

Reasons for Intervention

- * Respond to market failures
- * Abuses of market power
- * Improve economic efficiency
- * Equitable distribution of income and wealth

Selected Forms of Government Intervention

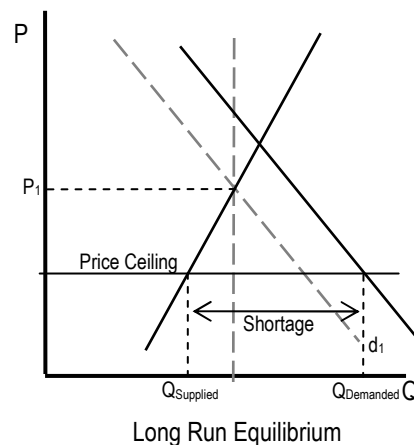
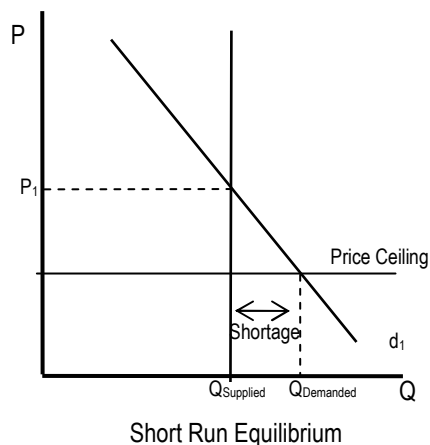
- * Ceiling price – when the government believes the price for an item is too high
- * Floor price – when the government believes the price of an item is too low
- * Subsidy is a form of financial assistance paid to a business or economic sector
- * Quota is a goal for the production of a good.

Price Ceilings

- * A restriction placed by a government in order to prevent the price of a product from rising above a certain level.
- * Price is set below the market clearing price (quantity demanded > quantity supplied)
- * Three possible outcomes:
 - o Shortages
 - o Creation of a black market
 - o Quality decreases

Rent Control

- * Rent control is a price ceiling where rent prices are not allowed to rise above a predetermined level.
- * In the short run, the supply of rental units is fixed – the supply is perfectly inelastic.
- * In the long run, the supply of rental units is more elastic.
- * The price ceiling creates a shortage in the short-run. More people demand rental units than are available.
- * In the long run, demand increases as the population increases. Supply becomes more elastic. The shortage increases



Floor Prices

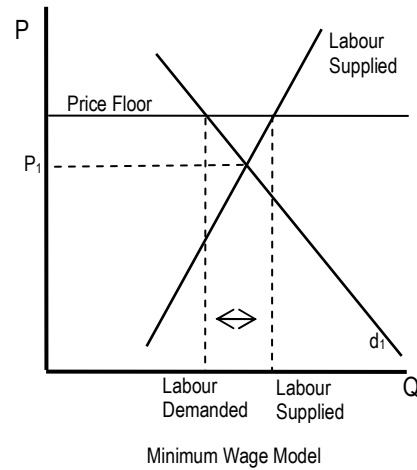
- * A restriction that prevents a price from falling below a certain level.
- * Price is set above the market clearing price (quantity demanded < quantity supplied)
- * Two problems:
 - o What to do with the resulting surplus
 - o Consumers pay a higher price and receive less

When the Market Fails
Types of Interventions

Minimum Wage

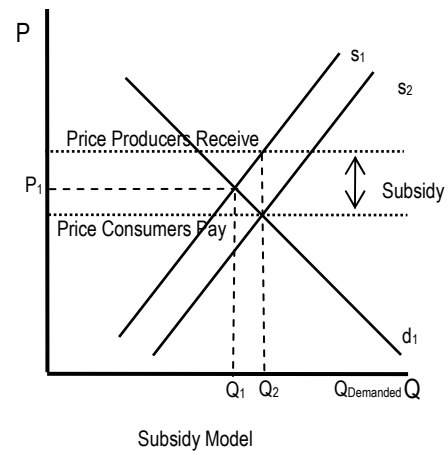
Minimum wage is an example of a price floor. The government sets a minimum amount labourers can be paid.

If the minimum wage is set above the equilibrium wage, there is a surplus of labour supplied (a shortage of jobs).



Subsidies

- * A subsidy is a grant of money made to a particular industry by the government.
- * It increases the quantity the suppliers are willing to supply at every price (supply shifts to the right)
- * Buyers get lower prices, sellers extra revenue
- * More product is exchanged
- * Criticisms:
 - o Paid for by taxpayers
 - o Keeps inefficient producers in business
 - o Barrier to free trade



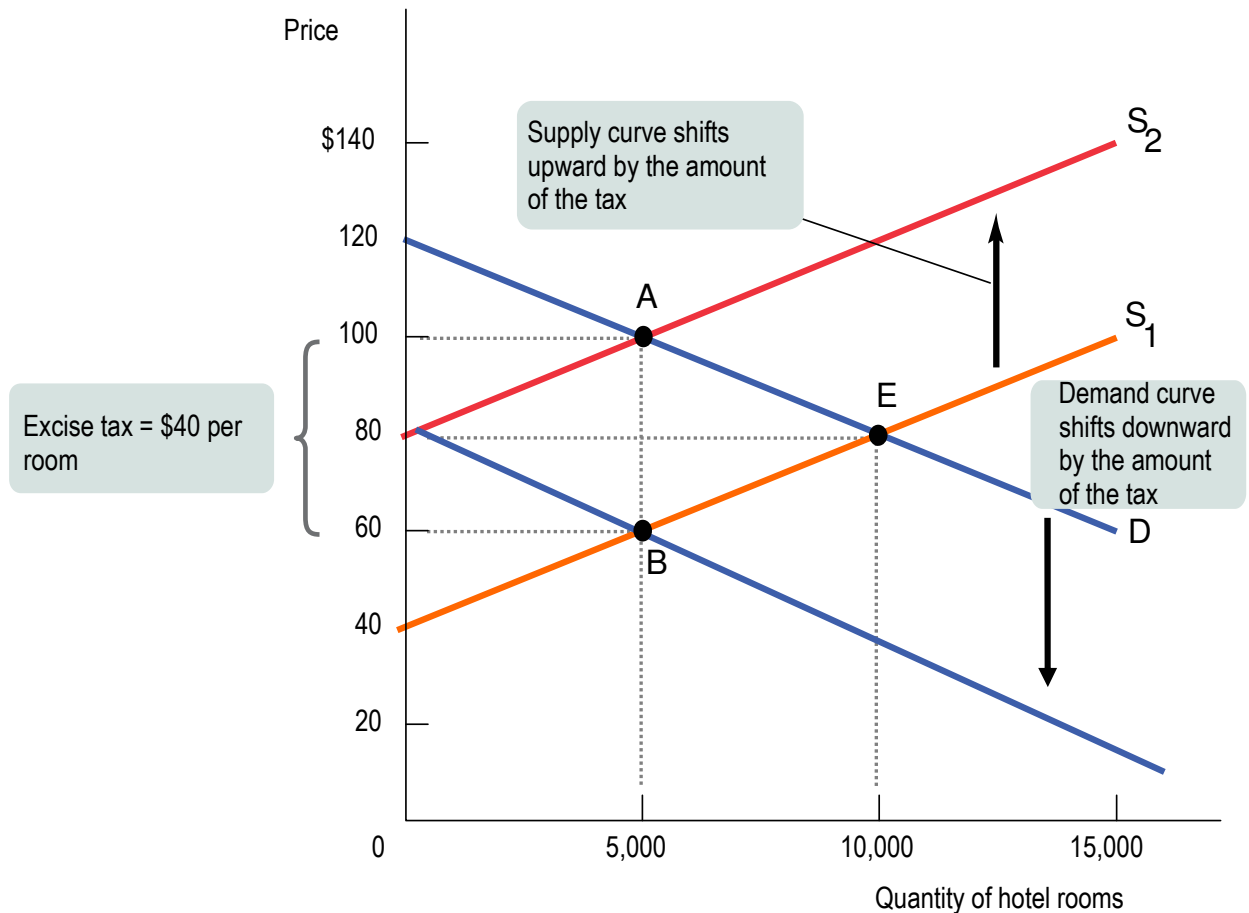
Quotas

- * A restriction placed on the amount of product that individual producers are allowed to produce
- * Administered by marketing boards
- * Shifts the supply curve to the left
- * Works best with inelastic goods (change in price greater than change in quantity)
- * Most meat, vegetables, dairy products in Canada are sold through marketing boards

Taxes

Excise Taxes

- * An **excise tax** is a tax on sales of a good or service.
- * Excise taxes:
 - raise the price paid by buyers and
 - reduce the price received by sellers
- * Excise taxes also drive a **wedge** between the two.



In the absence of taxes, the equilibrium price of hotel rooms is \$80 a night, and the equilibrium number of rooms rented is 10,000 per night, as shown by point E. The supply curve, S , shows the quantity supplied at any given price, pre-tax. At a price of \$60 a night, hotel owners are willing to supply 5,000 rooms, point B. But post-tax, hotel owners are willing to supply the same quantity only at a price of \$100: \$60 for themselves plus \$40 paid to the city as tax. A \$40 per room tax imposed on hotel owners shifts the supply curve from S_1 to S_2 , an upward shift of \$40. The equilibrium price of hotel rooms rises from \$80 to \$100 a night, and the equilibrium quantity of rooms rented falls from 10,000 to 5,000. Although hotel owners pay the tax, they actually bear only half the burden: the price they receive net of tax falls only \$20, from \$80 to \$60. Guests who rent rooms bear the other half of the burden, because the price they pay rises by \$20, from \$80 to \$100.

A \$40 per room tax imposed on hotel guests shifts the demand curve from D_1 to D_2 , a downward shift of \$40. The equilibrium price of hotel rooms falls from \$80 to \$60 a night, and the quantity of rooms rented falls from 10,000 to 5,000. Although in this case the tax is officially paid by consumers, while in Figure 7-2 the tax was paid by producers, the outcome is the same: after taxes, hotel owners receive \$60 per room but guests pay \$100. This illustrates a general principle: The incidence of an excise tax doesn't depend on whether consumers or producers officially pay the tax.

The Deadweight Loss of a Tax

- * Although consumers and producers are hurt by the tax, the government gains revenue. The revenue the government collects is equal to the tax per unit sold, T , multiplied by the quantity sold, Q_T .
- * But a portion of the loss to producers and consumers from the tax is not offset by a gain to the government.
- * The deadweight loss caused by the tax represents the total surplus lost to society because of the tax—that is, the amount of surplus that would have been generated by transactions that now do not take place because of the tax.

Tax Incidence

- * The **incidence** of a tax is a measure of who really pays it.
- * Who really bears the tax burden (in the form of higher prices to consumers and lower prices to sellers) does not depend on who officially pays the tax. Depending on the shapes of supply and demand curves, the incidence of an excise tax may be divided differently.
- * The wedge between the demand price and supply price becomes the government's "**tax revenue**."
- * When the price elasticity of demand is higher than the price elasticity of supply, an excise tax falls mainly on producers.
- * When the price elasticity of supply is higher than the price elasticity of demand, an excise tax falls mainly on consumers.
- * So elasticity—not who officially pays the tax—determines the incidence of an excise tax.

Tax Fairness and Tax Efficiency

- * Two principles:
 - According to the **benefits principle** of tax fairness, those who benefit from public spending should bear the burden of the tax that pays for that spending.
 - According to the **ability-to-pay principle** of tax fairness, those with greater ability to pay a tax should pay more tax.
- * A **lump-sum tax** is the same for everyone, regardless of any actions people take.
- * The fairest taxes, in terms of the ability-to-pay principle, distort incentives the most and perform badly on efficiency grounds.
- * In a well-designed tax system, there is a **trade-off between equity and efficiency**: the system can be made more efficient only by making it less fair, and vice versa.

Understanding the Tax System

- * Some important taxes and their tax bases are as follows:
 - **Income tax**: a tax that depends on the income of an individual or a family from wages and investments
 - **Payroll tax**: a tax that depends on the earnings an employer pays to an employee
 - **Sales tax**: a tax that depends on the value of goods sold (also known as an excise tax)
 - **Profits tax**: a tax that depends on a firm's profits
 - **Property tax**: a tax that depends on the value of property, such as the value of a home
 - **Wealth tax**: a tax that depends on an individual's wealth

Understanding the Tax System

- * A **progressive tax** takes a larger share of the income of high-income taxpayers than of low-income taxpayers.
- * A **regressive tax** takes a smaller share of the income of high-income taxpayers than of low-income taxpayers.
- * The **marginal tax rate** is the percentage of an increase in income that is taxed away.