Applying Demand Functions

Imposing a Tax

- A tax $t$ is levied on sales of a product

- The supply curve shifts up by $t$.
  - Why? The price suppliers get is $t$ less than consumers pay

What Happens

- Quantity sold drops

- The price suppliers get decreases.
Suppose Consumers Pay

- A tax $t is levied on purchases
- The quantity sold drops.
- The price suppliers get decreases

The price consumers pay, tax included, increases.
Applying Demand Functions

Compare the two cases

• Does it make a difference?

D
S
Price Consumers
Pay
Q
Po
Qo
St
Ds
Ps

Shift in supply and demand curves is the same, St

Compare the two cases

• Does it make a difference?

• Lets combine the two effects

D
S
Price Consumers
Pay
Q
Po
Qo
St
Ds
Ps

Quantity Sold is the Same

Compare the two cases

• Does it make a difference?

• Lets combine the two effects

D
S
Price Consumers
Pay
Q
Po
Qo
St
Ds
Ps

Price to consumers is the same

Compare the two cases

• Does it make a difference?

• Lets combine the two effects

D
S
Price Consumers
Pay
Q
Po
Qo
St
Ds
Ps

Net price to suppliers is the same
Conclusion

• The incidence of a tax is independent of who actually pays the tax.
• The actual split between demanders and suppliers depends on the slope of the supply and demand curves, not the legalities.

An Old Problem

• The City of Kent is planning a tax on automobile sales.
• One plan would levy the tax on dealers, the other on customers.
• Which will have the greater effect on sales?

There is a difference?
(Actually No)

End

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