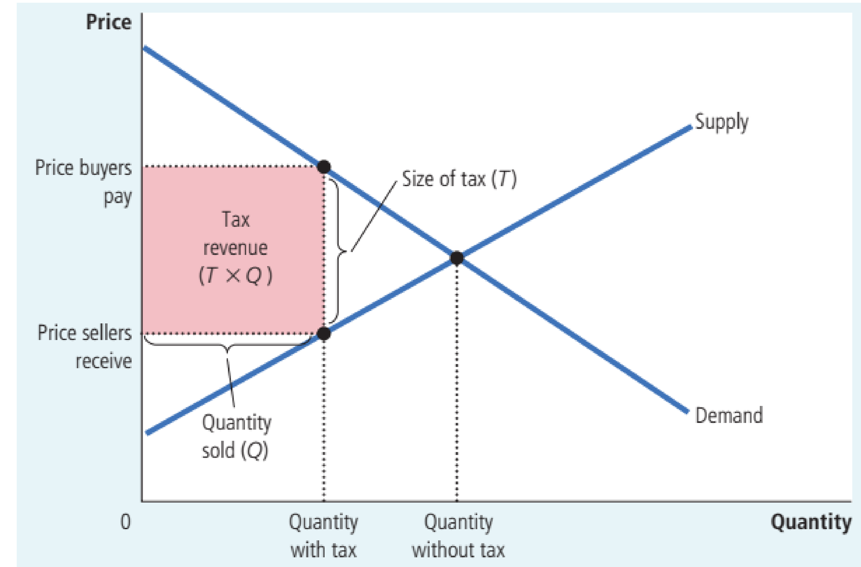
Chap 8 Application: The Costs of Taxation

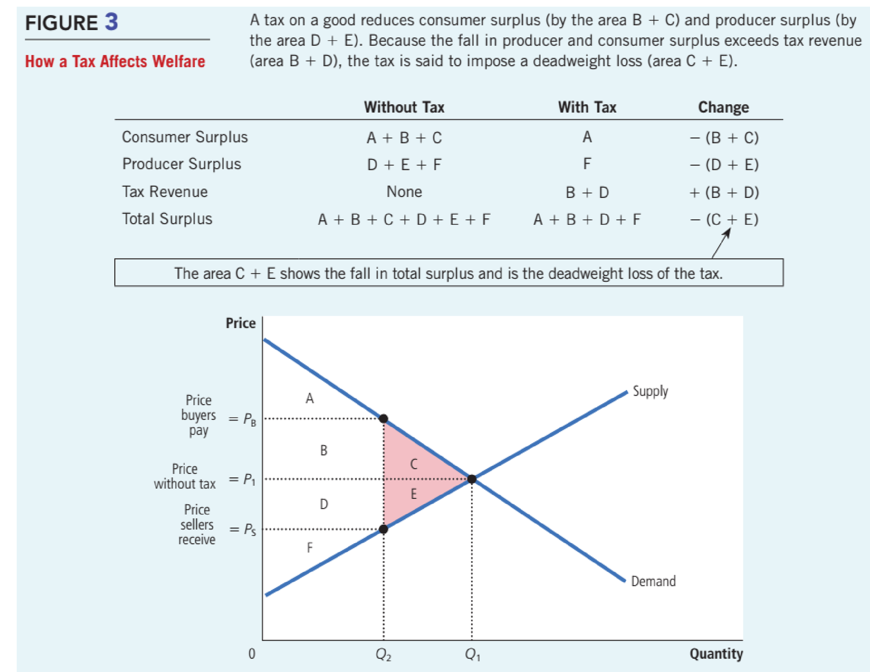
The Deadweight Loss of Taxation

How a Tax Affects Market Participants

Welfare without a Tax



Welfare with a Tax

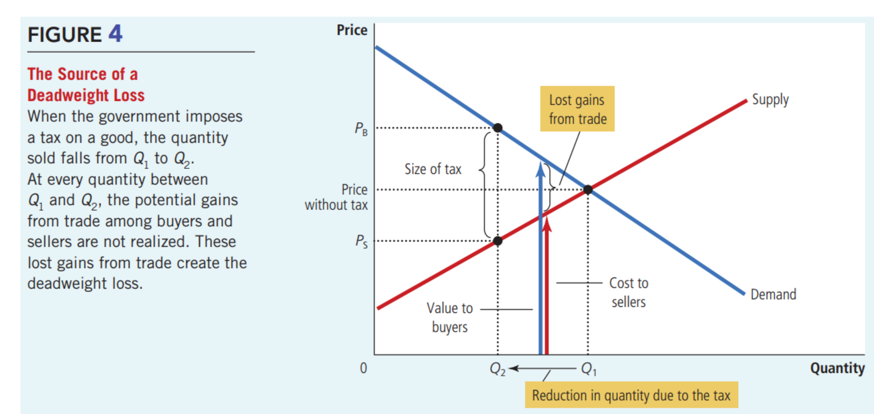


Changes in Welfare

- deaweight loss: the fall in total surplus that results from a market distortion, such as a tax
- Free markets normally allocate scarce resources efficiently. That is, in the absence of any tax, the equilibrium of supply and demand maximizes the total surplus of buyers and sellers in a market. When the goverment impose a tax, it raises the price buyers pay and lower the price sellers receive, giving buyers an incentive to consume less and sellers an incentive to produce less. As buyers and sellers respond to these incentives, the size of the market shrinks below its optimum(as shown in the figure by the movement from Q1 to Q2). Thus, because taxes distort incentives, they cause markets to allocate resources inefficiently.

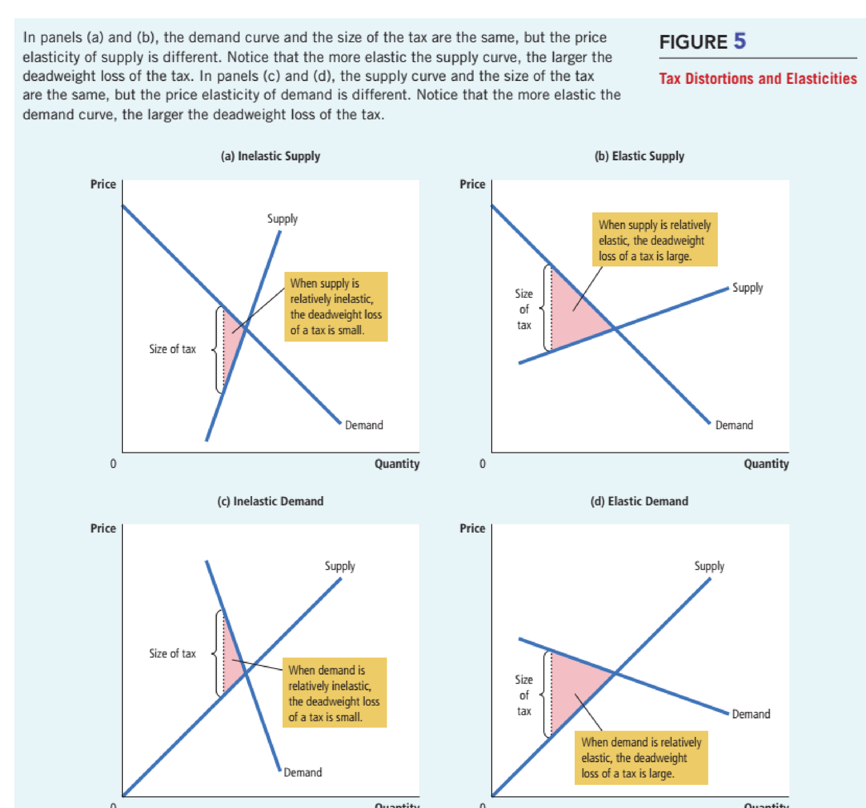
Deadweight Losses and the Gains from Trade

- Taxes cause deadweight losses because they pervent buyers and sellers from realizing some of the gains from trade.



- When the tax raises the price buyers pay to Pb and lowers the price sellers receive to Ps, the marginal buyers and sellers leave the market
- The deadweight loss is the surplus that is lost because the tax discourage these mutually advantageous trades.

The Determinatants of the Deadweight Loss



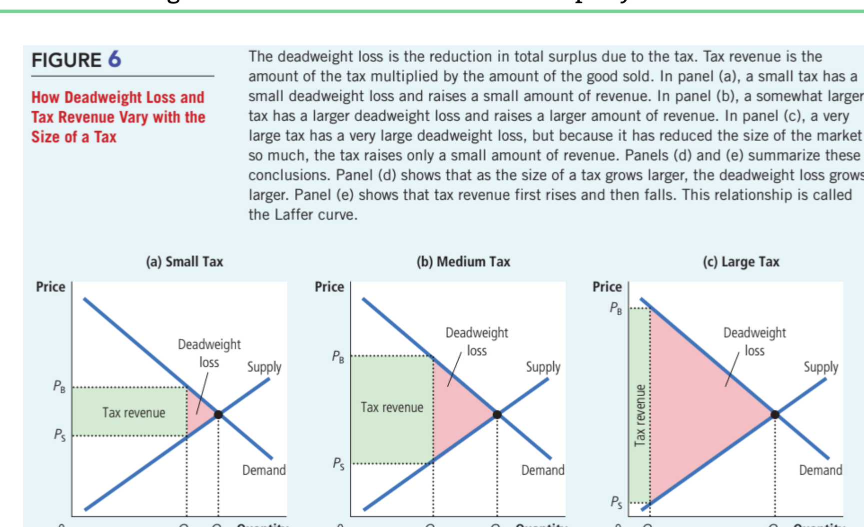
- The greater the elasticities of supply and demand, the greater the deadweight loss of a tax.

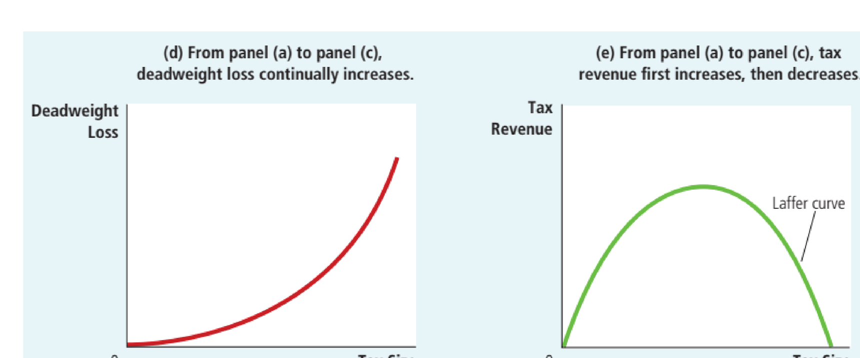
The Deadweight Loss Debate

- The size of the labor tax is easy to determine, but calculating the deadweight loss of this tax is less straightforward.
- Economists who argue that labor taxes do not greatly distort market outcomes believe that labor supply is fairly inelastic. Most people, they claim, would work full-time regardless of the wage. If so, the labor supply curve is almost vertical, and a tax on labor has a small deadweight loss.
- Economists who argue that labor taxes are highly distortionary believe that labor supply is more elastic. While admitting that some groups of workers may not change the quantity of labor they supply by very much in response to changes in labor taxes, these economists claims that many other groups respond more to incentives.
  - Some workers can adjust the number of hours they work.
  - Many families have second earners.
  - Many of the elderly can choose when to retire, and their decisions are partly based on the wage.
  - Some people consider engaging in illegal economic activity, such as the drug trade, or working at jobs that pay "under the table" to evade taxes. Economists call this the underground economy.

Deadweight Loss and Tax Revenue as Taxes Vary

- The deadweight loss of a tax raises even more rapidly than the size of the tax.





The Laffer Curve And Supply-Side Economics

- Economists disagree about these issues in part because there is no consensus about the size of the relevent elasticities. The more elastic supply and demand are in any market, the more taxes distort behavior, and the more likely it is that a tax cut will increase tax revenue. There is no debate, however, about the general lesson: How much revenue the government gains or loses from a tax change cannot be computed just by looking at tax rates. it also depends on how the tax change affects people's behavior.

Conclusion

- Tax are costly to market participants not only because taxes transfer resources from those participants to the government but also because they alter incentives and distort market outcomes.