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# 9. Mergers and Acquisitions:

Statutes, Foundation Cases, and Merger Guidelines

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Antitrust Law

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Dale Collins

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# Topics

- A note on merger typology, substitutes and complements, and elasticities
- A note on market power
- The statutes and the classic cases
- The merger guidelines
  - A little history
  - Merger analysis under the 2010 Horizontal Merger Guidelines

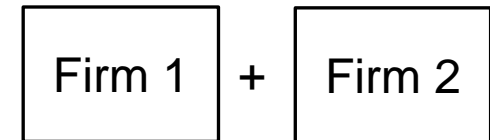
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# Merger Typology, Substitutes and Complements, and Elasticities

# Merger typology

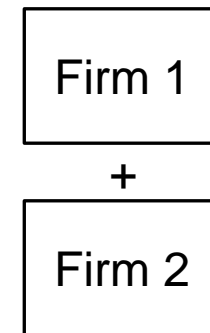
## ■ Horizontal mergers

- Combination of two competitors
  - Two competing manufacturers
  - Two competing distributors
  - Two competing retail stores



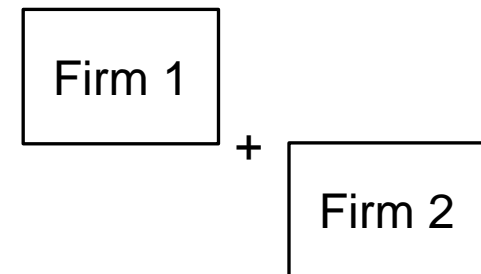
## ■ Vertical mergers

- Combination of two firms at adjacent levels in the chain of manufacture and distributions
  - Manufacturer + distributor
  - Wholesaler + retailer
- May be extended to two firms that produce complementary products



## ■ Conglomerate mergers

- Mergers that are neither horizontal or vertical
- Products, however, can be complements
  - E.g., a combination between a printer company and a printer cartridge company



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# Merger typology

- Multifacility multiproduct combinations
  - Can involve horizontal, vertical, and conglomerate aspects depending on locations of facilities and the products or services that each facility offers

# Substitutes/Complements

## ■ Substitutes

- Two products or services are substitutes if, when consumer demand increases for one product, it will decrease for the other product
  - That is, consumers see the products replacements for one another
  - If the consumer is only going to buy one unit, she will buy one of the other
    - E.g., a Ford Focus or a Honda Civic
  - If the consumer buys multiple units, buying more of one means buying less of the other
    - E.g., Diet Coke and Diet Pepsi
- Horizontal mergers involve combinations of firms that offer substitute products
  - Firms compete with each other when they offer substitute products

# Merger Typology: Substitutes/Complements

## ■ Complements

- Two products are complements if, when a consumer demand increases for one product, consumer demand will increase for the other product
  - Examples
    - Razor and razor blades
    - Printers and printer ink cartridges
    - Product manufacturing and distribution
  - Complements do not have to be purchases in a one-to-one ratio (as the above examples show)
  - Complements may involve a product and a service
    - E.g., High-speed printers and high-speed printer repair services
- Vertical mergers involve complement products and services that are in the same chain of manufacturing and distribution
- Conglomerate mergers may or may not involve complement products or services
  - But if it does, they will not be in the same chain of manufacturing and distribution

# Substitutes/Complements

- Mathematically (for those of you so inclined):

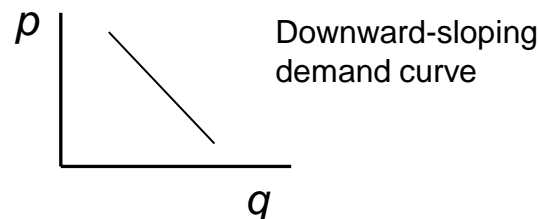
- Notation

- Let  $p_1$  and  $p_2$  be the prices of products 1 and 2
- Let  $q_1$  and  $q_2$  be the respective quantities demanded by consumers

- Downward-sloping demand curve: Consumers demand less of a product the higher its price

Remember, read this as the change in  $q_i$  demanded with a (positive) increase in  $p_i$

$$\frac{\partial q_i}{\partial p_i} < 0$$



- Substitutes:** Increased demand for product 1 means decreased demand for product 2

$$\frac{\partial q_2}{\partial q_1} < 0 \quad \text{or equivalently} \quad \frac{\partial q_1}{\partial p_1} \frac{\partial q_2}{\partial q_1} < 0 \Rightarrow \frac{\partial q_2}{\partial p_1} > 0$$

As price of product 1 increases, demand for product 2 increases

- Complements:** Increased demand for product 1 means increased demand for product 2

$$\frac{\partial q_2}{\partial q_1} > 0 \quad \text{or equivalently} \quad \frac{\partial q_1}{\partial p_1} \frac{\partial q_2}{\partial q_1} > 0 \Rightarrow \frac{\partial q_2}{\partial p_1} < 0$$

As price of product 1 increases, demand for product 2 decreases



# Elasticities

## ■ Elasticity of demand

- *Problem:* Changes in the absolute quantities demanded can vary with changes in the unit of measure
  - Example: You get different numbers for the change in demand for razor blades with an increase in demand for razor if razor blades are measured in (a) units or (b) ounces
- *Solution:* Find a measure of change that is dimensionless (free of units)
  - The percentage change in the quantity demanded for a given percentage change in price will do this. This is called an *elasticity of demand*.
  - The elasticity of demand will not change with a change in the unit of measure of either prices or quantities

# Elasticities

## ■ Elasticity of demand—Some definitions

- *Own-elasticity of demand*: The percentage change in the quantity demanded divided by the percentage change in the price of that *same* product.

$$\varepsilon = \frac{\frac{\Delta q_i}{q_i}}{\frac{\Delta p_i}{p_i}}$$

Percentage change  $q_i$  in the quantity of product  $i$  demanded

Percentage change  $p_i$  in the price of product  $i$

Slope of the (residual) demand curve

- Using a little algebra, this is equivalent to  $\frac{\Delta q_i}{\Delta p_i} \frac{p_i}{q_i}$  (or in calculus terms  $\frac{\partial q_i}{\partial p_i} \frac{p_i}{q_i}$ )

- Own-elasticities are *negative*, due to the downward-sloping nature of the demand curve

- *Cross-elasticity of demand*: The percentage change in the quantity demanded for product  $j$  divided by the percentage change in the price of product  $i$ .

$$\varepsilon_{ij} = \frac{\frac{\Delta q_j}{q_j}}{\frac{\Delta p_i}{p_i}}$$

Percentage change  $q_j$  in the quantity of product  $j$  demanded

Percentage change  $p_i$  in the price of product  $i$

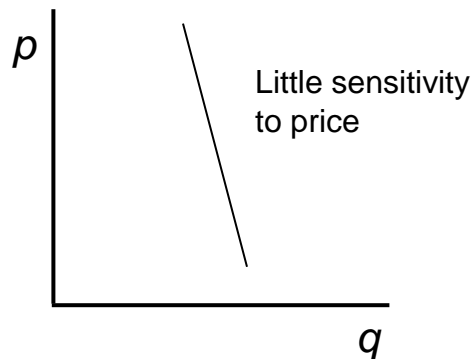
- Cross-elasticities are positive for substitutes and negative for complements

# Elasticities

## ■ Elasticity of demand—More definitions

- By convention, economists speak of elasticities in terms of their absolute values
  - Don't ask me why
- Own elasticities
  - *Inelastic demand*: Own demand where the quantity demanded does not change significantly with changes in the product's price. *Not price sensitive.* ( $|\varepsilon| < 1$ )
  - *Unit elasticity*: Where a 1% change in the product's price results in a 1% decrease in the quantity demanded ( $|\varepsilon| = 1$ )
  - *Elastic demand*: Own demand where the quantity demanded drops rapidly with small changes in price. *Very price sensitive.* ( $|\varepsilon| > 1$ )
  - Some graphics for the intuition

Very inelastic demand



Very elastic demand



# Elasticities

## ■ Elasticity of demand—More definitions

### □ Cross-elasticities

- *High cross-elasticity of demand:* A small change in the price of product  $i$  will cause a large shift of demand to product  $j$ 
  - As a result, product  $j$  brings a lot of competitive pressure on product  $i$
- *Low cross-elasticity of demand:* A large change in the price of product  $i$  will cause only a small shift of demand to product  $j$ 
  - As a result, product  $j$  brings little competitive pressure on product  $i$

# Elasticities

- An important relationship:  $MR = p \left[ 1 + \frac{1}{\varepsilon} \right]$ 
  - Proof:

$$\begin{aligned} MR &= \frac{d(pq)}{dq} = p \frac{dq}{dq} + q \frac{dp}{dq} \\ &= p \left[ 1 + \frac{q}{p} \frac{dp}{dq} \right] \\ &= p \left[ 1 + \frac{1}{\varepsilon} \right] \end{aligned}$$

By the chain rule

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# Market Power

# Market power

## ■ Some definitions

### □ Market power

- “As an economic matter, market power exists whenever prices can be raised above the levels that would be charged in a competitive market.”<sup>1</sup>
- “Market power is usually stated to be the ability of a single seller to raise price and restrict output, for reduced output is the almost inevitable result of higher prices.”<sup>2</sup>
- “Market power generally is defined as the power of a firm to restrict output and thereby increase the selling price of its goods in the market.”<sup>3</sup>
- Market power means “by definition, means that the defendant can produce anticompetitive effects.”<sup>4</sup>
- “A merger enhances market power if it is likely to encourage one or more firms to raise price, reduce output, diminish innovation, or otherwise harm customers as a result of diminished competitive constraints or incentives.”<sup>5</sup>

<sup>1</sup> *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 27 n.46 (1984); *accord* *NCAA v. Board of Regents*, 468 U.S. 85, 109 n.38 (1984); *Copperweld Corp. v. Independence Tube Corp.*, 467 U.S. 752, 789 n.19 (1984).

<sup>2</sup> *Fortner Enters., Inc. v. United States Steel Corp.*, 394 U.S. 495, 503 (1969)

<sup>3</sup> *Ryko Mfg. Co. v. Eden Servs.*, 823 F.2d 1215, 1232 (8th Cir. 1987).

<sup>4</sup> *Agnew v. National Collegiate Athletic Ass'n* 683 F.3d 328, 337 (7th Cir. 2012)

<sup>5</sup> U.S. Dept. of Justice & Fed. Trade Comm'n, *Horizontal Merger Guidelines* § 1 (rev. 2010).

# Market power

- Some definitions

- Monopoly power

- “Monopoly power is the power to control prices or exclude competition.”<sup>1</sup>
    - Practically, monopoly power is just an extreme form of market power that exists when the firm (or a combination of firms acting together) can behave in the market as if they were or were close to being the only firm in the market.

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<sup>1</sup> United States v. E. I. du Pont de Nemours & Co., 351 U.S. 377, 391 (1956).



# Market power

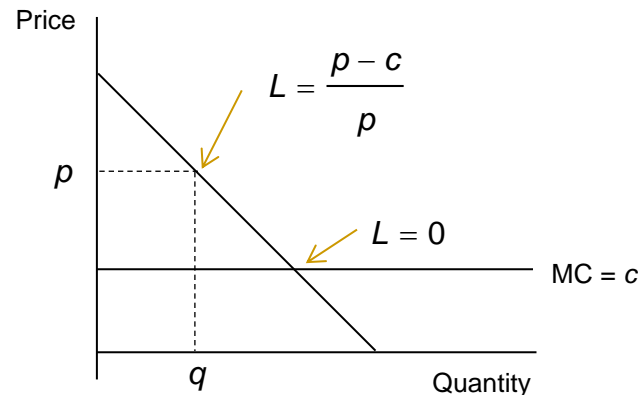
## ■ Measuring market power

- Recall that in a competitive market, firms set price equal to marginal cost
- The traditional measure of market power is the *price-cost margin* or *Lerner index*  $L$ , which is a measure of how much price has been marked up:<sup>1</sup>

$$L = \frac{p - c}{p}$$

where  $c$  is marginal cost at the equilibrium output  $q$

- Note that in a competitive market  $L = 0$  and that  $L$  increases as the difference between price and marginal cost increases:



<sup>1</sup> For on the Lerner index, see Kenneth G. Elzinga & David E. Mills, *The Lerner Index of Monopoly Power: Origins and Uses*, 101 Am. Econ. Rev. (Papers & Proceedings) 558 (2011).

# Market power

## ■ The *Lerner equation*

- Gives the relationship between a firm's Lerner index and its own-elasticity of demand in a profit-maximizing equilibrium:

$$L = \frac{1}{|\varepsilon|}$$

where  $\varepsilon$  is the firm's own-elasticity of demand on the firm's residual demand curve

- *Proof.* In a profit-maximizing equilibrium, a firm chooses its price  $p$  and quantity  $q$  on its residual demand curve such that marginal revenue equals marginal cost:

$$MC = MR$$

$$= p \left[ 1 + \frac{1}{\varepsilon} \right] = p + \frac{p}{\varepsilon} \quad \text{from Slide 13}$$

So 
$$p - c = \frac{p}{-\varepsilon} = \frac{p}{|\varepsilon|} \quad \text{where } c \text{ is marginal cost}$$

or 
$$\frac{p - c}{p} = \frac{1}{|\varepsilon|} \quad \text{q.e.d.}$$

# Market power

## ■ Further thoughts

1. From the previous page, we see that in a profit-maximizing equilibrium:

$$MC = MR = p + \frac{p}{\varepsilon}$$

- Since  $MC = p$  in a competitive equilibrium, the term  $p/\varepsilon$  is a measure of the market power distortion
- As the absolute value of  $\varepsilon$  becomes larger, so that demand becomes more elastic, the fraction  $p/\varepsilon$  becomes smaller.
  - In the limit, as the demand on the firm becomes completely elastic,  $p/\varepsilon$  approaches zero and  $p$  approaches  $MC$  (which is the competitive equilibrium)
- Conversely, the more inelastic the demand—that is, the smaller  $\varepsilon$  is in absolute value—the greater the anticompetitive distortion
- This should be intuitively obvious, since the more inelastic the demand the less responsive customers will be to reducing their unit purchases as prices increase
- The driving force behind most anticompetitive practices is to reduce the firm's residual own-elasticity of demand

# Market power

## ■ Further thoughts

- A slightly different perspective:

$$MC = MR = p + q \frac{dp}{dq}$$

from Slide 13

- In this formulation,  $q \frac{dp}{dq}$  gives the anticompetitive distortion.
- So the distortion increases as—
  - The firm's output  $q$  increases
  - The firm's ability to affect price  $dp/dq$  increases

Recall that since the demand curve is downward sloping,  $dp/dq$  is negative

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# Statutes and Cases

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# The beginning

- Mergers always a central concern in federal antitrust enforcement
  - Acquisitive tendencies of the Great Trusts in the late 1800s provided a major impetus for the passage of the original antitrust statutes
  - Major concerns
    - Mergers to monopoly
    - Development of holding companies and the secret acquisition of competitors

# The 1890 Sherman Act

- Soon after its enactment, the Sherman Act was used to challenge anticompetitive mergers and acquisitions
  - *E.C. Knight* (1895)<sup>1</sup>
    - First Supreme Court antitrust case
    - Challenged the Sugar Trust's acquisition its four remaining major competitors
  - *Northern Securities* (1904)<sup>2</sup>
    - Made Theodore Roosevelt's reputation as a "trust buster"
    - Challenged J.P. Morgan's attempt to consolidate the only two railroad trunk lines serving the northern part of the United States
  - *Standard Oil* (1911)<sup>3</sup>
    - Perhaps the most important of all antitrust cases
    - Challenged, among other things, acquisitions by the Oil Trust

<sup>1</sup> United States v. E.C. Knight Co., 156 U.S. 1 (1895).

<sup>2</sup> Northern Securities Co. v. United States, 193 U.S. 197 (1904).

<sup>3</sup> Standard Oil Co. of New Jersey v. United States, 221 U.S. 1 (1911).

# The 1914 Clayton Act

## ■ Clayton Act

- Section 7 was directed specifically at prohibiting mergers and acquisitions that were likely to be anticompetitive
- As originally enacted, Section 7 read in relevant part:

[N]o corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital of another corporation engaged also in commerce, where the effect of such acquisition may be to substantially lessen competition between the corporation whose stock is so acquired and the corporation making the acquisition, or to restrain such commerce in any section or community, or tend to create a monopoly of any line of commerce.<sup>1</sup>

## □ Limitations

- Limited to “corporations” that are “in commerce”
- Limited to stock acquisitions
- Widely viewed as limited to horizontal acquisitions<sup>2</sup>

<sup>1</sup> Pub. L. No. 212, ch. 323, §7, 38 Stat. 730, 731-32 (1914) (current version at 15 U.S.C. § 18).

<sup>2</sup> This interpretation of the original act was ultimately but belatedly rejected by the Supreme Court in *United States v. E.I. duPont de Nemours & Co.*, 353 U.S. 586 (1957).



# Celler-Kefauver Act of 1950

## ■ Celler-Kefauver Act of 1950<sup>1</sup>

- Legislative history aggressively hostile to business combinations<sup>2</sup>
  - This is actually the most significant aspect of the 1950 legislation
- Amended Section 7 to—
  - Expand coverage to asset acquisitions
  - Change competitive effects language to current form (except for jurisdictional reach):

where in any line of commerce in any section of the country, the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.

- Supreme Court interpreted the “may be” and “tend to” language in the anticompetitive effects test to mean
  - Only a *reasonable probability* that the proscribed anticompetitive effect will occur
  - The plaintiff does not have to prove that an actual anticompetitive effect would occurThis is called the *incipiency standard*<sup>3</sup>
- Two significant restrictions remained after the 1950 amendments
  - Applied only to “corporations” that are “in commerce”
  - Anticompetitive effect arguably had to be “in commerce”

<sup>1</sup> Ch. 1184, 64 Stat. 1125 (1950).

<sup>2</sup> See *Brown Shoe Co. v. United States*, 370 U.S. 294, 315-23 (1962).

<sup>3</sup> *Id.* at 323 n.39.

# 1950 congressional concerns

- 1950 congressional concerns<sup>1</sup>
  - Fear of “the rising tide of economic concentration in the American economy”
  - Loss of opportunity for small business when competing with large enterprises
  - The spread of multistate enterprises and the loss of local control over industry
- Broadly shared macroeconomic concerns at the time
  - Suggested a very restrictive merger antitrust regime
  - Did not require deep microeconomic analysis to implement

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<sup>1</sup> See *Brown Shoe Co. v. United States*, 370 U.S. 294, 315-16 (1962) (in reading materials)

# 1980 amendments

- Antitrust Procedural Improvements Act of 1980<sup>1</sup>
  - Changes to Section 7
    - Eliminated limitation to corporations and made Section 7 applicable to acquisitions by and of any “person”
    - Eliminated requirement that the acquired and acquiring entities must be engaged “in commerce” and as amended reaches entities “engaged in commerce or in any activity affecting commerce”
    - Eliminated requirement that the effect be “in any line of commerce” and expanded it to “any line of commerce or in any activity affecting commerce”
  - With the 1980 amendments, the reach of Section 7 is coextensive with the reach of the Commerce Clause (just as with the Sherman Act)

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<sup>1</sup> Pub. L. 96-349, § 6(a), 94 Stat. 1157 (1980).

# Clayton Act § 7—Current version

No person engaged in commerce or in any activity affecting commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital and no person subject to the jurisdiction of the Federal Trade Commission shall acquire the whole or any part of the assets of another person engaged also in commerce or in any activity affecting commerce, where in any line of commerce or in any activity affecting commerce in any section of the country, the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.<sup>1</sup>

- Simple summary: Prohibits transactions that—
  - “may substantially lessen competition or tend to create a monopoly” (anticompetitive “effects” test)
  - “in any line of commerce . . . ” (product market)
  - “in any part of the country” (geographic market)

<sup>1</sup> 15 U.S.C. § 18.

# Operationalizing the Section 7 “effects” test

- The *Philadelphia National Bank* presumption in horizontal transactions

Specifically, we think that a merger which produces a firm controlling an **undue percentage of the relevant market**, and results in a **significant increase in the concentration** of firms in that market, is so inherently likely to lessen competition substantially that it is must be enjoined in the absence of evidence clearly showing that the merger is not likely to have such anticompetitive effects.<sup>1</sup>

- Created in 1963 as the Court was becoming increasingly restrictive on business
  - Next merger antitrust case after *Brown Shoe*
- Originally created as a *rebuttable* presumption of the requisite anticompetitive effect where the combined firm passed some (undefined) thresholds of
  - Combined market share, and
  - The increase in market concentration caused by the transaction
- But soon treated by lower courts as a *conclusive* presumption—essentially no defenses

*Key question:* What are the thresholds that trigger the *PNB* presumption?

<sup>1</sup> United States v. Philadelphia National Bank, 374 U.S. 321, 363 (1963).

# Operationalizing the Section 7 “effects” test

## ■ The problem

- No economically sound test for market definition for use when applying the *PNB* presumption
- In the absence of a test, courts generally defer to the government’s alleged market definition
- So if the government gets to define the market, it essentially can ensure that the market shares will trigger the *PNB* presumption of anticompetitive effect

## ■ The “Potter Stewart rule”

The sole consistency that I can find is that in litigation under § 7, the Government always wins.<sup>2</sup>

<sup>1</sup> United States v. Von’s Grocery Store, 384 U.S. 270, 301 (1966) (Stewart, J., dissenting).

# Some early Supreme Court precedents

- The Court in the 1960s was very aggressive on the market share thresholds of the *PNB* presumption
  - Brown Shoe/Kinney (1962)<sup>1</sup>
    - Combined share of as little as 5% in an unconcentrated market
  - Pabst Brewing/Blatz Brewing (1966)<sup>2</sup>
    - 3.02% (#10) + 1.47% (#18) → 4.49% (#5) in an unconcentrated market
  - Von's Grocery/Shopping Bag Food Stores (1966)<sup>3</sup>
    - 4.7% (#3) + 4.2% (#6) → 8.9% (#2) in an unconcentrated market

*Bottom line:* Through the 1960s and into the 1970s, antitrust law prevented most significant horizontal mergers and acquisitions

<sup>1</sup> Brown Shoe Co. v. United States, 370 U.S. 294 (1962).

<sup>2</sup> United States v. Pabst Brewing Co., 384 U.S. 546 (1966).

<sup>3</sup> United States v. Von's Grocery Co., 384 U.S. 270 (1966).

# The judicial counterreaction

- In the 1970s, the economy took a downturn
  - Significant inflation as a result of the debt financing of the Vietnam war and the Mideast oil shocks
  - Substantial concern about U.S. competitiveness in the world market
- *General Dynamics* (1974)<sup>1</sup>
  - DOJ action
    - Filed September 22, 1967
    - DOJ relied on *PNB* presumption
      - 1959: 15.1% (#1) + 8.1% (#5) → 23.2% (#1) (in Illinois market)
      - 1967: 12.9% (#2) + 8.9% (#6) → 21.8% (#2) (in Illinois market)
      - Increasing concentration
  - Supreme Court—No violation
    - Agreed that DOJ's evidence triggered *PNB* presumption
    - BUT defendants rebutted presumption
      - Since competition was manifested more in rivalry for new long-term contracts, and since the ability to compete for long-term contracts depended on available coal reserves, share of uncommitted reserves a better measure of future competitive significance
      - United Electric's uncommitted reserves very weak → DOJ's prima facie case rebutted
  - There has been no significant merger antitrust case on the merits in the Supreme Court since *General Dynamics* in 1974

<sup>1</sup> United States v. General Dynamics Corp., 415 U.S. 486 (1974).



# Current state of the “law”

- Horizontal transactions—Will cover in Unit 11
  - The *PNB* presumption remains the primary (if not only) way for plaintiffs to establish the anticompetitive effect element of Section 7
  - The thresholds for triggering the presumption have significantly increased
    - No sharp lines
    - The DOJ/FTC provide their view on the thresholds in their Horizontal Merger Guidelines (see below)
    - But courts have not been asked to test the HMG thresholds, since the DOJ and FTC have never brought any cases close to the thresholds
  - Whatever the thresholds, the *PNB* presumption is rebuttable
- Vertical transactions—Will cover in Unit 12
  - But restrictions are of relatively minor significance today
- Conglomerate transactions—Will cover in Unit 12
  - But no enforcement action since the 1970s
  - There are no operative theories of anticompetitive harm in the U.S. today for conglomerate transactions

# Current state of the “law”

- But the judicial assessment of mergers is very infrequent
- Two factors have combined to create an *informal administrative system* of merger antitrust enforcement without judicial involvement:
  - The Hart-Scott-Rodino Act of 1976, which gives the DOJ and FTC—
    - Advance notice of significant transactions
    - A statutorily prescribed “waiting period” following notification during which time the transaction cannot close (and so allows a preclosing investigation)
    - A new investigative tool—colloquially known as a “second request”—that allows the investigating agency to obtain massive amounts of documents and data from the merging companies and tolls the waiting period for (typically) 30 calendar days after all parties have complied with their respective requests
  - A willingness by the DOJ and FTC to negotiate and accept consent decrees that require the parties to “fix” the problematic parts of their transaction and allows the remainder of the transaction to go forward
    - The need for a consent decree and its scope are generally predictable within bounds by experienced counsel and can be taken into account by the parties at the time they are negotiating their deal
    - Almost always better to “fix” than to fight in court, since the investigating agency is likely to seek an injunction that would block the entire deal

# Current state of the “law”

- *Bottom line:* The fight in a merger investigation is over whether there is a problem and, if so, the scope of the consent decree relief that will fix it.
  - Almost always better to “fix” than to fight in court
    - The investigating agency is likely to seek an injunction that would block the entire deal
    - Deals are unable to withstand the additional delay required to fully litigate a merger case
      - HSR Act investigation is likely to take 6-9 months
      - Pretrial and trial of a merger case can easily take another 6 months or more
      - An appeal adds at least another 6 months
  - With few exceptions, the only deals that are litigated are either
    - Unconsummated deals for which there is no “fix” acceptable to the investigating agency, or
    - Already-consummated deals that the prosecuting agency is seeking to break up
- Significance of DOJ/FTC merger guidelines
  - This informal administrative system of merger antitrust enforcement means that the DOJ/FTC merger guidelines—which presumably inform the analysis of what deals will be challenged and the scope of consent decree relief required—take on great weight, even though they have no legally binding force

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# Merger Guidelines

## A Little History

# 1968 DOJ Merger Guidelines<sup>1</sup>

- Issued by Donald Turner, a Harvard Law professor with a Ph.D in economics, who was then the Assistant Attorney General in charge of the DOJ Antitrust Division
- Sought to move the purpose of merger antitrust law
  - Away from thwarting increasing industrial concentration (à la *Brown Shoe*)
  - Toward the preservation of price competition

<sup>1</sup> U.S. Dep't of Justice, Merger Guidelines, 33 Fed. Reg. 23,442 (1968).

# 1968 DOJ Merger Guidelines

- Sought to *increase* the market share thresholds to trigger the *PNB* presumption above what the Supreme Court had used
  - Thresholds where there is no trend toward concentration

Highly concentrated markets (4FCR: 75% or more)		Less concentrated markets (4FCR: Less than 75%)	
Acquiring firm	Acquired firm	Acquiring firm	Acquired firm
4%	4%	5%	5%
10%	2%	10%	4%
15%	1%	15%	3%
		20%	2%
		25%	1%

- Thresholds where there is a trend toward concentration
  - Exists when any grouping of the 2 to 8 largest firms increase their aggregate share by at least 7% over any time period from 5 to 10 years prior to the acquisition—this credits very weak trends
  - Will challenge any acquisition by any firm in such a grouping of a firm with more than a 2% share—extremely restrictive

# 1982 DOJ Merger Guidelines<sup>1</sup>

- Issued by AAG William F. Baxter, a Stanford law professor
  - FTC refused to sign—wanted more flexibility
- Innovations
  - New explicit focus on market power as the competitive harm
    - Primarily through theories of oligopolistic interdependence
    - Echoes *PNB* approach → Increasing concentration implies greater likelihood of higher prices through oligopolistic interdependence
  - Introduced new “hypothetical monopolist” market definition paradigm
    - Rigorous, economics based standard that linked the market definition test to oligopolistic interdependence
    - Intended to solve the Potter Stewart problem
  - Increased market share thresholds for the *PNB* presumption
  - Recognized ease of entry as a market power-constraining force
    - Entry to be assessed over a 2-year time period
  - Recognized the efficiency-enhancing aspect of many mergers
    - But still rejected efficiencies as a defense in most cases
  - Created an algorithmic approach to merger analysis

<sup>1</sup> U.S. Dep’t of Justice, Merger Guidelines, 47 Fed. Reg. 28,493 (1982).

# 1982 DOJ Merger Guidelines

- “Hypothetical monopolist” paradigm for market definition
  - Seeks to identify relevant markets as the smallest collection of products in the tightest geography that would permit a hypothetical monopolist to exercise market power
  - Basic idea:
    - A merger can threaten to create or facilitate the exercise of market power only with respect to a product/geographic grouping where a hypothetical monopolist could raise prices
  - *Test*:<sup>1</sup> Can the hypothetical monopolist in the provisional market raise prices profitably by a “small but significant nontransitory increase in price” (SSNIP) above prevailing levels?
    - 1. Start with the product of one of the merging firms as the provisional market
    - 2. Add closest substitute to provisional market and check if SSNIP is profitable
    - 3. If so, then provisional market is a relevant market. If not, then repeat Step 2 and Step 3 after adding the next closest substitute to the provisional market
  - Comments
    - Usual SSNIP is 5%
    - Entirely demand-side oriented

<sup>1</sup> 1982 DOJ Merger Guidelines § II.



# 1982 DOJ Merger Guidelines

## ■ New concentration measure

- Retained *PNB* presumption, BUT
- Replaced n-FCRs with the Herfindahl-Hirschman Index (HHI) as the measure of concentration

$$\text{HHI} = \sum_{i=1}^N s_i^2$$

where there are a total of  $N$  firms in the relevant market, and  $s_i$  is the market share of the  $i$ th firm

In other words, the HHI is the sum of the squares of the market shares of all of the firms in the market

## ■ Market shares

- Normally includes the total sales or capacity of all firms (or plants) that are identified as being in the market
- BUT include only sales likely to be made (or capacity likely to be used) in the market where sales depend on:
  - Plants are located outside of the market
  - Supply-side substitution
  - Diversion from internal consumption
- While boundaries of relevant market are determined solely by demand-side considerations, the identification of firms that participate in the market and their market shares may depend on supply-side conditions

# 1982 DOJ Merger Guidelines

- New concentration thresholds<sup>1</sup>
  - Raised thresholds for what constitutes significant postmerger concentration (HHI)
  - Raised thresholds for what constitutes an “undue increase” in concentration (“delta” or  $\Delta$ HHI)

Postmerger HHI	$\Delta$ HHI	Guidelines
< 1000		“Because implicit coordination among firms is likely to be difficult and because the prohibitions of section 1 of the Sherman Act are usually an adequate response to any explicit collusion that might occur, the Department is unlikely to challenge mergers falling in this region.”
Between 1000 and 1800	< 100	“unlikely to challenge”
	$\geq$ 100	“more likely than not to challenge”
> 1800	< 50	“unlikely to challenge”
	50-100	Could be problematic
	$\geq$ 100	“likely to challenge”

<sup>1</sup> 1982 DOJ Merger Guidelines § III.A.

# 1982 DOJ Merger Guidelines

- Ease of entry defense<sup>1</sup>
  - Recognized ease of entry as a means of rebutting the *PNB* presumption
    - “If entry into a market is so easy that existing competitors could not succeed in raising price for any significant period of time, the Department is unlikely to challenge mergers in that market.”
    - Considerations
      - Likelihood and probable magnitude of entry in response to a SSNIP (5%)
      - Two-year time frame

<sup>1</sup> 1982 Merger Guidelines § III.B.

# 1982 DOJ Merger Guidelines

## ■ Efficiencies<sup>1</sup>

- Recognized efficiencies as a feature of many mergers
- Rejected efficiencies as anticompetitive (as had *Brown Shoe*)
  - Implied by the change of objective
    - from preventing increased concentration and preserving small businesses
    - to preventing the creation of market power or the facilitation in its exercise
- BUT also rejected efficiencies as a defense in most cases:

Except in extraordinary cases, the Department will not consider a claim of specific efficiencies as a mitigating factor for a merger that would otherwise be challenged. Plausible efficiencies are far easier to allege than to prove. Moreover, even if the existence of efficiencies were clear, their magnitudes would be extremely difficult to determine.<sup>2</sup>

<sup>1</sup> 1982 Merger Guidelines § V.A.

<sup>2</sup> *Id.*

# 1982 DOJ Merger Guidelines

- Failing firm defense<sup>1</sup>
  - Recognized defense<sup>2</sup>
    - Applies to failing divisions as well as failing firms
  - BUT imposed strict conditions to prevent anticompetitive use:
    - Firm probably would be unable to meet its financial obligations in the near future
    - Firm probably would not be able to reorganize successfully under Chapter 11 of the Bankruptcy Act
    - Firm has made unsuccessful good faith efforts to elicit reasonable alternative offers of acquisition that would both
      - keep the firm in the market, and
      - pose a less severe danger to competition than would the proposed merger

<sup>1</sup> 1982 Merger Guidelines § V.B.

<sup>2</sup> The Supreme Court first recognized in the defense in 1930. See *International Shoe Co. v. FTC*, 280 U.S. 291 (1930).

# 1992 DOJ/FTC Horizontal Merger Guidelines

## ■ Some initial observations

- Jointly promulgated with the Federal Trade Commission
  - AAG Jim Rill, with major input from economics DAAG Bobby Willig
  - FTC Chairman Janet Steiger
- Addresses only horizontal mergers
  - DOJ and FTC could not agree on guidelines for nonhorizontal mergers
- Much more economically rigorous document than the 1982 DOJ Merger Guidelines

# 1992 DOJ/FTC Horizontal Merger Guidelines

## ■ Innovations

- Retained market definition as the starting point of analysis
- Changed market share thresholds to “safe harbors”
  - No longer a predictor of prosecutorial decision-making
- Required explicit explanation of how the merger is anticompetitive
  - Oligopolistic interdependence (“coordinated interaction”)
  - Introduced new “unilateral effects” theory of anticompetitive harm:
    - Merging firms must be each other uniquely closest substitutes
    - Combined market share must be at least 35%
- Retained entry defense (with original 2-year time frame)
- Retained a rigid algorithmic approach

# 1992 DOJ/FTC Horizontal Merger Guidelines

## ■ Market definition

- Retains hypothetical monopolist market definition paradigm
  - Clarifies that the paradigm requires that the hypothetical monopolist must find that the SSNIP is in its profit-maximizing interest
    - Not just that a SSNIP is more profitable than not raising prices
- Clarifies that SSNIP should reflect a price increase over what prices would exist going forward in the absence of the merger

[T]he Agency will use prevailing prices of the products of the merging firms and possible substitutes for such products, unless premerger circumstances are strongly suggestive of coordinated interaction, in which case the Agency will use a price more reflective of the competitive price. However, the Agency may use likely future prices, absent the merger, when changes in the prevailing prices can be predicted with reasonable reliability.<sup>1</sup>

- So in markets where prices are declining (e.g., computers, microelectronics), the SSNIP would be taken from an expected future that would be lower than the prevailing premerger price

<sup>1</sup> 1992 Merger Guidelines § 1.11.



# 1992 DOJ/FTC Horizontal Merger Guidelines

## ■ Market definition (con't)

- BUT allows for variations in the price increases of products added to the original provisional market<sup>1</sup>

*Example:* Consider a merger of two string bean producers. Assume that a hypothetical monopolist could not profitably raise prices because of diversion to carrots, so that carrots must be included in the provisional market. Assume further that spinach is a close substitute for carrots but not as close a substitute for string beans, and that a hypothetical monopolist could not profitably implement a SSNIP to both string beans and carrots.

Under the usual pre-1992 approach, spinach would be added to the provisional market. But under the new approach of the 1992 guidelines, if the hypothetical monopolist finds it maximally profitably to raise string bean prices by a SSNIP but carrots by something less than the same SSNIP (to avoid diversion to spinach), string beans and carrots would be a relevant market.<sup>2</sup>

## □ Market participants and market shares

- Includes “uncommitted entrants”
  - Firms that would enter with a one-year SSNIP without significant sunk costs
  - Largely “hit and run” entry
- Has not proven to be significant in practice

<sup>1</sup> 1992 Merger Guidelines § 1.12 (Product Market Definition in the Presence of Price Discrimination).

<sup>2</sup> Janusz A. Ordover & Robert D. Willig, *Economics and the 1992 Merger Guidelines: A Brief Survey*, 8 Rev. Indus. Org. 139, 140-41 (1993).

# 1992 DOJ/FTC Horizontal Merger Guidelines

## ■ Anticompetitive effect

- Retains HHI and  $\Delta$ , but only as a “screen” and not an predictor of prosecutorial decision-making<sup>1</sup>

Postmerger HHI	$\Delta$ HHI	Guidelines
< 1000		unlikely to have adverse competitive consequences and ordinarily require no further analysis
Between 1000 and 1800	< 100	unlikely to have adverse competitive consequences and ordinarily require no further analysis
	$\geq 100$	potentially raise significant competitive concerns
> 1800	< 50	unlikely to have adverse competitive consequences and ordinarily require no further analysis
	50-100	potentially raise significant competitive concerns
	$\geq 100$	likely to create or enhance market power or facilitate its exercise

<sup>1</sup> 1992 Merger Guidelines § 1.51.

# 1992 DOJ/FTC Horizontal Merger Guidelines

## ■ Anticompetitive effect

- Added the requirement of a explanation of the anticompetitive mechanism to the *PNB* presumption<sup>1</sup>

[M]arket share and concentration data provide only the starting point for analyzing the competitive impact of a merger. Before determining whether to challenge a merger, the Agency also will assess the other market factors that pertain to competitive effects, as well as entry, efficiencies and failure.<sup>2</sup>

- In other words, for a transaction to be challenged under the guidelines, a “story” must be told as to why the putative anticompetitive are reasonably probable
  - Mere changes in market share statistics are not enough
  - Have to predicate the theory of anticompetitive harm with specific market conditions
- Two mechanisms
  - “Coordination interaction”—the elimination of market-wide competition through oligopolistic interdependence
  - “Unilateral effects”—the elimination of localized competition between the merging firms

<sup>1</sup> 1992 Merger Guidelines § 2.

<sup>2</sup> *Id.*

# 1992 DOJ/FTC Horizontal Merger Guidelines

## ■ Anticompetitive effect—Coordinated interaction<sup>1</sup>

A merger may diminish competition by enabling the firms selling in the relevant market more likely, more successfully, or more completely to engage in coordinated interaction that harms consumers. Coordinated interaction is comprised of actions by a group of firms that are profitable for each of them **only as a result of the accommodating reactions of the others**. This behavior includes tacit or express collusion, and may or may not be lawful in and of itself.<sup>1</sup>

### ■ Essential characteristics

- Requires accommodation by non-merging parties to be profitable
- Merger needs only facilitate coordinated interaction—
  - Proof that actual explicit or tacit collusion would occur is not required

### ■ Essential question

- How can a price increase be maintained given possible incentives of some market participants to undercut it?

<sup>1</sup> 1992 Merger Guidelines § 2.1 (emphasis added).

<sup>2</sup> *Id.*

# 1992 DOJ/FTC Horizontal Merger Guidelines

- Anticompetitive effect—Coordinated interaction
  - Requirements—Concentration levels and market conditions must be conducive to:
    - Reaching terms of coordination that are individually profitable to the firms involved
    - Detecting deviations from the coordination rule
    - Punishing deviations from the coordination rule
  - Special considerations
    - Firm heterogeneity—can make coordinated interaction harder
      - Products
      - Location
      - Costs
    - Large buyers—can make coordinated interaction harder
      - BUT requires the explication of a mechanism as to how large buyers can protect themselves
      - Also requires separate examination of smaller customers to see if they are likely to be harmed even if large buyers can protect themselves
    - Acquisition of a “maverick”—can make coordinated interaction easier
      - Have been unusually disruptive historically in the marketplace, or
      - Have attributes that make them particularly likely to deviate from the terms of coordination (e.g., large excess capacity in relation to sales)

# 1992 DOJ/FTC Horizontal Merger Guidelines

## ■ Anticompetitive effect—Unilateral effects<sup>1</sup>

A merger between firms in a market for differentiated products may diminish competition by enabling the merged firm to profit by unilaterally raising the price of one or both products above the premerger level. Some of the sales loss due to the price rise merely will be diverted to the product of the merger partner and, depending on relative margins, capturing such sales loss through merger may make the price increase profitable even though it would not have been profitable premerger.<sup>2</sup>

- Essential characteristic
  - Looks to the elimination of “localized” competition between the merging firms
- Applies primarily in concentrated markets with highly differentiated products
  - The overlapping products of the merging firms must be uniquely close demand-side substitutes
  - Other products in the relevant market must be distant substitutes
  - Repositioning must be difficult
  - Guidelines require that combined share  $\geq 35\%$ 
    - Intended to make threatened anticompetitive effect “substantial”
    - Largely ignored in practice

<sup>1</sup> 1992 Merger Guidelines § 2.2.

<sup>2</sup> *Id.*

# 1992 DOJ/FTC Horizontal Merger Guidelines

- Entry defense<sup>1</sup>
  - Two types of entrants
    - Uncommitted
      - “Hit and run” entry with low sunk costs
      - Included as participants in relevant market and (in theory) assigned market shares
    - Committed
      - Entry entails substantial sunk costs
      - Consequently, entry decision depends on
        - The entrant staying in the market for a considerable period of time, and
        - An expected trajectory of longer-term prices in the market over this period sufficient to enable the entrant to make a normal profits and recoup its sunk costs

<sup>1</sup> 1992 Merger Guidelines § 3.

# 1992 DOJ/FTC Horizontal Merger Guidelines

## ■ Committed entry

### □ Committed entry as a defense

A merger is not likely to create or enhance market power or to facilitate its exercise, if entry into the market is so easy that market participants, after the merger, either collectively or unilaterally could not profitably maintain a price increase above premerger levels. Such entry likely will deter an anticompetitive merger in its incipiency, or deter or counteract the competitive effects of concern. Entry is that easy if entry would be timely, likely, and sufficient in its magnitude, character and scope to deter or counteract the competitive effects of concern. In markets where entry is that easy (i.e., where entry passes these tests of timeliness, likelihood, and sufficiency), the merger raises no antitrust concern and ordinarily requires no further analysis.<sup>1</sup>

### □ Requirements

#### ■ Timely

- Must have significant market impact within two years

#### ■ Likely

- Likely if entry is profitable at premerger prices (including both normal profit and recoupment of sunk costs)

#### ■ Sufficient

- Must deter or counteract the anticompetitive effects of the merger

<sup>1</sup> 1992 Merger Guidelines § 3.



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# 1997 efficiencies revisions

- 1997 efficiency amendment
  - AAG Joel Klein
  - FTC Chairman Bob Pitofsky
- Recognized that efficiencies can have offsetting procompetitive effects and result in
  - Lower prices
  - Improved quality
  - Enhanced service
  - New products

# 1997 efficiencies revisions

- BUT materially narrowed efficiency defense
  - Essentially limited cognizable efficiencies to
    - marginal cost reductions
    - that are passed on to customers

Recall that, in the standard neoclassical economics model, firms set price so that marginal revenue equals marginal cost. Consequently, in the context of this model any downward pressure on price from merger efficiencies must come from a reduction in marginal cost. A reduction in fixed costs (such as eliminating corporate overhead redundancies) will not have any effect on price.

More formally, recall that profits are equal to revenues ( $pq$ ) minus fixed costs ( $f$ ) minus total variable costs ( $c(q)$ ):

$$(1) \quad \pi = pq - f - c(q).$$

The first order condition for a profit maximum is

$$(2) \quad \frac{d\pi}{dq} = p + q \frac{dp}{dq} - \frac{dc}{dq} = 0.$$

Since Equation 2 is unaffected by changes fixed costs  $f$ , prices remain constant even if fixed costs decline as a result of the merger. Since changes in  $f$  do not affect prices, reductions in fixed costs will have no offsetting effect on upward pricing pressure resulting from any postmerger loss of competition.

*Query:* Is this the right model to use in merger analysis for assessing the role of efficiencies? (It is very static.)

# 1997 efficiencies revisions

- ALSO imposed demanding proof requirements for efficiencies to be considered (“cognizable efficiencies”)—
  1. Efficiencies cannot be achievable without the merger (“*merger-specific efficiencies*”)
    - Does this mean that the projected efficiencies *could* not be achieved without the merger or *would* not be achieved (there can be a big difference)
  2. Reasonably verifiable as to likelihood and magnitude
  3. Do not arise from an anticompetitive reduction in output or service

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# 1997 efficiencies revisions

- Negative defense

- Merger must not be anticompetitive in any relevant market after taking cognizable efficiencies into account
- Best used in defense of mergers where the anticompetitive tendencies are small
- Almost never accepted as a defense to a merger to monopoly or near-monopoly

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# Merger Guidelines

## The 2010 Revisions

# Impetus for change

- Agencies believed that the 1992 Guidelines were—
  - No longer reflected how the agencies analyzed mergers (true)
  - Too rigid and missed too many anticompetitive transactions (not very true)
  - Being used effectively against agencies in court (true)
- Two problems in particular
  - Courts over time adopted “hypothetical monopolist” market definition test, but in application often reached results different than the market definitions alleged by the DOJ/FTC in the litigation
    - *Result:* DOJ/FTC loses in those cases
    - By far the biggest problem the DOJ and FTC faced in their merger challenges
  - While courts had not completely embraced the unilateral effects theory, when considering the theory courts could hold the DOJ/FTC strictly to the Guidelines’ requirements (uniquely next best substitutes and a combined market share  $\geq 35\%$ )
    - *Result:* When the DOJ/FTC depart from the Guidelines’ requirements, one court rejected the application of the unilateral effects theory and the agencies feared that other courts would follow

# Solution: Completely rewrite the Guidelines

- Create a new, flexible (nonpredictive) approach to analyzing mergers
- Adopt a new emphasis on non-price dimensions of anticompetitive harm
- Deemphasize market definition
- Increase emphasis on unilateral effects and on targeted customers
- Increase emphasis on “direct” evidence
- Raise the bar on entry and repositioning defenses
- Maintain a high bar on efficiency defenses

# New flexible approach to analyzing mergers

- The 2010 Guidelines are explicitly “flexible” in their approach
  - Hold that there is no one right way to do merger analysis
    - Eliminate the programmatic approach of the 1992 guidelines
    - Any way the agencies deem reliable can be used
    - But prevention of the creation or enhancement of market power remains the objective
  - Eliminate the numerical “safe harbor” thresholds of the 1992 Guidelines
  - Are intentionally very fuzzy
    - Provide enforcement agency with wide discretion in analyzing mergers
    - Do not predict enforcement outcomes
    - Preclude courts and defendants from saying that the agency misapplied the Guidelines



# Non-price dimensions of anticompetitive harm

- The 2010 Guidelines identify the following types of harm in addition to price increases that may result from an anticompetitive merger:
  - Reduced product quality
  - Reduced product variety
  - Reduced service
  - Diminished innovation
  - Other effects that “harm customers as a result of diminished competitive constraints or incentives”

# Deemphasis of market definition

- Eliminated market definition as an essential element of the violation
  - Unnecessary where there is other sufficient evidence of a likely anticompetitive effect
  - Compare 1982 and 1992 Guidelines, which held that market definition was the starting point of any antitrust merger analysis
- Eliminated “safe harbors” based on market definition
  - HHI thresholds in 1992 Guidelines say when mergers would not be challenged
  - HHI thresholds in 2010 Guidelines only say when mergers are likely to be challenged
- Modified “hypothetical monopolist” test
  - Any set of products that can support a profitable price increase can be a relevant market
  - Relevant markets are no longer unique—2010 Guidelines eliminates “smallest market” principle of 1982 and 1992 Guidelines.
    - But courts continued to use the smallest market principle in defining markets<sup>1</sup>
  - Can produce very small markets and exclude large but close substitutes
    - See Example 7—Motorcycles, cars and the similarity test

<sup>1</sup> See, e.g., *FTC v. Sysco Corp.*, 113 F.Supp.3d 1, 26 (D.D.C. 2015).

# 2010 DOJ/FTC Horizontal Merger Guidelines

## ■ Anticompetitive effect

- Retains HHI and  $\Delta$ , but only as one more type of evidence that the reviewing agency will consider<sup>1</sup>

Postmerger HHI	$\Delta$ HHI	Guidelines
	< 100	“unlikely to have adverse competitive consequences and ordinarily require no further analysis”
< 1500	--	“unlikely to have adverse competitive consequences and ordinarily require no further analysis”
Between 1500 and 2500	$\geq$ 100	“potentially raise significant competitive concerns and often warrant scrutiny”
> 2500	100-200	“unlikely to have adverse competitive consequences and ordinarily require no further analysis”
	$\geq$ 200	“will be presumed to be likely to enhance market power. The presumption may be rebutted by persuasive evidence showing that the merger is unlikely to enhance market power.”

<sup>1</sup> “The purpose of these thresholds is not to provide a rigid screen to separate competitively benign mergers from anticompetitive ones, although high levels of concentration do raise concerns. Rather, they provide one way to identify some mergers unlikely to raise competitive concerns and some others for which it is particularly important to examine whether other competitive factors confirm, reinforce, or counteract the potentially harmful effects of increased concentration.” 2010 Merger Guidelines § 5.3.

# 2010 DOJ/FTC Horizontal Merger Guidelines

- Anticompetitive effect
  - Acceptance by courts
    - Some courts appear to have accepted a 2500 point postmerger HHI and a 200 point  $\Delta$  as sufficient to trigger the *Philadelphia National Bank* presumption

<sup>1</sup> See, e.g., *FTC v. Staples, Inc.*, No. CV 15-2115 (EGS), 2016 WL 2899222, at \*18 (D.D.C. May 17, 2016) (but finding that the postmerger HHI was 6265 and the  $\Delta$  was “nearly 3000” and would result in a “dominant firm with a competitive fringe”).

# Increased emphasis on unilateral effects

- Unilateral effects theory
  - Looks to the elimination of “localized” competition between the merging firms
  - *Problem*: In the absence of repositioning, entry, or efficiencies, a wide variety of economic models predict a price increase to at least to some subset of customers whenever two firms with a positive cross-elasticity of demand combine
- 1992 Guidelines—Tried to cabin the theory to avoid overreaching with two additional requirements:
  - The overlapping products of the merging firms must be each other’s closest demand-side substitutes
    - Other products in the relevant market must be distant substitutes
  - Combined share  $\geq 35\%$  in the relevant market

# Increased emphasis on unilateral effects

- 2010 Guidelines—Unilateral effects unleashed
  - Eliminated requirement that merging firms be each other's closest substitutes
    - Sufficient if they are close substitutes (as measured by the diversion ratio)
  - Eliminated requirement that products of other firms be distant substitutes
    - Allows for other firms to be even closer substitutes to one merging firm than the other merging firm
  - Eliminated the 35% combined share requirement
    - Indeed, no need for market definition at all

# Increased emphasis on unilateral effects

- 2010 Guidelines—Upward pricing pressure (UPP)
  - Likely price-increasing influence of merger on merging Firm A can be determined by looking only at:
    - “Diversion ratio” (“ $D_{AB}$ ”)
      - The percentage of sales lost by Firm A to the other merging company (Firm B) whenever sales are lost (presumably for competitive reasons)
    - times the gross margin of the company to which the sales are lost ( $P_B - C_B$ )
  - The resulting statistic is known as Upward Pricing Pressure on Firm A ( $UPP_{AB}$ )

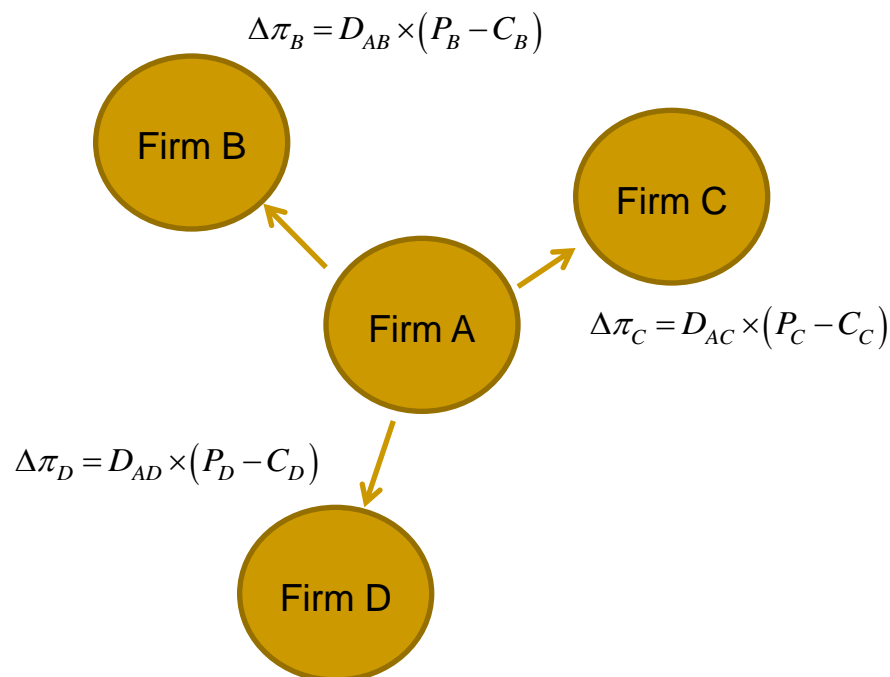
$$UPP_{AB} = D_{AB} \times (P_B - C_B)$$

which is the additional profit Firm A earns when it loses a sale but owns Firm B

- *Implication of the Guidelines UPP model:* Positive diversion ratio and a positive gross margin *always* yield upward pricing pressure

# Increased emphasis on unilateral effects

- 2010 Guidelines—Upward pricing pressure (UPP)



When Firm A acquires Firm B, it recoups  $\Delta\pi_B$  in additional profits. This reduces Firm A's marginal revenue loss from a price increase, unbalances the marginal revenue equals marginal cost first-order condition for profit maximization, and so incentivizes A to further raise its price in order to re-equalize marginal revenue and marginal cost.

Profit gains to Firms B, C, and D as a result of Firm A's price increase



# Increased emphasis on direct evidence

- The 2010 Guidelines place heavy emphasis on “direct” evidence of a likely anticompetitive effect
  - Direct evidence is evidence that is probative without the need to draw inferences
- Agencies look for evidence that indicates the transaction is likely to cause an—
  - Increase in price
  - Decrease in aggregate output
  - Decrease in product or service quality
  - Decrease in product variety
  - Decrease in the rate of technological innovation or product improvement

# Increased emphasis on direct evidence

## ■ Sources of direct evidence

- Indications in the documents of the parties
- Financial terms of transaction that indicate the transaction will be profitable to the buyer only if the transaction is anticompetitive
- Interviews with knowledgeable customers that reveal concern that they will be harmed by the transaction
- Interviews with competitors that provide a plausible, testable theory of anticompetitive harm
- “Natural” experiments that indicate harm has occurred in similar situations
  - Impact of recent mergers, entry, expansion, or exit
  - Comparisons across similar markets
- Implications of economic theory
  - Especially unilateral effects and upward pricing pressure

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# Use of circumstantial evidence

- Agencies will still consider significant circumstantial evidence
  - Market shares and concentration in a relevant market
  - Indications that merger will eliminate—
    - Substantial head-to-head competition
    - A “disruptive” market influence

# Rebutting the predictions of the UPP models

- Anticompetitive predictions of UPP models can be rebutted by evidence of sufficient—
  - New entry
  - Repositioning by incumbent firms
  - Efficiencies

# Entry and repositioning defenses

- Tone of the 2010 Guidelines toward entry and repositioning defenses even more skeptical than in 1992 Guidelines
  - Implications of high premerger percentage gross margins

$$\frac{P - C}{P}$$

- *Theory*: If high percentage gross margins failed to induce entry or repositioning to compete down prices premerger, why should the investigating agencies conclude that a higher postmerger margins due to a small but significant price increase will have this effect?
- Eliminated the 1992 Guidelines two-year time period for entry to occur
  - Now must be “rapid enough” to ensure no anticompetitive effect ever arises
  - With the ability to insist on short deadlines for entry, these defenses can almost always be rejected
- Explicitly apply entry-style analysis to repositioning, making a repositioning defense as hard to prove as an entry defense

# Maintaining a high bar on efficiency defenses

- 2010 Guidelines continue the 1992 Guidelines' hostility toward efficiency defenses
- Require efficiencies to—
  - Be merger-specific
  - Be reasonably verifiable as to likelihood and magnitude
    - Requires a detailed explanation as to how the efficiencies will be achieved
  - Offset merger's anticompetitive tendency and leave customers unharmed
    - Merging parties, who bear the burden of proof on an efficiencies defense, almost always lose here
- Other observations
  - Projections viewed very skeptically when generated outside of the usual business planning process
  - Helpful where there are historical instances where similar efficiencies have been achieved

# Other theories of anticompetitive harm

- Vertical harm—Major in EU/gaining traction in U.S
  - Foreclosure of competitors (upstream or downstream)
  - Raising costs to rivals
  - Anticompetitive information access
- Dormant theories
  - Elimination of potential rival entrants
    - Rarely invoked today
    - Historically has had at best limited success in the United States
    - But could be used in a case with compelling evidence
  - Conglomerate effects
    - Have not seen in United States since 1960s
    - Used to block GE/Honeywell in the EU

We will examine these theories more in Unit 12