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# Unit 10: H&R Block/TaxACT

CLASS 18 SLIDES

For November 5, 2019

## Part 2. Anticompetitive Effects Efficiencies

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Merger Antitrust Law

Georgetown University Law Center

Dale Collins



**TaxAct**<sup>®</sup>

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# Anticompetitive Effects

## Part 3. Unilateral Effects

# Unilateral effects

## ■ Definition

- Unilateral effects is a theory of anticompetitive harm that goes to the elimination of significant “local” competition between the merging firms, so that the merged firm can raise prices independently of how other incumbent firms react

A merger is likely to have unilateral anticompetitive effect if the acquiring firm will have the incentive to raise prices or reduce quality after the acquisition, independent of competitive responses from other firms.<sup>1</sup>

- The idea is that can increase prices to an identifiable subset of customers in the market even *without* any accommodating conduct from the nonmerging firms in the market, and that this price increase is a cognizable anticompetitive effect under Section 7
  - The concept of unilateral effects as a theory of merger anticompetitive harm was introduced in the 1992 DOJ/FTC Horizontal Merger Guidelines
  - The theory has been accepted as valid under Section 7 by the courts

<sup>1</sup> United States v. H&R Block, Inc., 833 F. Supp. 2d 36, 81 (D.D.C. 2011).

# Unilateral effects

- The idea (with quantity as the control variable)
  - Consider a horizontal merger between Firm A and Firm B
  - Premerger, Firm A maximizes its profit by setting its level of production so that its marginal revenue equal to its marginal cost

$$\begin{array}{rcc} & \text{Marginal revenue} & = \text{Marginal cost} \\ \boxed{\text{Profits from new sales to new customers at the lower price}} & - \boxed{\text{Reduced profits from the lower price to inframarginal customers}} & = \boxed{\text{Marginal cost of increased production}} \end{array}$$

- Suppose that when Firm A increases its output by 1 unit (and lowers its price accordingly), Firm B loses  $D_{B \rightarrow A}$  units that now find Firm A's prices more attractive.
  - If Firm B's margin is  $m_B$ , then Firm B loses  $Dm_B$  in profits because of the diversion
  - Firm A is indifferent to Firm B's lost profits

# Unilateral effects

- The idea (with quantity as the control variable)
  - Postmerger, the combined firm needs to consider Firm A's negative externality on Firm B
  - Say the combined firm operates in the following manner—
    - Firm B maintains its premerger price
    - Firm A is free to change its output, but if it does it must pay Firm B for any profits B loses as a result of A's change in production from its premerger level
  - If Firm A increases its production by 1 unit, it must pay Firm B its lost profits  $Dm_B$ 
    - This amount reduces Firm A's marginal revenue
  - Firm A maximizes its profits postmerger by selecting its level of production so that its new marginal revenue is equal to its marginal cost:

Marginal revenue = Marginal cost

$$\begin{array}{c}
 \boxed{\text{Profits from new sales to new customers at the lower price}} \\
 - \\
 \boxed{\text{Reduced profits from the lower price to inframarginal customers}} \\
 - \boxed{Dm_B} \\
 = \\
 \boxed{\text{Marginal cost of increased production}}
 \end{array}$$

- Now Firm A's marginal revenue is less than its marginal cost at its premerger price and level of production, so Firm A needs to reduce production and increase price to reestablish the first order condition

# Unilateral effects

- A simple example (with quantity as the control variable)

- Say for Firm A:

- Inverse demand:  $p = 300 - q$
- Fixed costs:  $F = 0$
- Marginal costs:  $mc = 20$
- Marginal revenue:  $mr = 300 - 2q$
- Setting  $mr = mc$  and solving:  $q^* = 140$   
 $p^* = 160$

- Say when Firm A increases its production by 1 unit (and lowers its price by \$1), 0.3 units that Firm B would have sold now divert to Firm A.

- If Firm B's margin is also 140 at the initial price level, then Firm A's change in production causes Firm B to lose \$42 (= (0.3)(140)).

- When A and B are independent firms, Firm A does not care about Firm B's loss

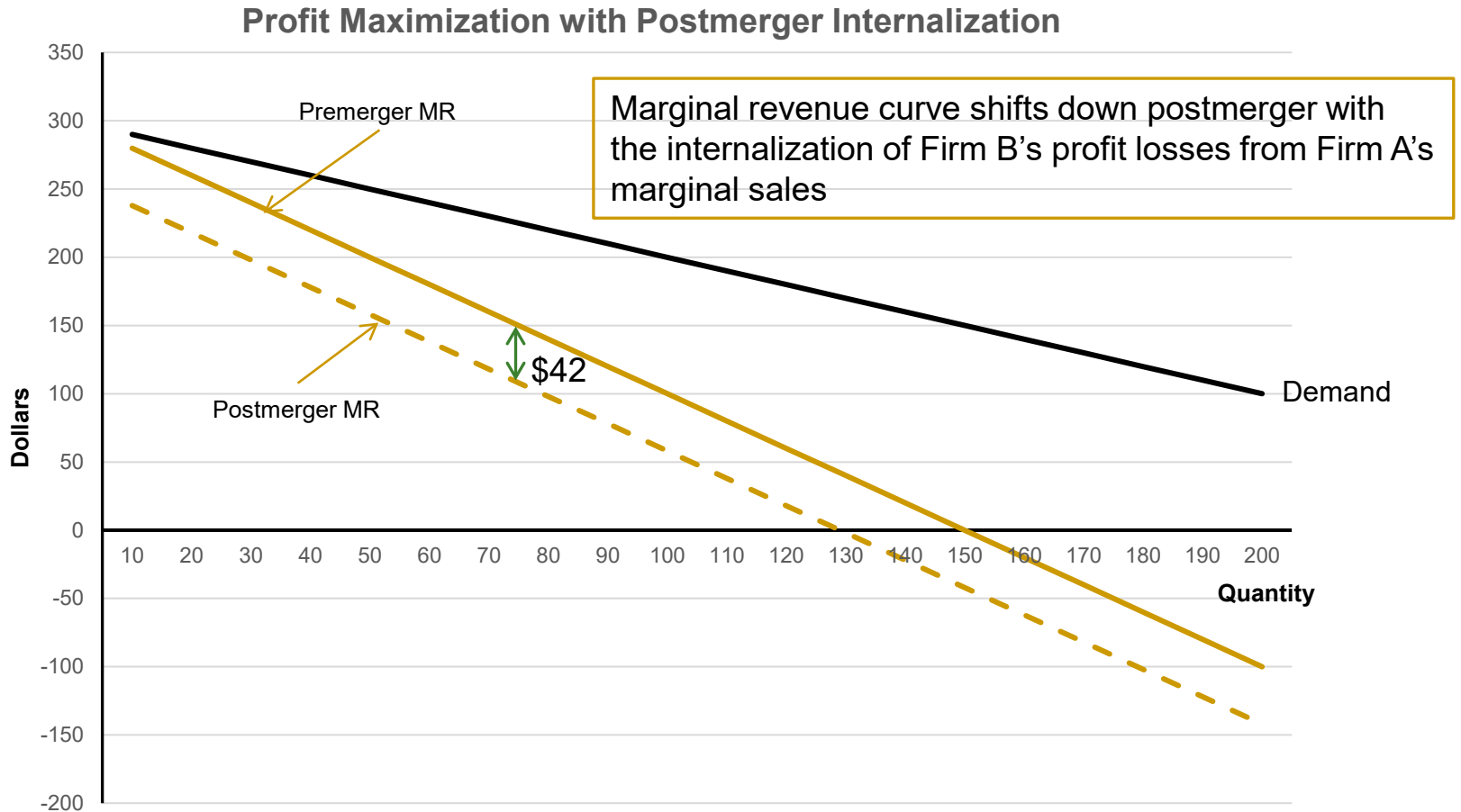
- But when Firm A acquires Firm B, Firm A must take into account Firm B's losses in Firm A's marginal revenue:

$$mr_{postmerger} = 300 - 2q - 42$$

- This shifts Firm A's marginal revenue curve down and makes Firm A's marginal revenue less than its marginal cost at premerger prices. *Firm A must decrease output and increase price to reequilibrate marginal revenue and marginal cost:*

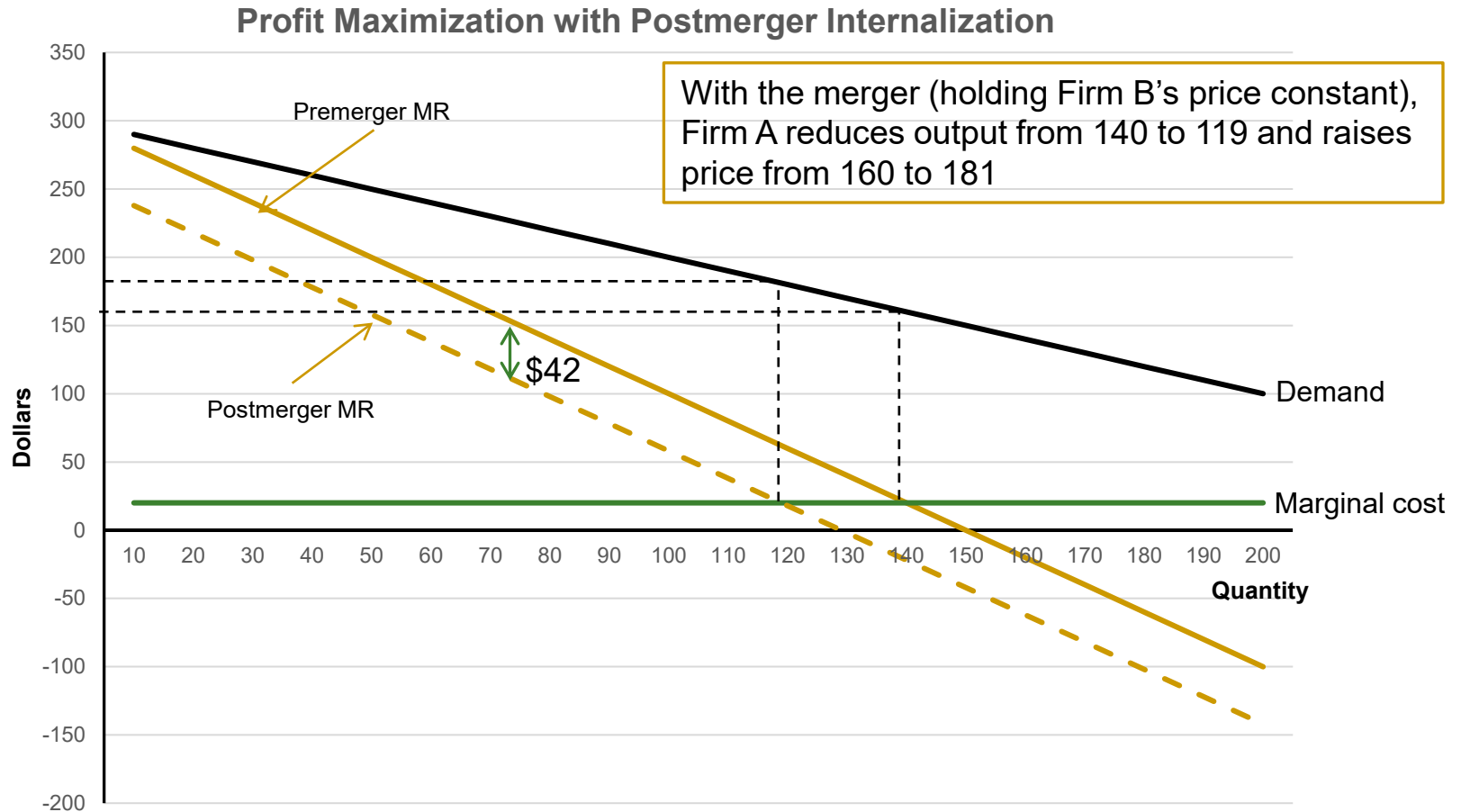
$$q_{post} = 119; p_{post} = 181$$

# Unilateral effects





# Unilateral effects



# Unilateral effects

- Offsetting marginal cost efficiencies

- *Query:* What marginal cost reduction would be necessary to offset a one-product unilateral effect?

- No marginal cost efficiencies:

$$\boxed{\text{Profits from new sales to new customers at the lower price}} - \boxed{\text{Reduced profits from the lower price to inframarginal customers}} - \boxed{Dm_B} = \boxed{\text{Marginal cost of increased production}}$$

- Say the marginal cost efficiencies reduce marginal costs by  $e$  percent. Then:

$$\boxed{\text{Profits from new sales to new customers at the lower price}} - \boxed{\text{Reduced profits from the lower price to inframarginal customers}} - \boxed{Dm_B} = (1 - e) \boxed{\text{Marginal cost of increased production}}$$

- To restore the first order condition at original prices and output:

$$Dm_B = ec$$

that is, the marginal cost reduction must offset the upward pricing pressure

# Unilateral effects

- Why unilateral effects can be important (example)
  - Nestlé-Dreyer's in the super-premium segment of an all ice cream market

**All Ice Cream (1)**  
(supermarket sales in 2002)

	Sales	Share	HHI
Store brands (10)	\$997.2	23.0%	53
Dreyer's	\$795.4	18.4%	339
Breyer's	\$686.8	15.9%	253
Blue Bell	\$253.4	5.8%	34
Ben & Jerry's	\$199.8	4.6%	21
Nestle	\$192.7	4.4%	19
Wells Diary	\$136.9	3.2%	10
Armour Swift	\$106.7	2.5%	6
Turkey Hill	\$105.2	2.4%	6
Marigold Foods	\$88.2	2.0%	4
Others (10)	\$769.1	17.8%	32
	<u>\$4,331.4</u>	<u>100.0%</u>	<u>776</u>

Combined share	22.8%	
Premerger HHI		776
Delta		162
Post-merger		938

HHIs fall within a Merger Guidelines' "safe harbor"  
But unilateral effects indicates that the merger may be a problem if the cross-elasticities are:

- high between the merging parties
- and low with everyone else

<sup>1</sup> Sherri Day, *Nestlé and Dreyer's to Merge in \$2.4 Billion Deal, Creating Top U.S. Ice Cream Seller*, N.Y. Times, June 18, 2002

# Unilateral effects

- But the DOJ obviated the problem by narrowly defining the market super-premium ice cream

All Ice Cream (1) (supermarket sales in 2002)			
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	\$4,331.4	100.0%	776

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Super-Premium Ice Cream (2) (all channels)			
	Sales	Share	HHI
Ben & Jerry's	\$254.40	42.4%	1797.76
Nestlé	\$219.00	36.5%	1332.25
Dreyer's	\$114.60	19.1%	364.81
Others	\$12.00	2.0%	4
	\$600.00	100.0%	3498.82

Combined share	55.6%	
Premerger HHI		3,501
Delta		1,396
Postmerger HHI		4,897

Violates Guidelines

<sup>1</sup> Sherri Day, *Nestlé and Dreyer's to Merge in \$2.4 Billion Deal, Creating Top U.S. Ice Cream Seller*, N.Y. Times, June 18, 2002.

<sup>2</sup> Complaint, *In re Nestlé Holdings, Inc.*, 136 F.T.C. 791 (2003) (settled by consent decree).

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# Unilateral effects and market definition

- If there is a significant unilateral effect price effect from a merger, the hypothetical monopolist test will—
  - define narrow markets around the merging parties, and
  - yield corresponding high market shares and HHIs
- Consequence: The *PNB* presumption will be very strong

# Unilateral effects and quantitative analysis

- Unilateral effect can quantitatively predicts price effects
  - Unilateral effects (as we will see) can quantitatively predict unilateral price increases with relatively simple models
    - Coordinated effects makes qualitative predictions but rather permits quantitative predictions
  - Observations
    - Quantitative analysis gives the economists something to do
    - There is a view that quantitative analysis is more “scientific” and more reliable—and hence more compelling—than qualitative predictions
    - Therefore, the side that the quantitative results favor will want to present them to the trier of fact
    - This forces the other side to do its own quantitative analysis as a counter
    - There is an entirely separate question whether any of the quantitative predictions are any good—there are very few retrospective studies assessing the reliability of unilateral effects quantitative analysis

# Unilateral effects: Requirements

## ■ General requirements of the theory

1. The products must be differentiated
2. The products of the merging parties must be close substitutes for one another
  - That is, they have high cross-elasticities of demand with one another
3. The products of (most) other firms must be much more distant substitutes
  - That is, they have low cross-elasticities of demand with the products of the merging firms
4. Repositioning into the products of the merging firms must be difficult
  - That is, other incumbent firms and new entrants in the market cannot easily change their product's attributes or introduce a new product that would be a close substitute to the products of the merging firm

## ■ Specific Guidelines requirements

### □ 1992: Merging companies—

1. had to be each other's closest competitors, and
2. the combined firm had to have a market share of at least 35%

*Problem:* Some cabining was necessary, since otherwise the unilateral effects theory applies too broadly to any merger where the combining firms have positive cross-elasticity with one another and a positive margin and the market exhibits barriers to entry and repositioning

### □ 2010: Eliminated both the closest substitute and 35% share requirements

# Unilateral effects in *H&R Block*

- Court:
  - Reframed unilateral effects in terms of a negative defense in rebuttal to the *PNB* presumption, so that the merging parties had the burden of production
  - Findings with respect to market definition make out a prima facie showing of unilateral effects:
    - Market differentiated
    - Products of the merging parties are close substitutes
    - Product of (most) other parties are distant substitutes
    - High barriers to entry and repositioning



# Unilateral effects in *H&R Block*

## ■ Defendants' rebuttal

1. Pledge to maintain TaxACT's current prices (more of a fix)
  - *Defendants*: Would maintain current prices for three years (no price changes → no diversion)
  - *Court*: Not a defense even assuming truthfulness
    - Could manipulate other variables (e.g., functionality) and introduced higher-priced, more functional products
    - Could market less aggressively and more selectively
2. Two-brand strategy
  - *Defendants*: Will maintain both brands—HRB (high end) and TaxACT (low-end)
  - *Court*: Subject to anticompetitive manipulation in the attributes of products
3. Combined firm's market share too low
  - *Defendants*: Combined share is only 28.4%
    - Below the 35% required in some cases and the 1992 Guidelines
  - *Court*: There is no market share threshold for unilateral effects
    - Consistent with the 2010 Guidelines
4. Merging parties not each other closest substitutes
  - *Defendants*: Intuit is the closest DDIY substitute to both HRB and TaxACT
    - As required by some courts and the 1992 Merger Guidelines
  - *Court*: Not required to be each other's closest substitute
    - Consistent with the 2010 Guidelines

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# Unilateral effects in *H&R Block*

- **Court:** Merger simulation shows likely unilateral price increase
  - Warren-Boulton did a merger simulation showing a likely substantial unilateral price increases in all three DDIY products following the merger
  - Predicted price increases—
    - TaxACT 83%
    - HRB 37%
    - TurboTax 11%

# Merger simulation

- Merger simulation: General idea
  1. A model is specified for the market
    - Observable parameters in the model might include:
      - The number of firms
      - Their respective market shares
      - Their respective production capacities
      - Their respective margins
  2. Parameters for this model that are not directly observable are estimated, so that the model generates the observed premerger market equilibrium variables of interest (e.g., prices, margins, aggregate output)
    - Depending on the sophistication of the model, nonobservable parameters might include:
      - Demand parameters (e.g., a cross-elasticity matrix of all own-and cross-elasticities within the market)
      - Premerger cost parameters
  3. The model, using the observable and estimated parameters, is applied to postmerger structure to simulate (predict) the postmerger market equilibrium

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# Merger simulation

- Problems with merger simulation
  - Only as good as the model, the data, and the parameter estimates that go into the simulation
  - Small changes in the model specification or the parameter estimation methods can result in big changes to the postmerger simulation results
  - Often predict “hard to believe” price increases
  - Very few studies testing the accuracy of postmerger simulation with the use of actual postmerger data
    - That is, few studies examine how close or how far the simulated results are from what actually happened

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# Merger simulation

- Warren-Boulton model: Used—
  - Diversion ratios between HRB and TaxACT
  - Price-cost margins of the two products
  - A Bertrand pricing model
- The opinion did not give the details of the Bertrand pricing model
- But we will look at—
  - Diversion ratios
  - A “gross upward pricing pressure index” (GUPPI) simulation model

# Diversion ratios

- Definition (when Firm A raises price):

$$D_{A \rightarrow B} \equiv D_{AB} = \frac{\Delta q_B}{\Delta q_A}$$

where firm A loses total sales of  $\Delta q_A$ , of which  $\Delta q_B$  go to firm B

- How are diversion ratios estimated?

- Data collected during the regular course of business
- Indications in the company documents
- Consumer surveys
- Demand system estimation/econometrics
- Market shares as proxies

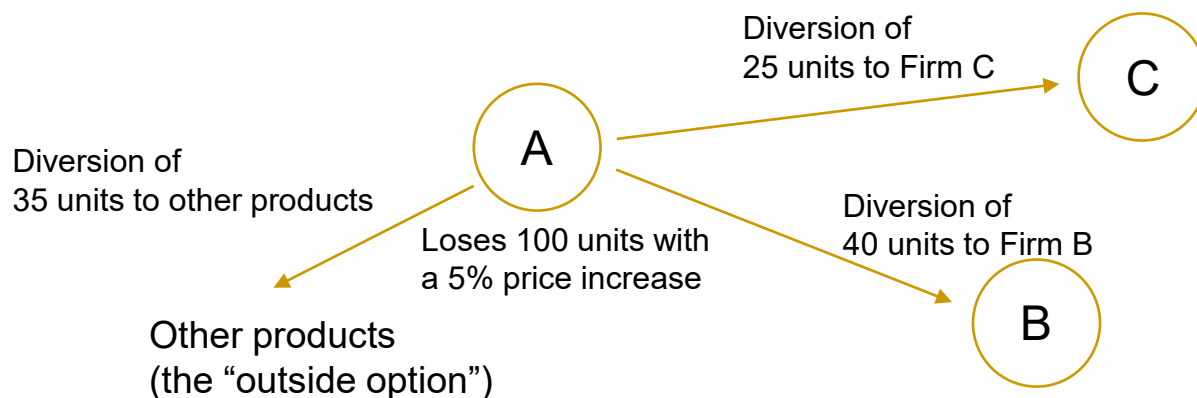
- Assumes that customers divert in proportion to the market shares of the competitor firms:

$$D_{A \rightarrow B} = \left( 1 - \frac{\Delta q_{outside}}{\Delta q_A} \right) \frac{s_B}{1 - s_A},$$

where  $s_A$  and  $s_B$  are the market shares of firms A and B, respectively, in the market, and  $\frac{\Delta q_{outside}}{\Delta q_A}$  is the percentage of Firm A's lost sales that are diverted to firms outside of the candidate market

# Diversion ratios: Illustration

- Firm A raises its price by 5% and loses 100 units
  - 40 units divert to Firm B
  - 25 units divert to Firm C
  - 35 units divert to other products



- Then:

$$D_{A \rightarrow B} = \frac{40}{100} = 0.40 \text{ or } 40\%$$

$$D_{A \rightarrow C} = \frac{25}{100} = 0.25 \text{ or } 25\%$$

Since  $D_{A \rightarrow B} > D_{A \rightarrow C}$ ,  
B is a closer substitute  
to A than C

# Diversion ratios: Homework problem 1

- Consider the following shares for fresh orange juice:

	Orange Juice	
	Production	
	(million gal.)	Share
Tropicana	291.4	45.0%
Coca-Cola	136.0	21.0%
Fresh OJ	136.0	21.0%
OJ Natural	46.0	7.1%
Others (6)	38.2	5.9%
	647.6	100.0%

- Assume that all diversion occurs within orange juice (that is, there is no switching to a nonorange juice option) and switching within orange juice is gallon for gallon. Using the relative market share method, what are the diversion ratios from Coca-Cola to each of the other orange juice products?



# Diversion ratios: Homework problem 1

## Orange Juice

	Production (million gal.)	Share
Tropicana	291.4	45.0%
Coca-Cola	136.0	21.0%
Fresh OJ	136.0	21.0%
OJ Natural	46.0	7.1%
Others (6)	38.2	5.9%
	647.6	100.0%

$$D_{CocaCola \rightarrow Tropicana} = \frac{45\%_B}{1 - 21\%} = 57.0\%$$

$$D_{CocaCola \rightarrow FreshOJ} = \frac{21\%}{1 - 21\%} = 26.6\%$$

$$D_{CocaCola \rightarrow OJNatural} = \frac{7.1\%}{1 - 21\%} = 9.0\%$$

$$D_{CocaCola \rightarrow Others} = \frac{5.9\%}{1 - 21\%} = 7.5\%$$

Collectively

General formula:

$$D_{A \rightarrow B} = \left( 1 - \frac{\Delta q_{outside}}{\Delta q_A} \right) \frac{s_B}{1 - s_A} \quad \text{Here, } \frac{\Delta q_{outside}}{\Delta q_A} = 0\%$$

# Diversion ratios: Homework problem 2

- Consider the following shares for fresh orange juice:

	Orange Juice	
	Production	
	(million gal.)	Share
Tropicana	291.4	45.0%
Coca-Cola	136.0	21.0%
Fresh OJ	136.0	21.0%
OJ Natural	46.0	7.1%
Others (6)	38.2	5.9%
	647.6	100.0%

- Same as Problem 1 except that 10% of Coca-Cola's lost sales are diverted to the outside option

# Diversion ratios: Homework problem 2

## Orange Juice

	Production (million gal.)	Share
Tropicana	291.4	45.0%
Coca-Cola	136.0	21.0%
Fresh OJ	136.0	21.0%
OJ Natural	46.0	7.1%
Others (6)	38.2	5.9%
	647.6	100.0%

$$D_{CocaCola \rightarrow Tropicana} = (1 - 10\%) \left( \frac{45\%_B}{1 - 21\%} \right) = 53.1\%$$

$$D_{CocaCola \rightarrow FreshOJ} = (1 - 10\%) \left( \frac{21\%}{1 - 21\%} \right) = 23.9\%$$

$$D_{CocaCola \rightarrow OJNatural} = (1 - 10\%) \left( \frac{7.1\%}{1 - 21\%} \right) = 8.1\%$$

$$D_{CocaCola \rightarrow Others} = (1 - 10\%) \left( \frac{5.9\%}{1 - 21\%} \right) = 6.7\%$$

General formula:

$$D_{A \rightarrow B} = \left( 1 - \frac{\Delta q_{outside}}{\Delta q_A} \right) \frac{s_B}{1 - s_A} \quad \text{Here, } \frac{\Delta q_{outside}}{\Delta q_A} = 10\%$$

Collectively

# Diversion ratios in *H&R Block*

- Warren-Boulton's derivation of diversion ratios in H&R Block/TaxACT
  - Used market shares to estimate diversion ratios
  - Recall
    - $s_{HRB} = 15.6\%$
    - $s_{TaxACT} = 12.8\%$
  - So on the data given by the court:

$$D_{HRB \rightarrow TaxACT} = \frac{12.8\%}{1 - 15.6\%} = 15.2\%$$

$$D_{TaxACT \rightarrow HRB} = \frac{15.6\%}{1 - 12.8\%} = 17.9\%$$

- But the court reported these diversion ratios as 14% and 12%
  - Warren-Boulton probably had some diversion to an outside option that was not given by the court:
    - An outside option (assisted and manual) of 17% for HRB gives  $D_{HRB \rightarrow TaxACT} = 14\%$
    - An outside option (assisted and manual) of 10% for TaxAct gives  $D_{TaxACT \rightarrow HRB} = 12\%$

# Diversion ratios

- Why are diversion ratios important?
  - Can't we just as well use cross-elasticities?
- Application in unilateral effects theory
  - Recall that when Firm A acquires Firm B, Firm A must account for Firm B's profit losses when Firm A increases output (and therefore lowers price)
  - The amount of this loss is subtracted from Firm A's marginal revenues
  - This is the effect that causes Firm A to readjust its output after the merger

The amount of the loss to Firm A's marginal revenue is the diversion ratio ( $D$ ) times Firm B's margin ( $m_B$ ) or  $Dm_B$

This motivates a measure called the *gross upper pricing pressure index* (GUPPI)

# GUPPIs

## ■ Gross Upward Pricing Pressure Index (GUPPI)

- Definition (unmotivated):

$$GUPPI_A \equiv \frac{\text{value of profits from sales diverted to product B}}{\text{value of all sales lost by product A}} = \frac{\Delta q_B (p_B - c_B)}{\Delta q_A p_A}$$

- Let  $m_B = \frac{p_B - c_B}{p_B}$  the percentage gross margin of product B and  $D_{AB}$  be the diversion ratio between product A and product B.

Then multiplying by  $p_B/p_B$ :

$$GUPPI_A = \frac{\Delta q_B}{\Delta q_A} \frac{(p_B - c_B)}{p_B} \frac{p_B}{p_A} = D_{AB} m_B \frac{p_B}{p_A},$$

which is the usual form of the expression for a GUPPI

- Section 6.1 of the 2010 DOJ/FTC Horizontal Merger Guidelines implicitly creates of measure of this type

# GUPPIs

## ■ Merger simulation with GUPPIs (in a very special case)

### □ Assumptions

- Linear residual demand curves
- Equal diversion ratios ( $D_{12} = D_{21} = D$ )
- Equal marginal costs, equal prices, and equal market shares

### □ In a Bertrand competition model, the GUPPI gives the profit-maximizing price increase postmerger under the unilateral effects theory

1. The profit-maximizing price increase for product 1 leaving the price of product 2 at its premerger level:

$$\frac{\Delta p_1^*}{p_1} = \frac{GUPPI}{(1-D)} = \frac{Dm}{(1-D)}$$

2. The profit-maximizing price increase for both product 1 and product 2 when raising the price of both products:

$$\frac{\Delta p_1^*}{p_1} = \frac{\Delta p_2^*}{p_2} = \frac{GUPPI}{2(1-D)} = \frac{Dm}{2(1-D)}$$

Why look at so special a case?

# GUPPIs

## ■ Merger simulation with GUPPIs

- Example 5 of the 2010 DOJ/FTC Horizontal Merger Guidelines

Products A and B are being tested as a candidate market. Each sells for \$100, has an incremental cost of \$60, and sells 1200 units. For every dollar increase in the price of Product A, for any given price of Product B, Product A loses twenty units of sales to products outside the candidate market and ten units of sales to Product B, and likewise for Product B. Under these conditions, economic analysis shows that a hypothetical profit-maximizing monopolist controlling Products A and B would raise both of their prices by ten percent, to \$110.

- How do the Guidelines predict that the profit-maximizing price will increase by \$10?

- Summary of parameters

$$p = \$100 \qquad c = \$60$$
$$D = 1/3 \qquad m = \frac{p-c}{p} = 0.6$$

- The market exhibits linear demand and complete symmetry, so

$$\frac{\Delta p_1^*}{p_1} = \frac{\Delta p_2^*}{p_2} = \frac{Dm}{2(1-D)} = \frac{(1/3)(0.4)}{2(1-1/3)} = 0.10 \quad \text{or } 10\%$$

So price will increase from \$100 to \$110



# GUPPIs: Homework problem 3

Products A and B are being tested as a candidate market. Each is priced at \$140 per unit, has an incremental cost of \$110, and sells 2000 units. For every dollar increase in the price of Product A, for any given price of Product B, Product A loses 40 units of sales to products outside the candidate market and 10 units of sales to Product B, and likewise for Product B. Under these conditions, what price would a hypothetical monopolist of Products A and B charge if (a) it had to increase prices of both products by the same amount, and (b) if it increased the price of only one product? (c) Are Products A and B a relevant market?

- Summary of parameters (linear demand and complete symmetry):

$$p = \$140 \quad c = \$110$$

$$D = \frac{10}{50} = 0.2 \quad m = \frac{p - c}{p} = \frac{140 - 110}{140} = 0.21$$

- Two product price increase:

$$\frac{\Delta p_A^*}{p_A} = \frac{\Delta p_B^*}{p_B} = \frac{Dm}{2(1-D)} = \frac{(0.2)(0.21)}{2(1-0.2)} = 2.7\% \quad \text{New price} = (1 + 0.27)(140) = 143.75$$

- One-product price increase

$$\frac{\Delta p_A^*}{p_A} = \frac{Dm}{(1-D)} = \frac{(0.2)(0.21)}{(1-0.2)} = 5.4\%$$

$$\text{New price} = (1 + 0.54)(140) = 147.50$$

A and B are a relevant product market under a 5% one-product SSNIP test

# GUPPIs

## ■ Merger simulation with GUPPIs

- The model so far is very restrictive with all of its symmetry conditions
- Loosening these conditions makes things complicated very quickly
  - For example, when residual demand for both firms is linear but diversion ratios and margins differ, the optimal price increase formula becomes:

$$\frac{\Delta p_A^*}{p_A} = \frac{(D_{B \rightarrow A} (D_{B \rightarrow A} + D_{A \rightarrow B})) m_A + 2D_{A \rightarrow B} m_B}{4 - (D_{B \rightarrow A} + D_{A \rightarrow B})^2}$$

You should just see this to understand how quickly the formula becomes with a relaxation of the restrictions. You will not be required to know or use the formula.

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# Merger simulation

## ■ Bottom line

- Merger simulation evidence typically devolves into a “battle of experts” over largely technical econometric details of different models that generate very different results
- As a result, courts rarely give much weight to this evidence
  - But if one side has it and the other side does not, so that there is no conflict of models, courts may give the model more weight
  - *Take-away*: If one side is doing a simulation model, it is incumbent on the other side to do one as well (another variety of the prisoner’s dilemma)

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# Anticompetitive Effects

## Part 4. Efficiencies

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# Efficiencies

- Basic idea

- “Efficiencies” are loosely defined to be public benefits that result from the deal
- Contrast this with synergies, which are benefits to the merging parties resulting for the deal
  - Although sometimes the terms are used interchangeably
  - In this case, “cognizable efficiencies” is the term used to denote public benefits

# Efficiencies

- Efficiencies as a defense
  - The 2010 Merger Guidelines:

[A] primary benefit of mergers to the economy is their potential to generate significant efficiencies and thus enhance the merged firm's ability and incentive to compete, which may result in lower prices, improved quality, enhanced service, or new products. For example, merger-generated efficiencies may enhance competition by permitting two ineffective competitors to form a more effective competitor, e.g., by combining complementary assets. In a unilateral effects context, incremental cost reductions may reduce or reverse any increases in the merged firm's incentive to elevate price. Efficiencies also may lead to new or improved products, even if they do not immediately and directly affect price. In a coordinated effects context, incremental cost reductions may make coordination less likely or effective by enhancing the incentive of a maverick to lower price or by creating a new maverick firm.<sup>1</sup>

<sup>1</sup> U.S. Dep't of Justice & Fed. Trade Comm'n, Horizontal Merger Guidelines § 10 (rev. 2010).

# Efficiencies

- Examples of how efficiencies can offset the anticompetitive effects a merger would otherwise have:
  - Offset the unilateral anticompetitive effect by sufficiently reducing marginal costs
  - Create a new or better product that consumers prefer
  - Create a more effective competitor by combining complementary assets (e.g., IP rights)
  - Diminish incentives for coordinated interaction by creating a firm with the cost structure to engage in disruptive conduct

<sup>1</sup> 2010 DOJ/FTC Horizontal Merger Guidelines § 10.

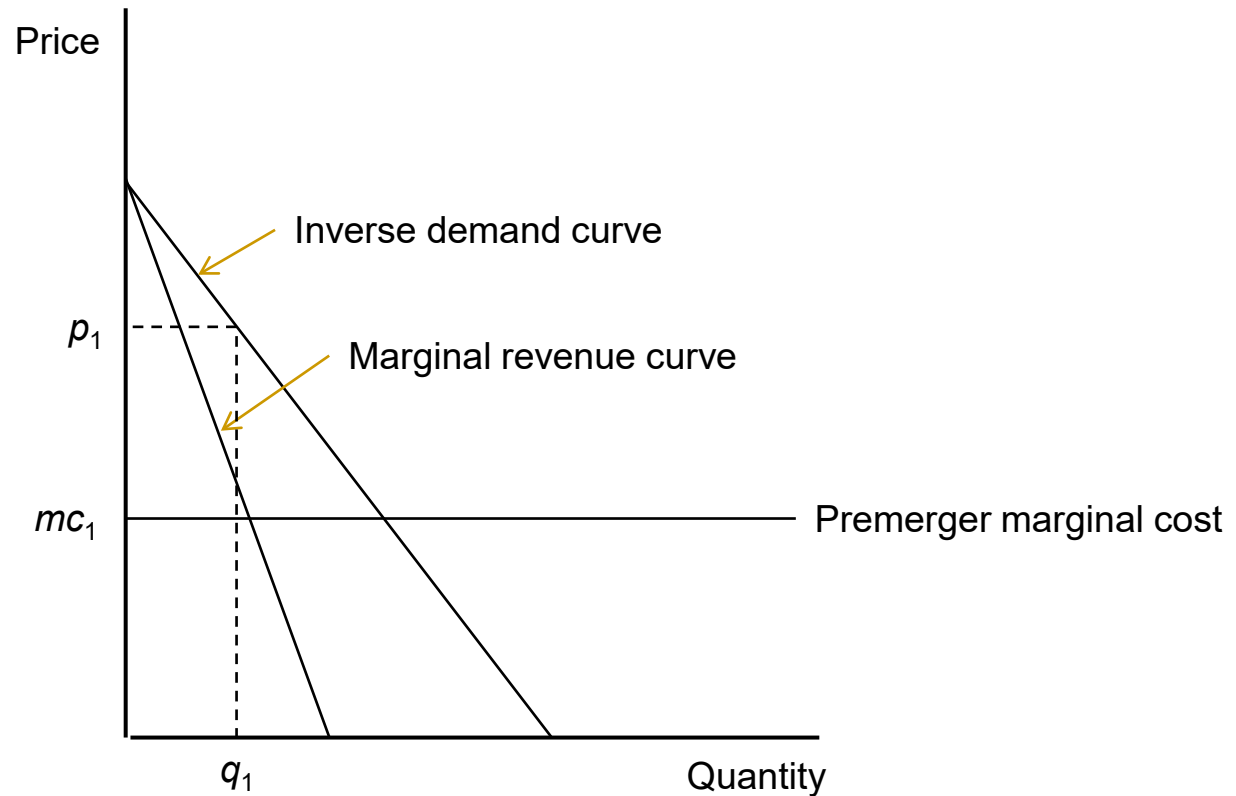
# Efficiencies

- Efficiencies are a *negative defense*
  - Efficiencies mitigate the anticompetitive effects a merger otherwise would have
    - That is, they result in *downward pricing pressure* that counters the upward pricing pressure of the merger's anticompetitive aspects
  - Standing alone, to be a sufficient defense, efficiencies must fully offset the upward pricing pressure of the transaction
  
- Downward pricing pressure
  - Efficiencies effect downward pricing pressing to the extent that they—
    - Reduce the marginal costs of production
    - Shift the demand curve to the right
  - These efficiencies change the postmerger intersection of the firm's marginal revenue and marginal cost curves, causing—
    - Production to increase
    - Price to decrease
  - Reductions in fixed costs do not change the intersection of the firm's marginal revenue and marginal cost curves and hence are not recognized as efficiencies under the Merger Guidelines



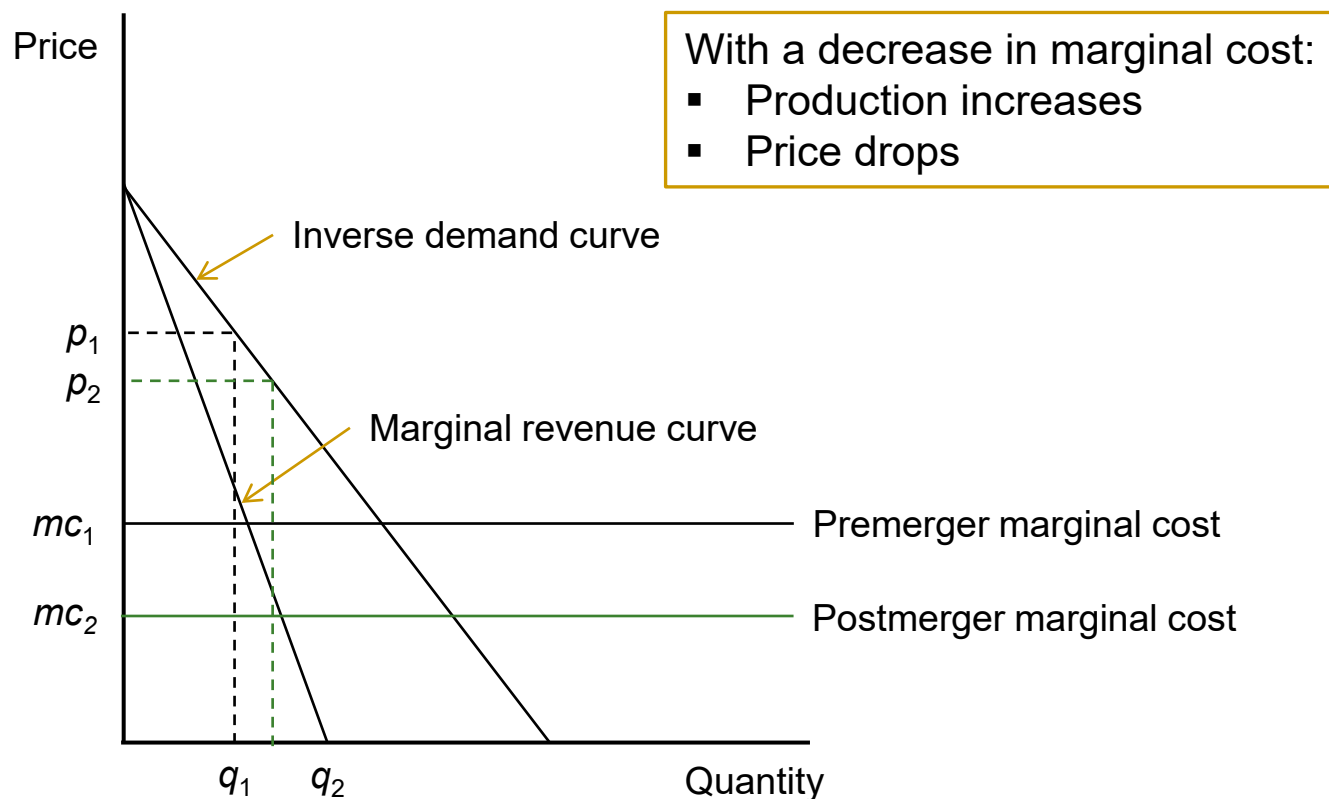
# Downward pricing pressure

- Premerger
  - For one of the merging parties



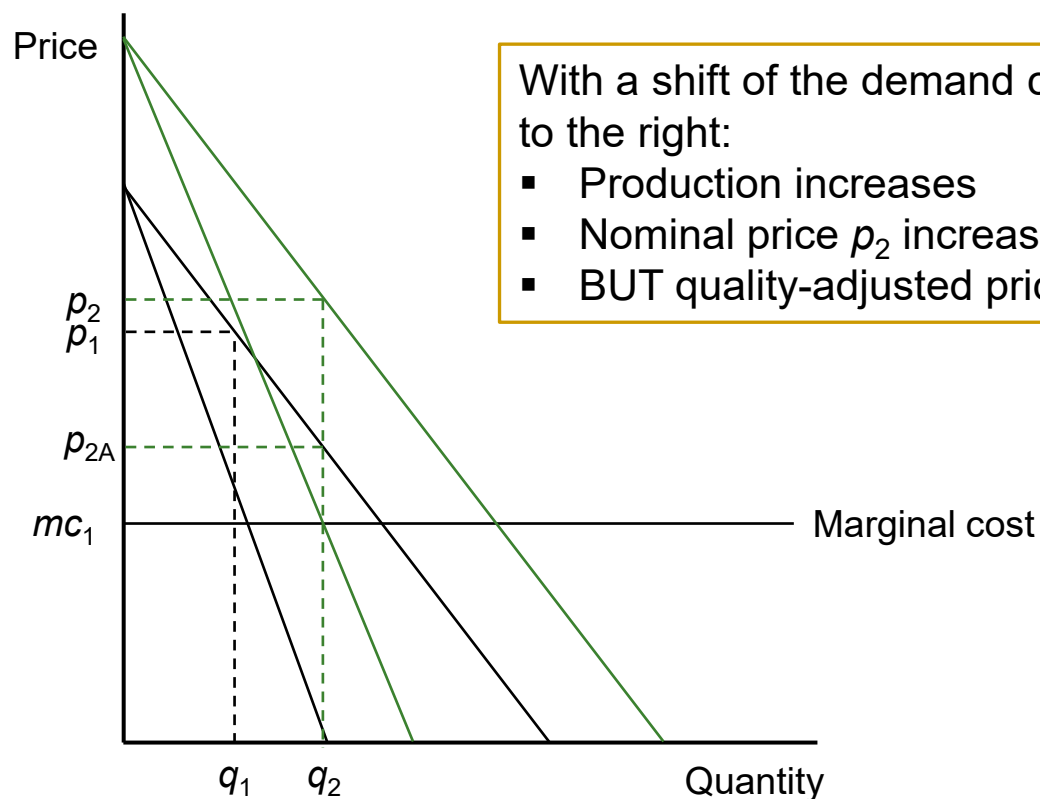
# Downward pricing pressure

- Postmerger
  - Marginal cost reductions



# Downward pricing pressure

- Postmerger
  - Shifting the demand curve to the right



With a shift of the demand curve to the right:

- Production increases
- Nominal price  $p_2$  increases
- BUT quality-adjusted price  $p_{2A}$  decreases

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# Guidelines requirements

- Efficiencies as a merger defense under the Merger Guidelines
  - Four requirements
    1. Merger specificity
    2. Verifiability
    3. Sufficiency
    4. Not anticompetitive

# Merger specificity

- Are the alleged efficiencies *merger specific*?

The Agencies credit only those efficiencies likely to be accomplished with the proposed merger and unlikely to be accomplished in the absence of either the proposed merger or another means having comparable anticompetitive effects. These are termed merger-specific efficiencies.<sup>13</sup> Only alternatives that are practical in the business situation faced by the merging firms are considered in making this determination. The Agencies do not insist upon a less restrictive alternative that is merely theoretical.

<sup>13</sup> The Agencies will not deem efficiencies to be merger-specific if they could be attained by practical alternatives that mitigate competitive concerns, such as divestiture or licensing. If a merger affects not whether but only when an efficiency would be achieved, only the timing advantage is a merger-specific efficiency.

- *Could* the efficiencies be achieved in the absence of the transaction? Or is the right question “*Would* they be achieved in the absence of the transaction”?
- Although the Merger Guidelines ask the second question, in practice the agencies strongly (and to an extent the courts) ask only the first question
  - Since merger antitrust law generally compares what would happen in with the merger against what would happen without the merger, isn't the right question whether the efficiencies *would* be achieved in the absence of the transaction, not *could* they be achieved
  - Consumers could benefit from the claimed efficiencies only if they would be achieved in the absence of the transaction

# Verifiability

- Are the alleged efficiencies *verifiable*?

[I]t is incumbent upon the merging firms to substantiate efficiency claims so that the Agencies can verify by reasonable means the likelihood and magnitude of each asserted efficiency, how and when each would be achieved (and any costs of doing so), how each would enhance the merged firm's ability and incentive to compete, and why each would be merger-specific.

- Have the efficiencies been rigorously described and substantively by the parties?
- Can the claimed efficiencies be objectively ascertained by a third party?
  - The agencies usually regard this “third party” as an accountant or an economist, that is, someone without expertise in the industry in question
  - This causes them to reject efficiencies that depend on expert industry judgment
  - Courts are trending this way as well

# Sufficiency

- Are the alleged efficiencies *sufficient*?

The Agencies will not challenge a merger if cognizable efficiencies are of a character and magnitude such that the merger is not likely to be anticompetitive in any relevant market.

- Will the claimed efficiencies occur—

- in time, and
- with sufficient magnitude

to offset the anticompetitive effects of the merger that would be likely to occur in the absence of the efficiencies?

# Do not arise from an anticompetitive effect

- Do the efficiencies arise from an anticompetitive effect of the transaction?

Cognizable efficiencies are merger-specific efficiencies that have been verified **and do not arise from anticompetitive reductions in output or service.**

- The idea here is that cost savings from a reduction in output or service are not cognizable efficiencies
  - This is uncontroversial
  - It is also probably superfluous, since it is hard to see how downward pricing pressure would result from a reduction of output or service
  - Rarely analyzed by courts



# Efficiencies in court

## ■ Judicial skepticism

- The Supreme Court has cast doubt on an efficiencies defense in three cases
  1. In *Brown Shoe*, the Supreme Court, though acknowledging that mergers may sometimes produce benefits that flow to consumers, stated:

“Congress appreciated that occasional higher costs and prices might result from the maintenance of fragmented industries and markets. It resolved these competing considerations in favor of decentralization.”<sup>1</sup>

2. In *Philadelphia National Bank*, the Court observed:

[A] merger the effect of which “may be substantially to lessen competition” is not saved because, on some ultimate reckoning of social or economic debits and credits, it may be deemed beneficial.... Congress determined to preserve our traditionally competitive economy. It therefore proscribed anticompetitive mergers, the benign and the malignant alike, fully aware, we must assume, that some price might have to be paid.<sup>2</sup>

<sup>1</sup> *Brown Shoe Co. v. United States*, 370 U.S. 294, 344 (1962).

<sup>2</sup> *United States v. Philadelphia Nat'l Bank*, 374 U.S. 321, 371 (1963).

# Efficiencies in court

## ■ Judicial skepticism (con't)

- The Supreme Court has cast doubt on an efficiencies defense in three cases
  3. In *Procter & Gamble*, the Supreme Court enjoined a merger without any consideration of evidence that the combined company could purchase advertising at a lower rate:

“Possible economies cannot be used as a defense to illegality. Congress was aware that some mergers which lessen competition may also result in economies but it struck the balance in favor of protecting competition.”<sup>1</sup>

- Significantly, in these older cases an accepted goal of antitrust law was the protection of small business
- In light of these Supreme Court statements, lower courts have expressed skepticism that an efficiencies defense exists<sup>2</sup>

<sup>1</sup> *FTC v. Procter & Gamble Co.*, 386 U.S. 568, 580 (1967) (citing *Brown Shoe Co. v. United States*, 370 U.S. 294, 344 (1962)).

<sup>2</sup> See *United States v. Anthem, Inc.*, 855 F.3d 345, 353-54 (D.C. Cir. 2017) (expressing doubts about an efficiency defense in light of *Procter & Gamble*, which has never been overruled); *FTC v. Penn State Hershey Med. Ctr.*, 838 F.3d 327, 348-49 (3d Cir. 2016).

# Efficiencies in court

## ■ Modern practice

- Notwithstanding the Supreme Court precedent, modern lower courts recognize that efficiencies resulting from the merger may be considered in rebutting the government's *prima facie* case
- *Advocate Health Care*:

Although the defense has never been sanctioned by the Supreme Court, the Horizontal Merger Guidelines and some lower courts recognize that defendants in a horizontal merger case may rebut the government's *prima facie* case by presenting evidence of efficiencies offsetting the anticompetitive effects.<sup>1</sup>

<sup>1</sup> FTC v. Advocate Health Care, No. 15 C 11473, 2017 WL 1022015, at \*12 (N.D. Ill. Mar. 16, 2017) (entering preliminary injunction on remand).

# Efficiencies in court

- Modern practice
  - *Penn State Hershey Medical Center*:

Remaining cognizant that the “language of the Clayton Act must be the linchpin of any efficiencies defense,” and that the Clayton Act speaks in terms of “competition,” we must emphasize that “a successful efficiencies defense requires proof that a merger is not, despite the existence of a prima facie case, anticompetitive.”<sup>1</sup>

The efficiencies defense, on the other hand, is a means to show that any anticompetitive effects of the merger will be offset by efficiencies that will ultimately benefit consumers.<sup>2</sup>

<sup>1</sup> FTC v. Penn State Hershey Med. Ctr., 838 F.3d 327, 349 (3d Cir. 2016).

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

# Efficiencies in court

## ■ Modern practice

### 1. Interpretation

- The most sensible way to read the modern approach is that efficiencies can be used as a *negative* defense to disprove the anticompetitive effect element of the prima facie case

It is clear that whether an acquisition would yield significant efficiencies in the relevant market is an important consideration in predicting whether the acquisition would substantially lessen competition.<sup>1</sup>

- But they cannot be used to as an *affirmative* defense to permit a merger that has the requisite anticompetitive effect in the relevant market

Of course, once it is determined that a merger would substantially lessen competition, expected economies, however great, will not insulate the merger from a section 7 challenge.<sup>2</sup>

- This distinction essentially reflects a consumer welfare standard over a total welfare standard

<sup>1</sup> See, e.g., *FTC v. Univ. Health, Inc.*, 938 F.2d 1206, 1222 (11th Cir. 1991).

<sup>2</sup> See, e.g., *Univ. Health*, 938 F.3d at 1222 n.29.

# Efficiencies in court

## ■ Modern practice

### 2. Difficulty in application

- Plaintiffs establish their prima facie case through the *PNB* presumption and additional supporting evidence of unilateral and/or coordinated effects, which collectively gives a *qualitative* result that the merger is presumptively likely to substantially lessen competition and harm consumers
- But how is the qualitative result to be negated by a showing of efficiencies, even if the efficiencies are in some way quantified?
- Practical solution
  - Defendants must find customer-witnesses that would be harmed if the transaction was in fact anticompetitive who will testify that they believe that the balance of the merger's harmful and beneficial effects will be procompetitive (i.e., beneficial to customers), or, more precisely, not anticompetitive
  - Since the defendants must at least make a prima facie case that the efficiencies will offset any of the merger's anticompetitive tendencies, the defendants' failure to adduce such evidence is likely to result in a rejection of their efficiencies defense

# Efficiencies in court

## ■ Modern practice

### 3. “Pass on” requirement

- In any event, claimed efficiencies can offset an anticompetitive effect on consumers only to the extent that the efficiencies are “passed on” by the merged company to the consumers that otherwise would be competitively harmed.
- *Anthem* court:

[T]he claimed medical cost savings only improve consumer welfare to the extent that they are actually passed through to consumers, rather than simply bolstering Anthem’s profit margin. After all, the merger potentially harms consumers by creating upward pricing pressure due to the loss of a competitor, and so only efficiencies that create an equivalent downward pricing pressure can be viewed as “sufficient to reverse the merger’s potential to harm consumers . . . , e.g., by preventing price increases.”<sup>1</sup>

<sup>1</sup> United States v. Anthem, Inc., 855 F.3d 345, 362 (D.C. Cir. 2017) (internal citations omitted); see FTC v. Penn State Hershey Med. Ctr., 838 F.3d 327, 348 (3d Cir. 2016) (“In order to be cognizable, the efficiencies must, first, offset the anticompetitive concerns in highly concentrated markets.”).

# Efficiencies in court

## ■ Modern practice

### 3. “Pass on”

- In *Anthem*, the court appears to have rejected the idea that an aggregate dollar savings greater than the aggregate dollar value of an anticompetitive price increase would make out an efficiencies defense
  - That is, it is not sufficient that the gross consumer surplus from efficiencies outweigh the gross wealth transfer resulting from an anticompetitive price increase
- Rather, the court appeared to require that the downward pressure on prices from efficiencies at least offset the upward pressure on prices from the anticompetitive effect, so that there would be no net price increase to customers
- At least one case has permitted the weighing of the gross dollar savings against the gross dollar losses
  - Even when the savings were accrued by one group of customers in the relevant market and the losses sustained by another group of customers in the relevant market<sup>1</sup>

<sup>1</sup> United States v. AT&T Inc., 310 F. Supp. 3d 161 (D.D.C. June 12, 2018) (denying injunction and dismissing complaint in AT&T/Time Warner), *aff'd*, 916 F.3d 1029 (D.C. Cir. 2019). We will examine AT&T/Time Warner in Unit 15.



# Efficiencies in court

## ■ Modern practice

### □ Rent shifting

- *Query*: Is a lowering of input prices due to greater bargaining power gained by the merger a cognizable efficiency when—
  - the lower prices do not reflect any production efficiency
  - even if the cost savings in procurement is passed on to the downstream customers?
- *Anthem* court:

The district court also expressed doubt as to whether the type of efficiencies claimed by Anthem, which merely redistribute wealth from providers to Anthem and its customers rather than creating new value, are even cognizable under Section 7.<sup>1</sup>

- The court of appeals also expressed skepticism, but found it was unnecessary to answer the question given the facts in the case
- Other courts have not opined on this

<sup>1</sup> United States v. Anthem, Inc., 855 F.3d 345, 352 (D.C. Cir. 2017) (internal citations omitted).

# Efficiencies in *H&R Block*

- Merging parties' argument
  - “H&R Block’s primary motivation for the TaxACT acquisition is to achieve significant synergies that will enable H&R Block to provide better products at a lower price and to compete more effectively.”
  - Examples
    - Online IT
      - Presumably cost savings
    - Emerald Card
      - Allowing TaxACT’s prepaid debit card offerings to be fulfilled through HRB’s bank
    - H&R Block Bank Refund Anticipation Check
      - Funding TaxACT’s refund anticipation checks through HRB bank
    - Corporate website
      - Presumably cost savings
    - Software IT
      - Presumably cost savings
    - Download fulfillment
      - Presumably cost savings

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# Efficiencies in *H&R Block*

- DOJ response
  - Testifying expert: Dr. Mark E. Zmijewski
    - Professor of accounting and deputy dean at The University of Chicago Booth School of Business
    - WDC:
      - Not clear why Zmijewski has expertise in efficiencies
      - But typical of the accounting experts the agencies use in court
  - Testimony
    - Proposed efficiencies are neither merger-specific or not verifiable

# Efficiencies in *H&R Block*

- Court: Rejected defense
  1. Not merger specific
    - Claimed HRB's cost savings resulting from relocation of operations to lower cost area
    - Claimed HRB's efficiencies from more "cost conscious" management
    - Claimed HRB efficiencies from bring HRB's outsourced function in-house
  2. Not independently verifiable
    - Claimed efficiencies from transferring functions now performed by HRB or its vendors to TaxACT
      - Supported by "management judgment" and not a detailed analysis of historical accounting data

While reliance on the estimation and judgment of experienced executives about costs may be perfectly sensible as a business matter, the lack of a verifiable method of factual analysis resulting in the cost estimates renders them not cognizable by the Court. If this were not so, then the efficiencies defense might well swallow the whole of Section 7 of the Clayton Act because management would be able to present large efficiencies based on its own judgment and the Court would be hard pressed to find otherwise. The difficulty in substantiating efficiency claims in a verifiable way is one reason why courts "generally have found inadequate proof of efficiencies to sustain a rebuttal of the government's case."

# Efficiencies in *H&R Block*

- Court: Rejected defense
  - 3. HRB failed to achieve claimed efficiencies in prior transactions
    - In 2006, HRB acquired RedGear's TaxWorks, a smaller company than TaxACT, and failed to achieve in projected efficiencies
    - The efficiency estimates in acquiring TaxACT are "much more aggressive" in amount

While HRB has attempted to learn from the mistakes of the RedGear acquisition, the Court finds that this history only underscores the need for any claimed efficiencies to be independently verifiable in order to constitute evidence that can rebut the government's presumption of anticompetitive effects.<sup>1</sup>

- 4. HRB failed to address how much of the claimed efficiencies would be passed on to consumers<sup>2</sup>

<sup>1</sup> United States v. H&R Block, Inc., 833 F. Supp. 2d 36, 91 (D.D.C. 2011) (record citation omitted). See p. 139 of the reading materials.

<sup>2</sup> *Id.* at 92 n.44.

# H&R Block/TaxACT

## ■ Summary

1. The DOJ made out its prima facie case
  - Relevant product market: DDIY tax software
  - Relevant geographic market: Nationwide
  - Anticompetitive effects: Established through the *PNB* presumption
    - Judicial precedent
    - Merger Guidelines thresholds
2. The merging parties' rebuttal: Failed to prove a prima facie case of—
  - Entry/repositioning
  - Insusceptability of the market to coordinated effects
  - The absence of unilateral effects
  - The extensive of cognizable efficiencies
3. Step 3 balancing unnecessary
  - Defendants did not satisfy their burden of production in Step 2
  - Permanent blocking injunction entered