

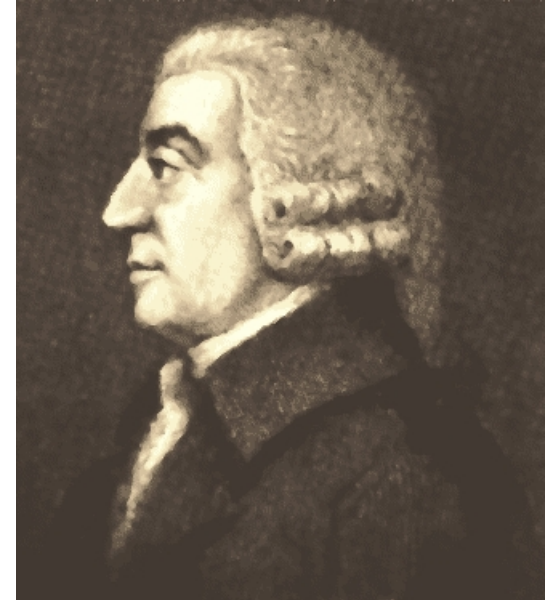


Economics of Markets: The Failures of Government Intervention

Gavin Cameron

Adam Smith on Government

“According to the system of national liberty, the sovereign has only three things to attend to ... first, the duty of protecting the society from the violence and invasion of other independent societies ... secondly, the duty of protecting ... every member of society from the injustice or oppression of every other member ... and thirdly, the duty of erecting and maintaining certain public works and certain public institutions, which it can never be in the interest of any individual to erect and maintain.”



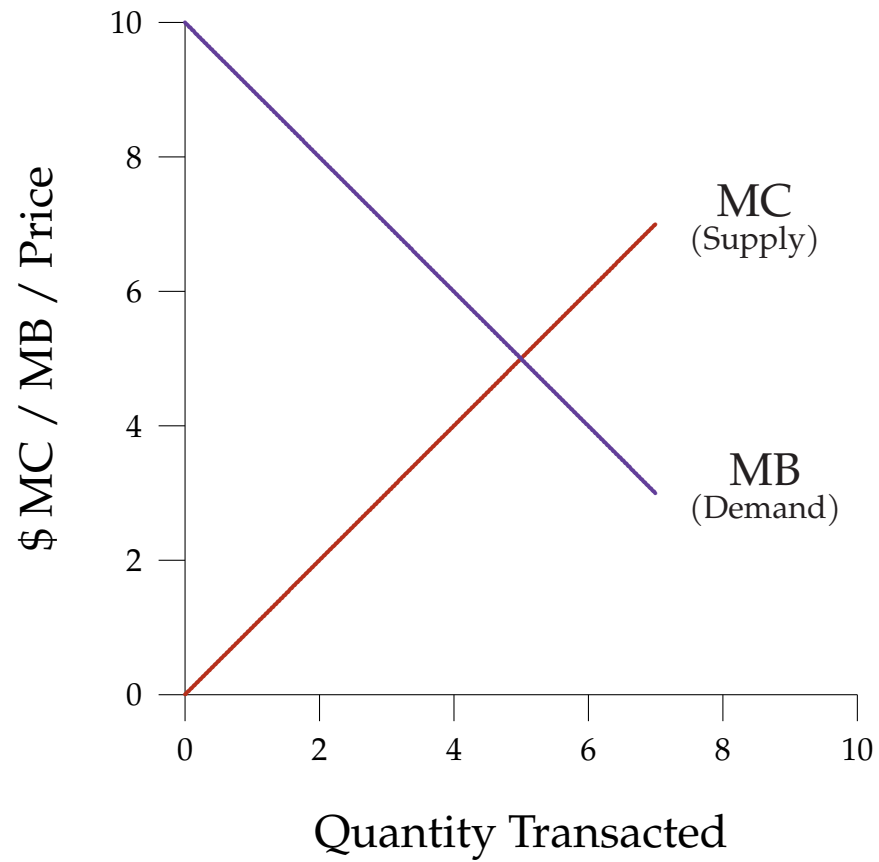
Principles of Taxation

- Equity:
 - Horizontal: people with equivalent circumstances should be treated equally.
 - Vertical: people should contribute in proportion to their respective abilities.
- Simple, transparent, and timely.
- Low cost of administration, collection, and compliance.
- Efficiency: does the marginal benefit minus the marginal cost of the spending exceed the marginal deadweight loss of taxation?

Tax Incidence

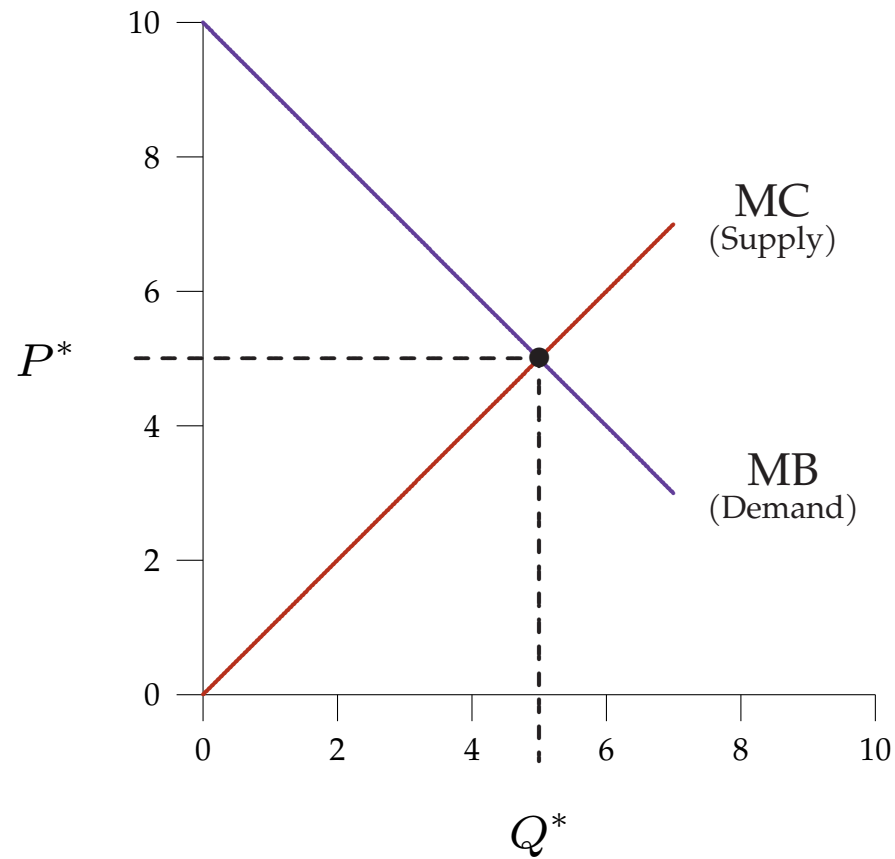
- It doesn't matter whether a tax is levied upon buyers or sellers ... the price paid by buyers rises, and the price received by sellers falls.
- Economic incidence is not the same as administrative incidence.
- A tax is a “wedge” between the price paid by buyers and that received by sellers.
- The quantity sold falls below the level that would be sold before the tax.
- The size of the market shrinks, and there is a deadweight loss ...
- ... a fall in economic surplus due to the distortion of the market.

The Effects of a Tax

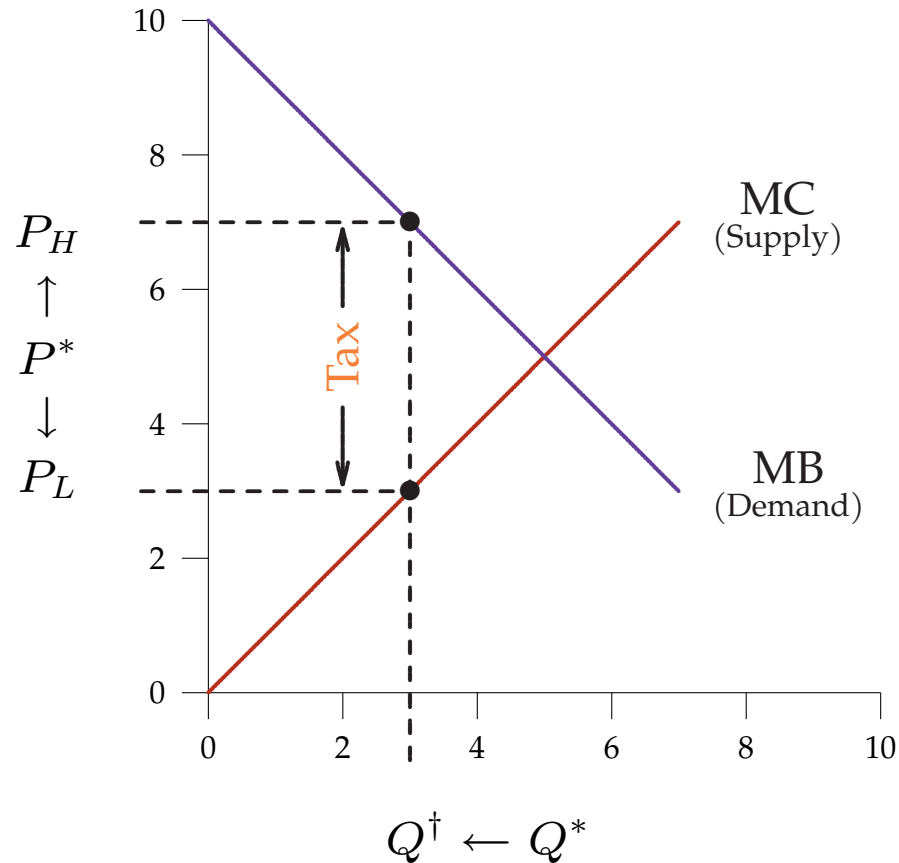


The Effects of a Tax

- Supply & demand $\Rightarrow P^*$ & Q^* .

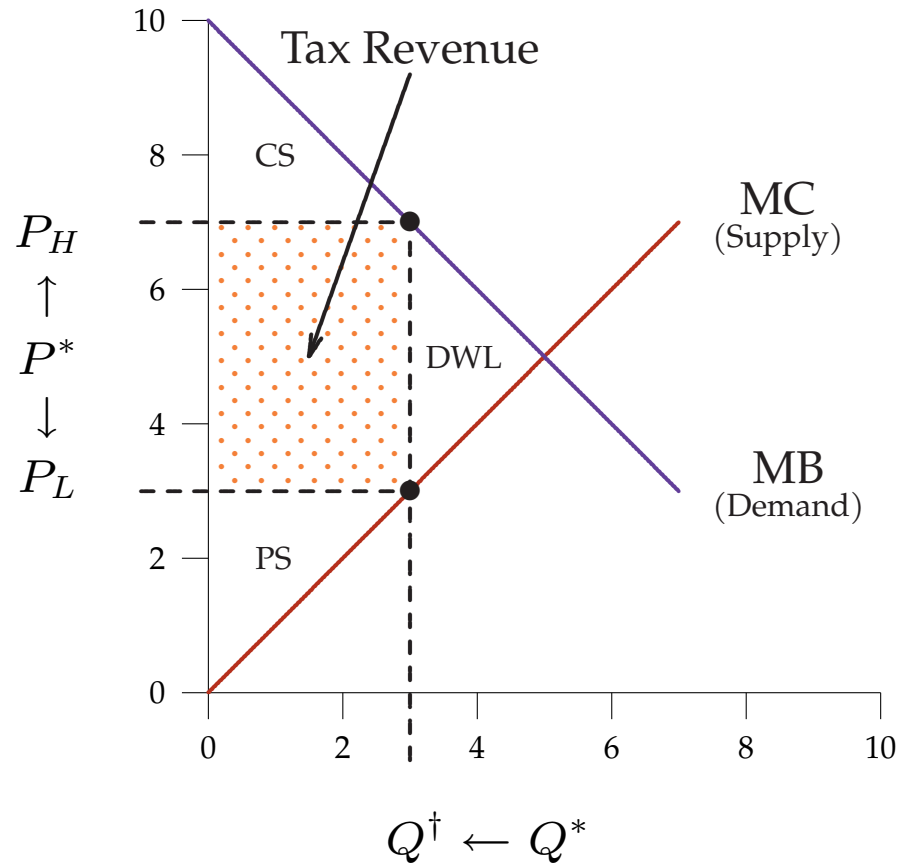


The Effects of a Tax



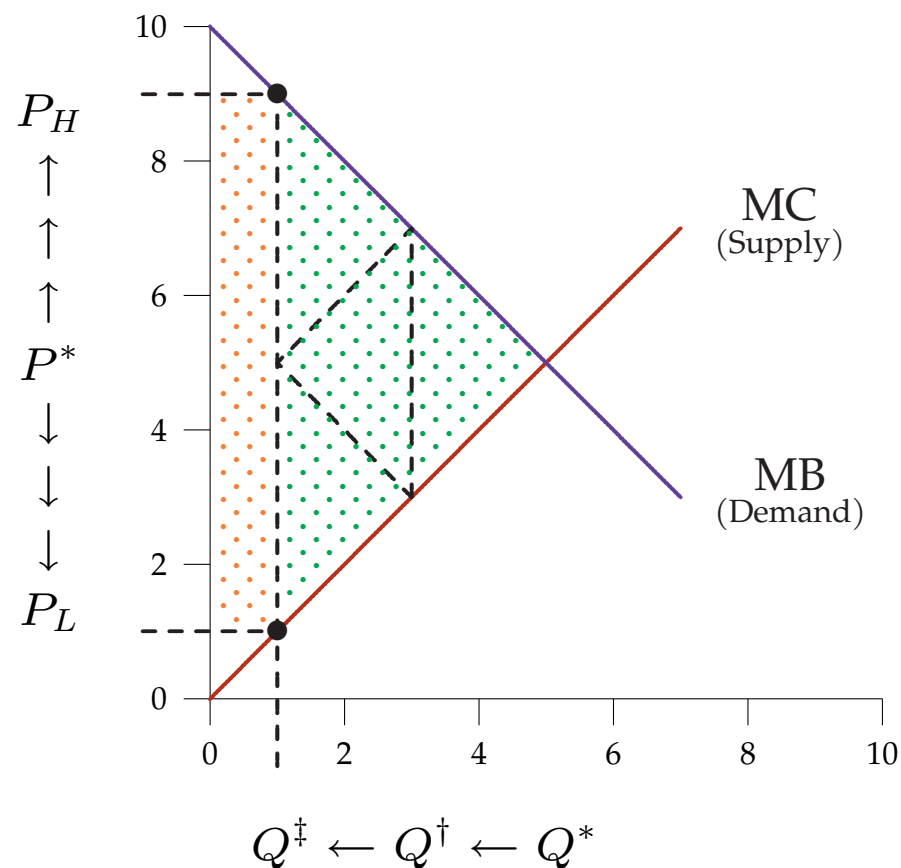
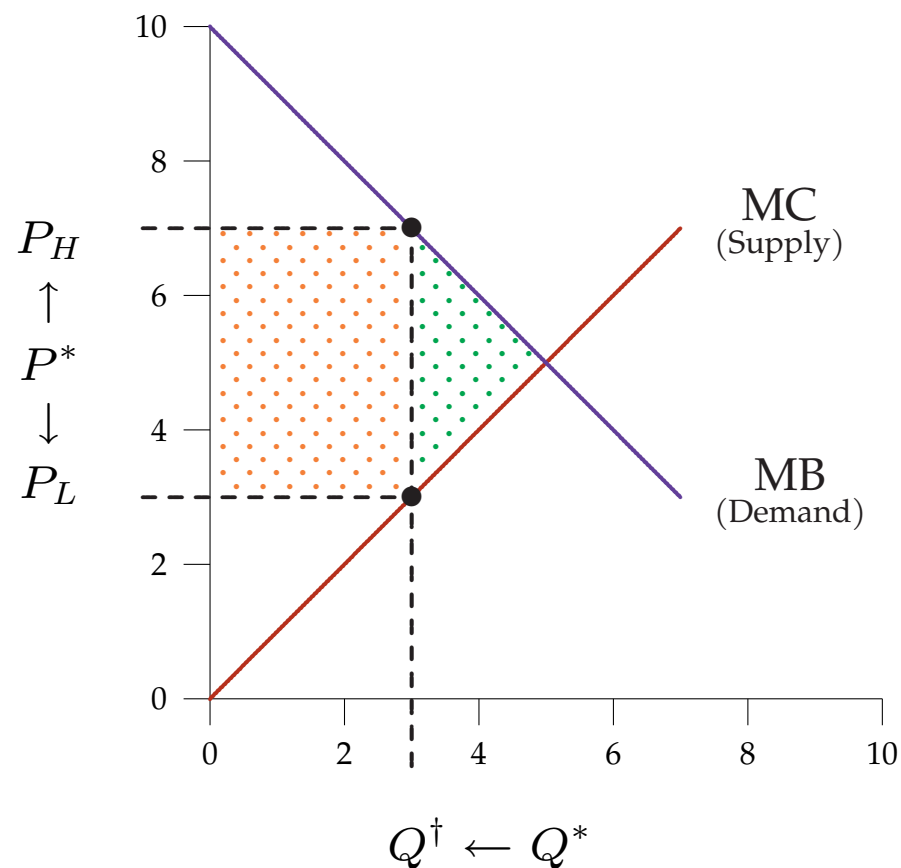
- Supply & demand $\Rightarrow P^*$ & Q^* .
- Imposition of a tax:
 - Quantity falls from Q^* to Q^\dagger .
 - Consumer price rises to P_H .
 - Producer price falls to P_L .

The Effects of a Tax



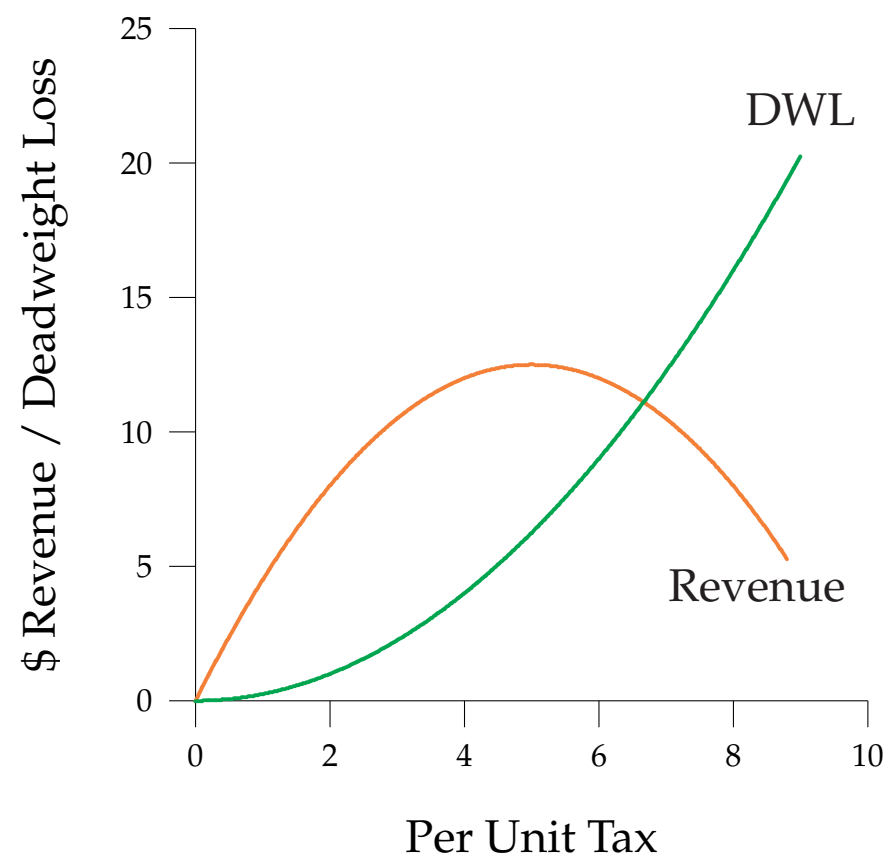
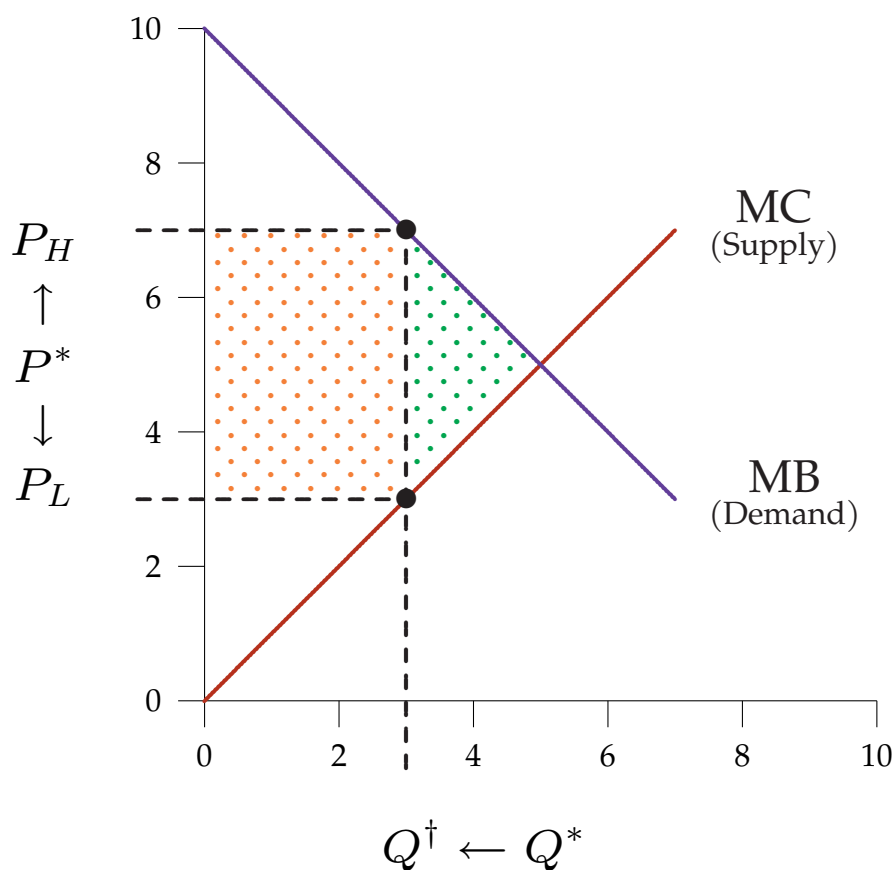
- Supply & demand $\Rightarrow P^*$ & Q^* .
- Imposition of a tax:
 - Quantity falls from Q^* to Q^\dagger .
 - Consumer price rises to P_H .
 - Producer price falls to P_L .
- Raise tax revenue ...
- ...but create deadweight loss DWL.
- DWL is a “Harberger” triangle.

Taxation and Deadweight Loss



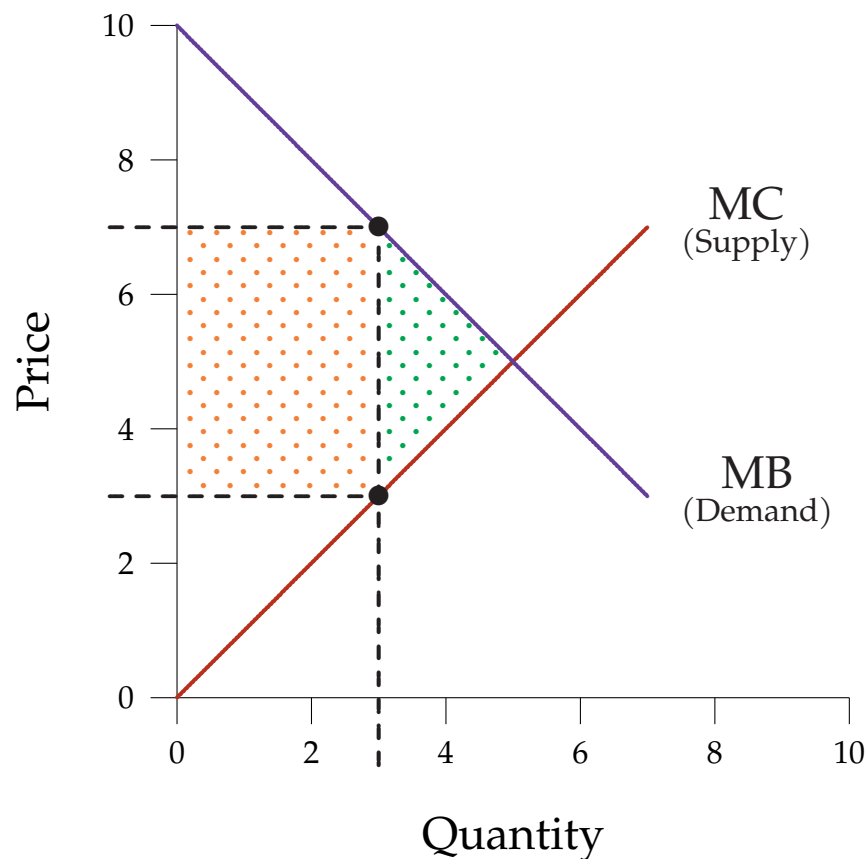
“Doubling the tax quadruples the deadweight loss, less than doubles revenue.”

Taxation and Deadweight Loss



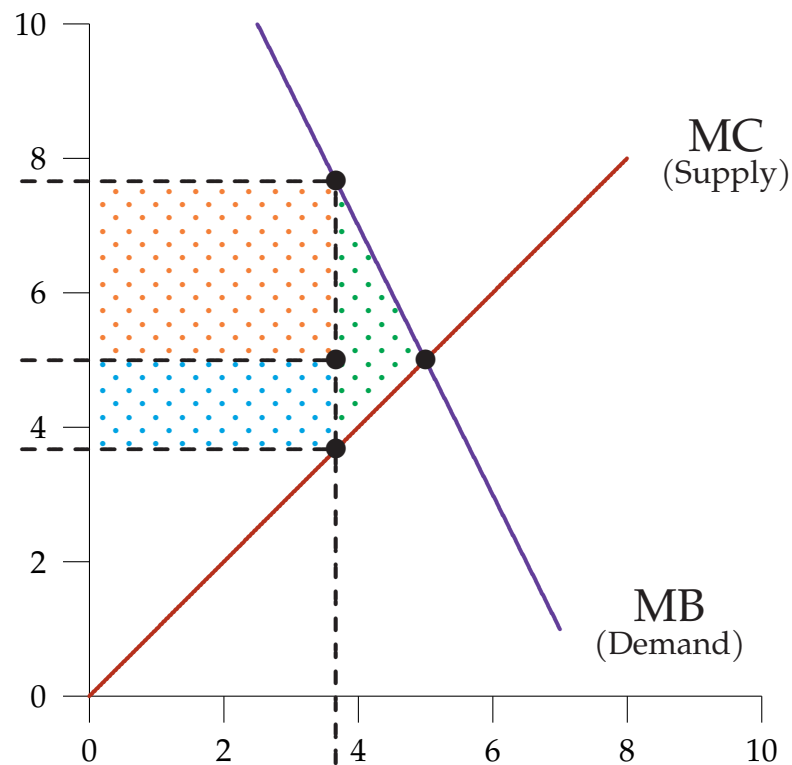
“One big tax is at least twice as bad as two small taxes.”

The Incidence of a Tax

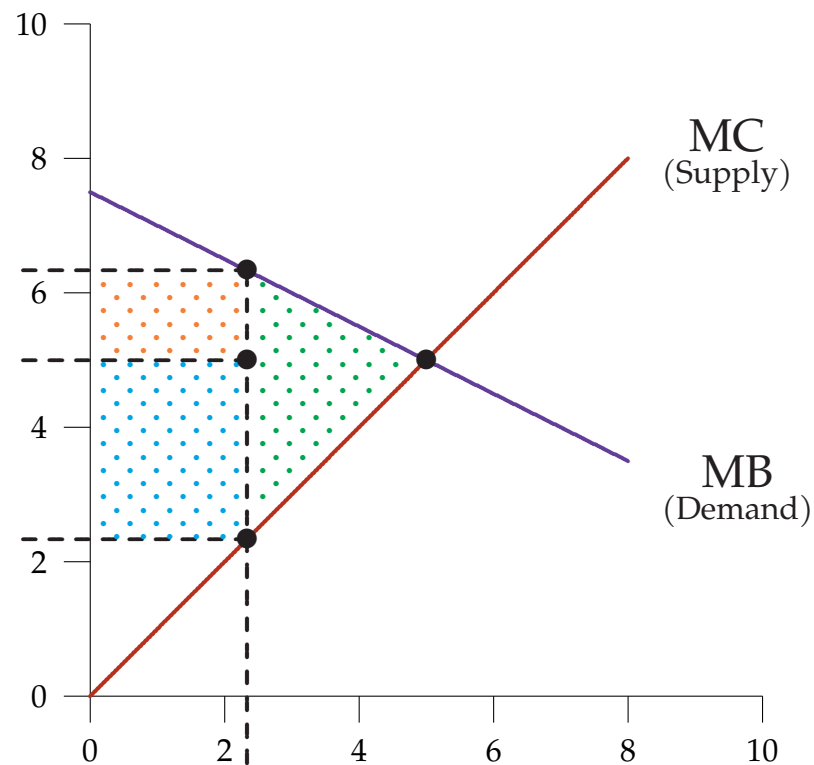


- Who (effectively) pays a tax?
- This is (economic) incidence.
- Answer depends on:
 - Slope of MC.
 - Slope of MB.
- Equivalently:
 - Elasticity of demand.
 - Elasticity of supply.

The Incidence of a Tax: Demand Elasticity

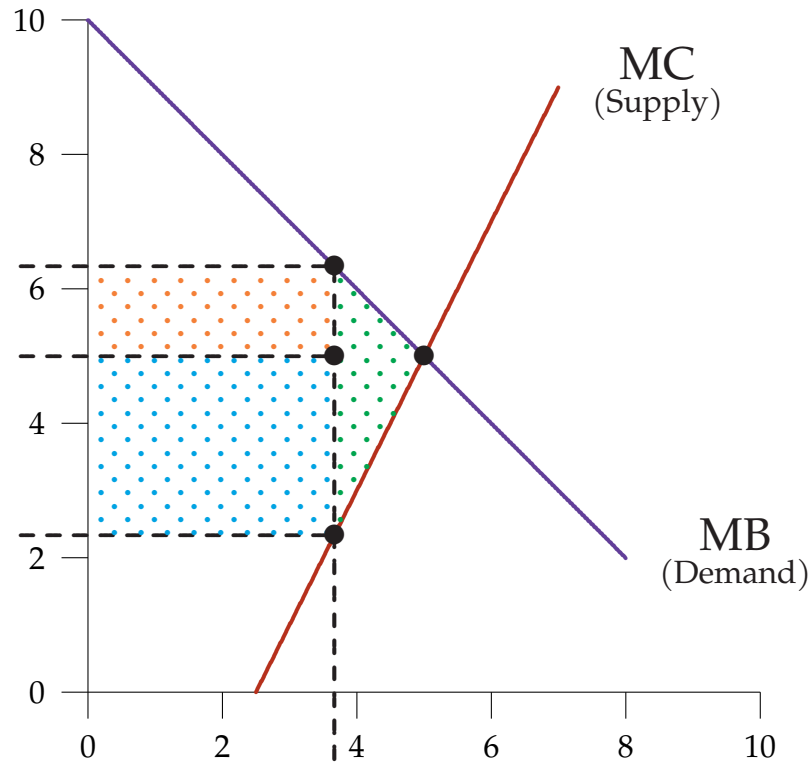


Inelastic Demand

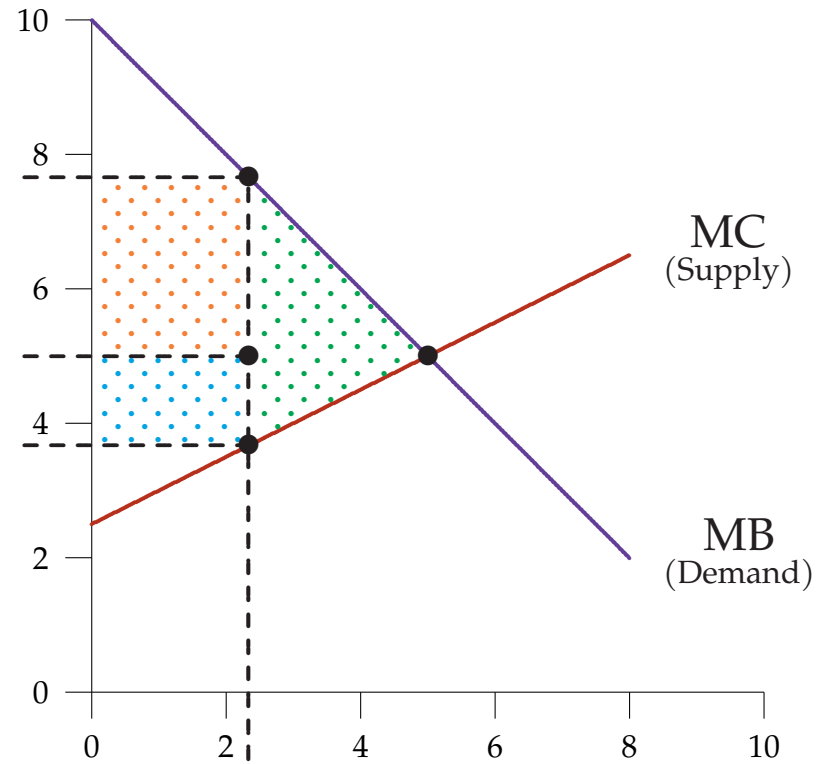


Elastic Demand

The Incidence of a Tax: Supply Elasticity



Inelastic Supply

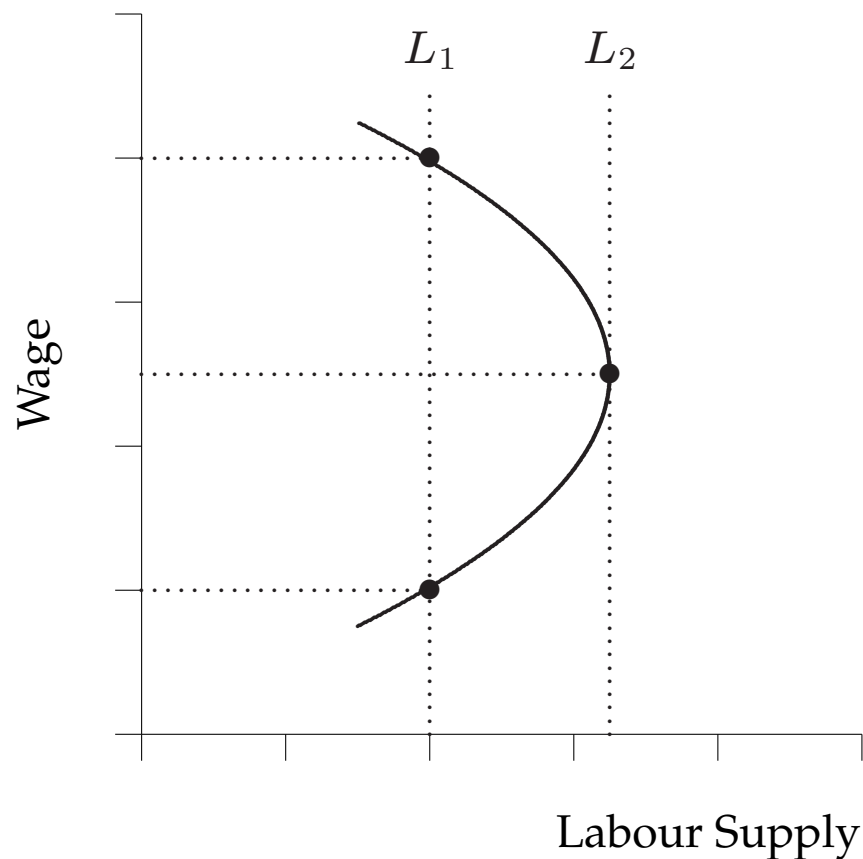
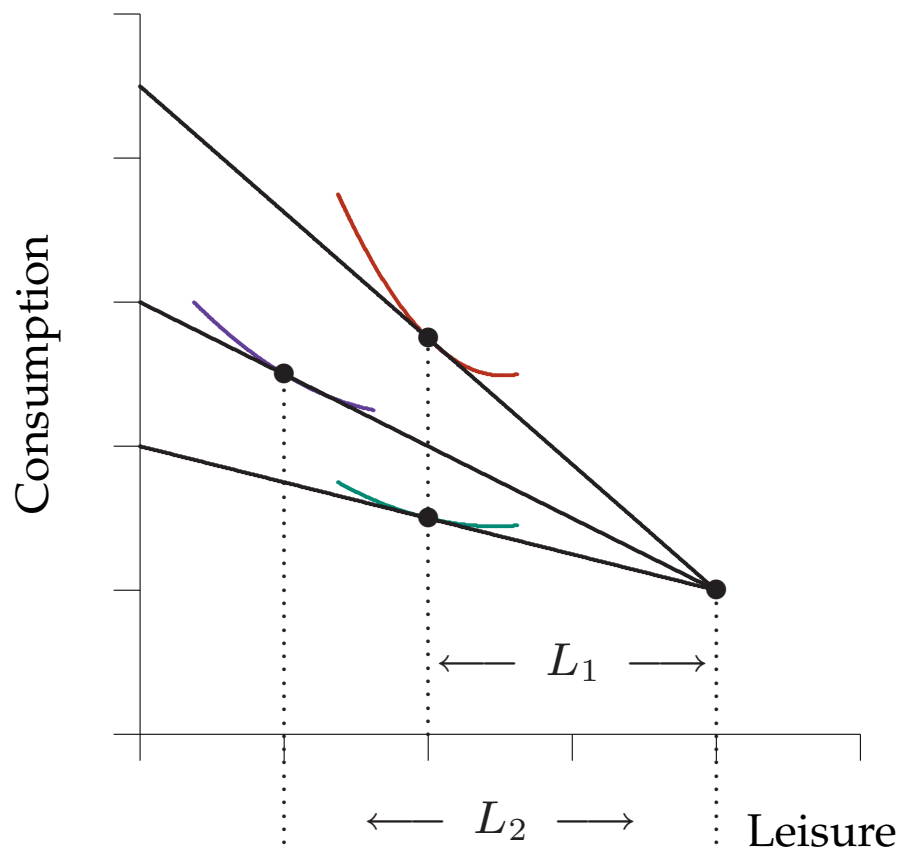


Elastic Supply

Taxes in General Equilibrium

- Some economists believe that labour supply is fairly elastic ...
- ... so that the deadweight loss of labour taxation is fairly low.
- Since capital is mobile, labour might bear the incidence of most taxes.
- Empirical estimates tend to suggest a marginal excess burden of taxation of between 25 and 50 per cent, although some estimates are over 100 per cent.
- However,
 - Short-run elasticity less than long-run, since adjustment takes time.
 - Many workers can adjust their hours worked, by taking overtime.
 - Some families have second earners, whose supply is elastic.
 - Many elderly people can choose when to retire.
 - The underground economy may provide an alternative income.

Labour Supply

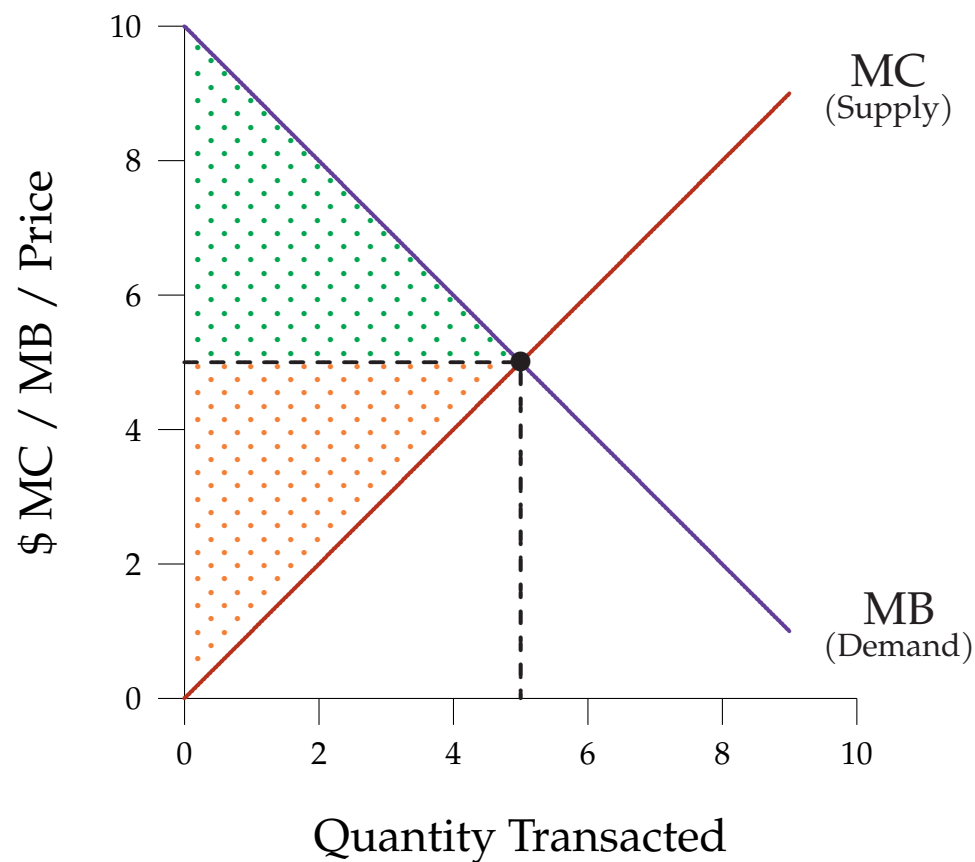


- As the wage rises (e.g., due to a tax cut) pushes labour supply from L_1 to L_2 .
- But a further increase reduces the labour supply back to L_1 .

Subsidies, Price Ceilings, and Price Floors

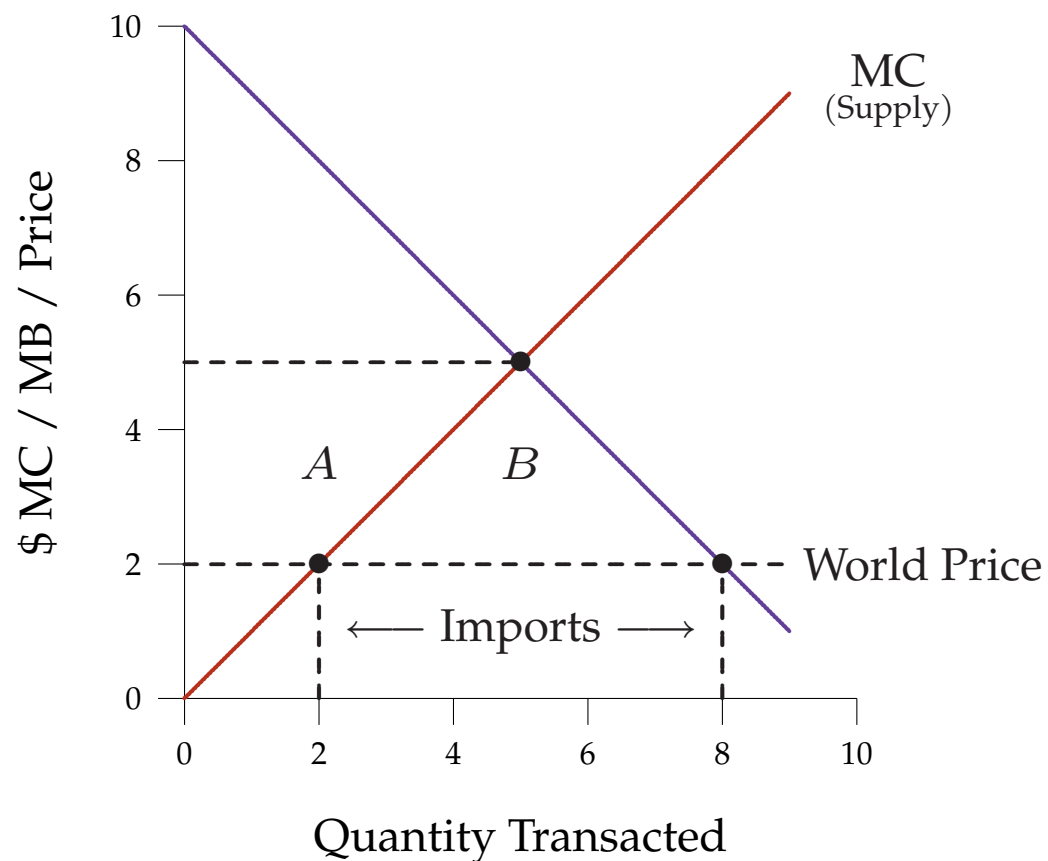
- Just as taxes distort decisions, so do subsidies (they are negative taxes).
- Governments also set price ceilings and floors, to achieve distributional goals.
- For example, rent controls to reduce housing expenditure of the poor.
- If the supply of rental accommodation were fixed, this would be a transfer of income from landlords to poor people.
- But the supply isn't fixed ... hence supply falls below demand.
- The existing stock of poor people benefit at first, but their landlords then stop doing repairs! It then becomes increasingly hard to find accommodation.
- The final effect is either slum dwellings (UK) or sidepayments (Sweden).

The Economics of “Fair Trade”



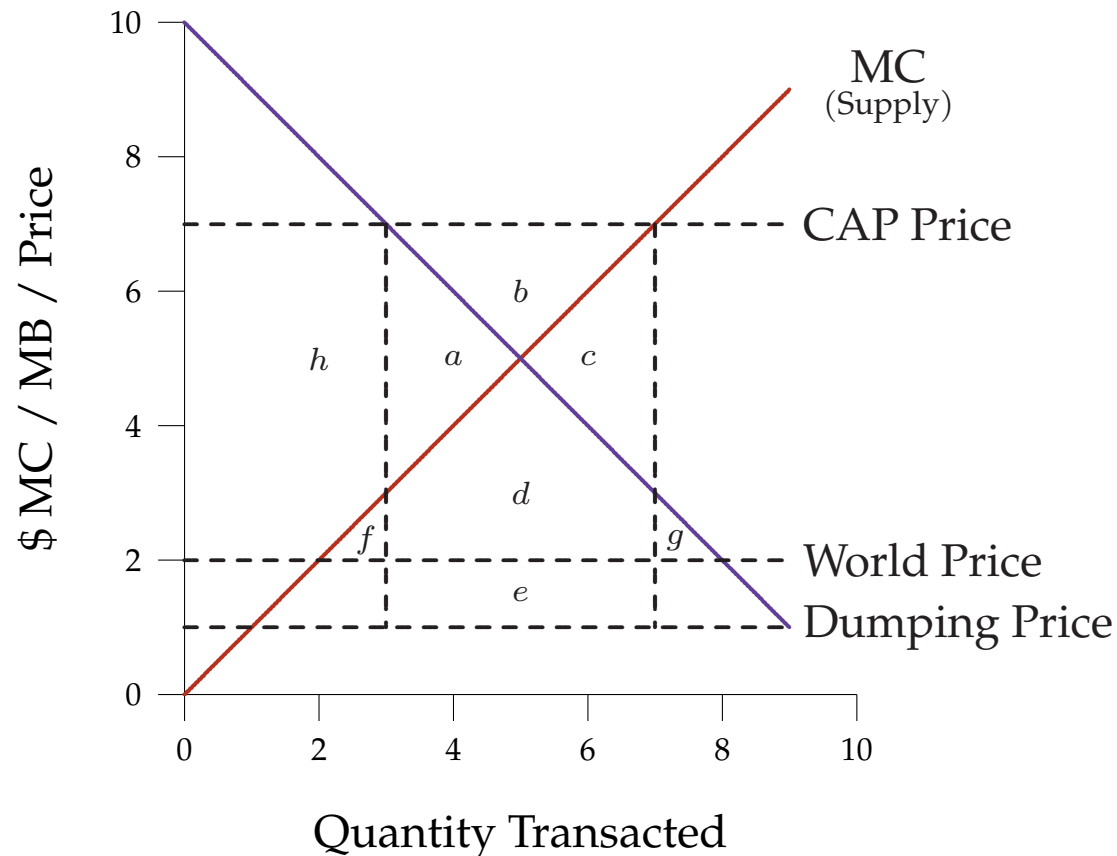
- Begin in autarky (no trade):
 - Domestic supply and demand.

The Economics of “Fair Trade”



- Begin in autarky (no trade):
 - Domestic supply and demand.
- Introduce a world price:
 - Increased consumer surplus ...
 - ... but reduced domestic profits.
- $(A + B) - A = B > 0$.

The Economics of “Fair Trade”



- Introduce the CAP:
 - Set an internal price.
 - Excess supply is dumped.

- Calculate effects:

Producers $\uparrow a + b + h$.

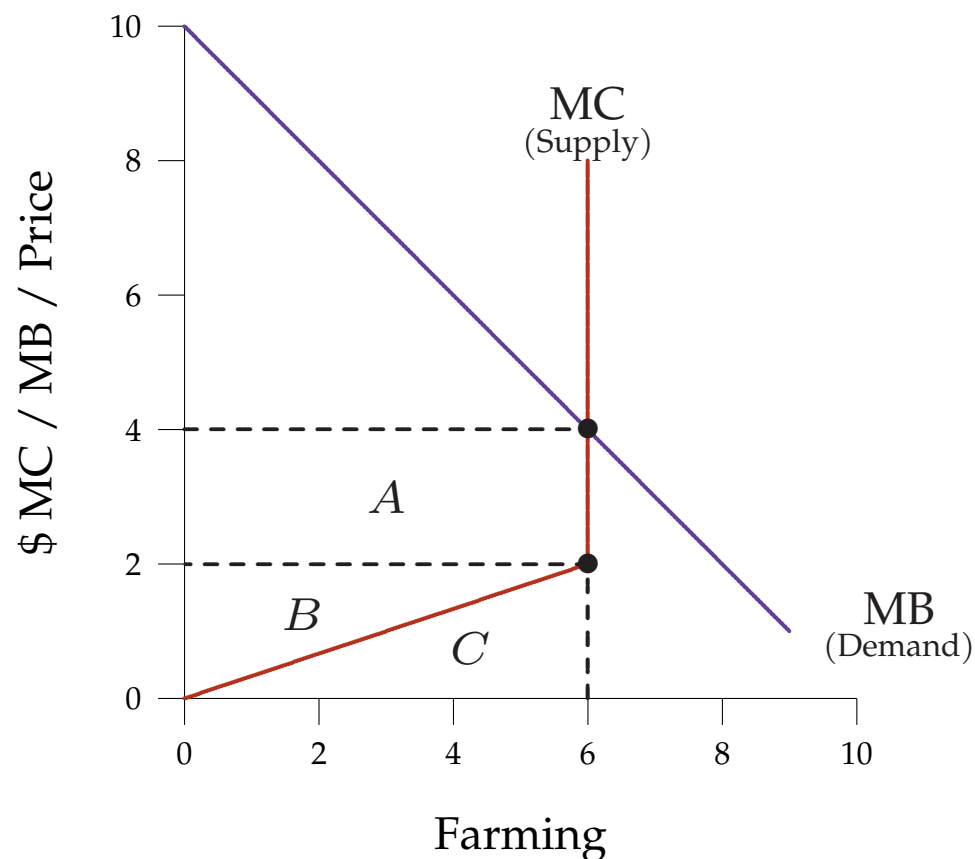
Consumers $\downarrow a + d + f + g + h$.

EU $\downarrow a + b + c + d + e$.

- Net cost: $a + c + 2d + e + f + g$.

The CAP costs the EU taxpayer £50bn, or around half the EU budget.

CAP and Landowners' Profits



- Upward sloping MC for farmers' labour. Fixed supply of land.
- Hence:
 - A Profits to landowners.
 - B Profits to farm labour.
 - C Opportunity cost of labour.
- Subsidies (upward demand shift) serve only to increase A.

Government Failures

- Government interventions distort the price system:
 - The price mechanism plays distributional and allocative roles.
 - People response to incentives: minimum wages, rent controls.
 - The world is in general equilibrium: CAP and trade policy.
- The economic incidence is not the same as the formal incidence.
- Costs versus benefits:
 - Marginal costs rise, marginal benefits fall.
 - Selection bias, opportunity cost, deadweight loss of taxation.
- Political economy:
 - Regulatory capture, special interest groups.
 - Benefits often accrue to small numbers, costs are spread across many.

Summary

- Taxation drives a wedge into the price system.
- Roughly speaking, doubling the tax will quadruple the deadweight loss ...
- ... and hence one big tax is at least twice as bad as two small ones ...
- ... but it will actually raise less revenue.
- The impact and incidence depend upon the elasticities of supply and demand.
- Some estimates of the deadweight loss are very large.
- In the long run, taxes fall mainly on consumers.

Syndicate Issues

1. “Wealthy landowners will pass any land tax on to their poorer tenants.”
2. “Wealthy landowners will pass any apartment tax on to their poorer tenants.”
3. “A tax that has no deadweight loss cannot raise any revenue.”
4. “A tax that raises no revenue cannot have any deadweight loss.”
5. “The only way to solve the pensions crisis is for ...”
 - (a) “... businesses to pay more into their pension schemes.”
 - (b) “... workers to pay more into pension schemes.”