Monopoly Power

Antitrust
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Konomark
Most rights sharable

Monopolization elements

Re-run

"The offense of monopol[ization] under § 2 of the Sherman Act has two elements: (1) the possession of monopoly power in [a] relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident."

United States v. Grinnell Corp., 384 U.S. 563, 570–71 (1966)

Monopolization elements

Re-run

(1) monopoly power in a relevant market

1. What's a relevant market?
    a) product market
    b) geographic market
2. What constitutes monopoly power in that market?

(2) anticompetitive conduct

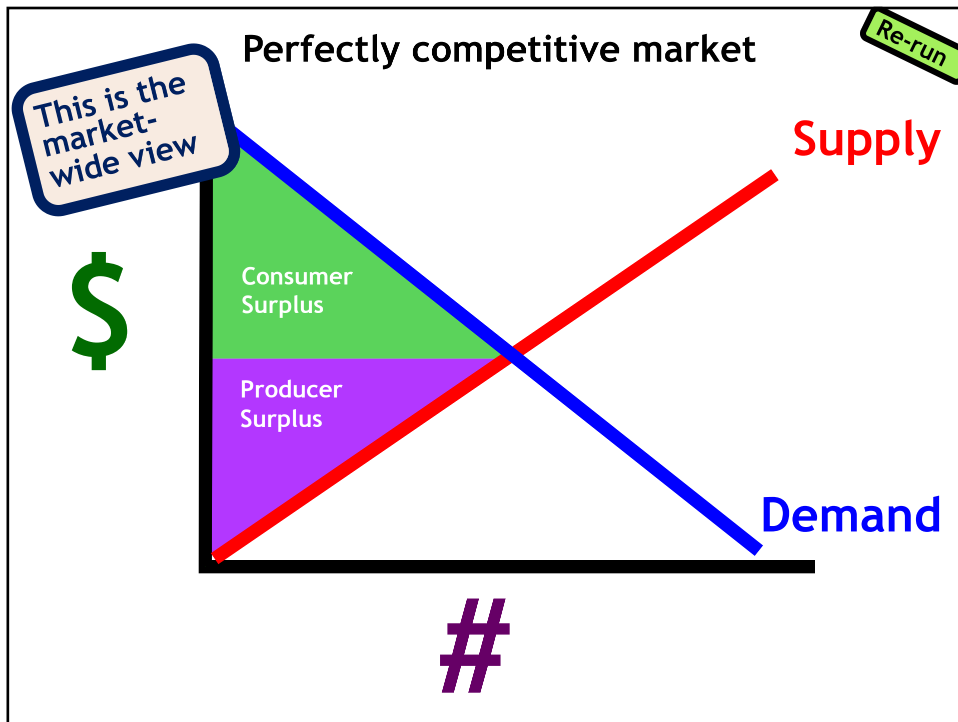
Market power vs. monopoly power

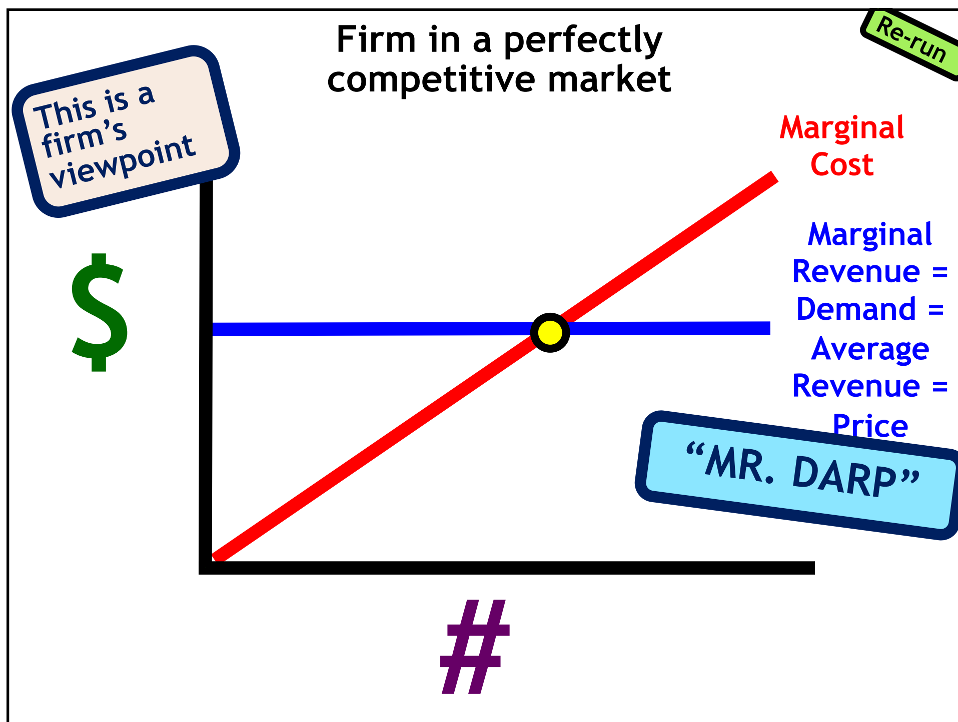
Market power is "the ability to raise prices above those that would be charged in a competitive market." *NCAA v. OU* (U.S. 1984)

- In other words, there's at least some market power whenever it's not a "MR. DARP" situation, where the seller faces a perfectly elastic demand curve.

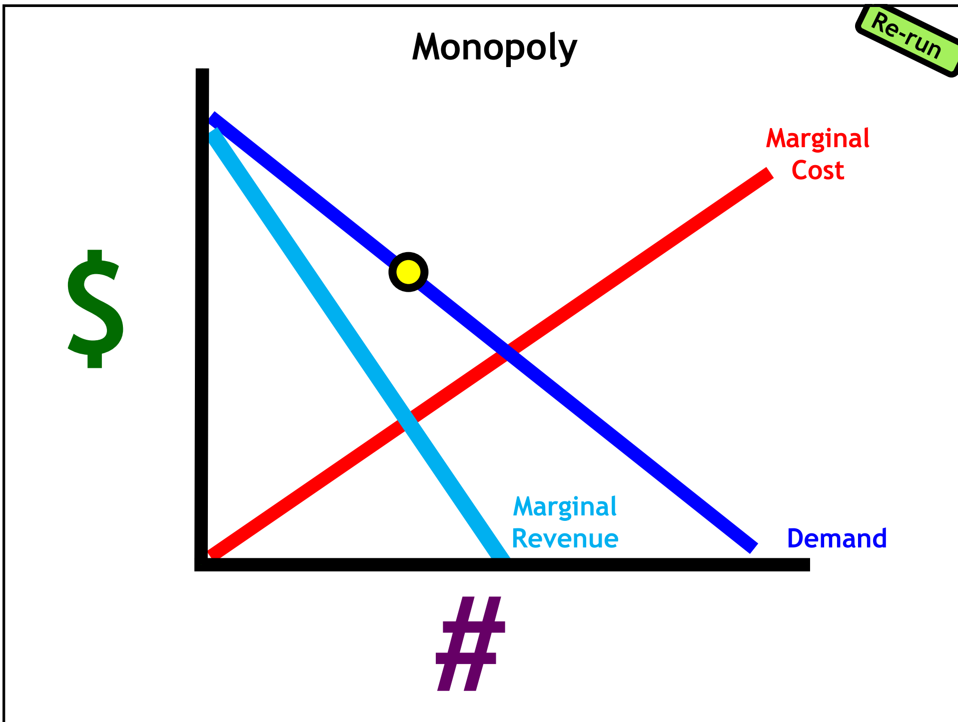
Monopoly power is "the power to control prices or exclude competition." *Cellophane Case* (U.S. 1956)

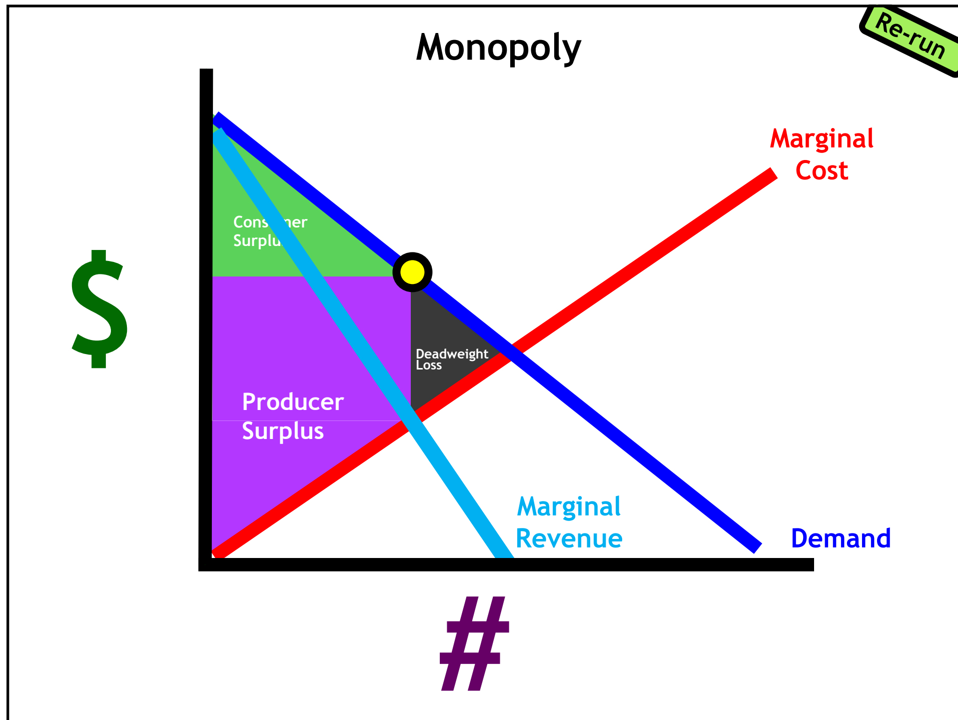
- In other words, monopoly power is more power than mere market power. But how much more? It's a matter of degree.

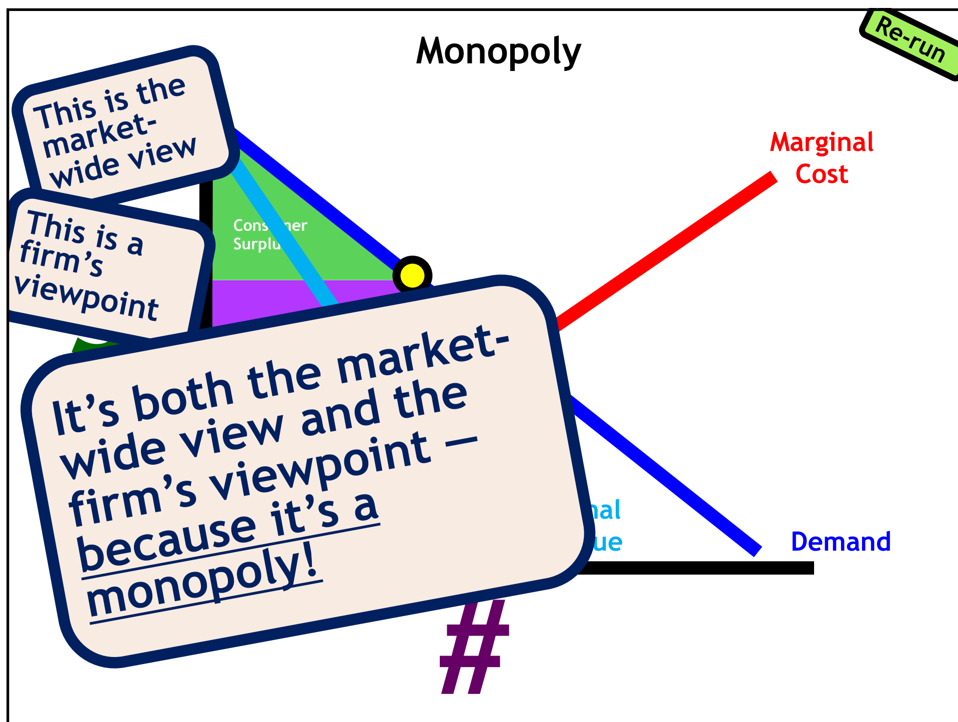

Perfectly competitive market
Re-run
This is the market-wide view
Supply
$
Consumer Surplus
Producer Surplus
Demand
#

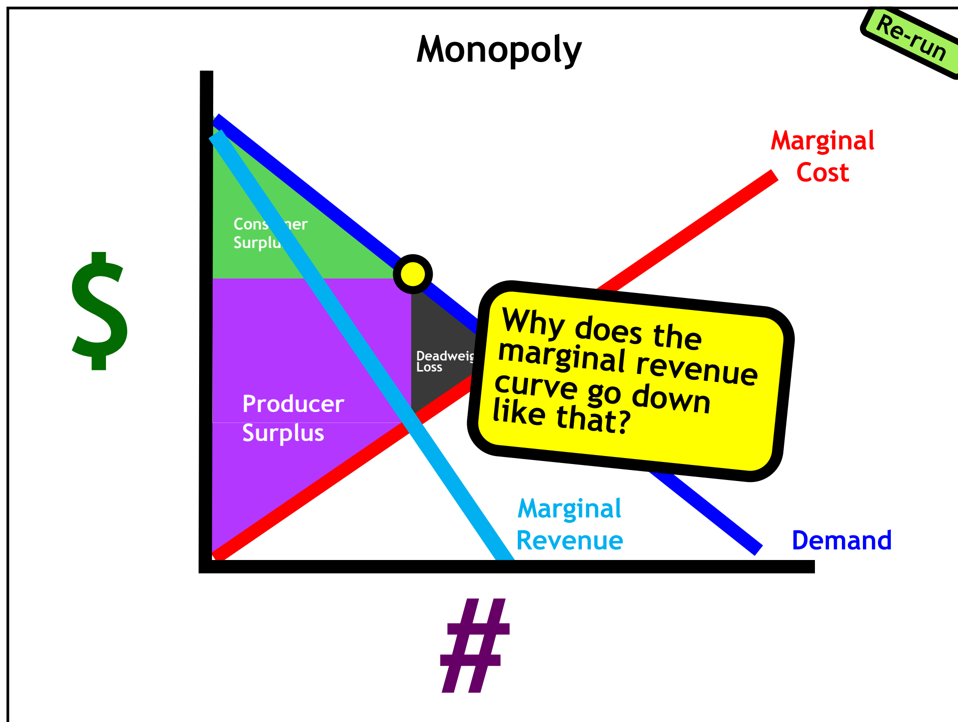

Firm in a perfectly competitive market
Re-run
This is a firm's viewpoint
Marginal Cost
$
Marginal Revenue = Demand = Average Revenue = Price
"MR. DARP"
#

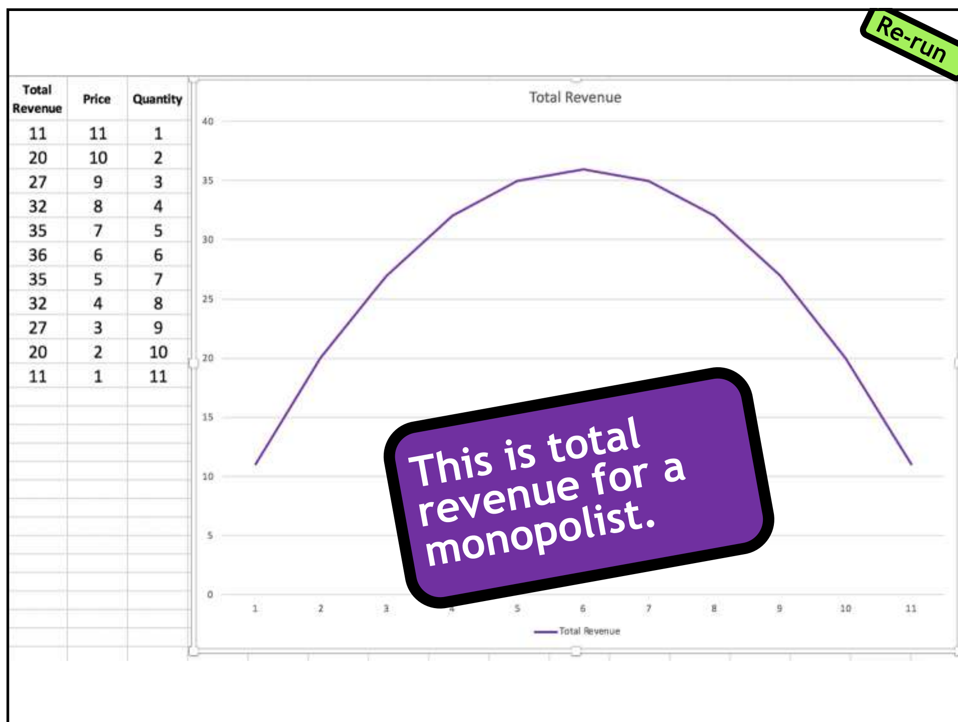
Re-run
MR. DARP


Re-run
Monopoly
Marginal Cost
$
Marginal Revenue
Demand
#


Re-run
Monopoly
Marginal Cost
$
Deadweight Loss
Producer Surplus
Marginal Revenue
Demand
#


Re-run
Monopoly
This is the market-wide view
This is a firm's viewpoint
Marginal Cost
It's both the market-wide view and the firm's viewpoint – because it's a monopoly!
Demand
#





Total Revenue	Price	Quantity
11	11	1
20	10	2
27	9	3
32	8	4
35	7	5
36	6	6
35	5	7
32	4	8
27	3	9
20	2	10
11	1	11

Monopoly power

Monopoly power is "the power to control prices or exclude competition."

United States v. E. I. du Pont De Nemours & Co., 351 U.S. 377, 391 ("*The Cellophane Case*") (1956)

IMPORTANT NOTE: What U.S. antitrust law means by "monopoly power" is different from what economists mean by that term (including as presented in our econ slides)!

Monopoly power

Monopoly power is "the power to control prices or exclude competition."

- "Monopoly power" is more than "market power" under § 1.
  - But how much more, we can't say.
- Theoretically, monopoly power can be proved by direct evidence.
  - But this is rarely available, so ...
- Generally, courts look to market share.

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Monopoly-level market share

The law doesn't say exactly what market share constitutes monopoly power (MP), but some flags have been planted by various courts:

- 90% is enough for MP (L. Hand, J., in *Alcoa*)
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- 30% is insufficient even for § 1 market power

(from p.21 of DOJ'08 report; p. 226 of Elhauge, 3d ed.)

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But if we are going to use market share to determine the existence of monopoly power, then we are going to need to know what the market is!

Monopolization elements

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   - a) product market
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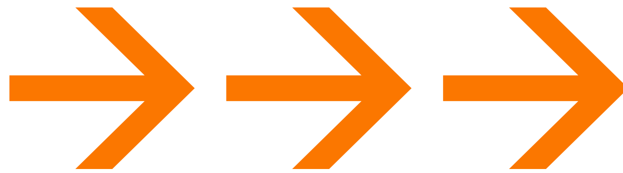
Product market definition

"In considering what is the relevant market for determining the control of price and competition, no more definite rule can be declared than that commodities reasonably interchangeable by consumers for the same purposes make up that 'part of the trade or commerce', monopolization of which may be illegal."

U.S. v. E. I. du Pont de Nemours & Co., 351 U.S. 377, 395 ("The Cellophane Case") (1956)



The following are re-run slides …

Elasticity

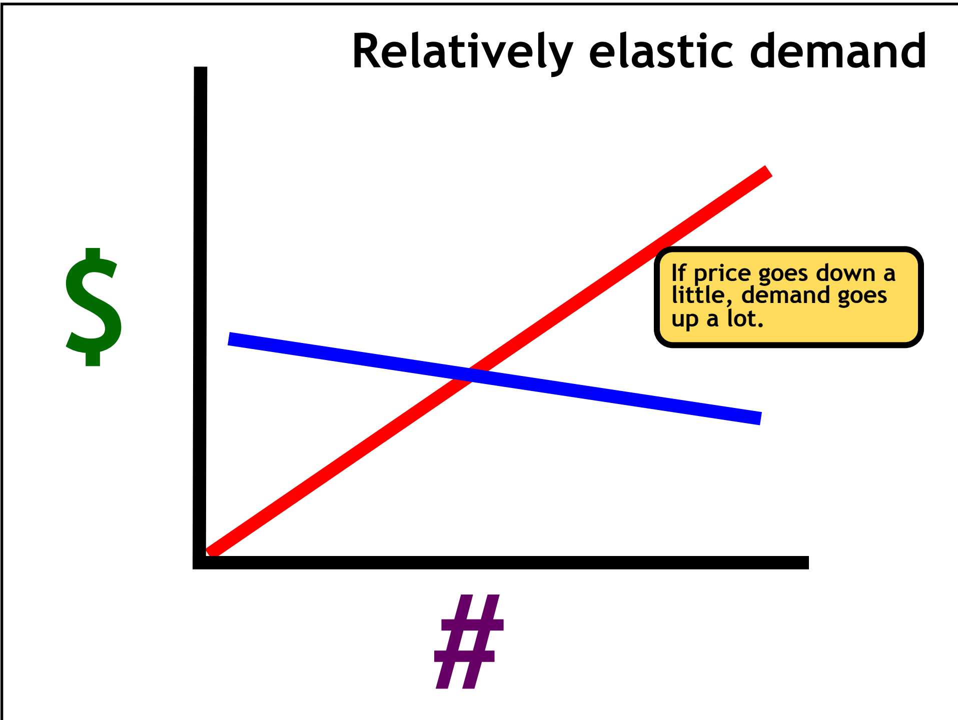
- Elasticity can be read as “responsiveness” or “sensitivity” to change.
- If it’s “relatively elastic,” then it’s pretty responsive.
- If it’s “relatively inelastic,” then it’s pretty unreponsive.
- Price elasticity of demand is how responsive demand is to changes in price.

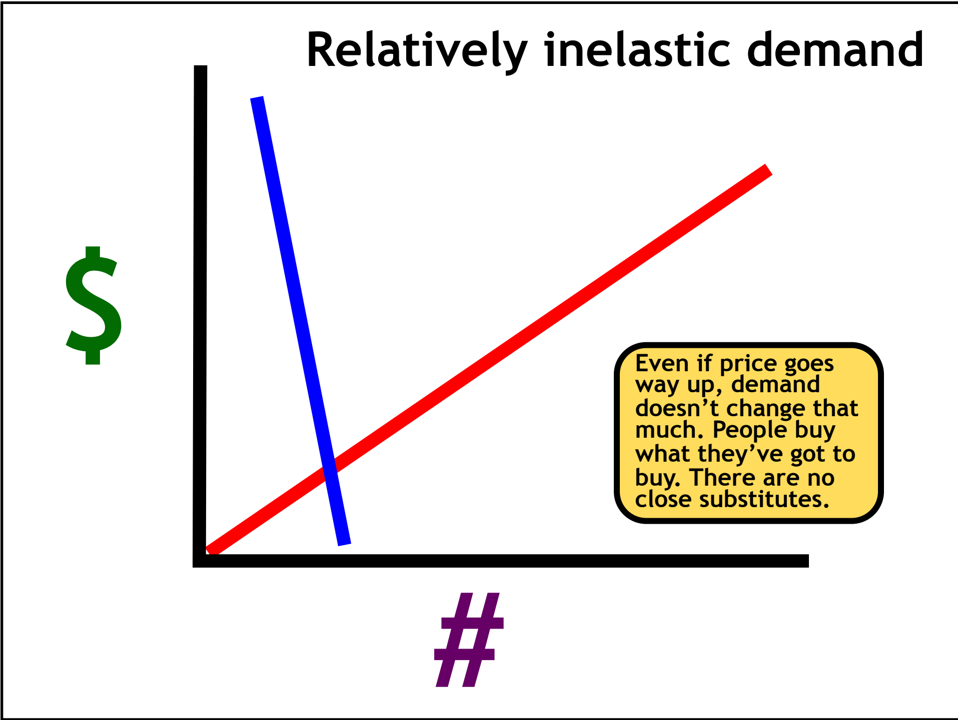
Substitution Effect

- The more prices go up, the more consumers will tend to avoid those goods by purchasing substitutes.
- The closer the substitutes, the greater the tendency for prices to make people jump ship and buy the substitutes instead.

Price Elasticity of Demand

- Price elasticity of demand is how responsive demand is to changes in price, so ...
- If consumers will buy almost as much when the price goes up, that means demand doesn't change much with price, which is a situation where price elasticity of demand is relatively inelastic.
  - Examples: gasoline, insulin
- If consumers will rapidly cut how much they buy when the price goes up, that means demand changes a lot with price, which is a situation where price elasticity of demand is relatively elastic.
  - Examples: particular kinds of food


Relatively elastic demand
$
If price goes down a little, demand goes up a lot.
#


Relatively inelastic demand
$
Even if price goes way up, demand doesn't change that much. People buy what they've got to buy. There are no close substitutes.
#

Tending toward elasticity

- The goods are luxuries.
- Close substitutes exist.
- The time horizon is long.

Tending toward inelasticity

- The goods are necessities.
- Nothing's easily substitutable.
- The time horizon is short.

Extreme cases of elasticity

Perfectly Inelastic is vertical, like the letter "I"

Perfectly Elastic is horizontal,

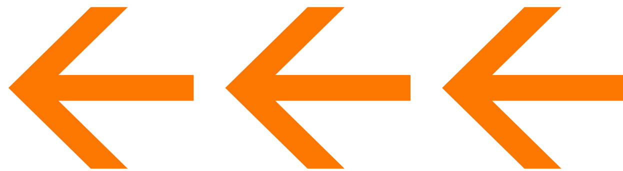
like the cross bars of the "E"

Cross-Price Elasticity of Demand

- Cross-price elasticity of demand brings into consideration two different goods.
- Cross-price elasticity of demand is how responsive demand for one good is to changes in the price of another good.
- If the price of blueberries goes way up, then probably the demand for strawberries will increase.

Consider a town with two gas stations:

- If the price of Shell gasoline goes way up, then the demand for Sinclair gasoline is going to go way up.



That's the end of the re-run slides.

Cross-Price Elasticity of Demand

- Cross-price elasticity of demand brings into consideration two different goods.
- Cross-price elasticity of demand is how responsive ... changes in th...
- If th... p, then prob... s will incr...

Consid...

- If the ... goes way up, then the demand for Sinclair gasoline is going to go way up.

Note: "cross-price elasticity of demand" and "cross-elasticity of demand" are the same thing.

Cross-Price Elasticity of Demand

Formula:

CPED = (%Δ Qd of B)/(%Δ P of A)

Cross-Price Elasticity of Demand

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CPED = (%Δ Qd of B)/(%Δ P of A)

CPED = cross-price elasticity of demand
%Δ = percent change
Qd = quantity demanded
B = product B
A = product A
P = price

Cross-Price Elasticity of Demand

CPED = (%Δ Qd of B)/(%Δ P of A)

If the price of 8-foot redwood 2x4 decking timbers goes up from $10 to $50, then the demand for boxes of decking screws goes down 75%. What is the CPED?

Cross-Price Elasticity of Demand

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CPED = (-75%)/(400%) = -0.18

A negative CPED means the goods are complementary goods.

Cross-Price Elasticity of Demand

CPED = (%Δ Qd of B)/(%Δ P of A)

If the price of a jumbo roll of cellophane goes from $100 to $110, then the quantity demanded of glassine goes up 50%. What is the CPED?

Cross-Price Elasticity of Demand

CPED = (%Δ Qd of B)/(%Δ P of A)

If the price of a jumbo roll of cellophane goes from $100 to $110, then the quantity demanded of glassine goes up 50%. What is the CPED?

CPED = (50%)/(10%) = 5

A <u>positive</u> CPED means the goods are substitute goods.

Cross-Price Elasticity of Demand

The Cellophane Case says high cross-elasticity of demand suggests the two goods are part of the same product market.

of A)
e goes
lemanded
ED?
5

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Cross-Price Elasticity of Demand

of A)

e goes
demanded
ED?

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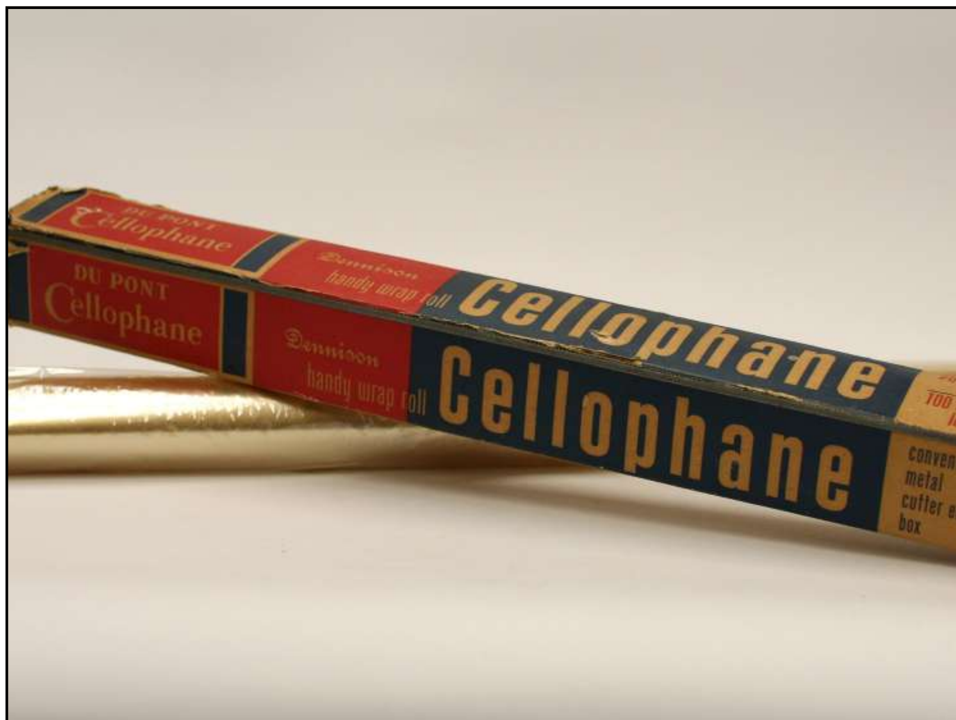
But what magnitude of CPED is legally significant? It's hard to say ...

A positive
substitute

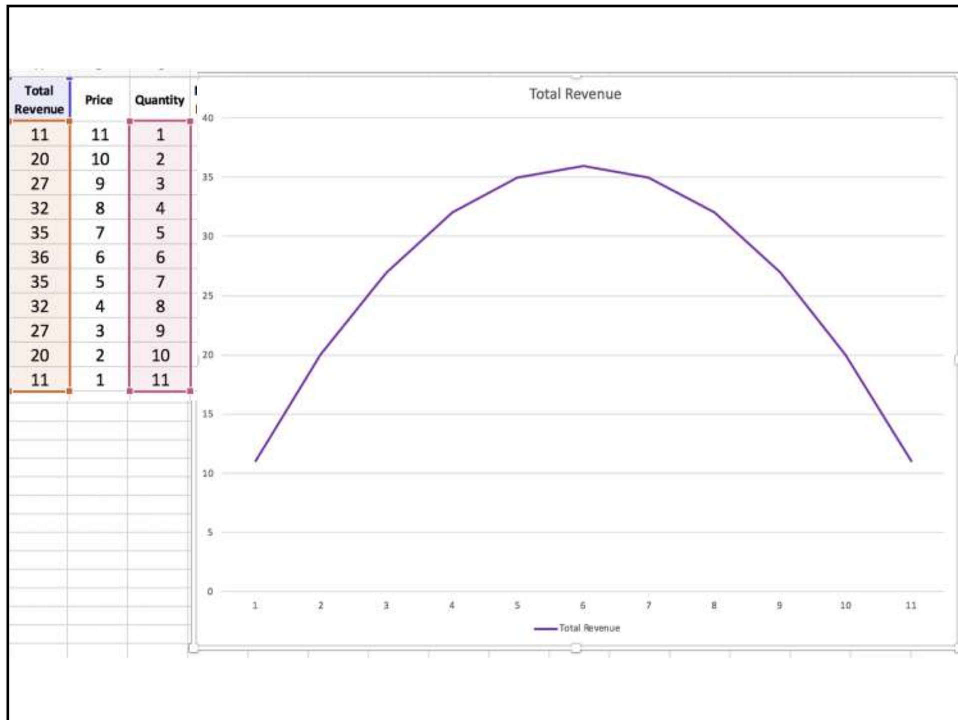


DU PONT
Cellophane

Dennison CELLOPHANE
ISTUREPROOF CELLOPHANE for best results
Wrap left-overs in CELLOPHANE before putting away in refrigerator.
Vegetables stay fresh and crisp.
Cheese stays moist and tasty.
Easy to see what's inside refrigerator when food is wrapped in transparent CELLOP
Handy for wrapping sandwiches for a work-day lunch or a family picnic.
Excellent food wrap for home freezing.

The Cellophane Fallacy

- a/k/a "the Cellophane Trap"
- If raising prices by the would-be monopolist causes buyers to flee to substitutes, that doesn't mean the would-be monopolist isn't a monopolist. It may just mean that the monopolist is already at the profit-maximizing output level.



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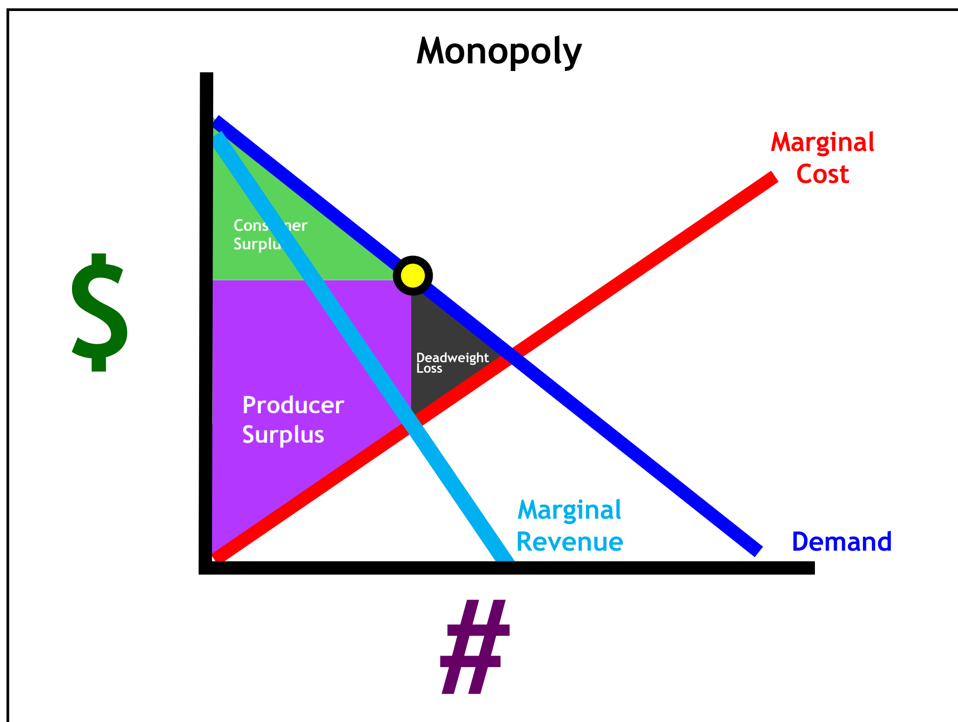

Using cross-price elasticities of demand

- You can't take anything from high CPED at current price levels, since the defendant may already be at the profit-maximizing monopoly price.
- You can conclude from a high CPED at competitive price levels that there's a single market.
  - But buyer-substitution rates in a competitive market aren't observable in a non-competitive market, where market power is already being brought to bear.
- You can conclude from low cross-price elasticities of demand that there are separate markets (whether the current market is competitive or not).

Cross-Price Elasticity of Demand

CPED = (%Δ Qd of B)/(%Δ P of A)

If the price of light bulbs goes from $1 to $2, then the quantity demanded of candles goes up 0.000000001%. What is the CPED?

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If the price of light bulbs goes from $1 to $2, then the quantity demanded of candles goes up 0.000000001%. What is the CPED?

Let's just agree that the CPED is "very low."

This low CPED implies that light bulbs and candles are not substitute goods and therefore should not be considered to be in the same market. (This implication applies whether the current market is competitive or not.)

Determining a relevant product market

There is widespread agreement that whether a given market counts as a relevant market ultimately depends on

whether the rate of buyer substitution to other items would constrain a monopolist in the posited market from significantly raising prices above competitive levels

(from Elhauge 3d ed., p. 240)

FTC/DOJ merger guidelines' Hypothetical Monopolist Test

A "relevant product market" is one where, if one firm was the only seller of that product, they would be able to impose a small but significant and non-transitory increase in price (SSNIP). "Small but significant" is quantified at at least 5%.

Consider:

- All paper manufactured from trees felled on a Tuesday in Klamath County, Oregon.
- All wine manufactured from grapes grown in Napa County, California.
- All blueberries.

We'll just guess based on our intuition about consumer preferences ...

Consider:

- All paper manufactured from trees felled on a Tuesday in Klamath County, Oregon.
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Consider:

- All paper manufactured from trees felled on a Tuesday in Klamath County, Oregon.
  - NO. Seems like this would fail the SSNIP test. We can guess that a hypothetical monopolist over this paper would not be able to impose a 5% non-transitory price increase. THUS, this is not a relevant market.
- All wine manufactured from grapes grown in Napa County, California.
  - MAYBE. Seems like this could pass the SSNIP test. We can guess that enough consumers might care about getting Napa wine that a hypothetical monopolist over this wine would be able to impose a 5% non-transitory price increase. THUS, this seems like it could be a relevant market.
- All blueberries.
  - YES. We can guess that this would definitely pass the SSNIP test. One firm monopolizing all blueberries would be able to jack up the price 5% for quite some time and sustain that profitably. THUS, this would be a relevant market.

Monopolization elements

(1) monopoly power in a relevant market

1. What's a relevant market?

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(2) anticompetitive conduct

Geographic market

A geographical market is the geographical area in which customers are willing to go to find substitutes in response to an increase in price and where suppliers are willing to come in response to an increase in price.

Geographic market

Consider:

- Every gas station within a three block radius of the law school raises prices by 5% over rivals outside that zone.
- Every gas station in Norman raises prices by 5% over rivals outside the city.
- Every gas station in Oklahoma raises prices by 5% over rivals outside the state.

Geographic market

Consider:

- All carpet cleaning services in Norman raise their prices by 5% over rivals outside the city.
- All carpet cleaning services in the Oklahoma City metro area raise their prices by 5% over rivals outside the metro.
- All carpet cleaning services in Oklahoma raise their prices by 5% over rivals outside the state.

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Monopoly power

It's mostly about market share ...

But also relevant are:

- barriers to entry
- future capacity constraints
- changing consumer demand
- demand elasticity

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Barriers to entry

Barriers to entry are things that stop market entrants. If there are no barriers to entry, then it is easy for competitors to spring up.

Barriers to entry

Key point: Even if a firm has 100% market share, there will be no monopoly power if there are no barriers to entry – meaning it is very easy for competitors to jump into the market.

Barriers to entry

Barriers to entry are things that stop market entrants. If there are no barriers to entry, then it is easy for competitors to spring up.

Examples of barriers to entry:

- huge fixed costs, start-up costs
- government regulations
- patents, other IP rights
- lack of access to needed inputs or essential resources
- network effects

Barriers to entry

Barriers to entry are things that stop market entrants to entry, then it spring up.

Examples of bar

- huge fixed cos
- government regulations
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- lack of access to needed inputs or essential resources
- network effects

But note: The Chicago School, which is influential in the courts and periodically influential in the enforcement agencies, says huge fixed costs / start-up costs don't count if the alleged monopolist has the same costs.

Monopoly power

It's mostly about market share ...

But also relevant are:

- barriers to entry
- future capacity constraints
- changing consumer demand
- demand elasticity

Monopoly power: future capacity constraints, changing consumer demand, demand elasticity

future capacity constraints

- If an alleged monopolist won't be able to produce in the future, then it may have no monopoly power, such as a coal company that is out of coal reserves.

changing consumer demand

- If consumers no longer want the alleged monopolist's product going forward, than past dominant market share may not be probative.

demand elasticity

- Even with overwhelming market share, if consumers can very easily do without the product, then an alleged monopolist may not have monopoly power.

Monopolization analysis to-do list

(1) monopoly power in a relevant market

1. figure out a relevant product market
2. figure out a relevant geographical market
3. look at the market share
4. consider barriers to entry
5. consider whether future capacity constraints, changing consumer demand, or demand elasticity might let an alleged monopolist off the hook

(2) anticompetitive conduct

[for this analysis, you'll use what we cover next ...]