LECTURE XI: Taxation and Equity

Tax incidence

- Definition: The assessment of which economic agents (e.g., cosumers or producers) bears the tax .

- A simple answer to the question who bears the burden of a tax could be, whoever sends the check to the government. But, this would have ignored the fact that markets respond to taxes and that these responses must be taken into account to assess the ultimate burden, or incidence, of taxation. For example, the corporate income tax is not paid by corporations. Corporate taxes are paid by the individuals who own, work for, and buy from the corporations.

- Tax incidence analysis examines the equity implications of taxation

Taxes on commodities

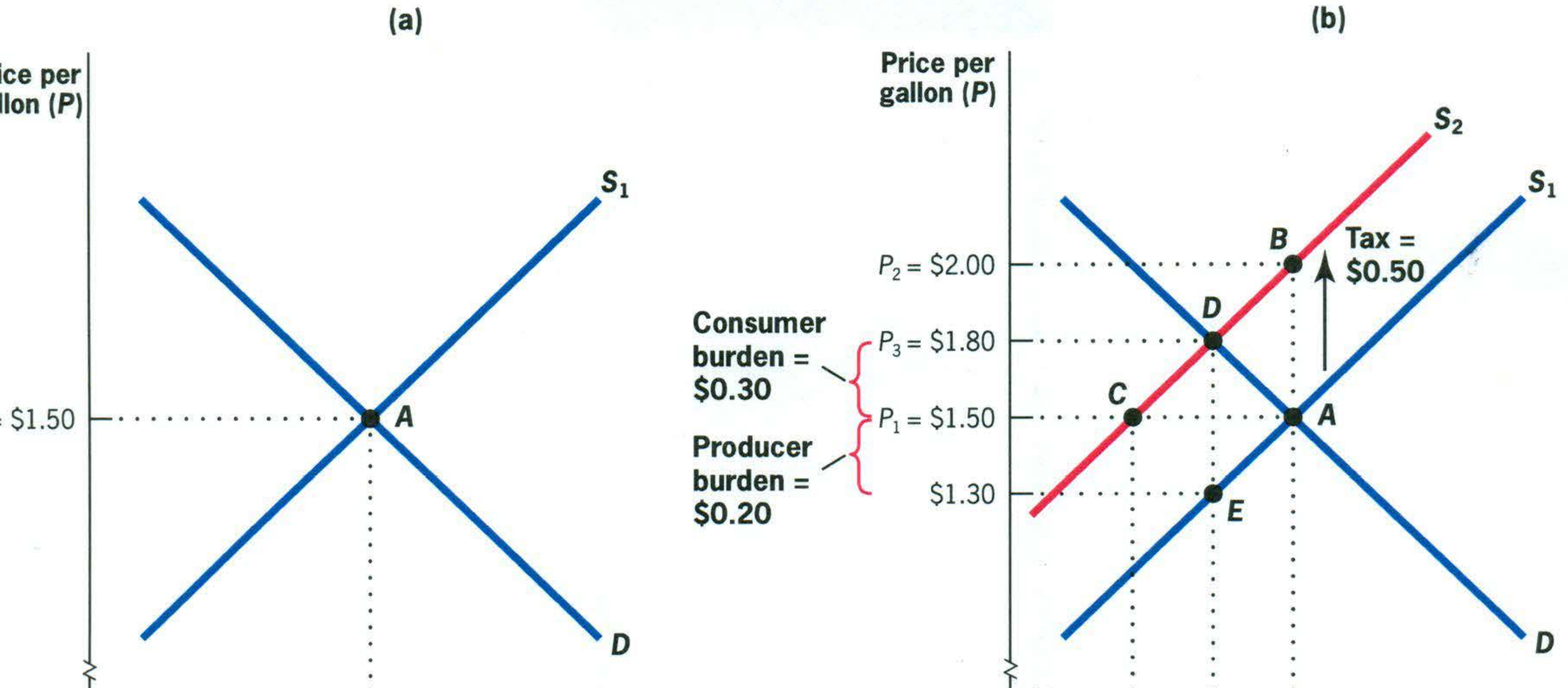
- Definitions: (i) Excise tax: A tax of a fixed amount per unit of a specific commodity; (ii) Ad valorem tax: A tax that is a fixed percentantage of the sales price of a commodity (e.g., sales taxes); Statutory incidence: The burden of a tax borne by the party that sends the check to the government; Economic incidence: The burden of taxation measured by the change in the resources available to any economic agent as a result of taxation; Tax wedge: The difference between what consumers pay and what producers receive (net of tax) from a transaction

The three rules of tax incidence

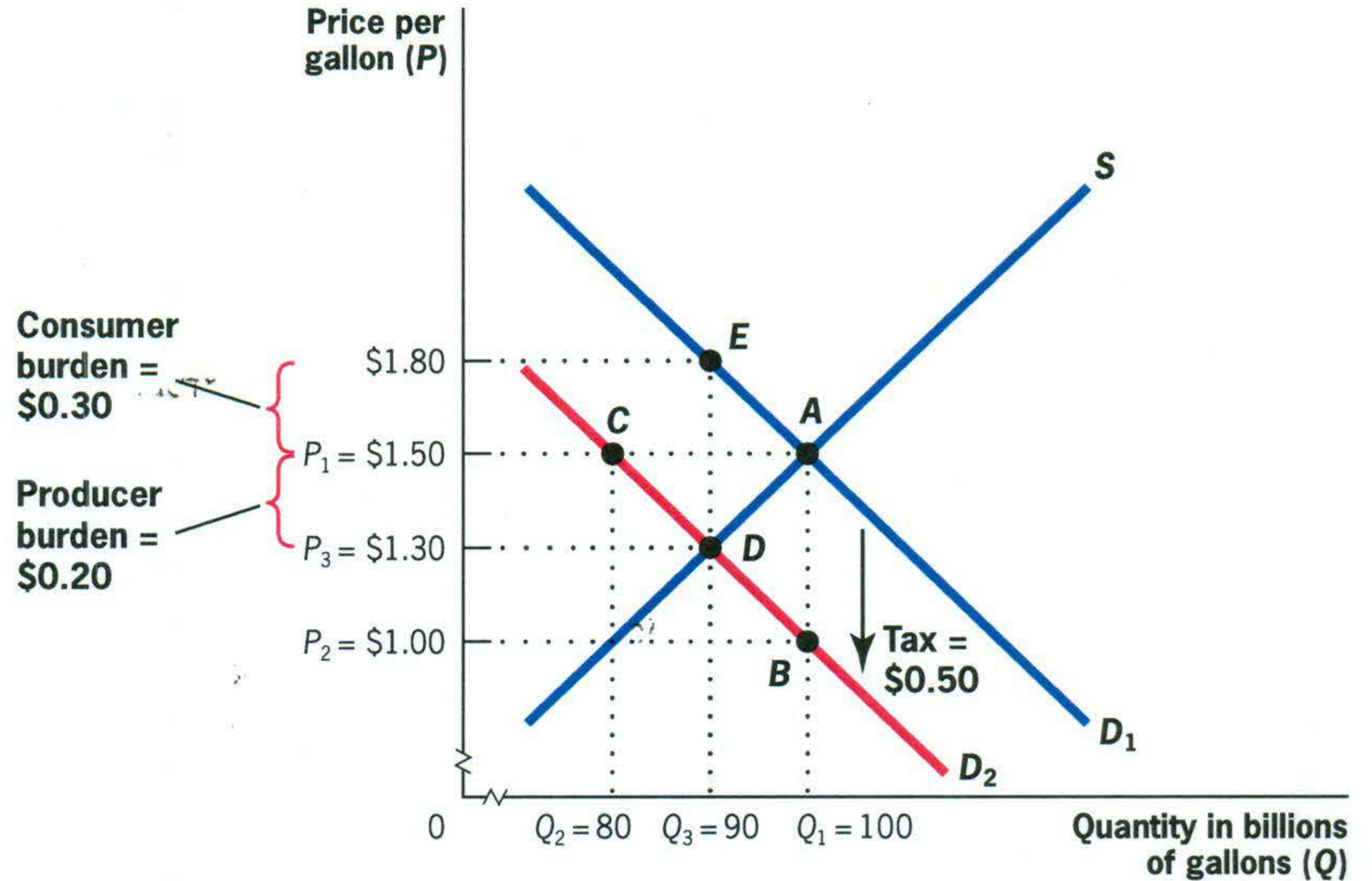
- 1. The statutory burden of a tax does not describe who really bears the tax.
- 2. The side of the market on which a tax is imposed is irrelevant to the distribution of tax burdens.
- 3. Parties with inelastic supply or demand bear taxes; parties with elastic supply or demand avoid taxes.

- Consumer tax burden = (post-tax price – pre-tax price) + excise tax paid by consumers
- Producer tax burden = (pre-tax price – post-tax price) + excise tax paid by producers
- Tax wedge = the difference between the post- tax price of the tax and the post tax price consumers receive = the tax per unit

FIGURE 19-2

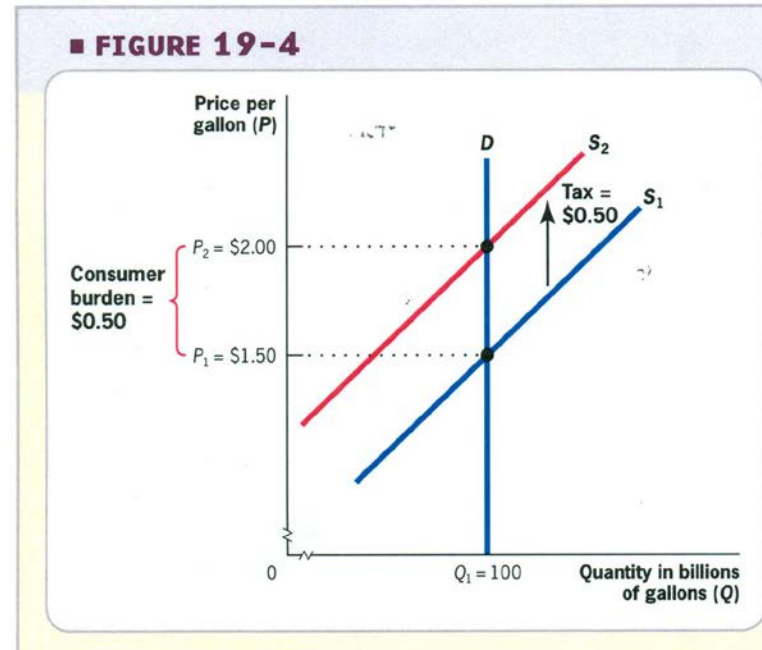


■ FIGURE 19-3

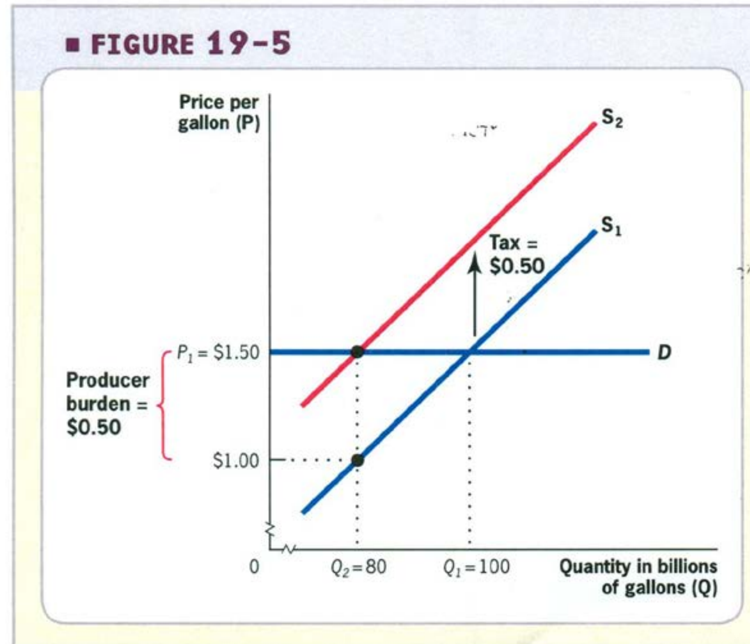


- Remark: The preceding two figures illustrate the first two rules of tax incidence.

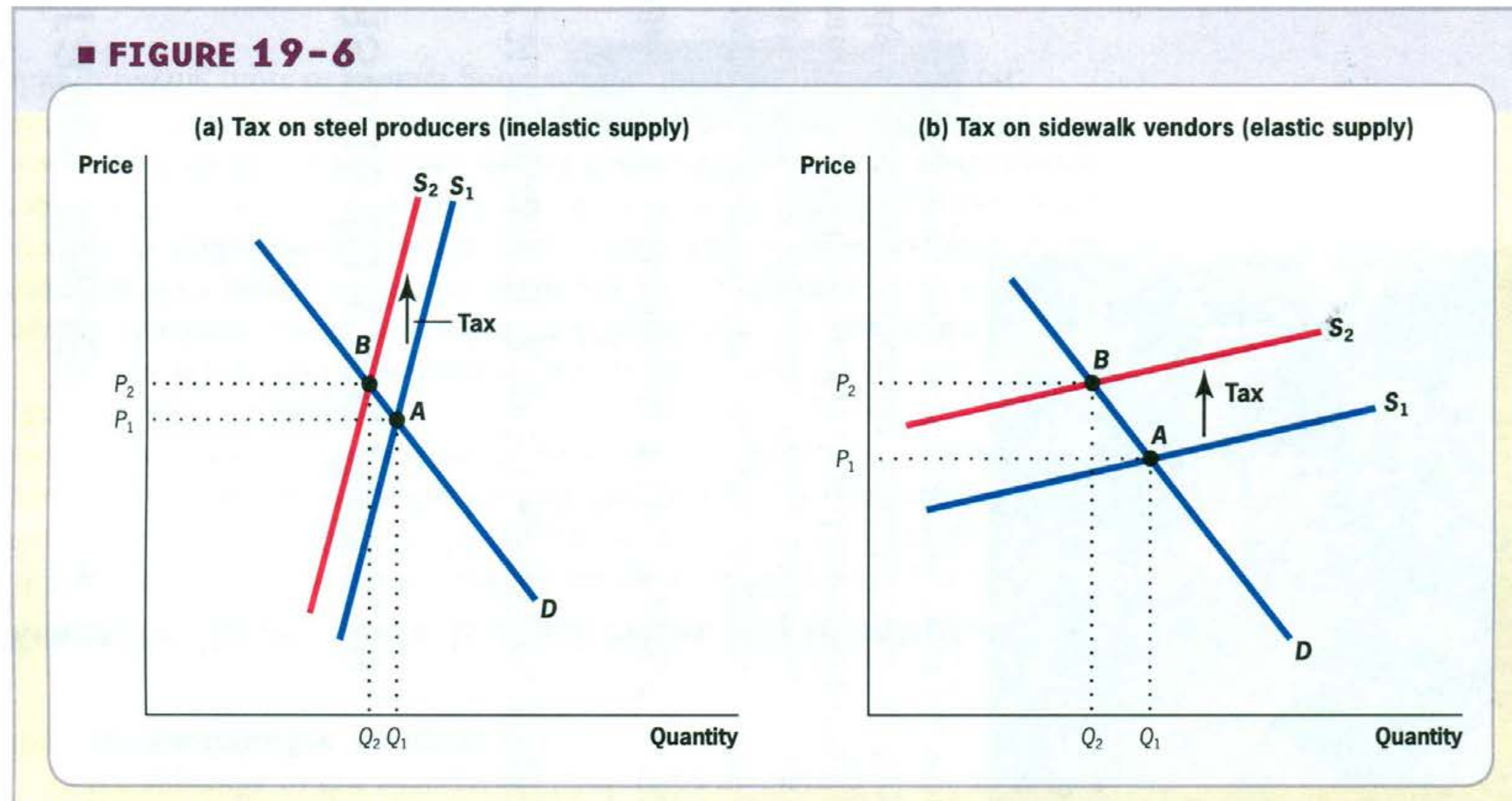
With perfectly inelastic demand the tax burden goes to consumers



With perfectly elastic demand the tax burden goes to producers



The preceding two and the following two figures illustrate the third rule of tax incidence.



Tax Incidence and Elastisities

- See handwritten notes

Tax Incidence in Factor Markets

- The analysis is as in the case of an excise tax for commodities. But, now, individuals are in the supply side and firms are in the demand side. And, what was said for the three rules of tax incidence applies, here as well.

Tax Incidence in Imperfectly Competitive Markets

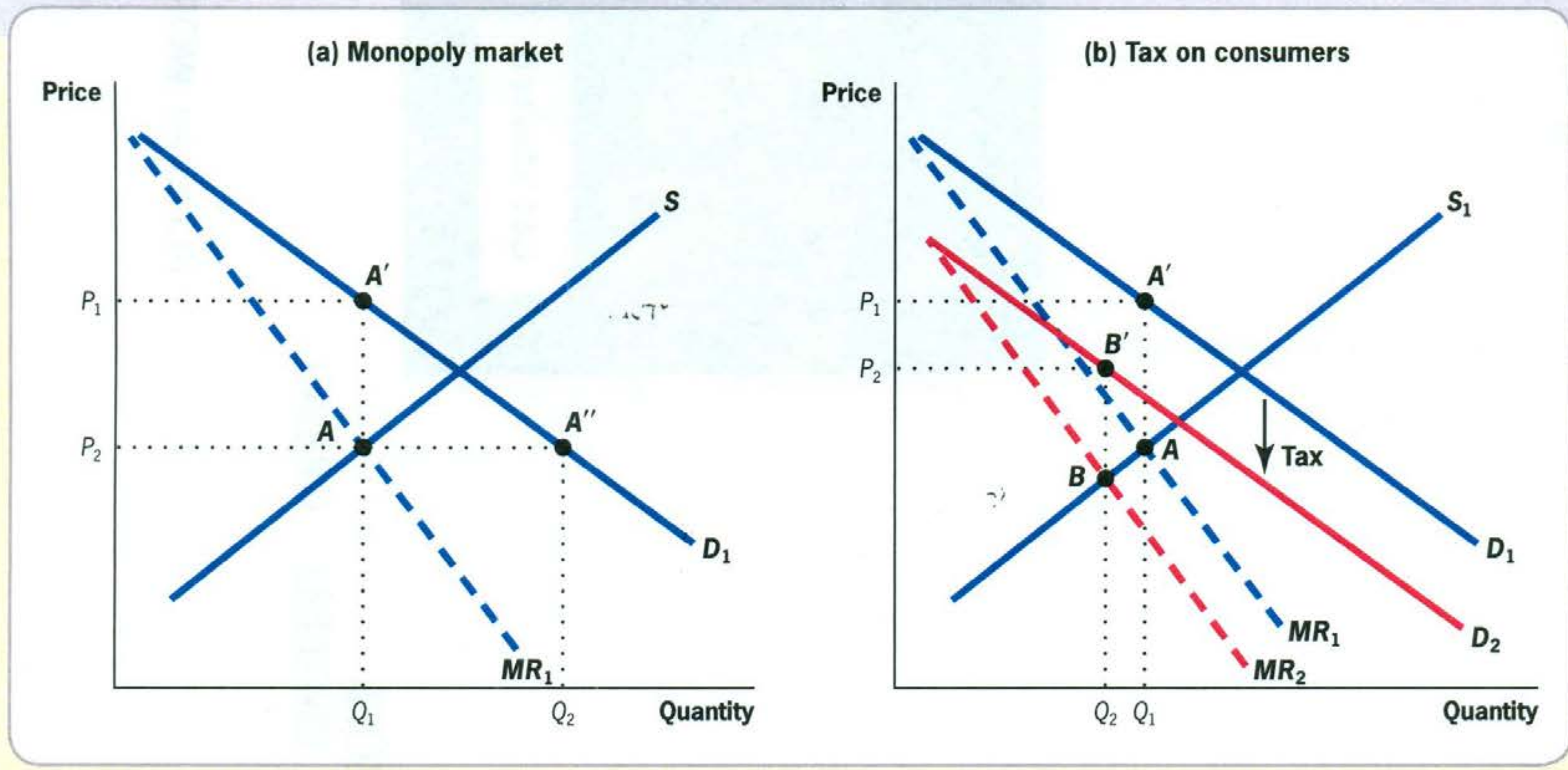
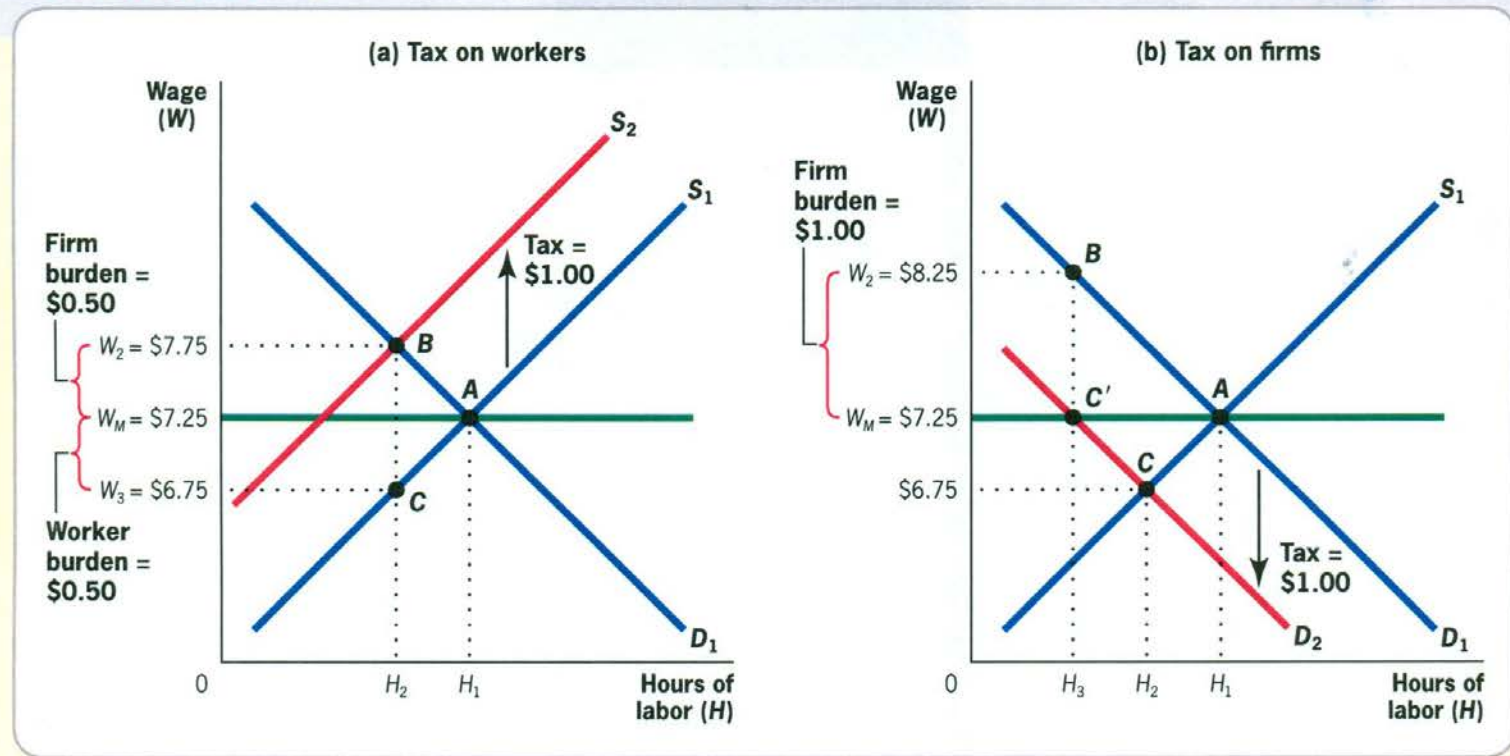


FIGURE 19-9
(a) Monopoly market
Price
S
A′
P1
A
A″
P2
D1
MR1
Q1
Q2
Quantity
(b) Tax on consumers
Price
S1
A′
P1
B′
P2
A
Tax
B
D1
MR1
D2
MR2
Q2
Q1
Quantity

Tax incidence and minimum wage rate



■ FIGURE 19-7

(a) Tax on workers

Wage (W)

S_2

S_1

Tax = $1.00

Firm burden = $0.50

W_2 = $7.75

W_1 = $7.25

W_3 = $6.75

Worker burden = $0.50

A

B

C

D_1

0

H_2

H_1

Hours of

(b) Tax on firms

Wage (W)

S_1

Firm burden = $0.50

W_2 = $7.75

W_1 = $7.25

W_3 = $6.75

Worker burden = $0.50

B

A

C

Tax = $1.00

D_2

D_1

0

H_2

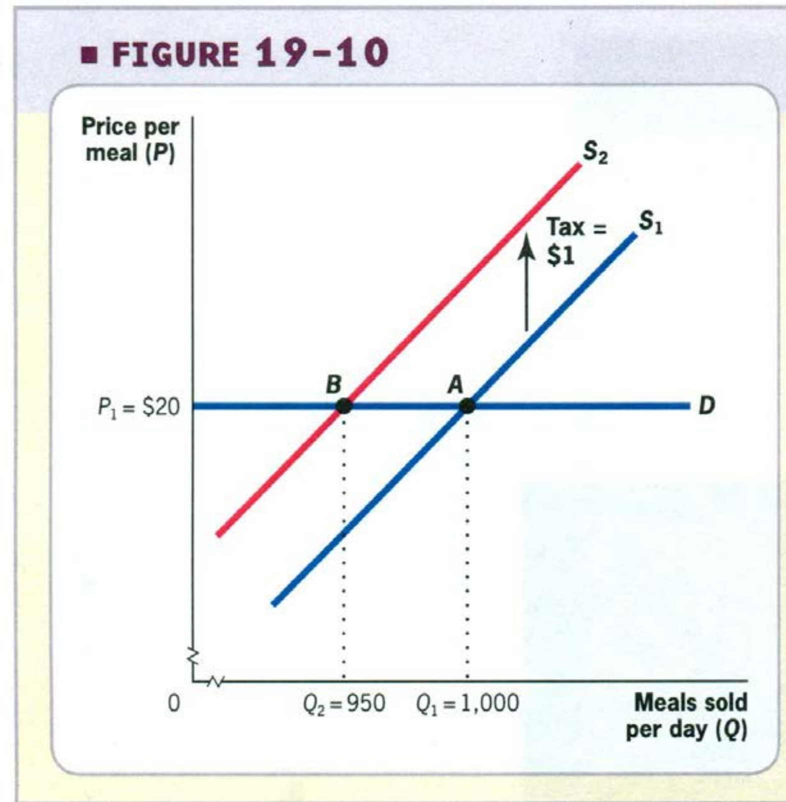
H_1

Hours of

Some Caveats

- The preceding analysis ignores:
- 1) quantity changes are not considered (consumers and producers surplus are the right magnitudes for both price and quantity changes)
- 2) benefits from spending the tax proceeds on goods private agents value are not considered (balanced budget incidence)
- 3) analysis is partial equilibrium (general equilibrium)
- 4) analysis is static (dynamic analysis)

General Equilibrium Tax Incidence



■ FIGURE 19-11