cannot be excluded from consuming a good that others have bought, they have no incentive to pay for it.
- 10.7** The main reason government intervention is needed to ensure the supply of a public good is because of the free-rider effect. This was explained in Chapter 9.
- 10.8** Setting a minimum price below the equilibrium is ineffectual, as it will not affect firms' behaviour. In the case of the Scottish initiative to set a minimum price for alcohol, the policy would not affect prices in bars and restaurants, which typically charge prices above the minimum anyway.
- 10.9** This is not a valid interpretation. Indeed, we could argue that the deterrent effect of CMA action is working well because few firms have been penalised. Or it could be that the early intervention of the CMA causes firms to change their behaviour.
- 10.10** Asymmetric information is where some parties to a transaction have better information than others.

Answers to Exercises and Case studies

Exercise 10.1

I will not try to influence your discussions at this point: after all, you are in the final chapter of Part 2 of the course.

Exercise 10.2

First consider the market for rented accommodation in the short run, as depicted in Figure A10.1.

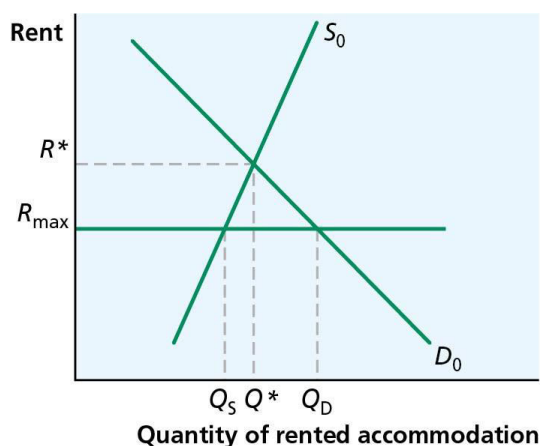


Figure A10.1 The short-run impact of rent controls on the market for rented accommodation

In a free market, the equilibrium rent would be R^* , but if the government imposes a rent control such that landlords cannot set a rent above $R_{\max}$, some landlords will not be prepared to supply accommodation, so there is a movement down along the supply curve (a contraction of supply), with quantity supplied falling from Q^* to Q_S . At the same time, the demand for rented accommodation will rise, so there is also a move down along the demand curve. There is now a severe shortage of rented accommodation with demand (Q_D) greatly exceeding supply (Q_S). Notice that I have drawn supply as being relatively inelastic, as it may not be possible to vary the supply very much in the short run, given that tenants have existing contracts. Demand may be more sensitive — perhaps some young adults living at home may wish to move out, or some homeless people may be able to afford the new lower rents. The problem is that the supply does not match the demand at the lower rent.

In the longer run, the position becomes even worse because landlords can withdraw more properties from the rental market. This is shown in Figure A10.2.

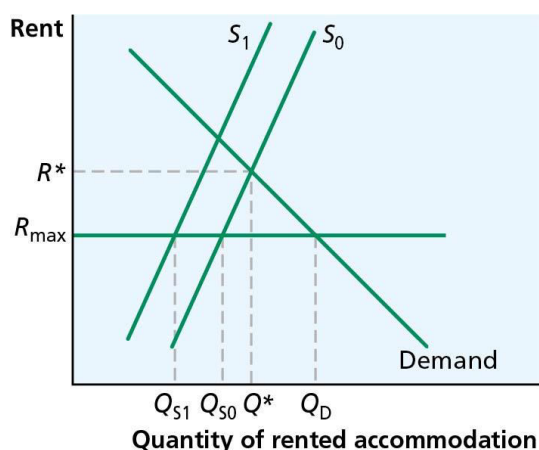


Figure A10.2 The long-run impact of rent controls on the market for rented accommodation

In the long run, supply shifts to the left, and with the rent still held at R^* , the shortage becomes larger, as more potential tenants cannot find accommodation.

How about the market for owner-occupied dwellings?

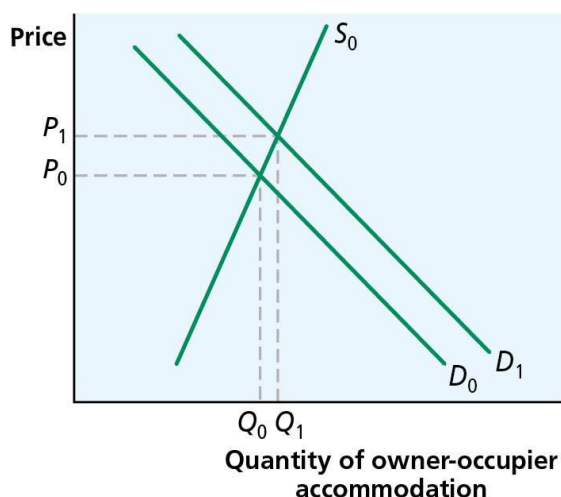


Figure A10.3 The short-run impact of rent controls on the market for owner-occupied accommodation

The initial equilibrium is with a price of P_0 and quantity Q_0 . In the short run, there will be some people who had been in rented accommodation who now wish to become owner-occupiers, so the demand curve will shift to the right, from D_0 to D_1 . Supply is likely to be relative inelastic in the short run, so price increases by a relatively large amount, from P_0 to P_1 , whereas quantity increases only from Q_0 to Q_1 .

In the longer-run, as landlords release houses and flats that were previously rented, the supply of housing will increase, as shown in Figure A10.4.

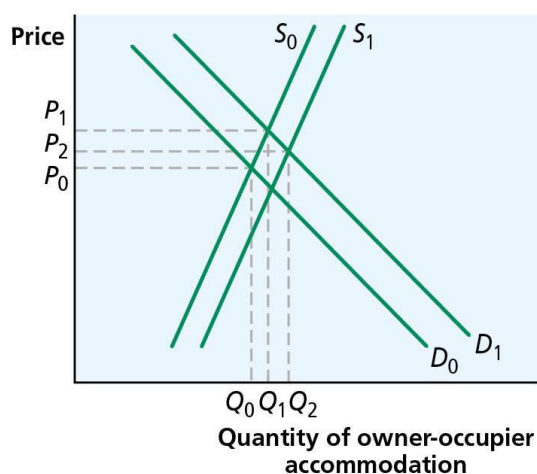


Figure A10.4 The long-run impact of rent controls on the market for owner-occupied accommodation

Supply shifts to the right from S_0 to S_1 . Price eases a little, falling to P_2 , with quantity increasing to Q_2 in the new equilibrium. Whether price falls to its original level depends upon the extent to which the curves move, but with the rent controls still in place, the shortage of housing overall remains, so there may be pressure on the government to find a way of encouraging the provision of more affordable housing.

Exercise 10.3

Assuming that prices are generally in equilibrium, volatility in prices from one year to the next must emanate either from volatility in demand conditions or from volatility in supply.

One source of variation in the level of demand over time is the business cycle, by which the level of economic activity tends to fluctuate through time according to a regular cycle of boom and recession. On the supply side, volatility may result from changes in supply conditions. Volatility may be especially likely in markets for agricultural commodities, where the level of supply is closely related to the weather conditions in a particular period. A glut year resulting from favourable weather conditions may force prices down, especially for perishable products. On the other hand, a poor harvest may push prices up. Notice that within the global economy, the prices prevailing in international markets may reflect market conditions in the economies of the major producers. A frost in Brazil may be great news for smaller producers of coffee in other countries. The impact of volatility of supply or demand is relatively high in agricultural markets, where demand and supply tend to be relatively inelastic.

Buffer stock schemes are one method under which producers may try to stabilise prices from year to year. Such schemes operate by buying up surplus stock in bumper years and selling it off when supplies are low. These measures can be effective so long as the majority of producers are included in the scheme, and so long as the target price is set at an appropriate level. Too high a price will mean that stocks accumulate, as more stock will be bought to maintain the price than will be sold. The storage and administrative costs can then become very high.

Case study 10.1

A bittersweet tax?

- a** The analysis of the incidence of a tax suggests that the cost of paying the levy will be shared between producers and consumers, with the share being influenced by the elasticities of demand and supply.
- b** The relevant market failure arises from increasing concerns about the problems of obesity, especially among the young. Obesity raises the chances of diabetes. The sugar content of many soft drinks was seen to be a major part of the problem, as the recommended daily sugar intake could be exceeded by drinking a standard 330ml can of cola. In terms of market failure, it could be argued that there is an information failure, such that individuals do not realise the risks they are taking by consuming so many sugary drinks. Or it could be argued that consumers do not fully take into account the social costs of treating diabetes. A teenager interviewed on the day the levy came into effect said that she would continue to consume sugary drinks because she felt she was ‘addicted’ to them. If this were true, it would suggest a parallel with tobacco, and the taxes that have proved insufficient to discourage smoking.
- c** The reduction in the estimated revenue has several causes. Part of the explanation may be that some manufacturers had acted to reduce the sugar content of their products in order to avoid the levy. To the extent that this happened, the levy could be viewed as achieving its intention — to reduce the amount of sugar being consumed. If the reduction arises because consumers are expected to be more price-sensitive than at first thought, this could also mean that the levy was expected to be effective — unless, of course, they are switching to other products that are exempt from the levy, such as smoothies. Notice that in itself the reduced expected revenue is not an issue, as revenue raising was not the prime reason for introducing the levy.

Answers to end-of-chapter questions

A Multiple-choice questions

- 1** d. A tax on the product
- 2** a. Price control
- 3** b. The demand for a product

B Knowledge and understanding questions

4 Uses may include:

- A ban — to stop demand for smoking and thereby eliminate negative externalities
- Further restrictions on where smoking can take place (i.e. not in public places like parks) — to reduce the likelihood of negative externalities affecting other people
- Fines for people who smoke near other people
- Laws to stop smoking in private households

A full explanation	2 marks
A vague or partial explanation	1 mark

5 Ways may include:

- Legislation — to stop or reduce the production of single-use plastic
- Tax — to increase the cost of production using single-use plastic
- Subsidies — to firms who do not use single-use plastic in the production process
- Information provision — to reduce the demand for single-use plastic and convince consumers to switch to other products/brands
- Price controls — to increase the price of products that include single-use plastic

Two ways explained	4 marks
One way explained AND one way identified	3 marks
One way explained OR two ways identified	2 marks
One way identified	1 mark

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AO1 Knowledge	1 mark
AO2 Application	1 mark
AO3 Analysis	2 marks

Knowledge (1 mark) is likely to include:

- Tradable pollution permits

Application (1 mark) is likely to include:

- Application to negative externalities of production

Analysis (2 marks) is likely to include:

Analysis of how a system of tradable pollution permits may reduce market failure caused by a negative externality of production, for example:

- Increase the cost to firms of polluting — shift of the supply curve to the left
- Relatively decrease the cost of not polluting — shift of the supply curve to the right

C Stimulus response question

7 a The market for alcohol may be failing because it is overconsumed. This could be through addiction, which makes people consume alcohol beyond their marginal private benefit.

Alternatively it may be that there is a negative externality of consumption through the cost to society of extra policing, and the costs to the NHS of excessive alcohol consumption.

An explanation of market failure in the market for	up to 2
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alcohol	marks
A diagram showing an appropriate market failure in the market for alcohol	up to 2 marks

b

AO1 Knowledge	1 mark
AO2 Application	1 mark
AO3 Analysis	5 marks
AO4 Evaluation	5 marks

Knowledge (1 mark) is likely to include:

- Price controls
- Market failure

Application (1 mark) is likely to include:

- Application to the market for alcohol (market failure diagram)

Analysis (5 marks) is likely to include:

Analysis that a minimum price for alcohol will correct the market failure, for example:

- Increase price beyond equilibrium price — reducing quantity demanded in line with the marginal social benefit
- May increase demand for non-alcoholic drinks

Evaluation (5 marks) is likely to include:

Evaluation that a minimum price may not correct the market failure, for example:

- Addiction — may not be effective in reducing consumption because alcohol may be price inelastic
- Unlikely to effect the price of many types of alcohol — premium priced wines/spirits etc.
- May increase the purchase of black-market alcohol — could cause worse market failures
- May damage the alcohol/pub market in the UK

A judgement of the effectiveness of a minimum price for alcohol in correcting market failure in the alcohol market