Class 1 slides

Unit 1: TransDigm/Takata

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

August 29, 2023

TRANSDIGM GROUP INC.

SCHROTH

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

The Deal

Who was the buyer?

- TransDigmGroup Incorporated
  - Leading supplier of highly engineered airplane components
  - Delaware corporation
  - Headquarters: Cleveland, OH
  - Revenues (2016): $3.1 billion

Who was the seller?

- Takata Corporation
  - Global manufacturer of automotive safety systems and products for automakers worldwide
    - Also diversified into aviation systems
  - Headquartered in Japan
  - Production facilities on four continents
  - Manufacturer of the airbags subject to the massive recalls
    - U.S. recall of more than 42 million cars (Nov. 2014)
  - Bankruptcy
    - June 2017: Filed for bankruptcy protection in Japan
    - April 2018: Takata acquired by Key Safety Systems
      - Subsidiary of Ningbo Joyson Electronic Corp.
      - Rebranded as Joyson Safety Systems

TAKATA

What was the seller going to sell?

- The SCHROTH passenger restraint systems business
  - Designs and manufactures proprietary, highly engineered, advanced safety systems for aviation, racing, and military ground vehicles throughout the world
  - History
    - Founded in 1946
    - Build the world's first seat-belt in 1954
    - Entered the aviation business in 1991
    - Acquired by Takata in 2012
  - Facilities in three locations
    - Arnsberg, Germany
    - Pompano Beach, Florida
    - Orlando, Florida
  - Employees: 260
  - Revenues (2016): $37 million

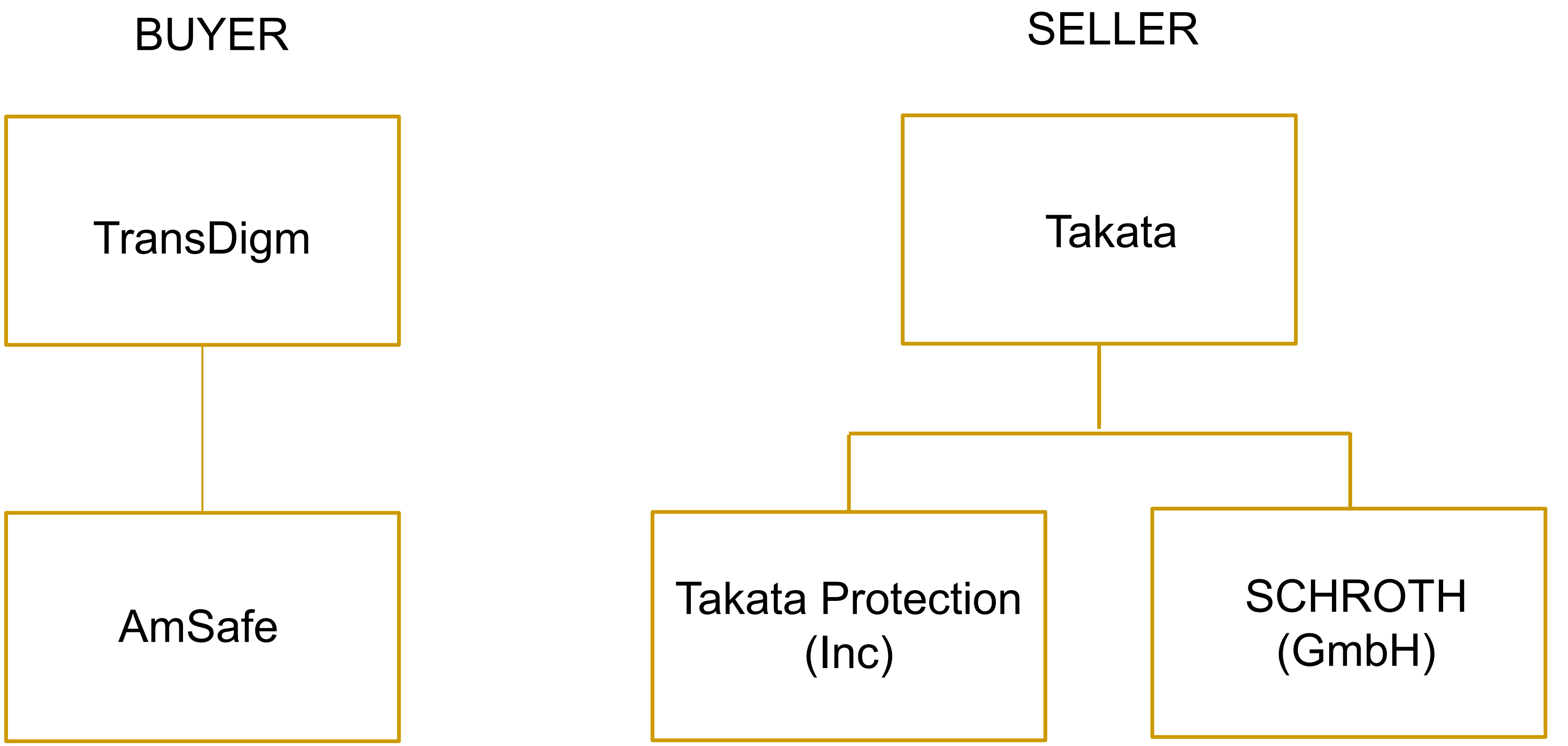
SCHROTH®
Safety Through Technology

What was the transaction?

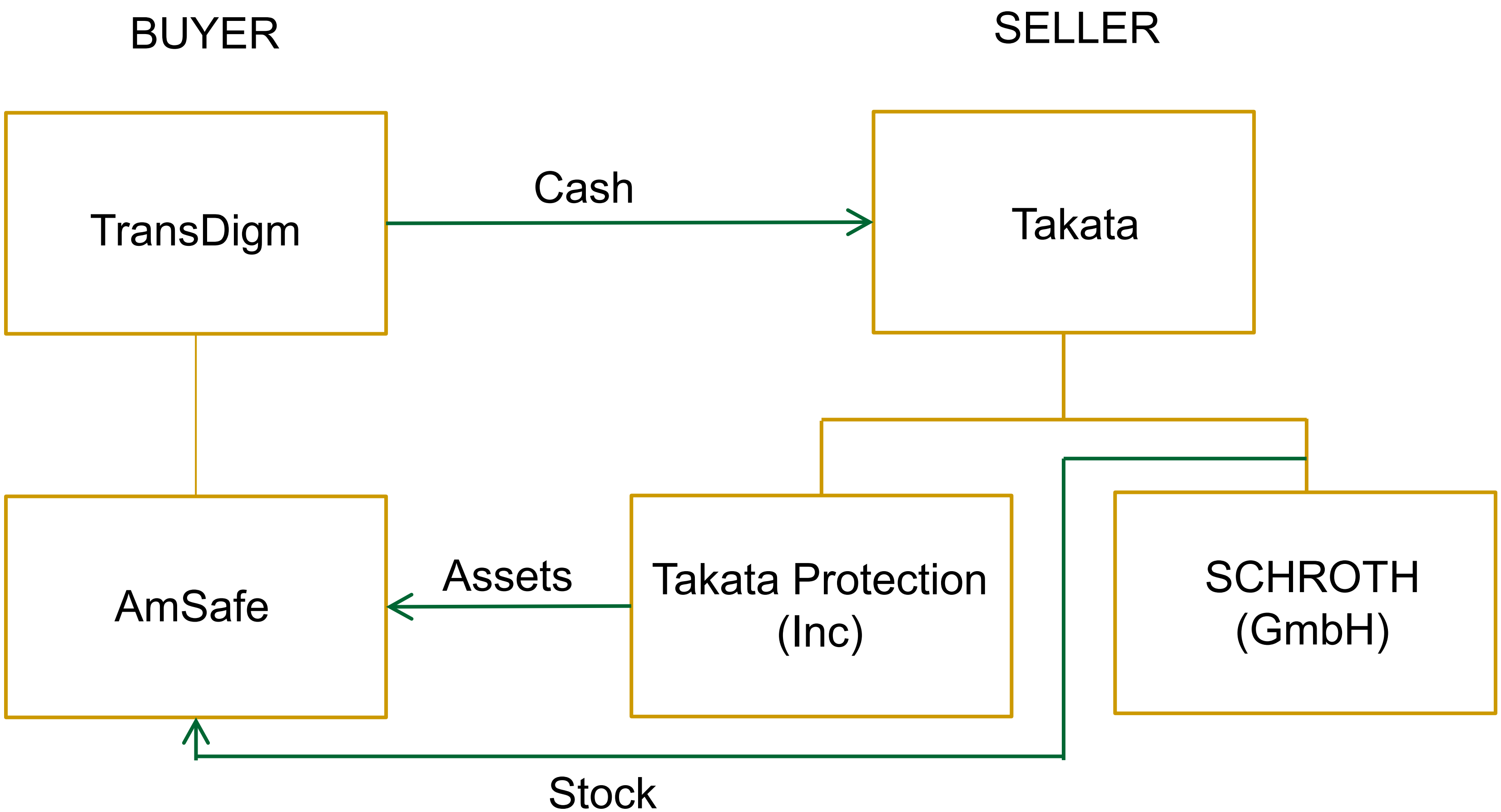
- TransDigm Group to acquire—
  1. Stock of SCHROTH Safety Products GmbH, *and*
  2. Assets of Takata Protection Systems, Inc.

  from Takata Corporation
- Purchase price: $90 million
- Transaction closed: February 22, 2017
  - Five years after purchase

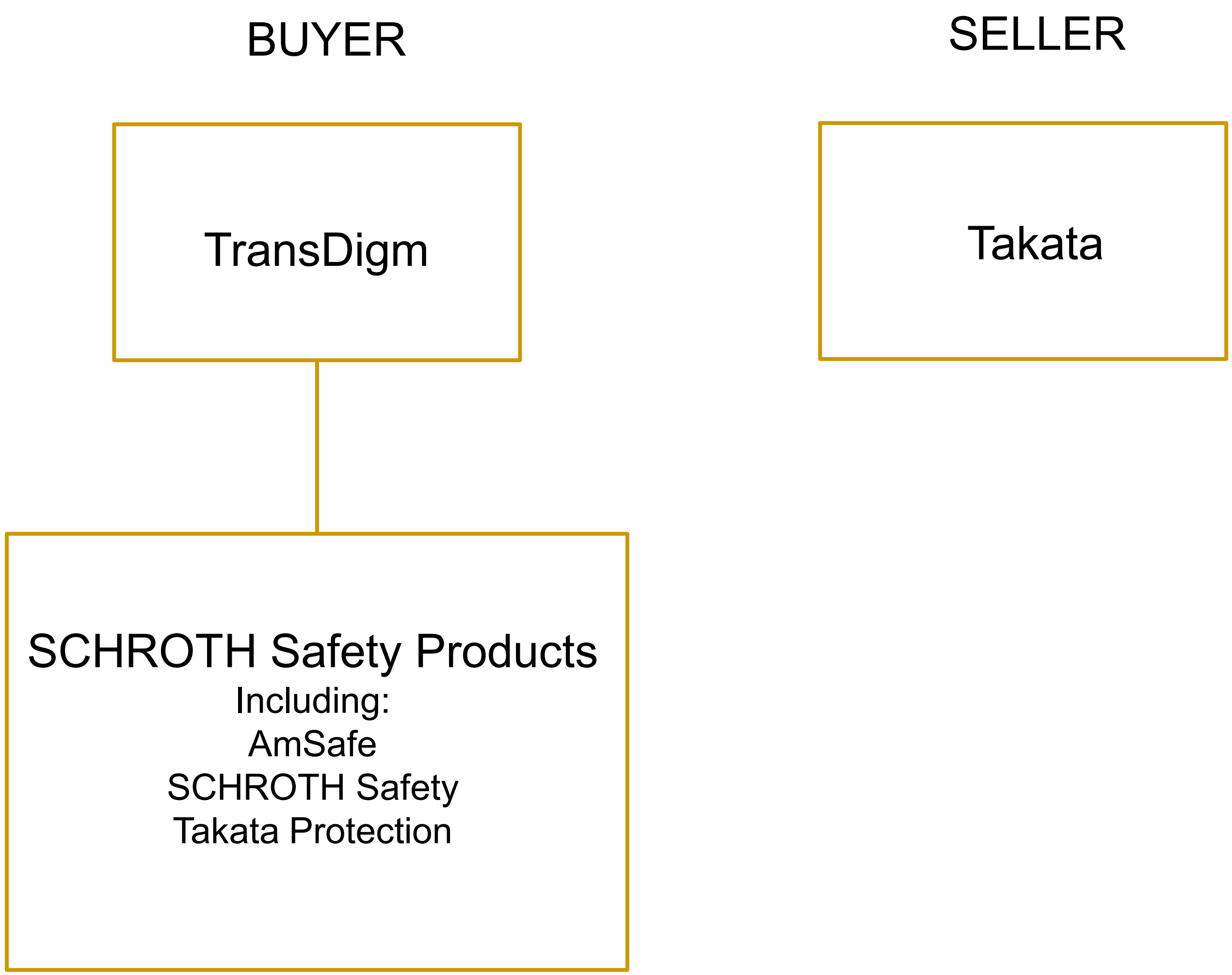
Summary of the deal structure: Before



Summary of the deal structure: Deal

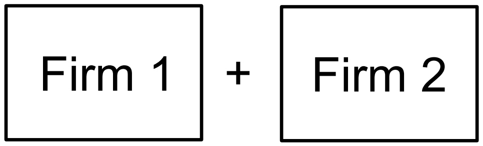


Summary of the deal structure: After

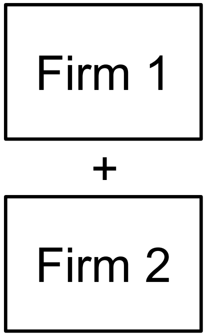


Is this a horizontal transaction?

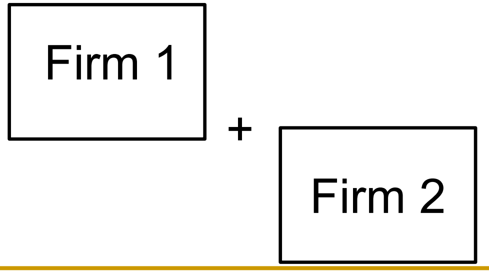
- Yes
- Horizontal transactions:
  - Combine two competitors
  - Sell *substitute* products



- Vertical transactions:
  - Combine two firms at adjacent levels in the chain of manufacture and distribution
  - May be extended to two firms that sell *complementary* products



- Conglomerate transactions
  - Mergers that are neither horizontal nor vertical



Why did Takata want to sell SCHROTH?

- TO MAKE MONEY
- How?
  - Purchase price more valuable than keeping the business
  - Why might that be the case?
    - SCHROTH needed to compete aggressively to gain business from TransDigm:
      - Cost money to operate business and conduct R&D
      - Had to price aggressively
      - Probably not making much in profits
    - Had been at it for five years (Compl. ¶ 3)
    - May also have been an effort to obtain cash to stave off bankruptcy in light of the airbag litigations
      - Sale closed in February 2017, three months before Takata's bankruptcy filing

Why did TransDigm want to buy SCHROTH?

- TO MAKE MONEY
- How?
  - Acquisition would reduce pricing and innovation pressure from an aggressive new competitor
    - TransDigm's AmSafe subsidiary
      - World's dominant supplier of restraint systems used on commercial airplanes
      - Global revenues (2016): $198 million
      - Headquarters: Phoenix, AZ
    - SCHROTH, after being acquired by Takata in 2012, embarked on an ambitious plan to capture market share from AmSafe (Compl. ¶ 3)
      - Competing on price
      - Investing in R&D
    - At the time of the signing of the acquisition agreement, SCHROTH was:
      - AmSafe's closet overall competitor
      - AmSafe's only meaningful competitor for certain types of restraint systems

The Law

Statutes

- What federal antitrust statutes could apply to the TransDigm/ SCHROTH transaction?
  - Clayton Act § 7
  - Sherman Act § 1
  - Sherman Act § 2
  - FTC Act § 5

Clayton Act § 7

- Provides the U.S. antitrust standard for mergers

> **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**.[1]

- *Simple summary*: Prohibits transactions that—
  - "may substantially lessen competition or tend to create a monopoly"
  - "in any line of commerce" (product market)
  - "in any part of the country" (geographic market)

Called the *anticompetitive effects test*

Called the *relevant market*

[1] 15 U.S.C. § 18 (remainder of section omitted)

The Sherman Act

- Sherman Act § 1

> Every **contract, combination** in the form of trust or otherwise, or **conspiracy**, in **restraint of trade** or commerce among the several States, or with foreign nations, is declared to be illegal.[1]

- Sherman Act § 2

> Every person who shall **monopolize**, or **attempt to monopolize**, or **combine or conspire** with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony.[2]

[1] 15 U.S.C. § 1.
[2] *Id*. § 2.

The FTC Act

- FTC Act § 5

> **Unfair methods of competition** in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce, are hereby declared unlawful.[2]

- NB: Unlike other provisions, not included in the definition of "antitrust law" in Clayton Act § 1
  - This will be important when it comes to private actions

[1] 15 U.S.C. § 45(a)(1).

Section 7 is the binding constraint

- The Sherman Act and FTC Act, as applied to mergers, are either coextensive or less restrictive than Section 7 of the Clayton Act

*Section 7 provides the antitrust test for all mergers**

* There is arguably an exception for acquisitions of "nascent" competitors (where Section 2 *might* be more restrictive—we will be looking for a test case)

- Consequently:
  - Invocation of the Sherman Act or the FTC Act is usually superfluous
  - Plaintiffs—including the DOJ and FTC—typically allege only a Section 7 violation
    - BUT the FTC alleges that the *signing* of the merger agreement violates Section 5
- State antitrust law
  - Not preempted by federal law
  - But no state has enacted a statute stricter than Section 7

The DOJ Investigation

Timing

- Did the DOJ investigation start before or after consummation?
  - After
    - Transaction closed Feb. 22, 2017
    - Complaint filed ten months later on December 21, 2017
- Why didn't the DOJ investigate and challenge the transaction before closing?
  - Probably did not know about it, *or*
  - Was aware of the transaction but not aware of its likely effect on competition
- Didn't the HSR Act filings alert the DOJ to the transaction before closing?
  - No. Apparently not reportable under the Hart-Scott-Rodino Act[1]

[1] Clayton Act § 7A, 15 U.S.C. § 18a.

Hart-Scott-Rodino Act

- Requires large mergers and acquisitions to—
  1. File a *premerger notification report* with the DOJ and FTC
  2. Observe a *statutorily prescribed waiting period* before closing the transaction
     a. *Initial waiting period*: 30 calendar days after filing (for most transactions)
     b. *Final waiting period*: 30 calendar days after all merging parties have responded to their respective second requests (for most transactions)

     NB: A *second request* is a subpoena-like document that—
     1. Contains document requests, narrative interrogatories, and data interrogatories
     2. Can only be issued during the initial waiting period
     3. Can only be issued once to each filing person

- Idea:
  - Much more effective and efficient to block or fix an anticompetitive deal before closing than to try to remediate it after closing

Hart-Scott-Rodino Act

- Why wasn't the TransDigm/SCHROTH transaction reported under the HSR Act?
  - The purchase price was $90 million in cash
  - The HSR threshold in 2017 was $80.8 million
    - In 2023, the threshold is $111.4 million

So the transaction is prima facie reportable

Hart-Scott-Rodino Act

- Why wasn't the TransDigm/SCHROTH transaction reported under the HSR Act?
  - BUT—
    - Foreign stock exemption (for U.S. acquirers)
      - Exempts stock acquisitions by U.S. persons of non-U.S. stock if the issuer has assets in the U.S. and sales in or into the U.S. each of less than $80.8 million in 2017
      - With a purchase price of $90 million and total worldwide sales of $43 million, the acquisition of the SCHROTH Safety Products GmbH was likely exempt
      - If more than $9.2 million of the purchase prices was allocated to the stock portion of the transaction, the entire acquisition would be exempt
    - Foreign asset exemption
      - Exempts acquisitions of assets located outside the U.S. if the assets account for sales in or into the United States of less than $80.8 million in 2017
      - Target had facilities in Florida and Germany
        - *Sales*: SCHROTH's total sales worldwide were $43 million (press release)
        - *Assets*: If non-U.S. assets accounted for more than $9.2 million of the purchase price, the assets would be exempt and the acquisition would not have been reportable
          - $90 million purchase price – $9.2+ million in exempt assets < $80.8 million (HSR threshold)

Hart-Scott-Rodino Act

- Not jurisdictional
- Agencies can review and challenge transactions—
  1. Falling below reporting thresholds
  2. Exempt from HSR reporting requirements
  3. "Cleared" in an HSR merger review
     - "Clearance"—a commonly used term—is a misnomer
     - No immunity attaches to a transaction that has successfully gone through an HSR merger review

The fact that the TransDigm/Takata deal was not HSR reportable did not preclude the DOJ from investigating and challenging the transaction even months after closing

DOJ investigation

- How did the DOJ find out about this transaction?
  - Someone called the FTC and complained
  - Maybe Boeing complained
    - Largest U.S. customer
    - Biggest beneficiary of SCHROTH's competition with AmSafe
    - Biggest loser from the merger

But why would Boeing wait until after the acquisition to complain?

  - Maybe it was someone else—
    - A smaller customer
    - A disgruntled current or former TransDigm employee
  - But probably not a third-party competitor (WHY NOT?)

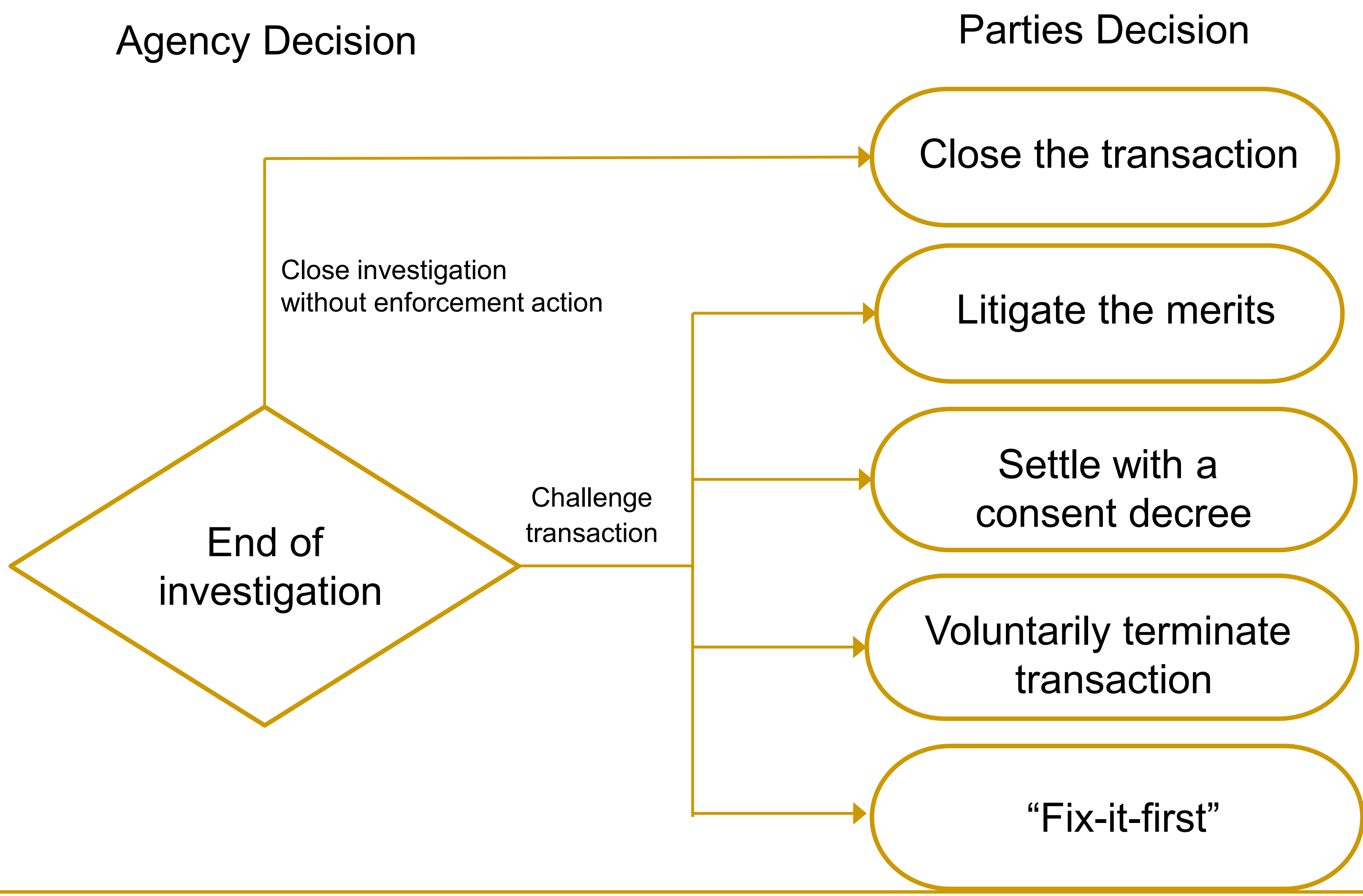
DOJ investigation

- What did the DOJ do after it learned about the transaction?
  - Opened an investigation

DOJ investigation

- How did the DOJ obtain testimony, documents, and data on which to base its antitrust analysis?
  - Typically would obtain from the parties pursuant to a *second request* under the HSR Act
    - BUT this transaction was not HSR reportable
  - But DOJ also has the power to issue *civil investigative demands* (CIDs)
    - Essentially precomplaint subpoenas
    - Can include document requests, narrative interrogatories, and data interrogatories
    - Is not quite compulsory process (i.e., not *self-executing*)
      - DOJ must first obtain a court order compelling compliance
    - May be issued any time during the course of an investigation
    - May be issued to both the merging parties and to third parties
    - Often ask for the same documents and data as a second request
    - Multiple CIDs may be issued in the course of an investigation to the same person

What were the possible investigation outcomes?



What happened here?

- What did the DOJ do?
  - Challenged transaction—
    1. Decided that TransDigm's acquisition of SCHROTH violated Section 7 of the Clayton Act, *and*
    2. Filed a complaint in federal district court seeking a *permanent injunction* requiring TransDigm to divest the business and assets it had acquired from Takata

What happened here?

- What did TransDigm do?
  - Agreed to divest pursuant to a consent decree
    - A consent decree is a final judgment in a litigation that the court enters with the consent of the litigating parties rather than pursuant to a finding of a violation
    - To get the DOJ’s agreement, TransDigm agreed to give the DOJ essentially the relief it sought from a litigation of the merits
      - In the past, the DOJ/FTC sometimes have been willing to settle for less than they could get from a successful litigation on the merits
      - Today, not so much

The DOJ Complaint

When was the complaint filed?

- December 21, 2017

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA Department of Justice, Antitrust Division 450 5th Street, N.W., Suite 8700 Washington, D.C. 20530, *Plaintiff,* v. TRANSDIGM GROUP INCORPORATED 1301 East 9th Street, Suite 3000 Cleveland, Ohio 44114, *Defendant.*	Civil Action No.:

COMPLAINT

The United States of America, acting under the direction of the Attorney General of the United States, brings this civil antitrust action for equitable relief against defendant TransDigm Group Incorporated ("TransDigm") to remedy the harm to competition caused by TransDigm's acquisition of SCHROTH Safety Products GmbH and substantially all the assets of Takata Protection Systems, Inc. from Takata Corporation ("Takata"). The United States alleges as follows:

I. NATURE OF THE ACTION

1. In February 2017, TransDigm acquired SCHROTH Safety Products GmbH and substantially all the assets of Takata Protection Systems, Inc. (collectively, "SCHROTH") from Takata. TransDigm's AmSafe, Inc. ("AmSafe") subsidiary is the world's dominant supplier of restraint systems used on commercial airplanes. Prior to the acquisition, SCHROTH was

The forum

- In what court was the complaint filed?
  - United States District Court for the District of Columbia (DDC)
- Why in DDC?
  - District court had—
    - *Personal jurisdiction* over the parties, *and*
    - Was a proper *venue* for the action
  - Historically, the DDC has been the most desirable forum for litigation from the DOJ's perspective
    - They know the judges
    - As a bench, the judges are experienced and sophisticated in the application of the merger antitrust laws—and frequently found in favor of the DOJ
    - Prosecutors do not have the hassle of moving out of town in the event of a trial
  - This has been changing in the Biden administration
    - Why?

The defendant

- Who was the defendant in the case?
  - TransDigm
- Why wasn't Takata named as a defendant?
  - Why would it be?
    - Not necessary given the nature of the relief the DOJ was seeking (divestiture of acquired business and assets)
    - Takata would have been a necessary party only if the DOJ was seeking recession (unwinding) of the transaction

Other possible plaintiffs

- Who else could have brought a Section 7 challenge against the transaction?
  1. Federal Trade Commission
  2. State AGs
  3. Customers
  4. Maybe competitors
  5. Arguably suppliers

  Need some threatened or actual putative injury from the alleged anticompetitive effects of the merger (*antitrust injury*)

- Some observations
  - States and private parties may also sue under state law if a state statute so provides
  - Treble damages are available only for injuries actually sustained
    - Can occur only after the transaction has been consummated
    - Damages cannot be obtained in connection with transactions that have not closed

Section 7 violation: Essential elements

- What are the elements of a Section 7 violation?
  1. An acquisition of stock or assets
     - Includes mergers under state law
  2. Where, in a relevant market
     - Product dimension
     - Geographic dimension
  3. The effect "may be substantially to lessen competition or tend to create a monopoly"
  4. Also need Commerce Clause jurisdiction

Element 1: An "Acquisition"

- Was there an acquisition here?
  - Yes. TransDigm Group acquired—
    - *Stock* of SCHROTH Safety Products GmbH, *and*
    - *Assets* of Takata Protection Systems, Inc.

  from Takata Corporation

Element 2: Relevant markets

- What was the relevant geographic market alleged in the complaint?
  - Worldwide (Compl. ¶ 22)

Element 2: Relevant markets

- What were the relevant product markets alleged in the complaint?
  1. Two-point lapbelts used on commercial airplanes

  2. Three-point shoulder belts used on commercial airplanes

Element 2: Relevant markets

- What were the relevant product markets alleged in the complaint?
  3. Technical restraints used on commercial airplanes

  4. Inflatable restraint systems used on commercial airplanes (uses airbag technology)

Element 3: Anticompetitive Effect

- What were the anticompetitive effects of the acquisition alleged in the complaint?
  1. Increased prices
     - Prior to the acquisition, customers could and did "play off" the companies against each other to obtain better prices (Compl. ¶ 32)
     - Postmerger, the next closest competitor will not be as price-competitive with the combined firm as SCHROTH was to AmSafe
  2. Reduced innovation
     - Companies also competed against each other through R&D to develop new and better products (Compl. ¶ 32)
     - Could save significant money by curtailing R&D activities postmerger
  3. Significantly increased market concentration
     - Combined the only two significant players in the markets (Compl. ¶ 31)
     - Not really an anticompetitive effect under the prevailing consumer welfare interpretation
       - But the Supreme Court in the 1950s-1960s regarded it as the primary anticompetitive effect—included because of that precedent

Element 3: Anticompetitive Effect

- What were the factual allegations in support of an anticompetitive effect in each market?
  1. Two-point lapbelts used on commercial airlines

- Only three competitors premerger (Compl. ¶ 24)
  1. AmSafe was by far the largest
  2. Small, privately held firm that had been in the market for years but had gained little share → little or no competitive significance
  3. SCHROTH, which entered the market with a new, innovative lightweight two-point lapbelt (“Airlite”), which it aggressively marketed to the major international airlines
- *Competitive effects implications*:
  - When three competitors are reduced to two, the remaining competitors are more likely to engage in oligopolistic coordination, which would result in a higher equilibrium market price and reduced rates of innovation
  - If the smallest firm is ignored → “Merger to monopoly” → higher prices

Element 3: Anticompetitive Effect

- What were the factual allegations in support of an anticompetitive effect in each market?
  2. Three-point shoulder belts used on commercial airlines

  - Factual allegations
    1. Only two meaningful competitors premerger (Compl. ¶ 26)
    2. AmSafe was by far the largest
    3. “SCHROTH was aggressively seeking to grow its business at AmSafe’s expense”
    4. Probably means that SCHROTH had not achieved any significant sales yet, but that efforts to penetrate the market caused AmSafe to reduce prices
  - *Competitive effects implications*: “Merger to monopoly” → higher prices

Element 3: Anticompetitive Effect

- What were the factual allegations in support of an anticompetitive effect in each market?
  3. Technical restraints used on commercial airlines

- Only three significant suppliers premerger (Compl. ¶ 28)
  1. AmSafe ("leading supplier")
  2. SCHROTH ("aggressively seeking to grow")
  3. (Unnamed) international aerospace equipment manufacturer
- *Competitive effects implications*:
  - "3-to-2 merger," resulting in higher equilibrium market prices

Element 3: Anticompetitive Effect

- What were the factual allegations in support of an anticompetitive effect in each market?
  4. Inflatable restraint systems used on commercial airplanes

  - Only two competitors premerger (Compl. ¶ 30)
    1. AmSafe (which developed technology—offers both inflatable lapbelts and structural mounted airbags)
    2. SCHROTH (offers only structural mounted airbags)
    3. "In recent years, SCHROTH had emerged as a strong competitor to AmSafe in the development of inflatable restraint technologies"
       - Sounds very weak to me
       - May be some innovation competition (but maybe not that much)

Element 4: Effect on Interstate Commerce

- What were the factual allegations in support of an effect on interstate commerce?
  - “TransDigm sells restraint systems used on commercial airplanes throughout the United States. It is engaged in the regular, continuous, and substantial flow of interstate commerce, and its activities in the development, manufacture, and sale of restraint systems used on commercial airplanes have had a substantial effect upon interstate commerce.” (Compl. ¶ 9)

Defenses to the prima facie case

- How, if at all, could TransDigm defend against the DOJ's prima facie case?
  - First, an important distinction: Negative/affirmative defenses
    - *Negative defense*: Negates an element of the prima facie case
      - Defendant: "My conduct will not result in any anticompetitive harm"
    - *Affirmative defense*: Even assuming the plaintiff has established its prima facie case, the challenged conduct is nonetheless excused or justified
      - Defendant: "I did it, but my conduct is not culpable"
  - There are *no* affirmative defenses in antitrust law
  - Canonical forms of negative defenses in antitrust cases
    1. Rebut the factual predicates of the DOJ's prima face case
    2. Multiple, significant competitors
    3. Ease of entry or positioning
    4. Countervailing bargaining power ("power buyers")
    5. Efficiencies

Sometimes called *downward pricing pressure defenses*

Would any of these defenses likely work here?

Relief

- What relief was the DOJ seeking?
  - Civil injunctive relief (see IX. Request for Relief)—
    - Declaration that TransDigm's acquisition of SCHROTH violated Section 7
    - Injunction ordering TransDigm to—
      1. divest all assets acquired from Takata Corporation in the challenged transaction, *and*
      2. take any further actions necessary to restore the market to the competitive position that existed prior to the acquisition
- Could the DOJ have sought other types of relief?
  - Criminal sanctions but only if challenged under Sherman Act § 1
  - Treble damages on behalf of injured U.S. government agencies under Clayton Act § 4A

The Consent Decree

What was the consent settlement?

- TransDigm agreed to a consent decree to divest SCHROTH (including the Takata Protection assets) to a third-party divestiture buyer approved by the DOJ

What is a consent decree?

- A *consent decree* is a final judgment in a case entered by consent of the litigating parties rather than an adjudication of the merits
- Sanctions for breach
  - A consent decree is a *judicial order*
  - Enforceable through civil and criminal contempt sanctions

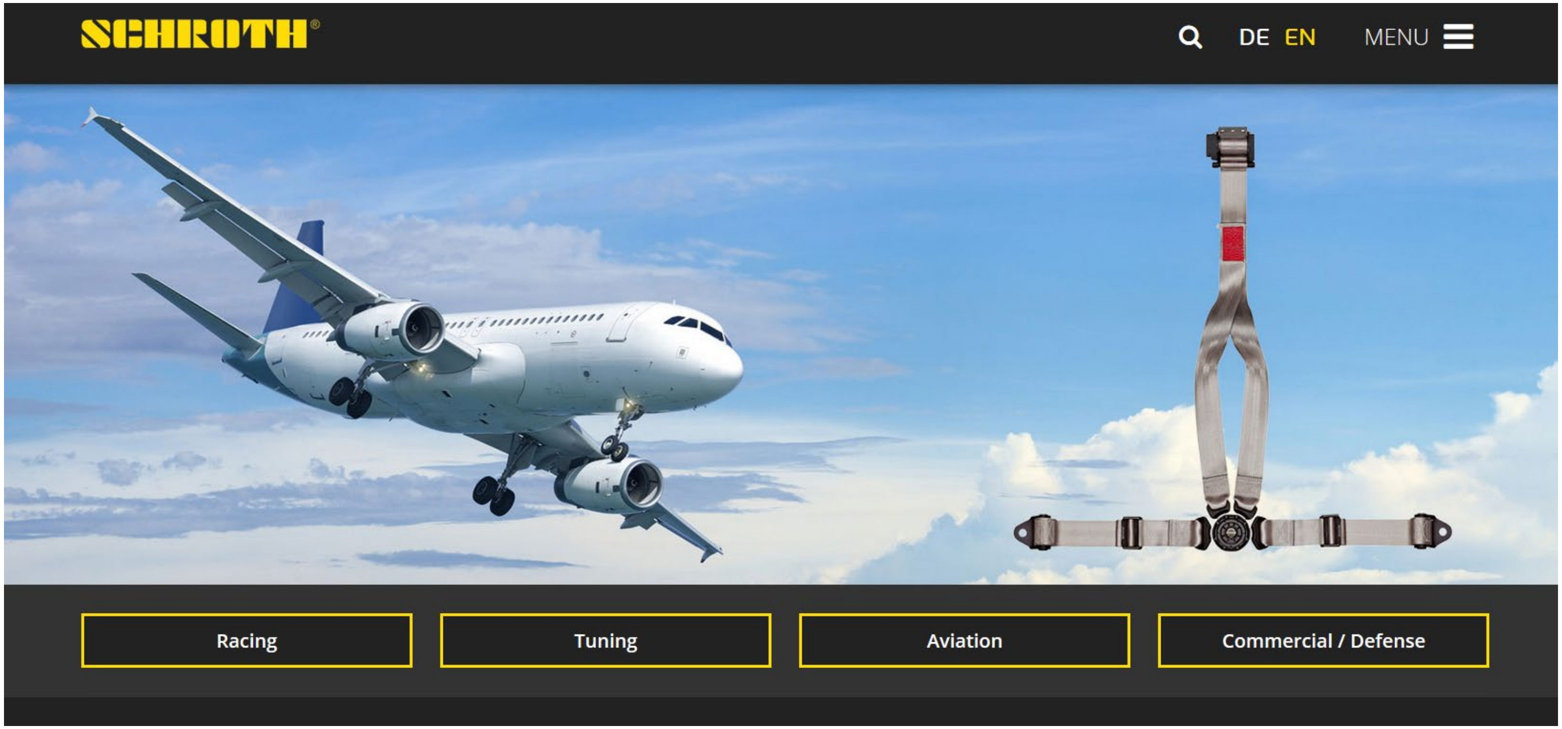
Business rationale

- Why did TransDigm agree to divest SCHROTH?
  - What were TransDigm's alternatives?
    1. Continue the litigation
    2. Settle with a consent decree acceptable to the DOJ
  - Why did TransDigm agree to settle?
    - Almost surely the least costly alternative
    - DOJ had a strong case: TransDigm was very likely to lose the litigation, and the DOJ would have obtained a litigated permanent injunction ordering the same divestiture
  - When did TransDigm agree to settle?
    - In the course of the investigation—Prior to litigation
    - Complaint and proposed consent decree were filed simultaneously with the court

The divestiture buyer

- To whom did TransDigm sell SCHROTH?
  - A management buyout (MBO)
    - Business unit's management + a private equity investor (Perusa GmbH)
  - Why sell to management?
    - The DOJ probably wanted a "buyer upfront"
    - An MBO was probably both—
      - The quickest solution, *and*
      - Offered the greatest return
  - Did the MBO get a good purchase price?
    - Probably
    - Consent decree solutions almost always involve a "fire sale" of the divestiture assets
      - TransDigm 10-K reported a $32 million impairment charge to write down the assets to fair value. (p. 21)
      - TransDigm paid $90 million to acquire SCHROTH
      - So it is likely the MBO paid only about $58 million for the business
        - Actually, $61.4 million (from TransDigm 8-K, Jan. 26, 2018, at 3)

SCHROTH today



- Approximately 250 employees
- Sales volume around $50.2 million

CLASS 2 SLIDES

Unit 2. Predicting Antitrust Enforcement Challenges

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

August 31, 2023

Thinking Systematically about Antitrust Risk

The setup

- You are counsel to TransDigm
  - Prior to signing the purchase agreement, TransDigm's management seeks your advice on—
    1. Whether the antitrust authorities will investigate the transaction?
    2. Whether the DOJ or FTC will challenge the transaction on the merits?
    3. Whether the merging parties can successfully defend on the merits?
    4. If unsuccessful, what will be the consequences?

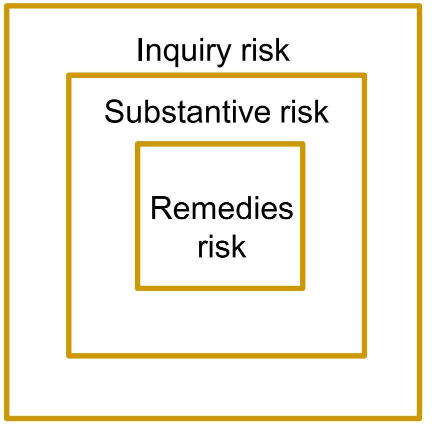
These are the fundamental questions every client asks at the beginning of a deal

These are questions about antitrust risk. How can we best explain to a client what is the antitrust risk in a deal?

Three types of antitrust risks

1. Inquiry risk
   - The risk that legality of the transaction will be put in issue
2. Substantive risk
   - The risk that the transaction is anticompetitive and hence unlawful
3. Remedies risk
   - The risk that the transaction will be blocked or restructured

Risks are nested



Assessing Substantive Risk

Focus first on substantive risk

- Inquiry risk comes first chronologically in a deal
  - Inquiry risk depends largely on—
    1. The *likelihood* that the challenger will prevail,
    2. The *reward* that the challenger will obtain from a successful challenge, *and*
    3. The *costs* to the challenger of raising the challenge

    all compared to doing nothing

In other words, inquiry risk depends on the expected value *to the challenger of raising the antitrust question*

- The first factor is a function of the substantive risk—so we need to study that first

Substantive risk

- Definition
  - The risk of being unable to successfully defend the transaction on the merits
- Can be defined in relation to either—
  - The outcome of a DOJ/FTC merger investigation, *or*
  - The outcome of litigation on the merits

Substantive risk: Costs

- There are costs associated with substantive risk incurred in defending a transaction regardless of the outcome—
  1. Delay/opportunity costs
  2. Expense of investigation/litigation and other out-of-pocket costs
  3. Management distraction costs
- But there is no reputational cost
  - Everyone views merger antitrust reviews as *regulatory*
  - *Not* as an indication that the merging parties may be breaking the law
    - Compare with an effort to engage in horizontal price fixing

Assessing probabilities of substantive risk

- Substantive risk depends on a *prediction* on whether the parties will be able to successfully defend their transaction on the merits

So how do we make that prediction?

First, an important distinction

- Basic distinction #1
  - *Decision making*: How the agencies ***decide*** a merger is anticompetitive
  - *Explanation*: How the agencies ***explain*** why they believe that the merger is anticompetitive
- Why is this distinction important?
  - How the agencies (or the courts) explain their decisions often does not reveal *why* they decided on that particular outcome
  - What you read in judicial opinions may only be the justification of an outcome that the judge reached for other (unexplained) reasons

A fundamental task in effective advocacy is recognizing this distinction and making your argument appeal simultaneously to the "heart" as well as the "mind" of the decision-maker

Overview: Theories of anticompetitive harm

- "Conventional" theories of anticompetitive harm
  1. Elimination of horizontal competition in output/downstream/seller markets
  2. Elimination of potential competition
     a. Actual potential competition
     b. Perceived potential competition (essentially a dormant theory)
  3. Vertical harm
     a. Input foreclosure
     b. Output foreclosure
     c. Anticompetitive information conduit

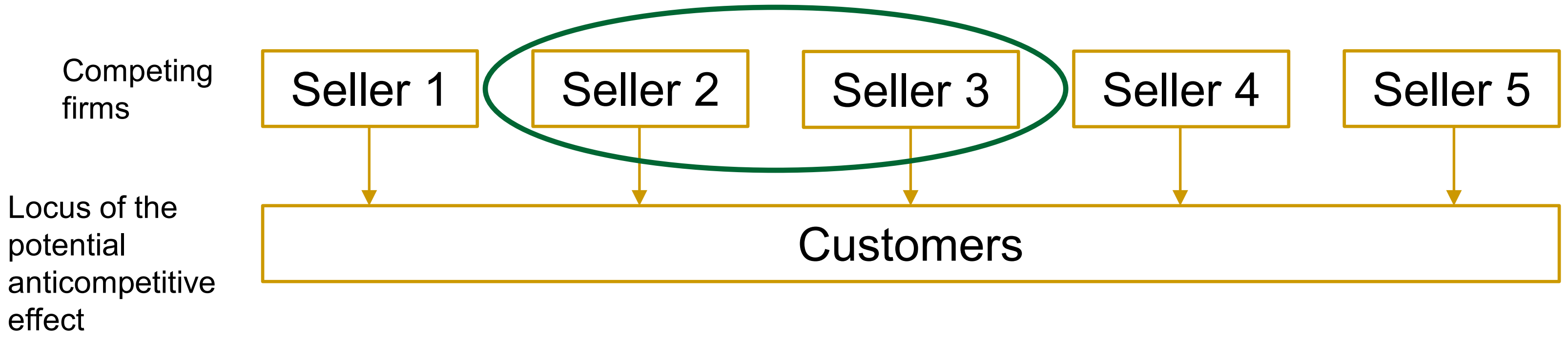
     Generalized in "raising costs to rivals" (RRC)

- "New" theories of anticompetitive harm being tested
  1. Elimination of horizontal competition in input/upstream/buyer markets
  2. Dominant firm entrenchment
     a. Elimination of nascent competition (an extension of actual potential competition)
     b. Modern entrenchment

See the Appendix for a little more detail

Overview: Theories of anticompetitive harm

- The vast bulk of challenges involve the *elimination of horizontal competition in output/downstream/seller markets*



- In this example, Sellers 1 and 2 merge
  - Reduces the number of firms competing against each other in the sale of products from five to four (a "5-to-4 merger")
- *Potential anticompetitive effect:* Will the decrease in the number of independent firms in the market reduce competition in the downstream market?

The vast bulk of merger antitrust challenges involve horizontal mergers. This class—and most of the course—will focus on this type of merger.

A predictive model for horizontal mergers

- We are going to look at a model that *predicts* merger antitrust outcomes for horizontal mergers in downstream markets
  - We will tweak the model as necessary to account for any DOJ or FTC challenges that depart from modern historical practice
- The model does *not purport to describe* how the investigating agency in fact decides merger outcomes
- The model's only purpose is to predict enforcement outcomes, not to describe the agency's decision-making process

Assessing substantive antitrust risk

- So how do the DOJ/FTC decide whether a merger is anticompetitive?
  - The purpose of merger antitrust law under the *consumer welfare standard* is to prevent harm to customers in the market through—
    - Increased prices
    - Reduced market output
    - Reduced product or service quality
    - Reduced rate of technological innovation or product improvement
    - [Maybe] reduced product variety

Under the consumer welfare standard,
*modern antitrust law looks to effects on customers**

** Under an "expanded" consumer welfare theory, antitrust law also looks at effects on suppliers (i.e., anticompetitive effects in upstream markets).*

Assessing substantive antitrust risk

- The predictive model—Four important rules
  1. Absent compelling evidence of significant customer harm on other dimensions, only ***price increases*** count
  2. The merger is anticompetitive if it is likely to result in a price increase or other competitive harm to ***any identifiable customer group***
  3. The agencies believe that ***no customer group is too small*** to deserve antitrust protection
  4. *Corollary*: No deal is too small not to be challenged

The predictive model for horizontal mergers

Reduction in Bidders/Competitors*

5 → 4	Usually clears if no bad documents and no material customer complaints
4 → 3	Usually challenged unless there are no bad documents and there is a strong procompetitive business rationale, some customer support, *and* minimal customer complaints
3 → 2	Almost always challenged unless there are no bad documents, and there is a compelling business rational that is strongly supported by customers and no material customer complaints
2 → 1	Always challenged

* Critically, these must be ***meaningful*** and ***effective alternatives*** from the perspective of the customer; "fringe" firms that customers do not regard as feasible alternatives do not count

Historical note: Up until 2015, 5 → 4 deals almost always cleared without any review and the chart would be compressed to begin at 4 → 3

Prediction: In the Biden administration, it is likely we will see an attempt to further tighten the standards to begin at 6 → 5 (with 3 → 2 always being challenged)—BUT we have not seen this yet in practice

The predictive model for horizontal mergers

- Special cases inviting challenge
  1. Unilateral effects: Elimination of "local" competition
     - Two firms that compete very closely with one another but much less with other firms in the market
     - Often occurs with premium brands (think BMW and Mercedes Benz in an automobile market)
  2. Acquisition of a "maverick"
     - Elimination by an established firm of a typically smaller competitor that has been especially disruptive in the marketplace to the benefit of consumers
  3. Acquisition of an actual potential entrant
     - In a highly concentrated market, the acquisition by or of a firm that otherwise likely would have entered the market in the near future and thereby increased competition

New theory

  4. Acquisition of a "nascent competitor"
     - The acquisition by an entrenched "superfirm" (think Facebook) of a firm that has technology that objectively might be used by the seller or a third party in the future to compete against the buyer, whether or not anyone has a present intention of competing with the acquiring firm with the technology (think Instagram and WhatsApp)—Challenges, but no judicial decisions

The predictive model for horizontal mergers

- Special cases inviting challenge

“New” theory

5. Modern entrenchment
   - Entrenchment is a “conglomerate” merger theory, that is, a theory applying to transactions that are neither presently nor in the foreseeable future horizontal nor vertical
   - The idea is that somehow the combination of the products of the merging firms will “entrench” the dominant positions of the some of the products of the merging firms
   - The Biden FTC is attempting to revive the entrenchment theory in its challenge to Amgen’s acquisition of Horizon Therapeutics[1]

Entrenchment emerged as a theory of merger antitrust in the 1960s. It never gained any meaningful transaction at the time. The courts almost surely will reject the theory today.

[1] *See* Complaint for a Temporary Restraining Order and Preliminary Injunction Pursuant to Section 13(b) of the Federal Trade Commission Act, FTC v. Amgen Inc., No. 23-CV-3053 (N.D. Ill. filed May 16, 2023).

The predictive model for horizontal mergers

- Special cases inviting challenge
    6. Any acquisition involving a dominant high-tech firm

Basic structural tests for horizontal mergers

- The chances of successfully defending a deal *improve* if—
  - There are demonstrable powerful forces that constrain price increases or other anticompetitive behavior beyond the mere number of incumbent competitors
  - Three major forces:
    1. *Entry, repositioning, or output expansion* by third-party competitors in response to anticompetitive behavior by the combined company
       - Requires low barriers to entry or repositioning
    2. *Powerful customers*, who can use their bargaining leverage to stop the combined firm from acting anticompetitively
       - Requires a detailed explanation of how the bargaining will work to constrain the combined firm
       - Defense only works firm-by-firm—the merger can still harm small firms that do not have the requisite bargaining power to protect themselves
    3. *Efficiencies*, where the procompetitive pressure of the efficiencies outweighs the anticompetitive pressure of the increased market power
       - More on this below
       - Agencies are very skeptical about efficiencies

Basic structural tests for horizontal mergers

- Defenses
  - These forces are *legal defenses* if they are sufficient in likelihood and magnitude to completely offset the likely customer-harming aspects of the transaction
  - Basic distinction #2
    - *Negative defense*: The merger is not anticompetitive in the first instance
    - *Affirmative defense*: Even if the merger is anticompetitive, it is nonetheless not unlawful
  - Technically—
    - A *negative defense* denies an element of the plaintiff's prima facie case
    - An *affirmative defense*
      - accepts the elements of the prima facie case as true, *but*
      - raises matters outside of the prima facie case that provide a justification or an excuse to absolve the defendant from liability

There are no affirmative defenses in modern antitrust law

Another basic distinction

- Basic distinction #3: Truth v. evidence
  - The agencies (and the courts) deal in ***evidence***
  - Having the ***truth*** but being unable to prove it will not win the day
    - True for the merging parties in a merger investigation
    - True for both parties in court
  - The investigating staff also needs evidence to be able to make its case to the agency decision makers and, if necessary, in litigation

So what are the sources of evidence?

Major sources of evidence

1. Company documents submitted with the original HSR filing
2. Company responses to second requests in an HSR Act review
   - Ordinary course of business documents
   - Responses to data and narrative interrogatories
3. Interviews/testimony/public statements of merging firm representatives
4. Interviews with knowledgeable customers
5. Interviews with competitors
6. Customer responses in staff interviews and to DOJ Civil Investigative Demands (CIDs) or FTC precomplaint subpoenas
7. Analysis of bidding or "win-loss" data
   - Including the ability of customers to play the merging firms off one another
8. "Natural" experiments
9. Expert economic analysis

Homework Assignment for Class 3

The problem

The general counsel of TransDigm has asked you to begin a merger antitrust analysis of an acquisition by TransDigm of SCHROTH from Takata. The GC wants to start with a "quick and dirty" view of the problems that might arise in the United States. To this end, the GC will try to find the answers within the company to up to six questions. What six questions would you like to ask?

Instructor's answer

1. Business rationale
   - What is TransDigm's business rationale for making the acquisition (i.e., how will TransDigm make money by acquiring SCHROTH)?
2. Customer benefits
   - How, if at all, will customers benefit from the transaction?
3. Complaints
   - Who, if anyone, is likely to complain about the transaction and, if so, what will they say? (Especially interested in customer reactions)
4. Power to harm customers
   - If someone (say a sophisticated customer) was hostile to the deal, how would it argue that the merger will give TransDigm the ability and incentive to raise prices, reduce product or service quality, reduce investment in innovation or product improvement, or cut off supplies to competitors?

Instructor's answer

5. Competitive overlaps
   - In what product lines do TransDigm and SCHROTH compete against each other in the United States?
6. Other competitors
   - In each overlapping product line, are there significant other competitors to whom customers can turn to protect themselves in the event that TransDigm increases its price, reduces its product or service quality, or reduces investment in innovation or product improvement following the acquisition?

Questions from homework submissions

1. What are the relevant markets that will be affected by this acquisition?
2. How would you define the market (products/services and geography) for your products?
3. Will this acquisition substantially decrease competition in the relevant markets?
4. How big a player is TransDigm within the market?
5. For each product TransDigm produces, please provide the names of all competitors and their respective market shares.

Questions from homework submissions

6. Will consumers be harmed by this acquisition by an increase in prices?
7. Do customers “play off” TransDigm and SCHROTH against each other to get better prices?
8. What would TransDigm’s new market share in an already highly concentrated market be after the acquisition?
9. Would the acquisition decrease innovation of future technologies, or would TransDigm remain motivated to innovate?

Questions from homework submissions

10. Will consumers benefit from or be harmed by differences in product quality after the acquisition?
11. Has TransDigm received any customer complaints about the transaction?
12. What documents do the merging parties have that might reveal the intent of the transaction?
13. Does TransDigm have any documents, or has it made any public statements, suggesting that postmerger it will raise prices, reduce production, or decrease R&D investment?

Appendix

Overview: Theories of anticompetitive harm

- "Conventional" theories of anticompetitive harm
  1. Elimination of horizontal competition in output/downstream/seller markets
     - Where competing sellers merge to the harm of customers
     - The vast bulk of merger antitrust challenges invoke this theory
  2. Elimination of potential competition
     a. Actual potential competition:
        - Where the merger involves one of the few firms (the actual potential entrant) that likely would have entered the market in the near future but for the merger and whose entry would have substantially increased competition in the market
        - The idea is that, on a going-forward basis, the market would be more competitive without the merger than with it

     b. Perceived potential competition (essentially a dormant theory)
        - Where the merger involves one of a few firms (the perceived potential entrant) that incumbent firms in the market perceive is on the verge of entering the market and whose presence causes the incumbent firms in the market to act more competitively than they would in the absence of the perceived potential entrant

Overview: Theories of anticompetitive harm

- "Conventional" theories of anticompetitive harm
  3. Vertical harm
     a. Input foreclosure
        - Where the merger involves a firm and a supplier, and postmerger the combined firm can competitively disadvantage its downstream rivals by refusing to sell (foreclose) them supplies or raising their supply prices[1]
     b. Output foreclosure
        - Where the merger involves a firm and a customer/distributor, and postmerger the combined firm can competitively disadvantage its upstream rivals by refusing to buy or distribute their products or paying less than competitive prices
     c. Anticompetitive information conduits
        - Where the merger involves a firm (usually a downstream firm) that deals with the other merging firm's rivals and obtains sensitive information from them that postmerger the combined firm can use to competitively disadvantage those rivals and reduce competition in the market

Overview: Theories of anticompetitive harm

- "New" theories of anticompetitive harm being tested
  1. Elimination of horizontal competition in input/upstream/buyer markets
     - Where competing buyers merge to the harm of suppliers (including labor)
     - Invoked on occasion in the past (usually in agricultural markets)
     - A major focus for the Biden administration (especially for anticompetitive effects in labor markets)
     - *Test case*: United States v. Bertelsmann SE & Co. KGaA, No. 1:21-cv-02886 (D.D.C. filed Nov. 2, 2021)
       - Alleges a merger between two major book publishers violates Section 7 because it is likely to reduce the advances paid to authors
       - Tried in August 2022—decision expected in the fall

Overview: Theories of anticompetitive harm

- "New" theories of anticompetitive harm being tested
  2. Dominant firm entrenchment
     a. Elimination of nascent competition
        - Entrenched dominant firms should not e allowed to acquire firms or assets that, absent the acquisition, could potentially be used by the seller or a third party to undermine the entrenched firm's dominant position
          - Usually involves the acquisition of a new product or a new technology
          - The idea: An entrenched dominant firm should be prohibited from acquiring any firms or assets with the potential—even if the probability is low—of undermining the firm's dominant position
        - Introduced in the Trump administration
        - *Test cases*:
          - FTC v. Facebook, Inc., No. CV 20-3590 (JEB) (D.D.C. filed Dec. 9, 2020) (challenging Facebook's acquisitions of WhatsApp and Instagram) (trial to be held in 2024)
          - United States v. Visa, No. 3:20-cv-07810 (N.D. Cal. filed Nov. 5, 2020) (challenging Visa's proposed acquisition of Plaid Inc.) (transaction abandoned)

Overview: Theories of anticompetitive harm

- "New" theories of anticompetitive harm being tested
  2. Dominant firm entrenchment
     b. Modern entrenchment
        - Entrenched dominant firms should not be allowed to acquire firms or assets that could further entrench them
        - *Test case*: FTC v. Amgen Inc., No. 23-CV-3053 (N.D. Ill. filed May 16, 2023)
          - The FTC alleges that the deal would allow Amgen to leverage its portfolio of blockbuster drugs to entrench the monopoly positions of Horizon medications used to treat two serious conditions, thyroid eye disease and chronic refractory gout
          - The FTC alleges that Amgen to use rebates on its existing blockbuster drugs to pressure insurance companies and pharmacy benefit managers (PBMs) into favoring Horizon's two monopoly products, thereby reducing demand for alternative drugs and reducing the incentives of other drug companies to develop them.
        - *Note*: The FTC filed an earlier case, FTC v. Meta Platforms, Inc., No. 3:22-cv-04325 (N.D. Cal. filed July 27, 2022), that alleged a modern entrenchment theory, but the FTC amended the complaint to drop the entrenchment claim
          - The FTC proceeded solely on an actual potential competition claim and lost in the district court. The case in now on appeal to the Ninth Circuit

Unit 3: A Brief History of Antitrust Law
(with special attention to merger antitrust law)

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

August 29, 2023

A Brief History of Antitrust Law

NO MOLLY-CODDLING HERE

Source: New York Globe, 1907

The Common Law Approach to Antitrust Law

At the creation

- The Sherman Act has been criticized for employing vague, uninformative terms
- But this is a defining feature of antitrust law, *not* a bug
  - This is an intentional part of the design of U.S. antitrust law from the beginning[1]
  - The Sherman Act incorporated common law terms of art to provide a well-known body of law and precedent that enforcement officials and courts could immediately apply—
    - "Restraint of trade"
    - "Monopolization"
    - "Attempt to monopolize"
    - "Conspiracy to monopolize"
  - The common law also permitted courts to refine and modify the law with new learning and as new business practices emerged without the need for congressional action

[1] *See* William F. Baxter, *Separation of Powers, Prosecutorial Discretion, and the "Common Law" Nature of Antitrust Law*, 60 Tex. L. Rev. 661 (1982).

At the creation

- The Sherman Act adopted a "common law approach" to antitrust law
  - There was a clear recognition that Congress could not write detailed, prescriptive legislation
  - From the beginning, the Sherman bill sought to deal with the trusts through the common law or, more precisely, a common law approach

> [S.1, the Sherman antitrust bill,] does not announce a new principle of law, but applies old and well recognized principles of common law to the complicated jurisdiction of our State and Federal Government. Similar contracts in any State in the Union are now, by common law or statute law, null and void. . . .
>
> . . . The purpose of this bill is to enable the courts of the United States to apply the same remedies against combinations which injuriously affect the interest of the United States that have been applied in the several States to protect local interests.
>
> Sen. John Sherman[1]

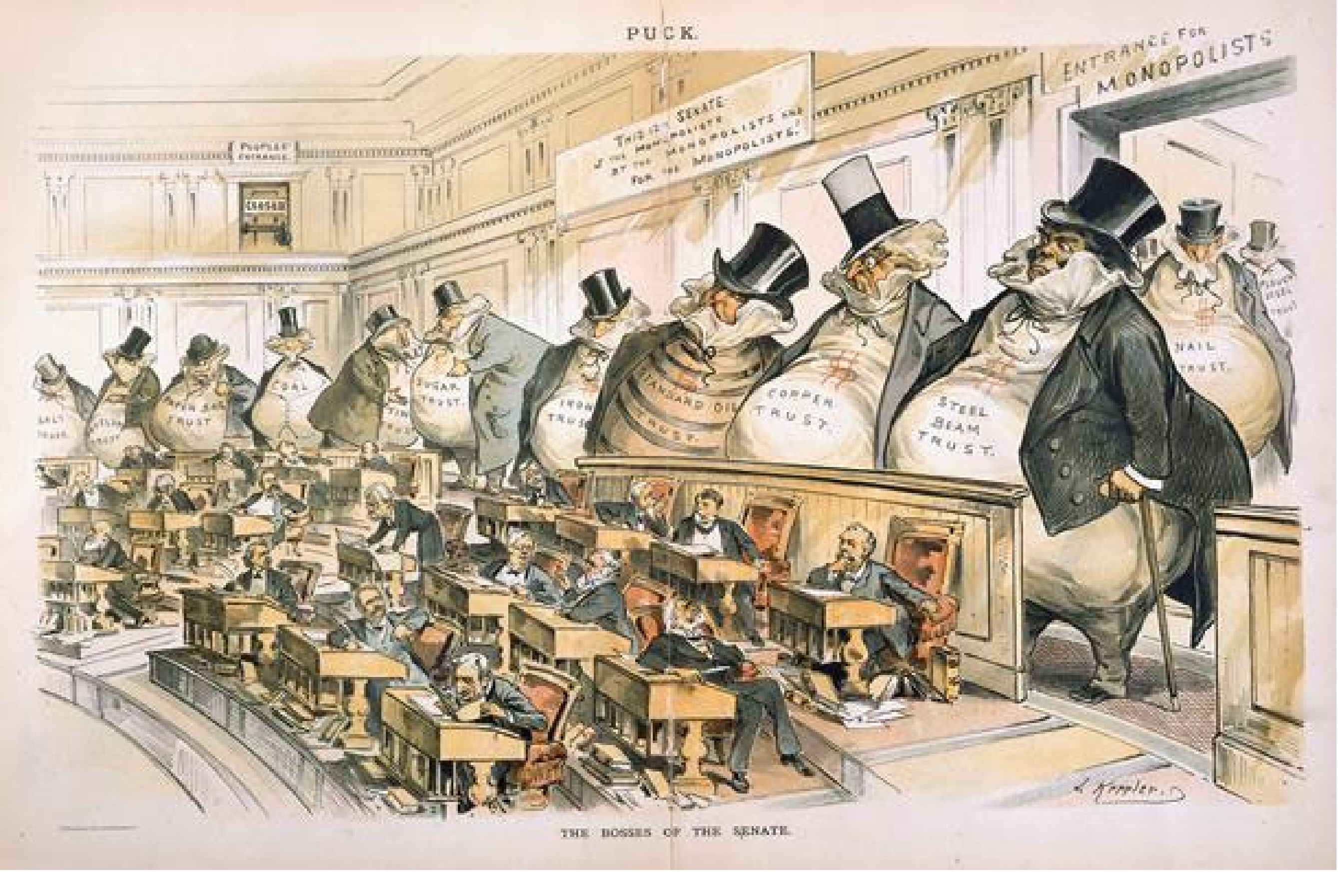
[1] 21 Cong. Rec. 2455 (Mar. 21, 1890) (remarks of Sen. John Sherman (R. Ohio)). For similar sentiments that the various iterations of the antitrust bill were all to enable the courts to apply the common law regarding business enterprises, see 20 Cong. Rec. 1167 (Jan. 25, 1889) (Sherman); 21 Cong. Rec. 2456, 2457, 2459 (Mar. 21, 1890) (Sherman); 21 Cong. Rec. 2729 (Mar. 27, 1890) (remarks of Sen. George F. Hoar (R., Mass); 21 Cong. Rec. 3149 (Apr. 8, 1890) (statement of Sen. Morgan);); 21 Cong. Rec. 3152 (Apr. 8, 1890) (Hoar).

At the creation

- Historical aside
  - Sen. John Sherman (R., Ohio) introduced his antitrust bill on August 14, 1888, in the 50th Congress
    - One of several antitrust bills introduced by various members of Congress
  - *Query*: Why would Sherman—one of the most powerful members of the Senate and a very serious candidate for the Republican Party's nomination for president in 1880, 1884, and 1888—introduce an *antitrust* bill?
    - After all, the Republicans controlled the Senate, House, and Presidency
    - AND Republicans were said to be "bought and paid for" by the trusts
  - *Query*: Just as interesting, why were the most vehement opponents of the Sherman bill Democrats, the party of the South with supposedly the most to lose from the continued operation of the trusts?

At the creation

- Historical aside



Joseph Keppler, *The Bosses of the Senate*, Puck, Jan. 23, 1889

At the creation

- Historical aside
  - Sherman reintroduced his bill as S.1 on December 4, 1889, in the 51st Congress
    - Vigorous Senate floor debate on the six days between January 23 and February 4, 1890
    - Numerous amendments were offered, many of which were adopted
    - Referred to the Senate Judiciary Committee on March 27, 1890
  - Senate Judiciary Committee reports S.1 six days later as amended in the form of a substitute on April 2, 1890
    - Nothing in the amended bill contained Sherman's language—it was an entirely new bill
    - BUT retained the idea that the antitrust statute should be an enabling act to empower the federal courts to use a common approach to antitrust law
      - Defined offenses using terms of common law art

At the creation

- Historical aside
  - Enactment
    - April 8, 1890: Senate Judiciary Committee bill with amendments passed Senate 52-1 and sent to the House

      (including all those vocally opposed Democrats!)
    - May 1-2, 1890: House debates, amends, and passes S.1 in an unrecorded vote

      Conference Committee: House eventually recedes from its amendments to S.1
    - June 20, 1890: House debates and passes S.1 without amendments (242-0)
    - July 2, 1890: President Benjamin Harrison signs S.1 into law

What was going on here?

Political value judgment

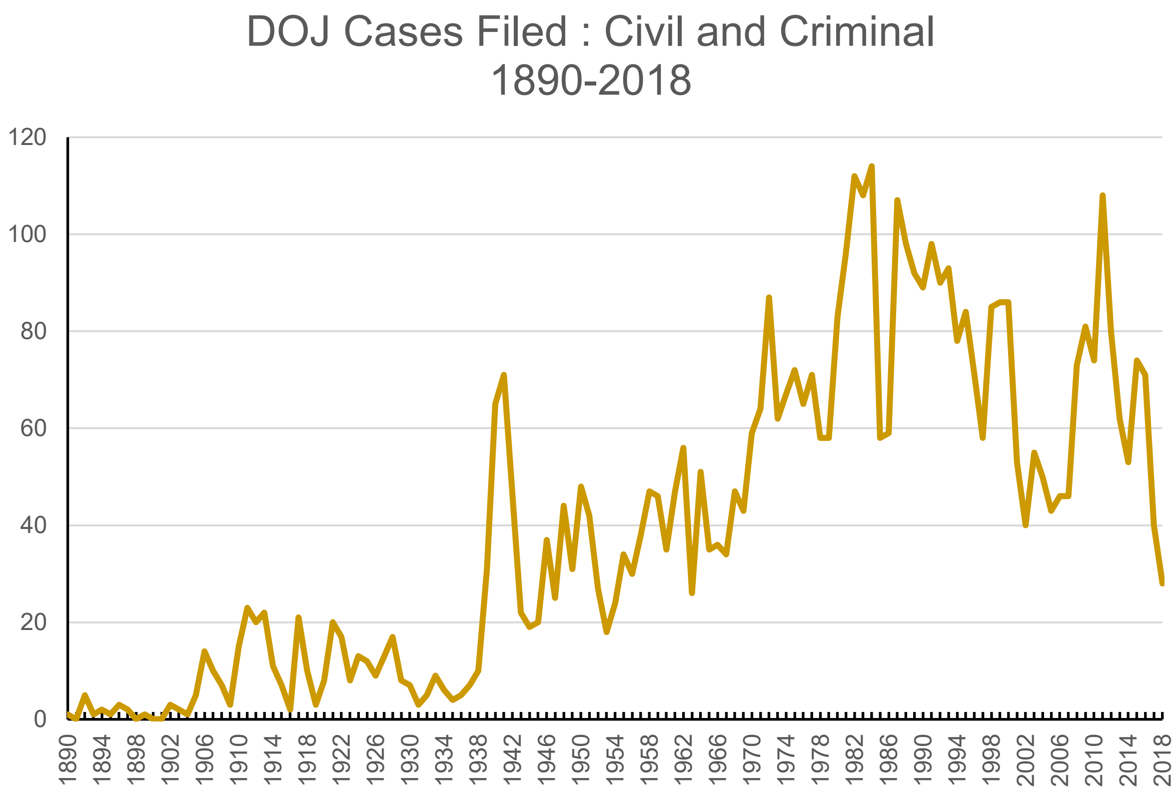
- How to operationalize the common law terms in antitrust law is a political value judgment
  - Determined by the courts in the absence of congressional direction
  - In the 130-year history of antitrust law, Congress has intervened in the common law process to change the substantive law or the direction of the courts only four times:
    - 1912: The Clayton and Federal Trade Commission Acts[1]
    - 1936: The Robinson-Patman Act[2]
    - 1937: The Miller-Tydings Act and its subsequent repeal[3]
    - 1950: The Celler-Kefauver Act[4]
- Current prospects for legislative reform
  - We were as close in the last Congress as we have been in 70 years to amending the substantive prohibitions of the antitrust laws in very significant ways—but none of the bills reached a floor vote in either chamber
  - While perhaps some legislation will be enacted narrowly targeted to the dominant high-tech firms, efforts for a general overall of the antitrust laws appear to be dead

[1] Clayton Act, ch. 323, 38 Stat. 730 (1914) (current version at 15 U.S.C. §§ 12 to 27); Federal Trade Commission Act, ch. 311, 38 Stat. 717 (1914) (current version at 15 U.S.C. §§ 41-58).
[2] Ch. 592, § 1, 49 Stat. 1526 (1936) (current version at 15 U.S.C. §§ 13-13a).
[3] Ch. 690, 50 Stat. 693 (1937), *repealed*, Pub. L. 94-145, 89 Stat. 801 (1975).
[4] Ch. 1184, 64 Stat. 1125 (1950) (current version at 15 U.S.C. § 18 (1976)).

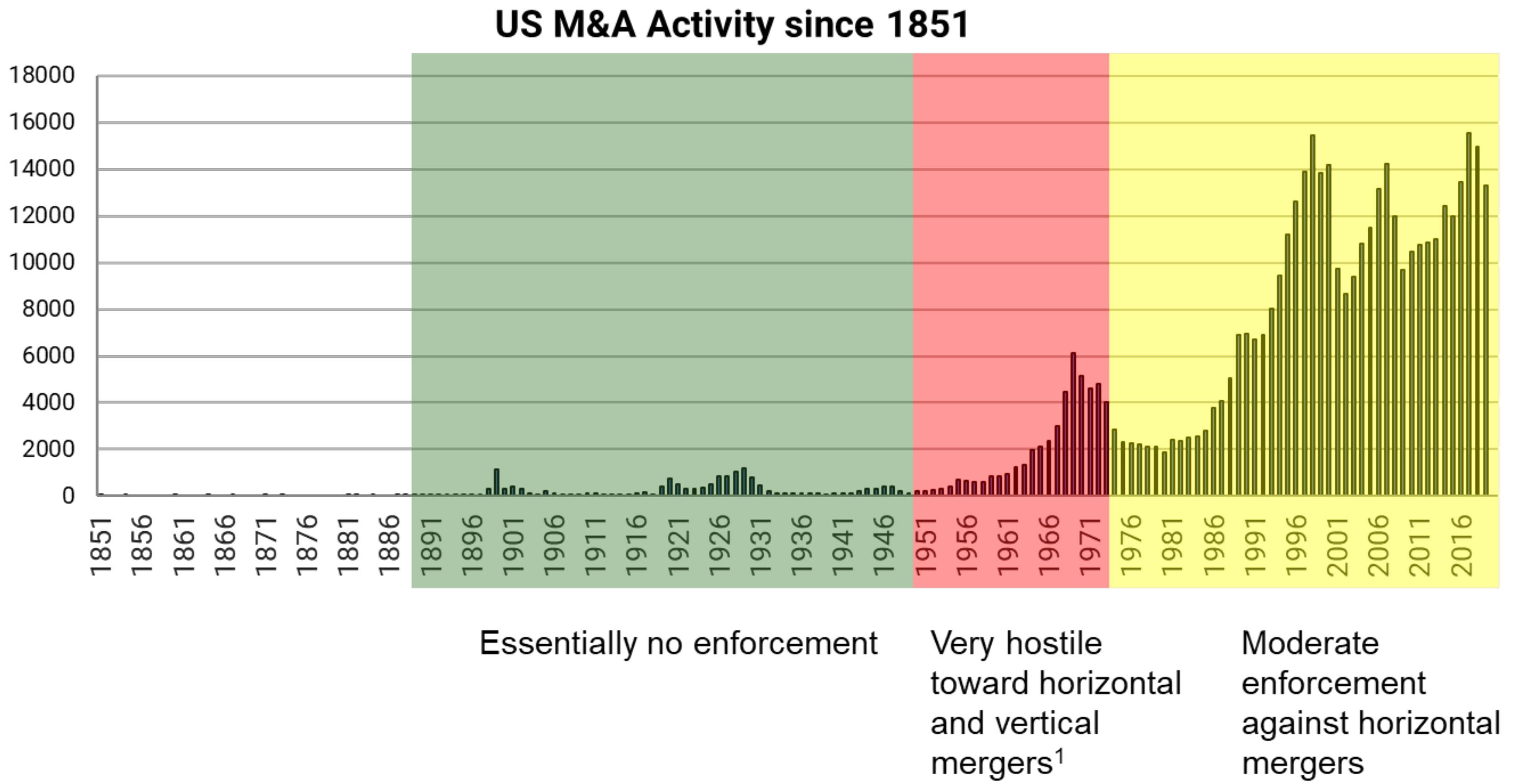
The Evolution of Antitrust Law

Antitrust law over time

- The goals of antitrust law in general—and the intensity of antitrust enforcement—have changed dramatically over the last 130+ years



Antitrust law over time



[1] The uptick in M&A activity during this period was largely comprised of conglomerate mergers, which the agencies (with few notable unsuccessful exceptions) did not challenge.

The first 47 years (1890-1937)

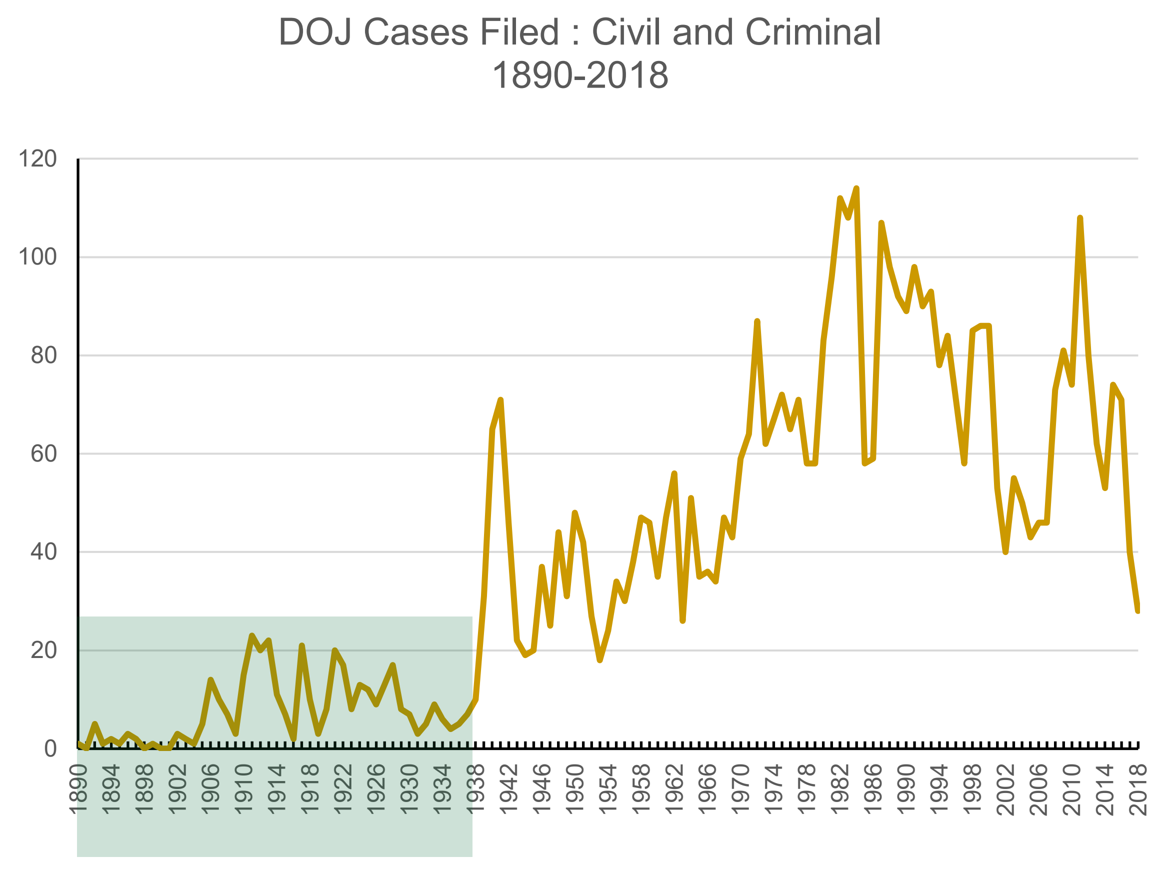
- Antitrust law was largely non-interventionist from 1890 to 1937
  - Some blips in the T.R. Roosevelt and Taft administrations and to a somewhat lesser extent in the Wilson administration
  - But overall—
    - World War I mobilization, much of which required extensive coordination among companies, increased real GDP by 23% between 1914 and 1920
      - Compound average growth rate (CAGR) = 3.5%
    - The economic boom in 1920s increased real GNP by 46.6% between 1921 and 1929
      - Compound average growth rate (CAGR) = 4.9%
    - The Crash in 1929 and subsequent Great Depression

  resulted in an "hands off" antitrust attitude

Attitude before the Great Depression: The economy is not broken, so don't try to fix it by enforcing the antitrust laws

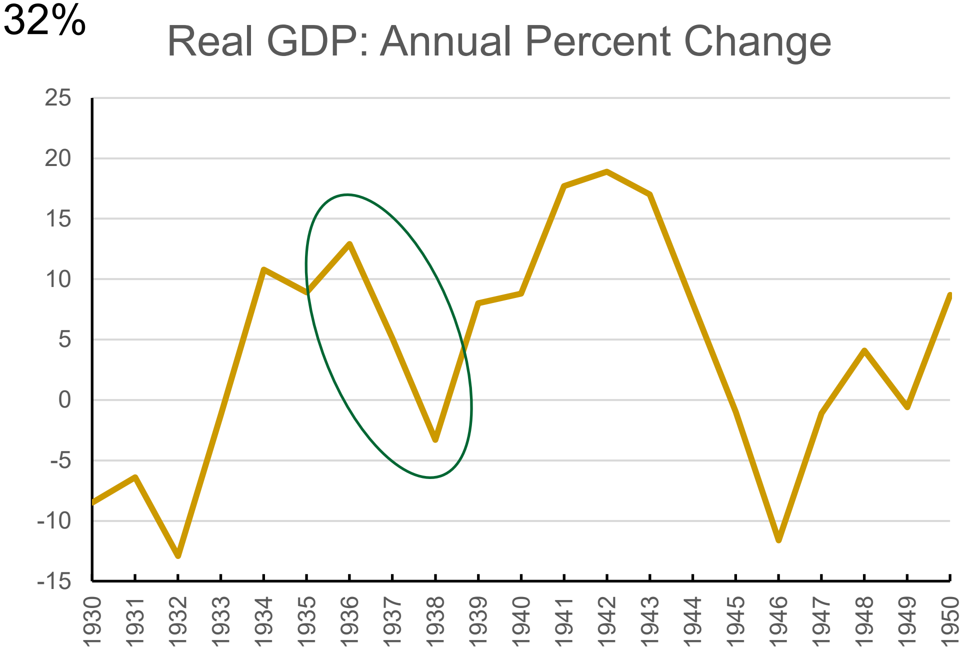
Attitude after the Great Depression: The economy is broken, but don't try to fix it by enforcing the antitrust laws

The first 47 years



The 1937-1938 recession and its aftermath

- Attitudes quickly changed in 1937 as a major recession hit
  - By early 1937, production, profits, and wages had regained their early 1929 levels
- But then a deep recession hit (May 1937-June 1938)
  - Third worst recession in the twentieth century
  - Real GDP dropped 10%
  - Industrial production declined by 32%
  - Unemployment rate jumped from 12.2% in May 1937 to 20.0% in June 1938
- The FDR administration came under assault in a very heated political environment

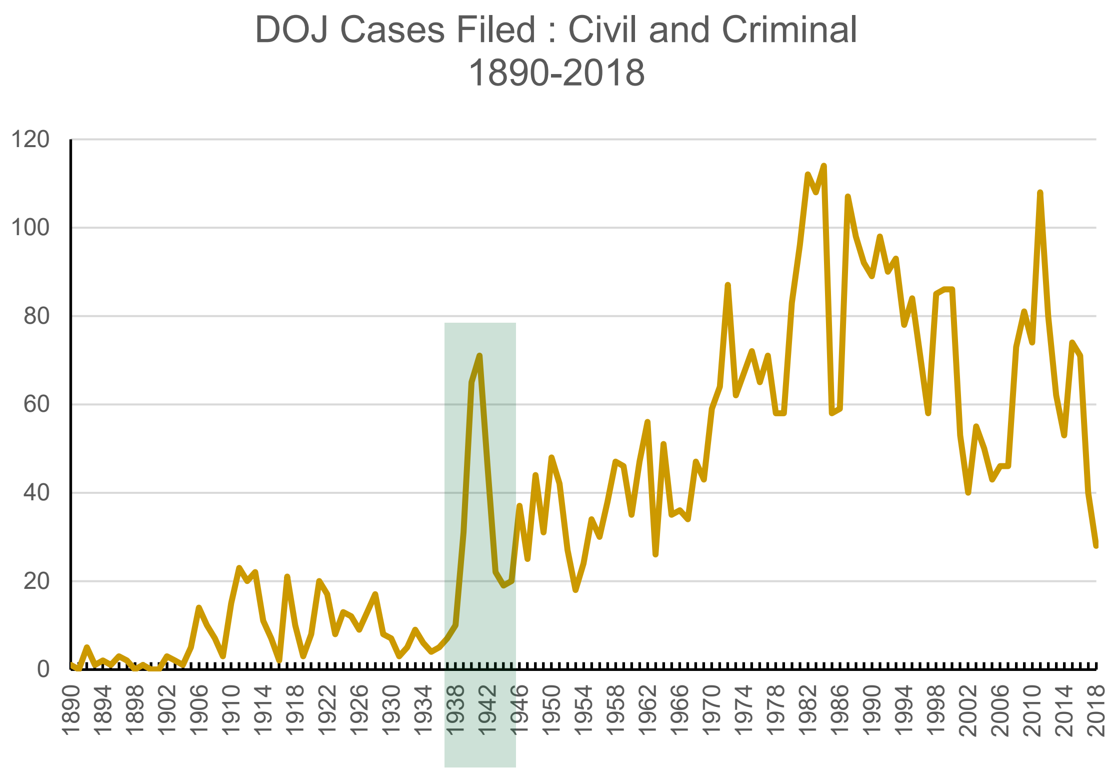


The 1937-1938 recession and its aftermath

- Roosevelt's response
  - Roosevelt argued that big businesses were trying to ruin the New Deal by causing another depression that voters would react against by voting Republican[1]
    - In fact, the recession was probably due to—
      - a reduction of the money supply caused by new Federal Reserve and Treasury Department policies, and
      - a contractionary fiscal policy due to an increase in taxes from the new Social Security program and a decrease in spending because of the expiration of the WWI veterans bonus[2]
  - As part of this campaign, Attorney General Homer Cummings and new Assistant Attorney General for Antitrust Robert Jackson began an aggressive enforcement program
    - Primarily against price-fixing cartels
    - But also included the ALCOA monopolization case filed in early 1937
    - Mergers, however, did not appear to be a target
  - Aggressive antitrust enforcement continued through the 1940s
    - Thurman Arnold continued the program when he was appointed to replace Jackson in 1938
    - Jackson became Solicitor General and then Attorney General in 1940
  - Policy sustained with continued rapid economic growth created by WWII mobilization
    - Real GDP increased by 102.6% between 1938 and 1945 with war mobilization (CAGR = 10.6%)

[1] *See, e.g.*, DAVID M. KENNEDY, FREEDOM FROM FEAR: THE AMERICAN PEOPLE IN DEPRESSION AND WAR, 1929–1945, at 352 (1999).
[2] *See* Christina Romer, *The Lessons of 1937*, THE ECONOMIST (June 18, 2009).

Late Depression/World War II (1937-1945)



Post-World War II (1946-1972)

- Very negative and widespread public reaction to the support by large industrial enterprises of the Nazi Germany and Imperial Japanese regimes
- Legislative change
  - Congress enacts the 1950 Celler-Kefauver Act[1] amendments to Section 7 to close some "loopholes" that had rendered Section 7 essentially meaningless
  - Equally if not more important than the specific changes in the statute, the legislative history of the amendments was aggressively hostile to business combinations
    - This is actually the aspect of the 1950 legislation that most influenced the courts
  - Major concerns expressed in the legislative history[2]—
    1. Fear of "the rising tide of economic concentration in the American economy"
    2. Loss of opportunity for small business when competing with large enterprises
    3. The spread of multistate enterprises and the loss of local control over industry

[1] Ch. 1184, 64 Stat. 1125 (1950) (amending Section 7 of the Clayton Act).
[2] *See* Brown Shoe Co. v. United States, 370 U.S. 294, 311-23 (1962).

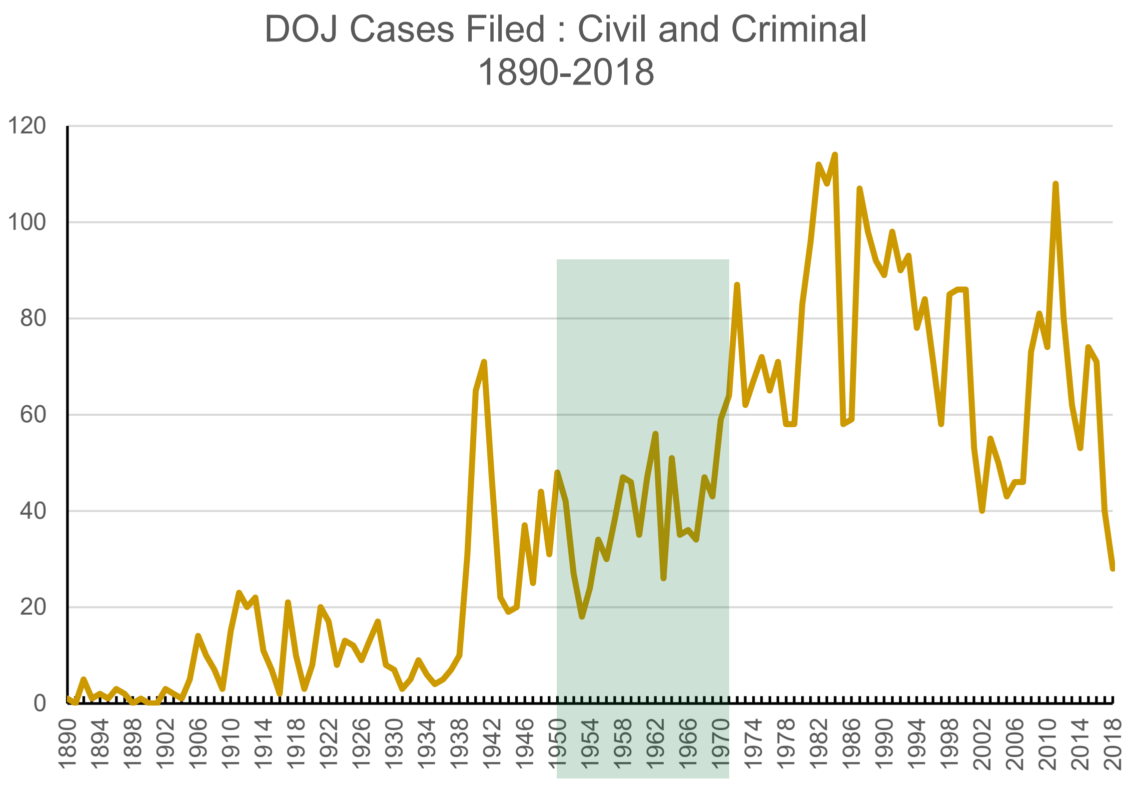
Post-World War II (1946-1972)

- Congressional concerns were broadly shared by the public—and, apparently, by the courts
  - Supported a very restrictive merger antitrust regime
  - Did not require deep microeconomic analysis to implement
- Antitrust redirected: The new goals for the 1950s and 1960s—
  1. Minimize industrial concentration beyond certain bounds
  2. Maximize the prospects of survival of small businesses
  3. Minimize restraints on freedom of choice of economic actors

This resulted in an aggressively interventionist antitrust regime

Post-World War II (1946-1971)

- The increasingly restrictive antitrust regime resulted in more prosecutions

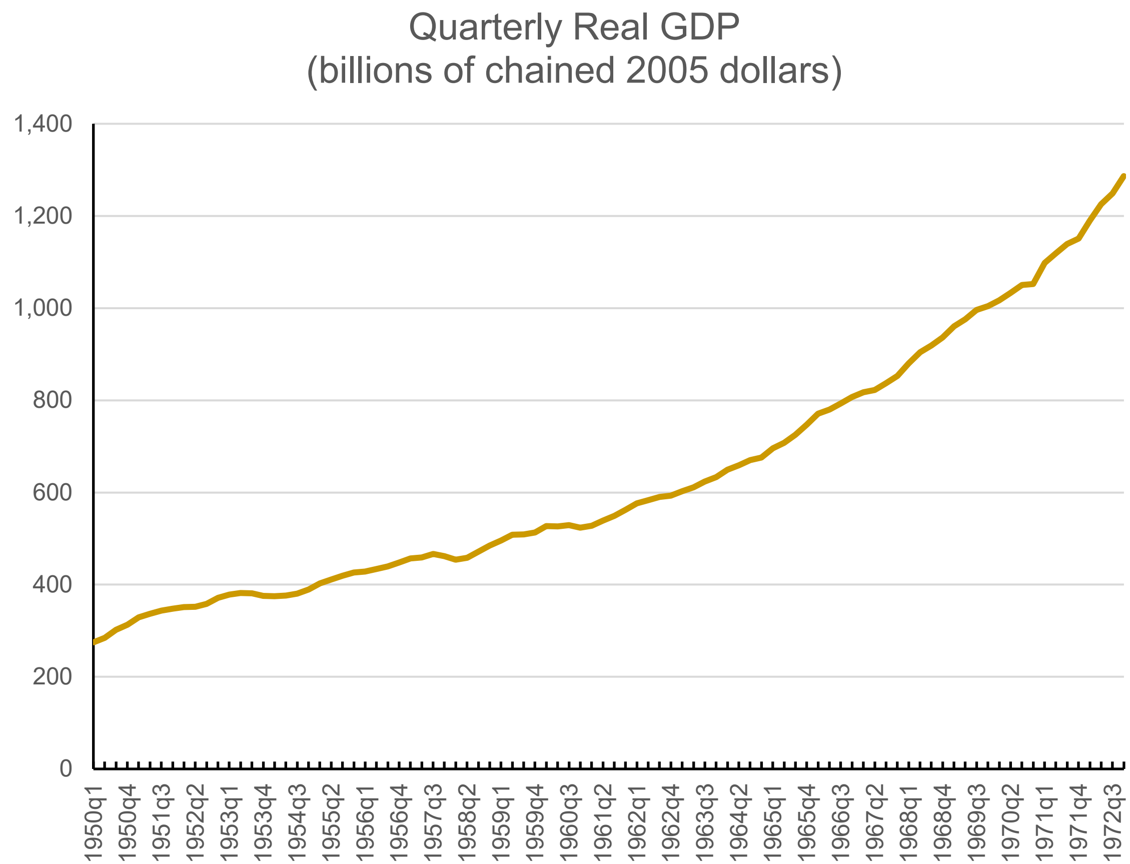


Post-World War II (1946-1972)

- To the extent this more aggressive antitrust enforcement policy reduced productive efficiency, neither Congress nor the public cared
  - Any inefficiencies became noise in the economic boom that followed WWI for two decades

Indicator	1950-1972
Real GDP (average annual growth)	4.1%
Nonfarm business productivity (average annual rate)	2.8%
Inflation (average annual change Dec. to Dec.)	2.6% Max = 6.2%
Bank prime loan rate (annual—data series starts in 1956)	5.8% Max =8.0%
Unemployment (average monthly rate)	4.6% Max = 7.5%
Median real family income (average annual change)	3.3%

Post-World War II (1946-1972)



Post-World War II (1946-1972)

- The post-WWII enforcement policy resulted in an increasingly restrictive antitrust regime
  - Further tightening on horizontal price fixing
    - Actually began somewhat earlier (*Socony-Vacuum* (1940))
    - Easing of rules to find concerted action (*Container Corp*. (1969))
  - Horizontal mergers—close to per se unlawful
    - E.g., *Brown Shoe* (1962), *PNB* (1963), *Pabst/Blast* (1966), *Von's Grocery* (1966), 1968 Merger Guidelines
  - Vertical mergers—close to per se unlawful
    - *Brown Shoe* (1962), *DuPont/GM* (1957)
  - Conglomerate mergers seriously challenged
    - *P&G* (1958), *El Paso Natural Gas* (1964), *Falstaff* (1973), the DOJ potential competition campaign
  - Tightening of Section 2 prohibitions and enforcement
    - *Alcoa* (1945)
    - *Grinnell* (filed 1961), *IBM* (filed 1969), *AT&T* (filed 1974)
    - "Shared monopoly" theory

Post-World War II (1946-1972)

- The post-WWII enforcement policy resulted in an increasingly restrictive antitrust regime
  - Nonprice vertical restraints—per se unlawful
    - *Albrecht* (1968)
    - *Schwinn* (1967) (overruling *White Motor* (1963))
  - Reinforcement of tying arrangements as per se illegal
    - *Northern Pacific* (1958)
  - Tightening of rules on refusals to deal
    - *Associated Press* (1945) (horizontal boycott)
    - *Klor's* (1959) (secondary boycott)
  - Horizontal combinations/joint ventures
    - *Sealy* (1967)
    - *Topco* (1972)
  - Remedies and procedure
    - *DuPont* (1957): Essentially holding that the DOJ cannot be time-barred in a government injunctive action where there continued to be anticompetitive effects traceable to the challenged acquisition and permitting a challenge 30 years after acquisition to proceed on the merits
    - *Hanover Shoe* (1968): Holding that Clayton Act § 4 does not recognize a "passing on" defense

The "malaise" period (1973 to 1981)[1]

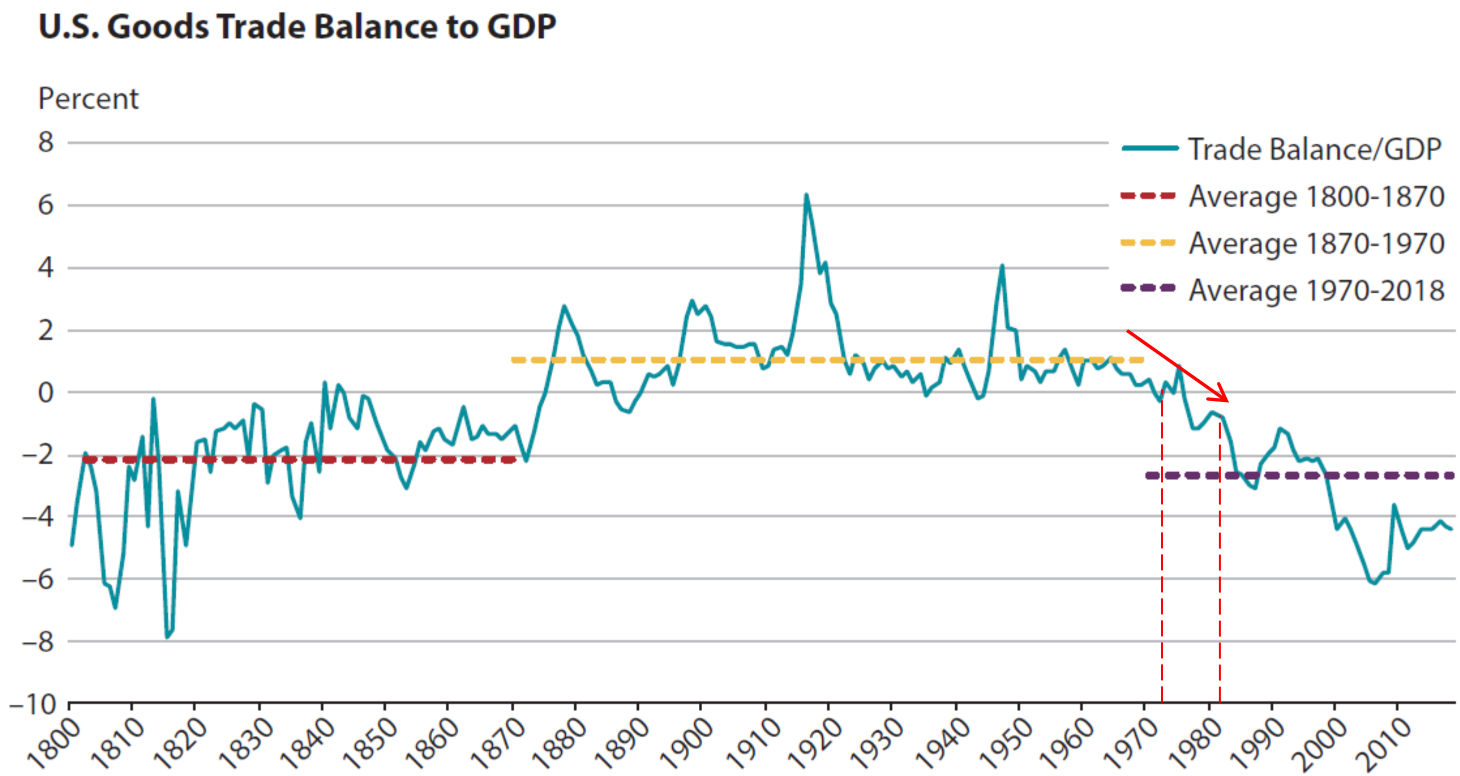
- "Stagflation" gripped the nation (known as the "Great Stagflation")[2]
  - Significant inflation resulting from the Mideast oil shocks in 1973 and 1979 and the expansionary monetary policy beginning in the late 1960s to finance the Vietnam War
  - "Productivity crisis" resulting from the obsolescence of "old economy" and equipment
- Substantial concern about U.S. competitiveness in the world market (especially against Japan) in areas that since WWII that had been traditional American strengths (e.g., automobiles, steel)
- Growing influx of imported manufacturing goods threatened some American industries in the domestic market (e.g., consumer electronics)
- Gasoline shortages/price controls resulting from OPEC output restrictions
- Economic growth significantly slowed down
  - Real GDP in the 20-year period up by only 20.4% (CAGR = 2.3%)

[1] My name for this period comes from a speech by President Carter. *See* Pres. Jimmy Carter, Crisis of Confidence, Televised Addressed to the Nation (July 15, 1979) (popularly known as the "Malaise Speech").

[2] "Stagflation" means low real growth and high inflation. *See generally* ALAN S. BINDER, ECONOMIC POLICY AND THE GREAT STAGFLATION (2013); PAUL M. SWEEZY, THE END OF PROSPERITY: THE AMERICAN ECONOMY IN THE 1970S (1977); Robert B. Barsky & Kilian Lutz, *Do We Really Know that Oil Caused the Great Stagflation? A Monetary Alternative*, *in* 16 NBER MACROECONOMICS ANNUAL 137 (2002).

The "malaise" period (1973 to 1981)

- U.S. Goods Trade Balance to GDP



Source: Brian Reinbold & Yi Wen, Historical U.S. Trade Deficits, Economic Synopses, No. 13, Fig. 1 (Fed. Res. Bank of St. Louis 2019).

The "malaise" period (1973 to 1981)

- Economic conditions—Not good times

Indicator	1950-1972	1973-1982
Real GDP (average annual growth)	4.1%	2.4%
Nonfarm business productivity (average annual rate)	2.8%	1.0%
Inflation (average annual change Dec. to Dec.)	2.6% Max = 6.2%	8.7% Max = 13.3%
Bank prime loan rate (annual—data series starts in 1956)	5.8% Max =8.0%	11.10% Max = 18.9%
Unemployment (average monthly rate)	4.6% Max = 7.5%	7.0% Max = 10.8%
Median real family income (average annual change)	3.3%	-0.2%

The “malaise” period (1973 to 1981)

- Emerging sentiment toward business
  - Government policies generally needed to be revised to:
    - Foster America’s industrial competitiveness
    - Revive the nation’s industrial base
    - Return to the country to the post-WWII standards of steady growth, low inflation, and low unemployment
  - WWII concerns about the evils of large industrial concentrations had largely dissipated
    - Could not afford to act on these concerns in any event, especially given the perceived success of the Japanese keiretsu
- Rapidly emerging perception/consensus that—
  - Many antitrust rules impeded efficient business operations and constrained competitiveness
  - Antitrust was a blunt and unnecessary instrument for achieving distributional goals
  - To the extent that distribution goals remain, other government instruments might be better suited to achieving them
- Strong political pressures to address these concerns

The "malaise" period (1973 to 1981)

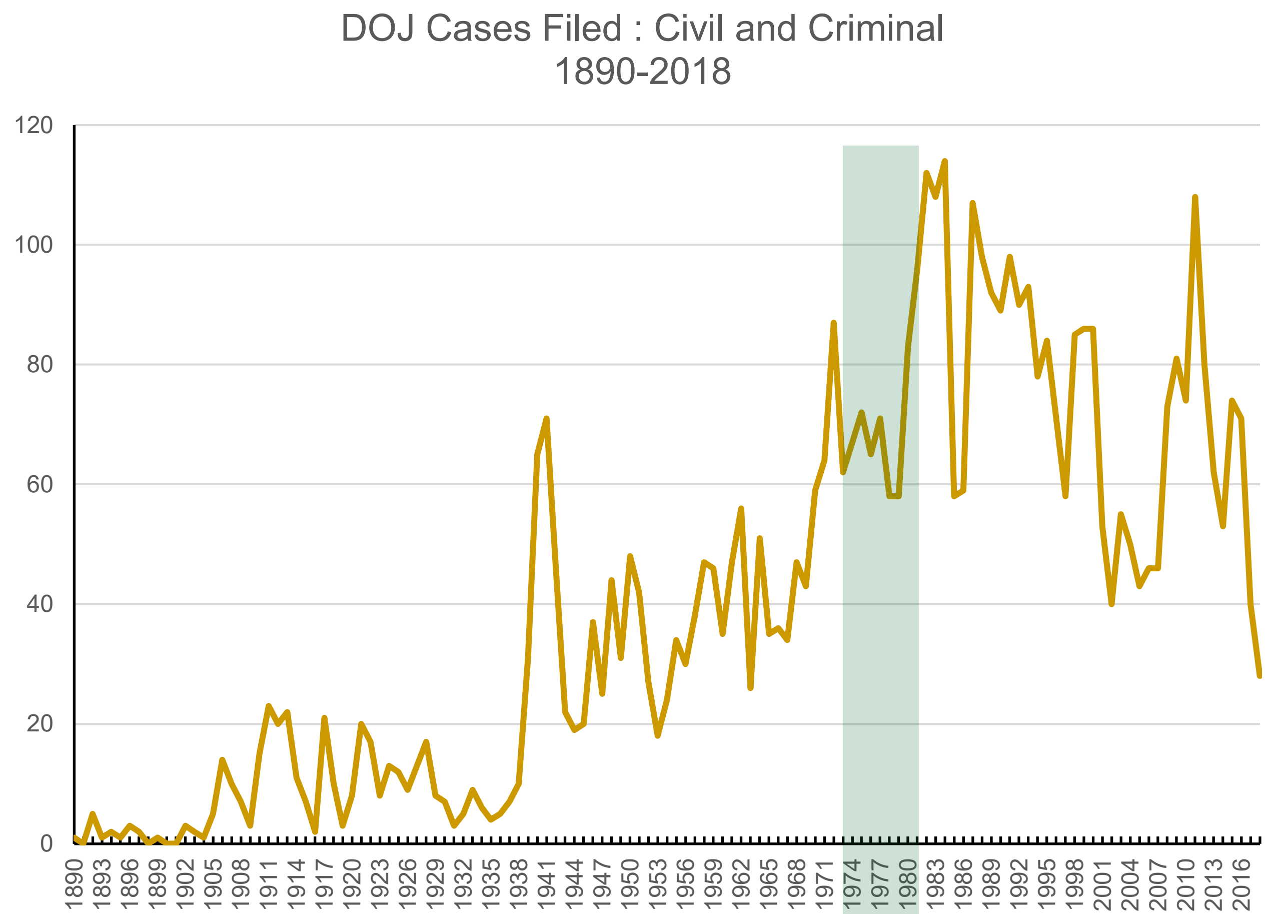
- As part of the response, courts begin to "loosen" antitrust restrictions to maximize output and industrial productivity
  - Antitrust narrowly limited to competition concerns
    - *Professional Engineers*
  - Explicitly adopt the "consumer welfare" standard
    - *Reiter*
  - Continued aggressive approach to horizontal price fixing
    - *Goldfarb*, *Gypsum*, *McLain*, *Catalano*, *Texas Industries*, *Hydrolevel*
  - Some loosening of Section 1 restraints on joint ventures
    - *Broadcast Music*
  - Horizontal mergers—near per se illegality being replaced by an economic effects analysis
    - *General Dynamics*
  - Vertical mergers—generally procompetitive, but where anticompetitive can be remediated through "access" consent decrees
  - Potential competition mergers
    - Courts rejected DOJ's prosecution campaign

The “malaise” period (1973 to 1981)

- Courts begin to “loosen” antitrust restrictions to maximize output and industrial productivity
  - Section 2
    - General rejection of “shared monopoly” as an actionable theory of harm
    - But DOJ brought the *IBM* monopolization case in 1974
  - Nonprice vertical restraints—returned to rule of reason treatment
    - *GTE Sylvania*
  - Robinson-Patman Act
    - DOJ urges repeal, viewing the RPA as anticompetitive
    - DOJ and FTC essentially cease enforcing
  - Significant limitations on antitrust standing limited private parties’ ability to sue
    - *Brunswick*, *Illinois Brick*, *J. Truett Payne*

Note: The DOJ and FTC resisted many of these changes throughout this period

The "malaise" period (1973 to 1981)



The modern period (1982 to present)

- Ronald Reagan elected president in 1980
  - Major emphasis on growing the economy by reducing government intervention in private affairs: The four Reagan economic planks—
    1. Reduce the growth of government spending
    2. Reduce the federal income tax and capital gains tax
    3. Reduce government regulation
    4. Tighten the money supply in order to reduce inflation
  - Stagflation brought under control—Economy starts to grow
- George Bush elected president in 1988
  - Largely continued Reagan's policies
  - DOJ and FTC issue 1992 Horizontal Merger Guidelines
- Bill Clinton elected president in 1992
  - After 1994 midterm election, adopted "triangulation" approach to policy-making
  - Somewhat more aggressive in antitrust enforcement, but did not materially alter antitrust enforcement goals

The modern period (1982 to present)

- Continued concern about increasing industrial output and productivity
  - Economic indicators during period have an upside-down "U" shape:
    - Recovering—not too gracefully—from the 1970s during 1983-1992
    - Reach affirmatively good times during 1993-2000 (which ended with the dot.com bust)
    - More stagnant times during 2001-2006 (with slow but steady recovery aided by an easy money policy and resulting in an asset bubble and significant overleveraging)
    - Financial crisis, deep recession, and very slow recovery since 2007
    - Just as business returned to doing well, COVID hit
  - But sustained growth, like that found in the post-WWII period, never returned to the U.S.
    - U.S. never politically regained the "luxury" of trading off output and efficiency for deconcentration/small business/freedom of economic choice concerns

The modern period (1982 to present)

- Economic conditions—recovering, then pretty good, then not too good with a slow recovery, then COVID

Indicator	1973-1982	1983-2006
Real GDP (average annual growth)	2.4%	3.4%
Nonfarm business productivity (average annual rate)	1.0%	2.2%
Inflation (average annual change Dec. to Dec.)	8.7% Max = 13.3%	3.1% Max = 6.1%
Bank prime loan rate (annual—data series starts in 1956)	11.1% Max = 18.9%	8.0% Max = 12.0%
Unemployment (average monthly rate)	7.0% Max = 10.8%	5.9% Max = 10.4%
Median real family income (average annual change)	-0.2%	0.9%

The modern period (1982 to present)

- *New view*: Antitrust law should maximize output and industrial productivity to improve "consumer welfare"
  - The 1970s idea that antitrust law should maximize output and industrial productivity to restore America's competitiveness readily morphed into the "consumer welfare standard" in the 1980s
    - Robert Bork popularized the term "consumer welfare" in The Antitrust Paradox (1978)
  - Adoption by the Supreme Court
    - In 1979, the Supreme Court in Reiter v. Sonotone Corp. observed that "Congress designed the Sherman Act as a 'consumer welfare prescription'"[1]
    - Since *Reiter*, the Supreme Court has reaffirmed the consumer welfare standard as the goal of antitrust law in at least six other cases (including most recently in the 2021-2022 term)[2]
    - Today, at least seven of the Supreme Court justices are firmly committed to the consumer welfare standard as the lens through which antitrust law should be interpreted and applied[3]

[1] 442 U.S. 330, 343 (1979) (citing Robert Bork, The Antitrust Paradox 66 (1978)).
[2] *See* Nat'l Collegiate Athletic Ass'n v. Alston, 141 S. Ct. 2141, 2166 (2021); Ohio v. Am. Express Co., 138 S. Ct. 2274, 2290 (2018); Leegin Creative Leather Prod., Inc. v. PSKS, Inc., 551 U.S. 877, 889, 902, 906 (2007); Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co., 549 U.S. 312, 324 (2007); Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 221 (1993); Nat'l Collegiate Athletic Ass'n v. Bd. of Regents of Univ. of Oklahoma, 468 U.S. 85, 107 (1984).
[3] The Westlaw antitrust library lists also 500 cases that use the term "consumer welfare," but some of these are not strictly antitrust cases and in others the term may have appeared in something other than the majority decision.

The modern period (1982 to present)

- Antitrust rules refashioned under the consumer welfare standard
  - No change in strict prohibitions and aggressive enforcement against "garden variety" horizontal price fixing
  - But new limitations on finding concerted action
    - Single entities: *Copperweld* (1984), *American Needle* (2010)
    - From circumstantial evidence: *Matsushita* (1986), *Business Elecs*. (1988), *Brooke Group* (1993)
  - Significant loosing of restrictions on dominant firm behavior
    - *Spectrum Sports* (1993), *Trinko* (2004), *Linkline* (2009), *Weyerhauser* (2007), DOJ Section 2 Report (2008)
    - But see *Aspen Skiing* (1985), withdrawal of the DOJ's Section 2 report (2009)
    - Only episodic government actions (*Microsoft*, *American Airlines, Intel*)
  - Significant loosing of restrictions on distributional restraints
    - *Monsanto* (1984), *Kahn* (1997), *Leegin* (2007), *Amex* (2018)
    - But see *Kodak* (1992)
  - New requirement for finding illegal tying arrangements
    - *Jefferson Parish* (1984)
  - Remedies and procedure impose limitations on private actions
    - *Empagran* (2004), *Twombly* (2007)

The modern period (1982 to present)

- Merger antitrust enforcement radically changed
  - Market definition
    - Adopted the "hypothetical monopolist" concept of the 1982 DOJ Merger Guidelines
  - Horizontal mergers
    - Instituted a strong economic approach to analyzing competitive effects in mergers
      - 1982 DOJ Merger Guidelines
      - 1992 DOJ/FTC Horizontal Merger Guidelines
      - 1997 efficiencies amendment to the Horizontal Merger Guidelines
      - 2010 DOJ/FTC Horizontal Merger Guidelines
      - 2020 DOJ/FTC Vertical Merger Guidelines
    - Rejects market concentration or firm size as sufficient to deem a merger anticompetitive
      - This rejects the 1960s approach
    - Requires an affirmative finding of anticompetitive effect
    - Imposes comparatively high concentration and market share thresholds to establish a prima facie anticompetitive effect
    - But high thresholds for downward-pricing pressure defenses to overcome the government prima facie case of anticompetitive effect
  - Vertical mergers largely viewed as procompetitive
    - Only episodic government actions—essentially all settled through "access" consent decrees
  - Conglomerate merger theories of harm rejected

The Consumer Welfare Standard: The Textbook Model

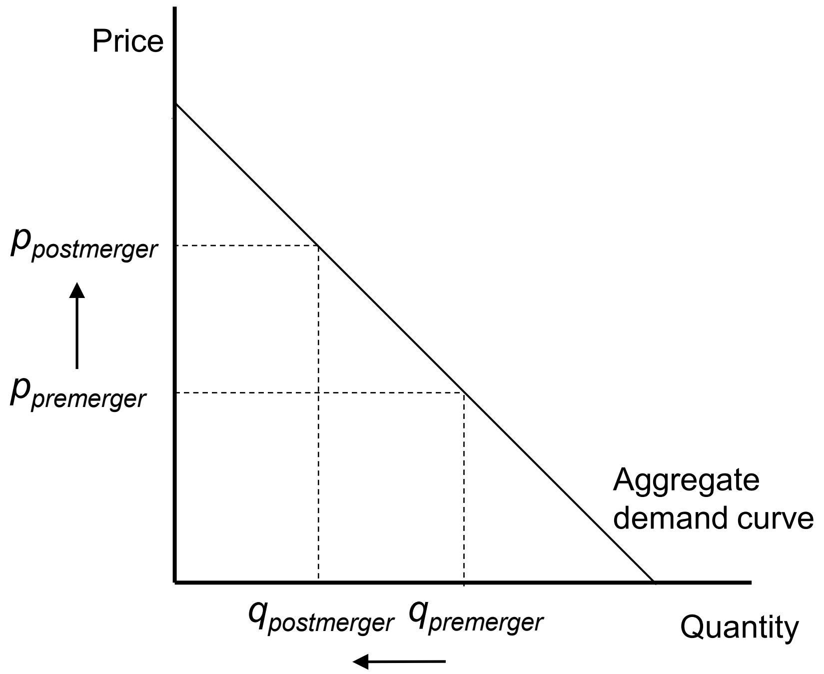
The consumer welfare standard in practice

- The consumer welfare standard as applied to mergers[1]
  - Mergers are socially bad when they harm consumers (customers) by—
    1. Increasing market price or decreasing market output;
    2. Shifting wealth from consumers to producers; or
    3. Creating economic inefficiency ("deadweight loss")
  - Other potential socially adverse effects when they harm consumers by—
    4. Decreasing marketwide product or service quality
    5. Decreasing the rate of technological innovation or product improvement
    6. Decreasing marketwide product choice

[1] The slides develop the consumer welfare standard in the context of mergers but the ideas apply generally to identify all types of anticompetitive conduct under the standard.

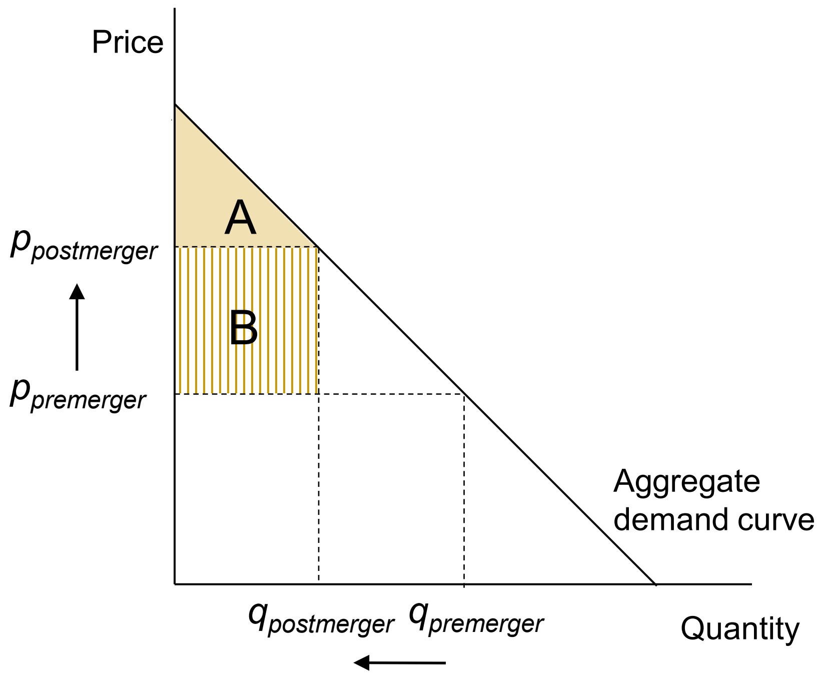
The consumer welfare standard: Textbook model

- The standard diagrams:
  1. Merger harms consumers by increases the market price or reducing the output available for consumers to purchase



The consumer welfare standard: Textbook model

- The standard diagrams:
  2. Merger harms consumers by shifting wealth from inframarginal consumers to producers*
     - Total wealth created (“surplus”): A + B
     - Sometimes called a “rent redistribution”



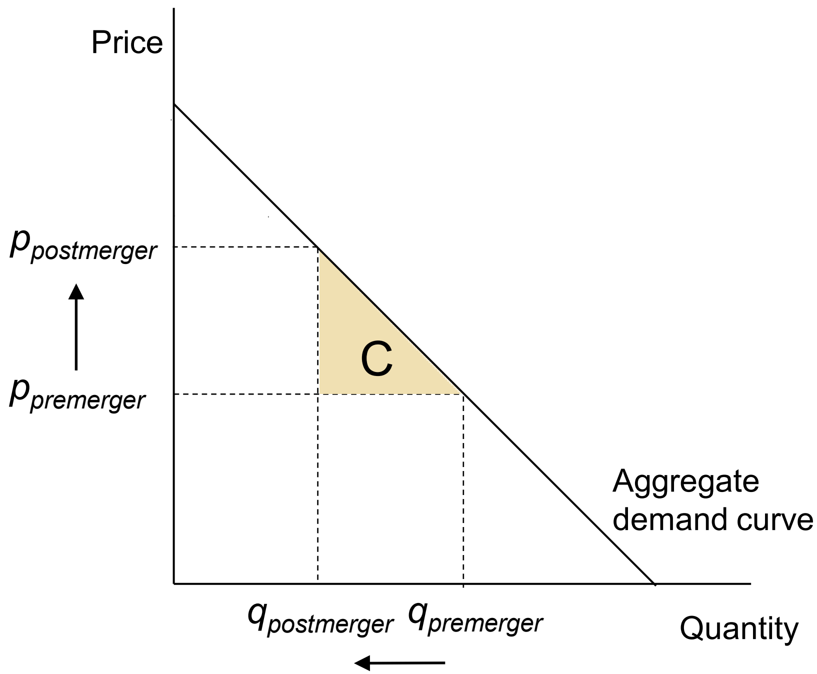
	Premerger	Postmerger
Consumers	A + B	A
Producers	0	B

Think about “consumer surplus” as the maximum amount consumers in the aggregate would be willing to pay above the price that they paid to obtain the product. This is the consumers “gains from trade” from their purchase transactions.

* Inframarginal customers here means customers that would purchase at both the competitive price and the monopoly price

The consumer welfare standard: Textbook model

- The standard diagrams:
  3. "Deadweight loss" of surplus of marginal customers*
     - Surplus C just disappears from the economy
     - Creates "allocative inefficiency" because it does not exhaust all gains from trade



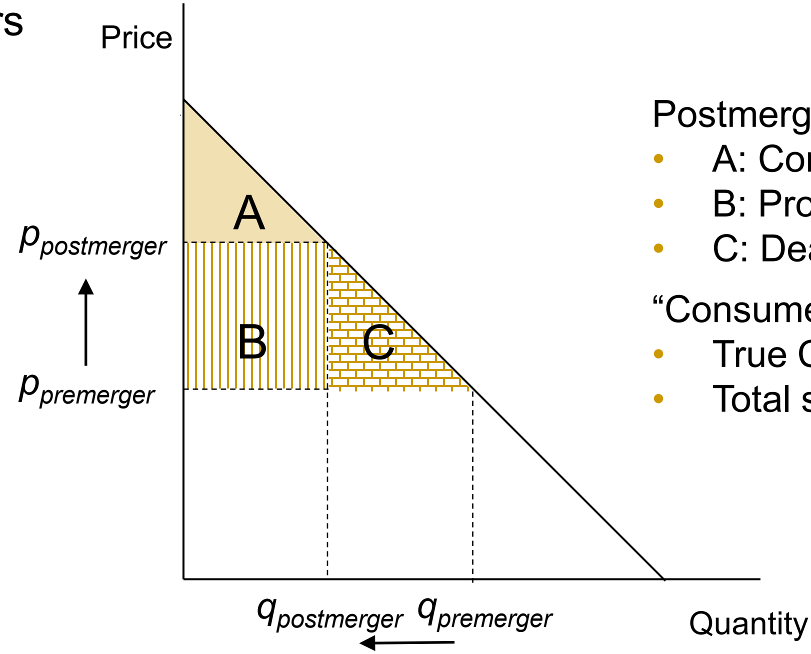
* Marginal customers here means customers that would purchase at the competitive price but not at the monopoly price

The consumer welfare standard: Textbook model

- Important note!
  - The textbook public policy explanation is NOT what courts and enforcement agencies use in applying the antitrust law or making enforcement decisions
    - There is no attempt to estimate consumer surplus (Area A in the diagram)
    - There is no attempt to estimate the deadweight loss (Area C) nor does the law provide a cause of action or relief to inframarginal customers harmed by an anticompetitive practice
  - Instead, the courts and the agencies focus on a more generalized notion of whether customers are worse off with the merger than without it
  - Some specific operational tests in practice: If the merger—
    - Expands market output, the merger is procompetitive regardless of price effects
    - Reduces market output, the merger is anticompetitive
    - Results in a price increase for some or all customers and no price decrease to any customers, the merger is anticompetitive (unless output expands, usually because of a product or service quality increase)
    - Increases price for some customers but decreases it for others, then the merger is anticompetitive if the wealth transfer to producers from the price increase is greater than the wealth transfer to customers from the price decrease
    - Reduces product or service quality in the market as a whole or reduces the rate of innovation, the merger is anticompetitive

The consumer welfare standard: Bork

- *Aside*: Robert Bork and the meaning of consumer welfare
  - Ironically, while Bork popularized the term "consumer welfare," he measured welfare in terms of consumer and producer surplus, making producer profits part of the calculus
    - Bork's measure is what economists call "total surplus," and Bork's misuse of the term "consumer surplus" has caused considerable confusion
  - Courts and the enforcement agencies, however, use "consumer welfare" to mean the welfare of consumers, regardless of any positive or negative effects on producers



Postmerger
- A: Consumer surplus
- B: Producer surplus (profits)
- C: Deadweight consumer surplus loss

"Consumer surplus"
- True CS: A
- Total surplus: A+B (Bork's consumer surplus)

Modern Critiques of Merger Antitrust Law

The reformers’ argument

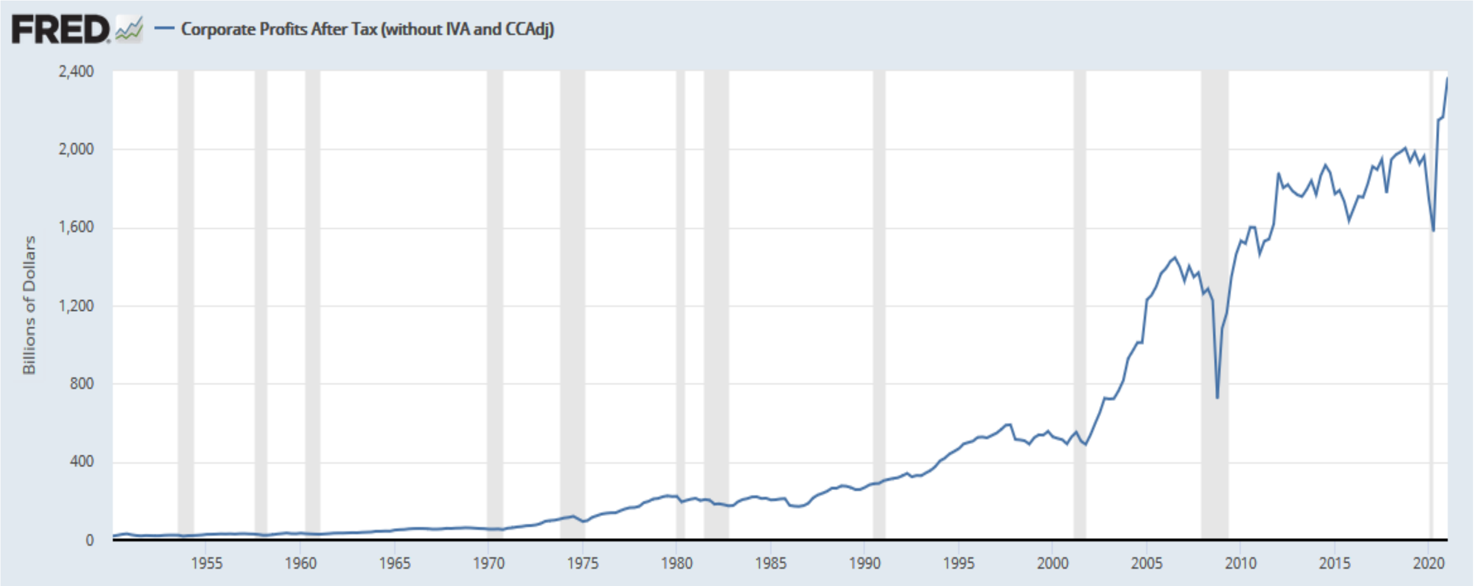
- The bottom line for the reformers:

The economy is not working for average Americans—and the current antitrust regime is a large part of the problem

Note: The slides that follow give the reformers’ argument. They are not designed to give a neutral view and some of the studies cited have methodological flaws.

The reformers' argument

- Corporate profits are soaring in absolute dollars

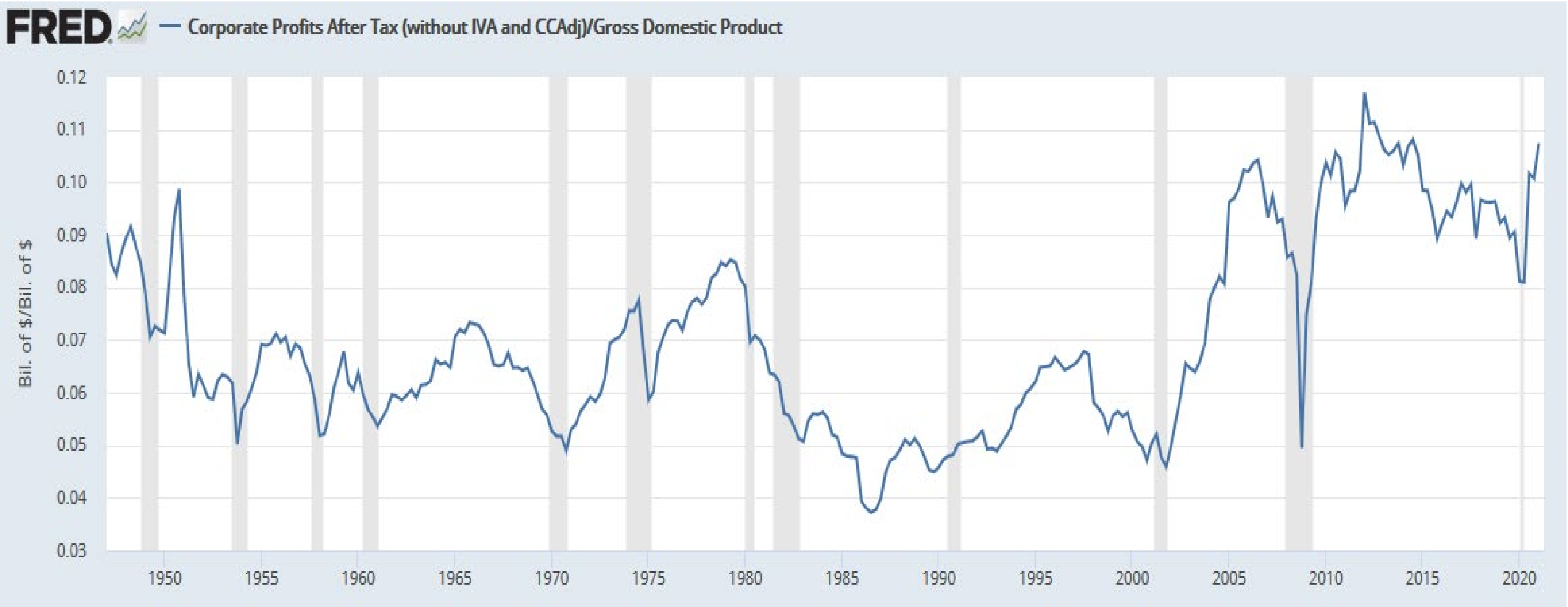


Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Economic Analysis, Corporate Profits After Tax (without IVA and CCAdj) [CP], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/CP, July 31, 2021.

The reformers' argument

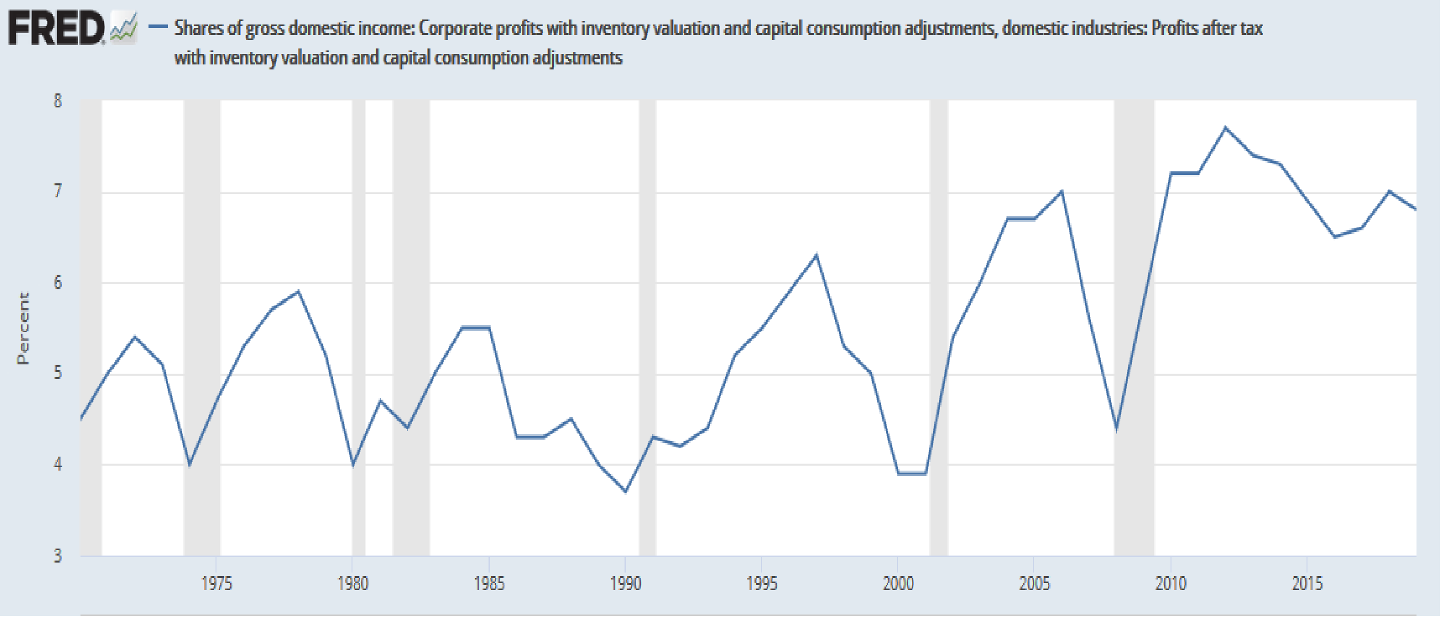
- . . . and as a percentage of GDP



Source: U.S. Bureau of Economic Analysis, Corporate Profits After Tax (without IVA and CCAdj) [CP], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/CP, August 1, 2021.

The reformers' argument

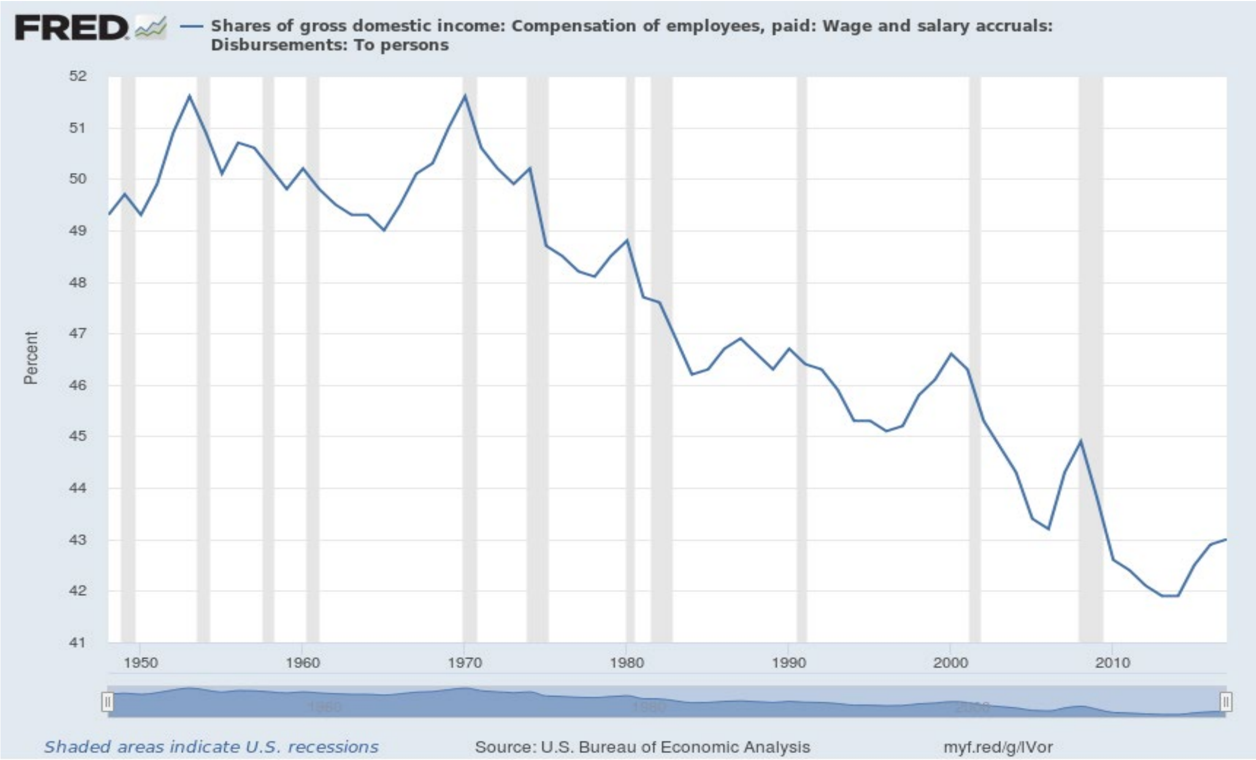
- Corporate profits account for an increasing share of gross domestic income



Source: U.S. Bureau of Economic Analysis, Shares of gross domestic income: Corporate profits with inventory valuation and capital consumption adjustments, domestic industries: Profits after tax with inventory valuation and capital consumption adjustments [W273RE1A156NBEA], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/W273RE1A156NBEA, August 2, 2021.

The reformers' argument

- . . .while the labor share of gross domestic income has dramatically declined

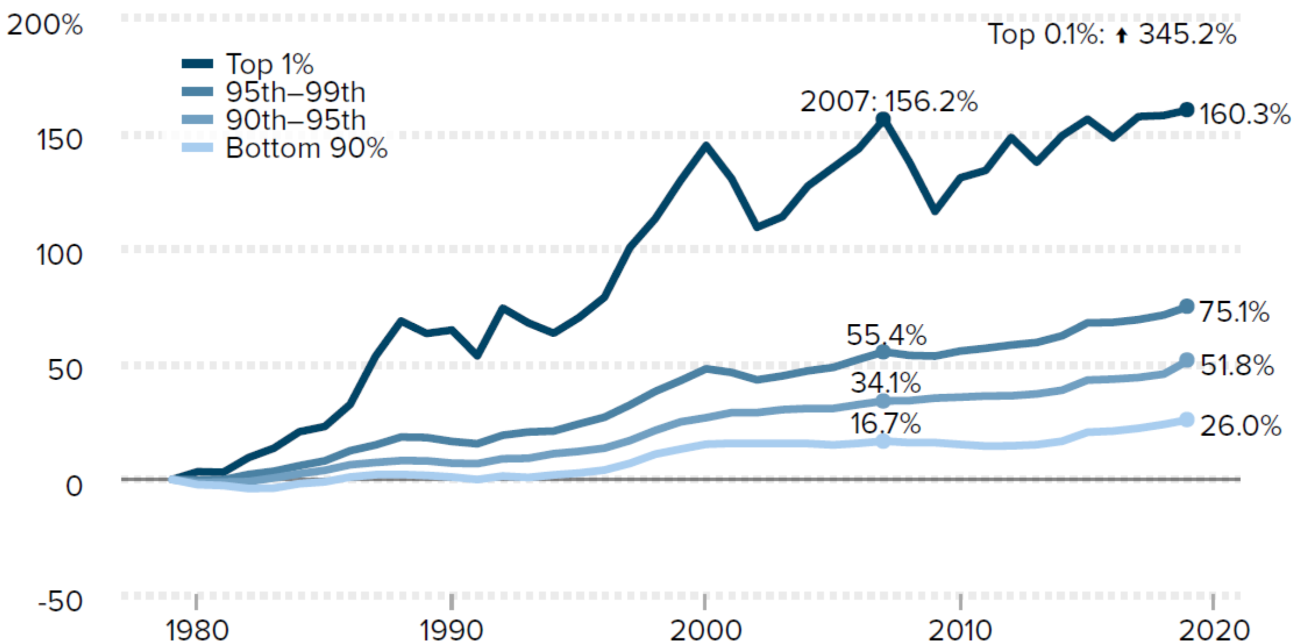


Source: U.S. Bureau of Economic Analysis, Shares of gross domestic income: Compensation of employees, paid: Wage and salary accruals: Disbursements: to persons [W270RE1A156NBEA], *retrieved from* FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/W270RE1A156NBEA, July 31, 2021.

The reformers’ argument

- Real wages for average workers have largely stagnated

Cumulative percent change in real annual wages, by wage group, 1979–2019

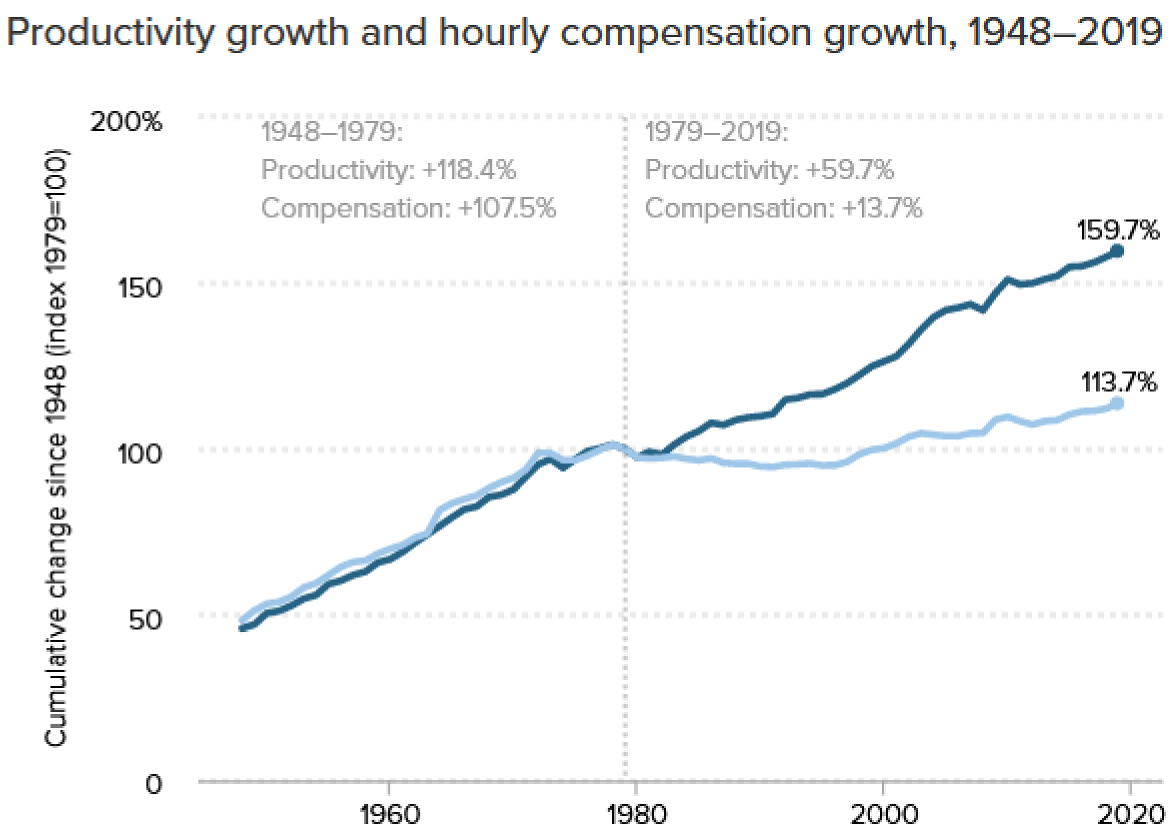


	CAGR
Top 0.1%	3.80%
Top 1%	2.42%
95th-99th	1.41%
90th-95th	1.05%
Bottom 90th	0.58%

Source: Lawrence Mishel & Josh Bivens, Identifying the Policy Levers Generating Wage Suppression and Wage Inequality 8 (Economic Policy Institute May 13, 2021), available at https://files.epi.org/uploads/215903.pdf.

The reformers' argument

- Moreover, workers are not being compensated with productivity growth

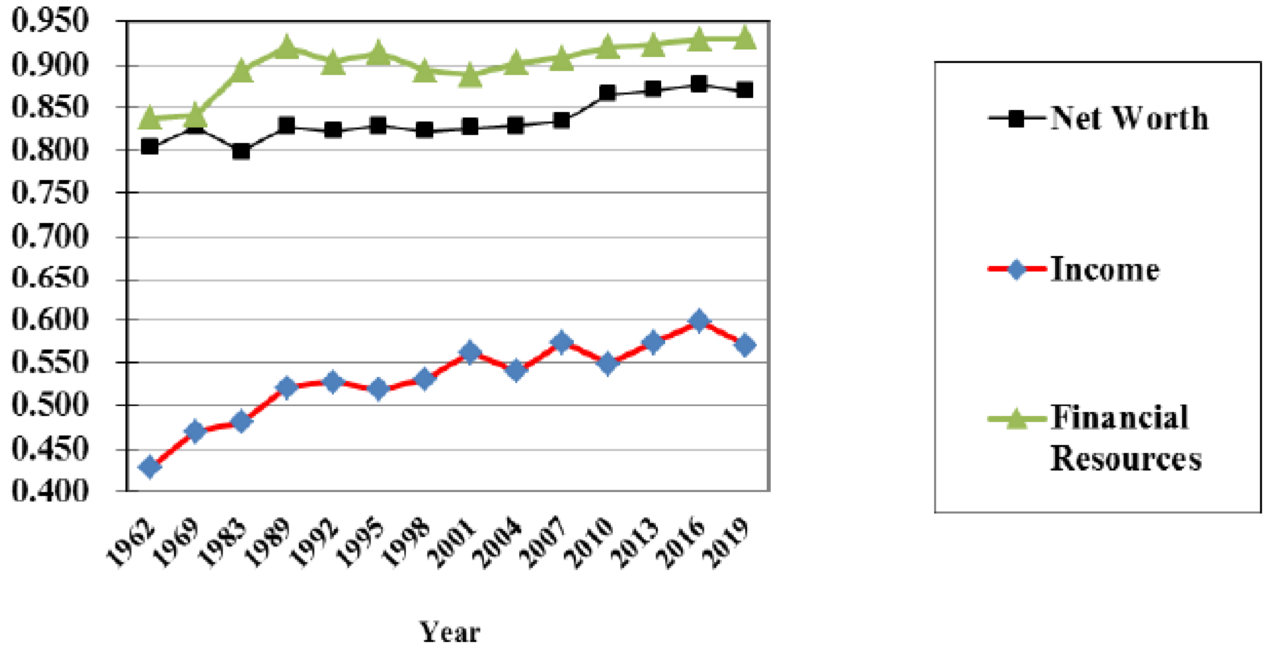


Source: Lawrence Mishel, Growing Inequalities, Reflecting Growing Employer Power, Have Generated a Productivity–Pay Gap since 1979 (Economic Policy Institute (Sept. 2, 2021), https://www.epi.org/blog/growing-inequalities-reflecting-growing-employer-power-have-generated-a-productivity-pay-gap-since-1979-productivity-has-grown-3-5-times-as-much-as-pay-for-the-typical-worker/.

The reformers' argument

- Income inequality correspondingly has grown increasingly worse . . .

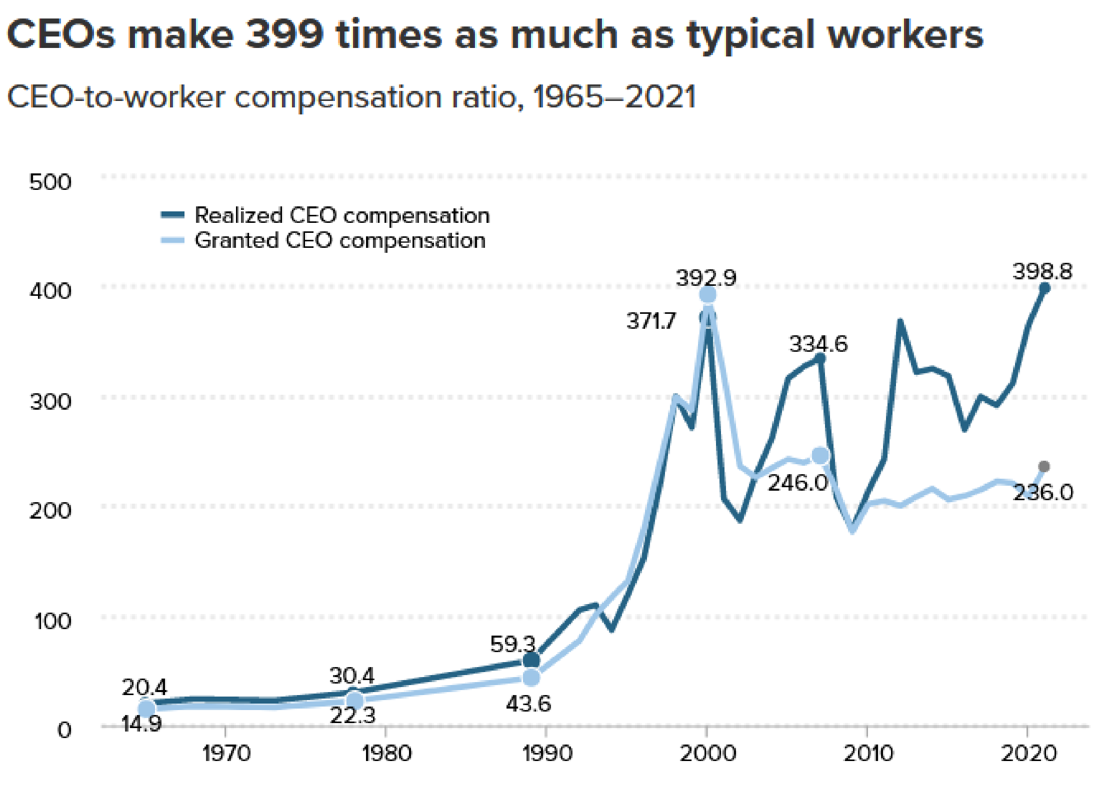
The higher the Gini coefficient, the greater the inequality



Source: Edward N. Wolff, Household Wealth Trends In The United States, 1962 to 2019: Median Wealth Rebounds... But Not Enough 71 (Figure 4) (NBER Working Paper No. 28383, Jn. 2021), http://www.nber.org/papers/w28383.

The reformers' argument

- . . . with CEOs on average now making 399x more than typical workers



Source: Josh Bivens and Jori Kandra, *CEO pay has skyrocketed 1,460% since 1978*, at 10 (Economic Policy Institute Oct. 4, 2022), *available at* https://www.epi.org/publication/ceo-pay-in-2021/.

The reformers' argument

- The "American dream" of advancement over generations is declining

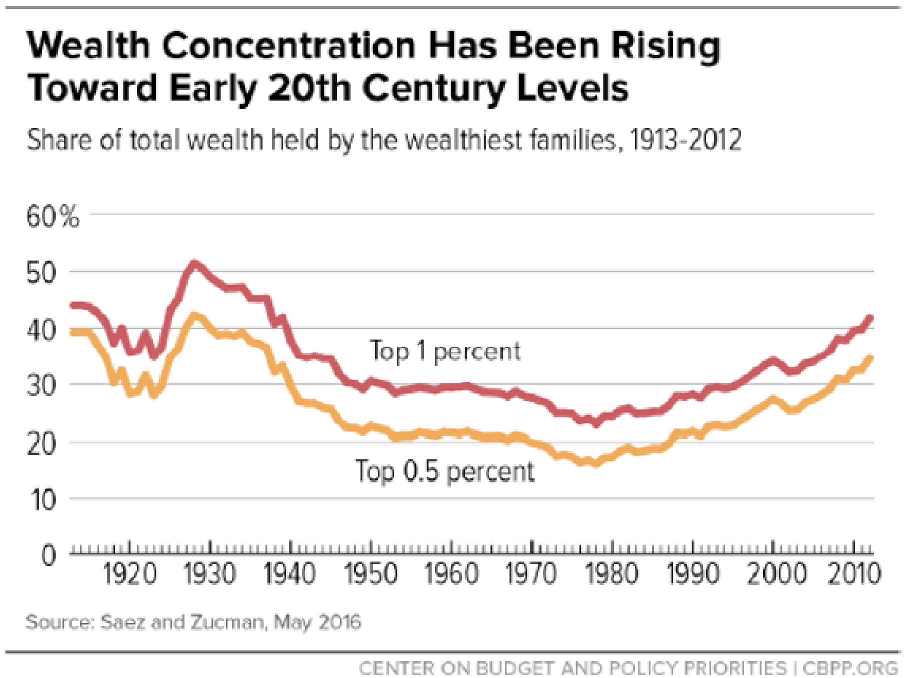
Percentage of U.S Children Earning More than Their Parents at Age 30 by Year of Birth, 1940-1984

Note: Children's income is the sum of individual and spousal income at age 30, excluding immigrants after 1994. Parental income is the sum of the spouses' incomes for families in which the highest earner is ages 25-35.

Source: Peterson Institute for International Economics, How to Fix Economic Inequality? 7 (figure 7) (2020), https://www.piie.com/microsites/how-fix-economic-inequality.

The reformers' argument

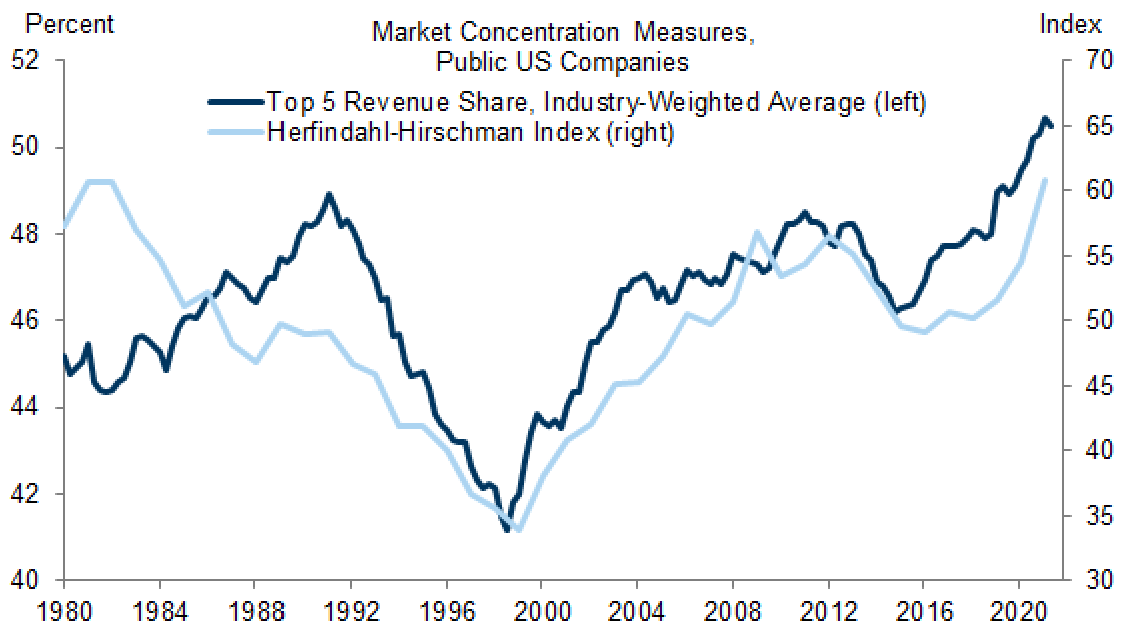
- Wealth is even more concentrated than income, with wealth inequality approaching the level of the 1920s



Source: Chad Stone, Danilo Trisi, Arloc Sherman & Jennifer Beltrán, A Guide to Statistics on Historical Trends in Income Inequality 16 (figure 6) (Center on Budget and Policy Priories updated June 13, 2020), https://www.cbpp.org/research/poverty-and-inequality/a-guide-to-statistics-on-historical-trends-in-income-inequality.

The reformers' argument

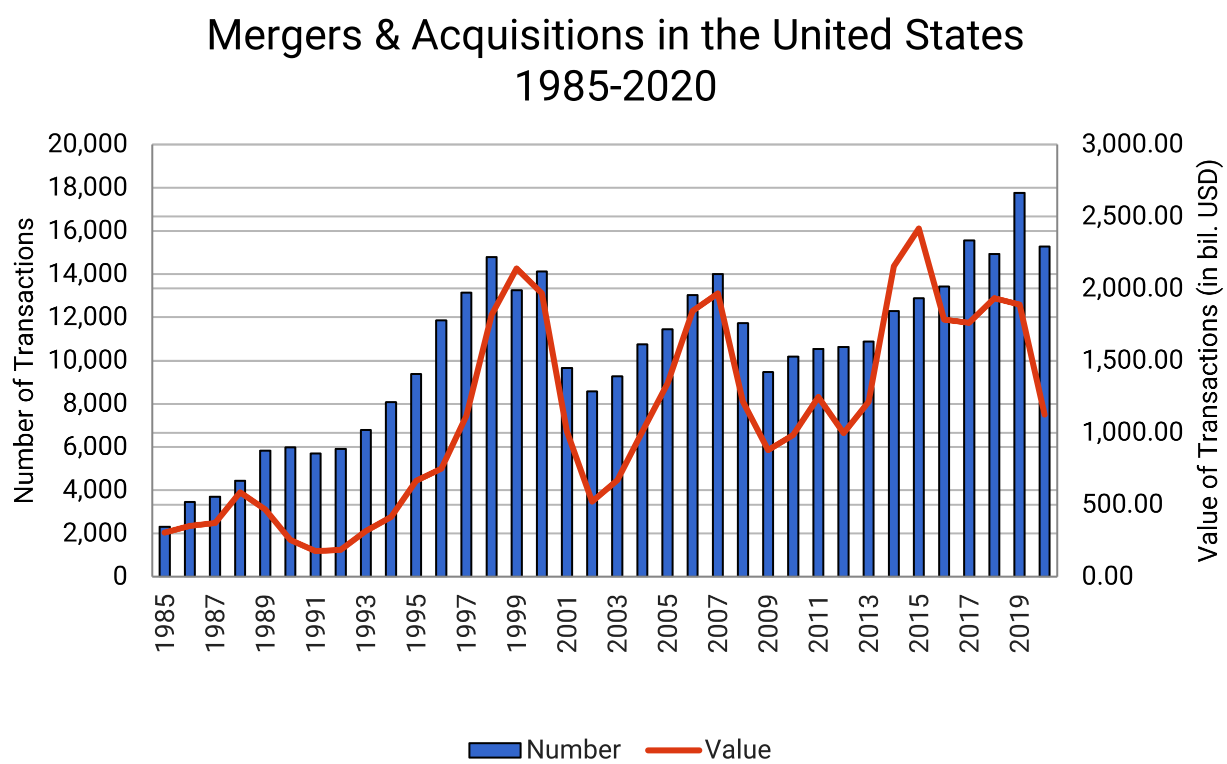
- Industrial concentration has been steadily increasing since the mid-1990s



Source: Joseph Briggs & Alec Phillips, *Concentration, Competition, and the Antitrust Policy Outlook* ex. 1 (Goldman Sachs US Economics Analyst July 18, 2021)

The reformers' argument

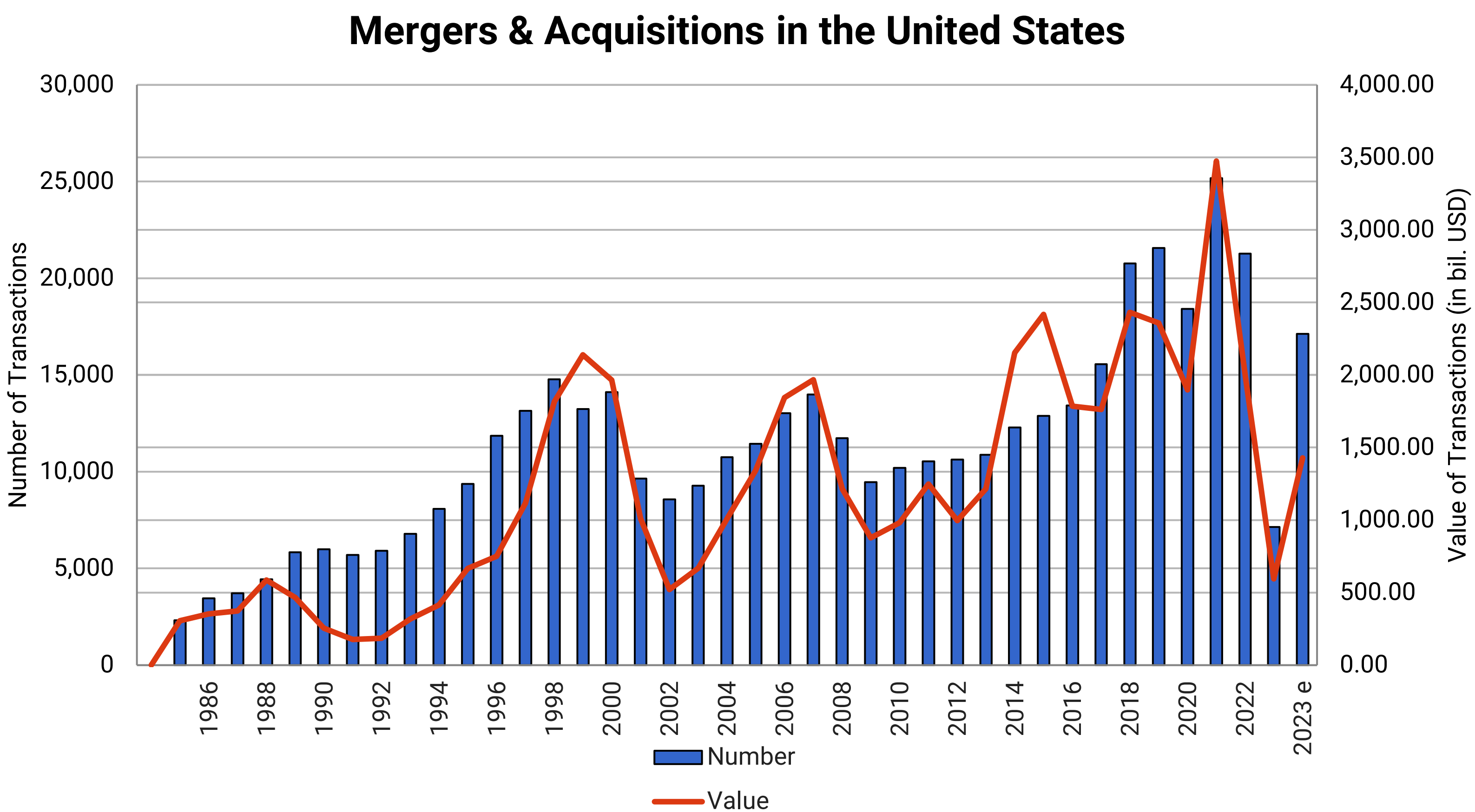
- Acquisitions are a significant source of increased concentration . . .



Source: Institute for Mergers, Acquisitions and Alliances (IMAA), M&A Statistics, https://imaa-institute.org/m-and-a-statistics-countries/#Mergers-Acquisitions-United-States-of-America (last visited Aug. 2, 2021).

The reformers' argument

- Acquisitions are a significant source of increased concentration . . .



Source: Institute for Mergers, Acquisitions and Alliances (IMAA), M&A Statistics, https://imaa-institute.org/m-and-a-statistics-countries/#Mergers-Acquisitions-United-States-of-America (last visited Aug. 29, 2023).

The reformers' argument

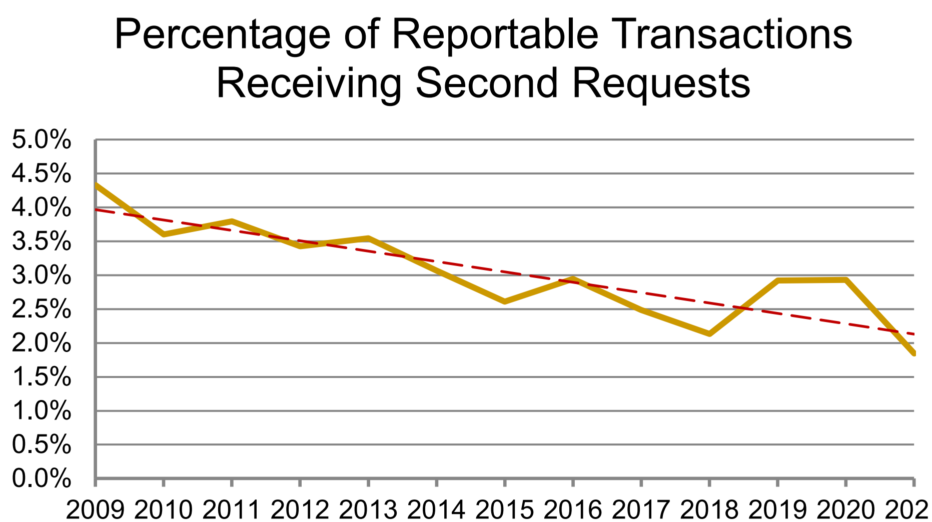
- . . . and some acquisitions have been "megadeals" . . .

Rank	Date	Acquiror	Target	Value (bil. USD)
1	2000	America Online Inc	Time Warner	164.747
2	2013	Verizon Communications Inc	Verizon Wireless Inc	130.298
3	1999	Pfizer Inc	Warner-Lambert Co	89.168
4	2016	AT&T Inc	Time Warner Inc	85.408
5	1998	Exxon Corp	Mobil Corp	78.946
6	2006	AT&T Inc	BellSouth Corp	72.671
7	1998	Travelers Group Inc	Citicorp	72.558
8	2001	Comcast Corp	AT&T Broadband & Internet Svcs	72.041
9	2018	Cigna Corp	Express Scripts Holding Co	69.770
10	2014	Actavis PLC	Allergan Inc	68.445
11	2017	Walt Disney Co.	21st Century Fox	68.422
12	2009	Pfizer Inc	Wyeth	67.286
13	2015	Dell Inc	EMC Corp	66.000
14	1998	SBC Communications Inc	Ameritech Corp	62.593
15	2015	The Dow Chemical Co	DuPont	62.111
16	1998	NationsBank Corp,Charlotte,NC	BankAmerica Corp	61.633
17	1999	Vodafone Group PLC	AirTouch Communications Inc	60.287
18	2002	Pfizer Inc	Pharmacia Corp	59.515
19	2010	Preferred Shareholders	AIG	58.977
20	2004	JPMorgan Chase & Co	Bank One Corp,Chicago,IL	58.663
21	2016	Bayer AG	Monsanto Co	56.598
22	1999	Qwest Commun Intl Inc	US WEST Inc	56.307
23	2015	Charter Communications Inc	Time Warner Cable Inc	55.638
24	2011	Shareholders	Abbott Laboratories-Research	55.513
25	2009	Vehicle Acq Holdings LLC	General Motors-Cert Assets	55.280

Source: Institute for Mergers, Acquisitions and Alliances (IMAA), M&A Statistics, https://imaa-institute.org/m-and-a-statistics-countries/#Mergers-Acquisitions-United-States-of-America (last visited Aug. 29 2023).

The reformers' argument

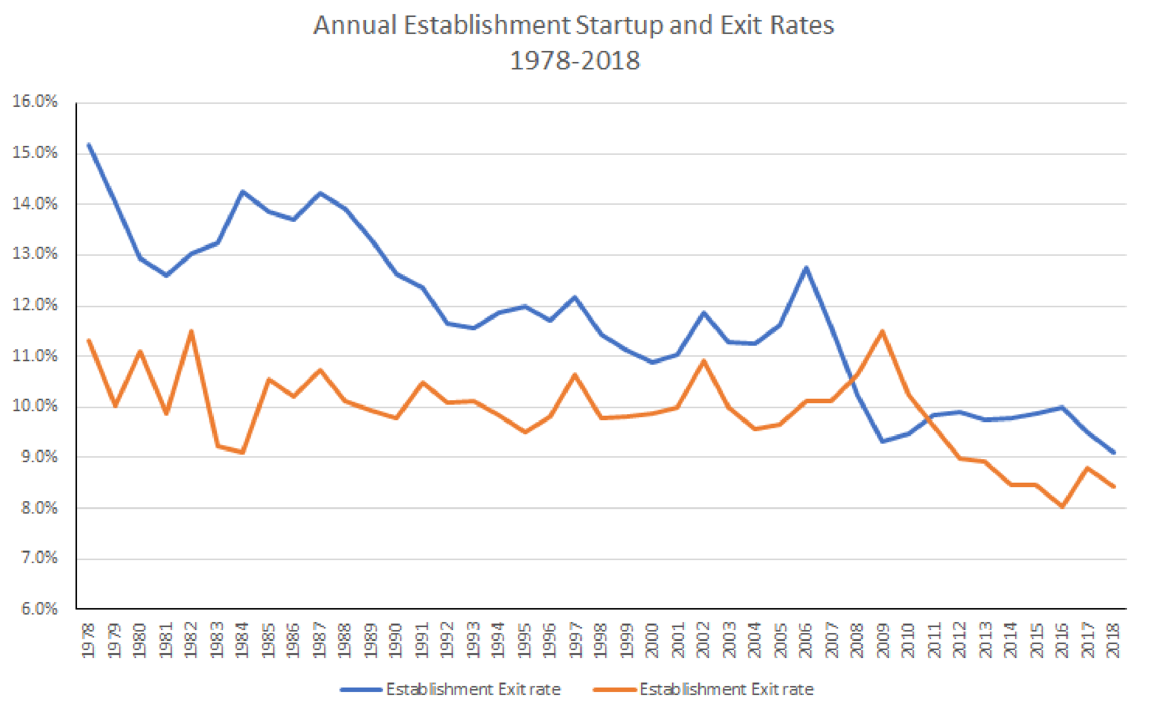
- . . . while HSR Act merger investigations have disproportionately declined



Source: Fed. Trade Comm'n & U.S. Dep't of Justice, Annual Reports to Congress (FY 1979-2021)

The reformers' argument

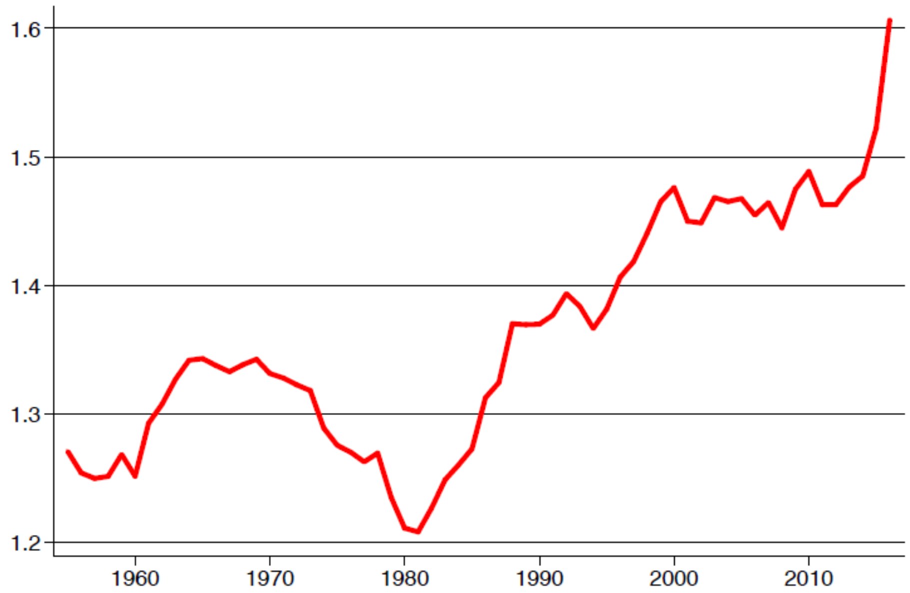
- At the same time, business start-up rates have been declining



Source: U.S. Census Bureau, Business Dynamics Statistics: Establishment Size: 1978-2018, https://data.census.gov/cedsci/table?q=BDSTIMESERIES.BDSESIZE&tid=BDSTIMESERIES.BDSESIZE&hidePreview=true.

The reformers' argument

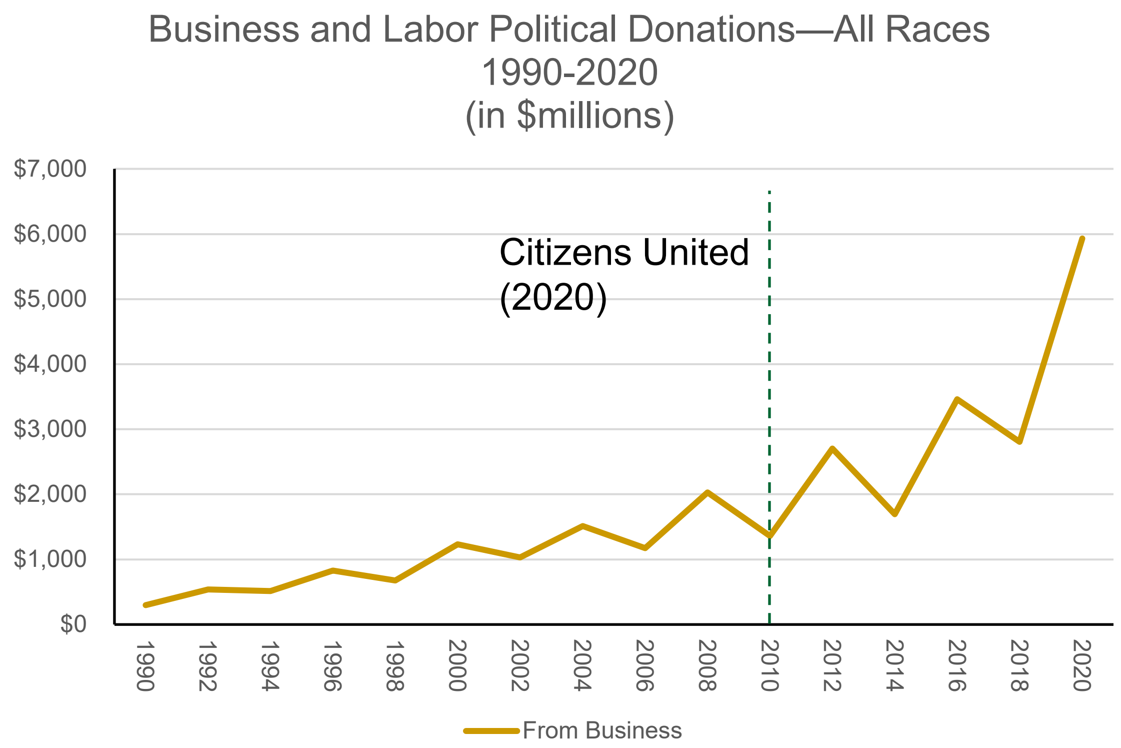
- Average markups have increased three-fold since 1980



Source: Jan De Loecker, Jan Eeckhout & Gabriel Unger, *The Rise of Market Power and the Macroeconomic Implications*, 135 Q.J. Econ. 561, 571 (2020), *cited in* White House, Fact Sheet: Executive Order on Promoting Competition in the American Economy (July 9, 2021), https://www.whitehouse.gov/briefing-room/statements-releases/2021/07/09/fact-sheet-executive-order-on-promoting-competition-in-the-american-economy/.

The reformers' argument

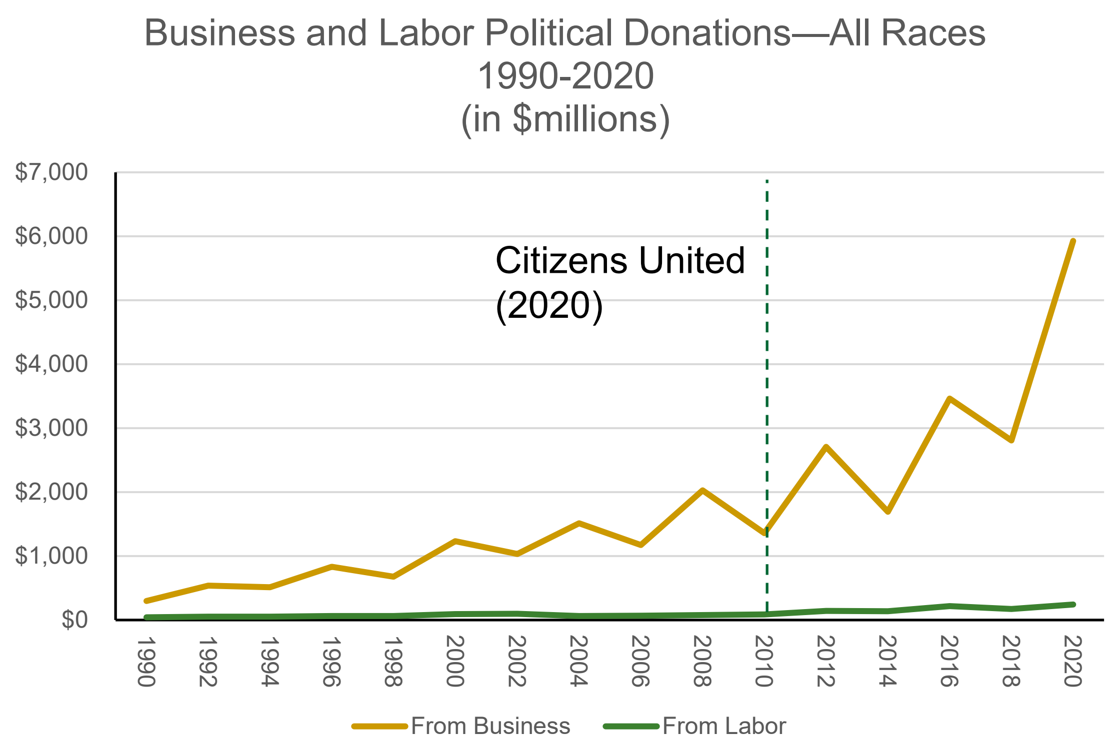
- Corporations are becoming more politically powerful, increasing their political campaign spending . . .



Source: Business-Labor-Ideology Split in PAC & Individual Donations to Candidates, Parties, Super PACs and Outside Spending Groups, https://www.opensecrets.org/elections-overview/business-labor-ideology-split.

The reformers' argument

- . . . and dramatically outspending labor



Source: OpenSecrets.org, Business-Labor-Ideology Split in PAC & Individual Donations to Candidates, Parties, Super PACs and Outside Spending Groups, https://www.opensecrets.org/elections-overview/business-labor-ideology-split.

The reformers' argument

- Bottom line:

The antitrust laws (along with many other laws)
need to be reformed

  - Merger antitrust law is a focus of these criticisms since critics believe that merger antitrust law—whether through judicial decisions or prosecutorial elections—failed to stop many mergers and acquisitions that are contributing to the perceived problems

Modern critiques of merger antitrust law

- There are two fundamentally different critiques of modern antitrust law—
  1. The progressive critique
  2. The Neo-Brandeisian antimonopoly movement

The progressive critique

- Basic ideas[1]
  1. Accepts the consumer welfare standard broadened to include suppliers (especially labor)
  2. Assesses anticompetitive effect by comparing consumer welfare outcomes with the challenged conduct against outcomes in the "but for" world where the challenged conduct is prohibited
  3. Views historical enforcement outcomes as failing to identify and so permitting too many anticompetitive mergers and other types of anticompetitive conduct
  4. Believes that market power is typically durable and that markets do not adjust quickly—if at all—to eliminate market power
  5. Views the social harm of underenforcement of the antitrust laws to be greater than the social cost of overenforcement
  6. Would create presumptions to make prima facie proof of anticompetitive effect easier
  7. Very skeptical of any downward pricing pressure defenses to a prima facie case of anticompetitive effect
  8. Very demanding in accepting consent decrees to negate anticompetitive harm

[1] Progressives come in many varieties. These appear to me to represent the core beliefs of progressives generally.

The progressive critique

- Implications for merger antitrust law and enforcement
  1. Would continue to focus on outcomes for consumers
  2. Would also focus on outcomes for suppliers (especially labor)
     - Unclear how progressives would balance consumer benefits from lower prices resulting from lower labor costs
  3. Probably would retain judicial tests for market definition
     - But where direct evidence of anticompetitive effects is available (most likely in consummated transactions), would not require rigorous proof of market definition
  4. Would lower thresholds for challenging horizontal and vertical mergers
  5. Would lower thresholds for challenging acquisitions of actual potential competitors and "nascent" competitors
  6. Would lower standards for finding acquisitions by monopolists violate Section 2
  7. Would likely shift the burden of proof to merging parties where the acquiring firm is sufficiently large ("superfirms")
     - That is, merging parties would bear the burden of persuasion of proving that the transaction is not anticompetitive

The progressive critique

- Implications for merger antitrust law and enforcement
  8. Would continue—and probably increase—hostility to defenses that offset anticompetitive effect
  9. Would continue practice of accepting consent decree to “fix” problem
     - BUT would impose a heavy burden on the parties to prove that the “fix” will in fact negate the anticompetitive concerns, and
     - Would include provisions in consent decrees to make it easier for the government to obtain modifications if the agency concluded after the fact that the original relief did not completely negate the competitive problem

The Neo-Brandeisian "antimonopoly movement"

- Lina Khan's five principles[1]
  1. "Antimonopoly is a key tool and philosophical underpinning for structuring society on a democratic foundation"
     - A functioning democracy depends on checking the political power that comes from private concentrations of economic power
  2. "Antimonopoly is more than antitrust"
     - Antitrust law is just one tool in the antimonopoly toolbox
     - Other tools include, for example, affirmative economic regulation, tax policy, federal spending, trade policy, securities regulation, and consumer protection rules
  3. "Antimonopoly does not mean 'big is bad'"
     - Because of economies of scale or scope or network effects, some industries tend naturally to monopoly
     - In such cases, the answer is not to break these firms up, but to design a system of public regulation that—
       - Prevents the executives who manage this monopoly from exploiting their power, *and*
       - Creates the right incentives to ensure that companies provide the best value for customers and workers

[1] Lina Khan, *The New Brandeis Movement: America's Antimonopoly Debate*, 9 J. Eur. Competition L. & Prac. 131 (2018). The five principles are verbatim from the article. The commentary is largely my interpretation. Khan is now Chair of the Federal Trade Commission. She has the strong support both the two other Democrat commissioners, which gives Khan a working majority even if all five commissioner seats were filled. However, two seats are currently vacant.

The Neo-Brandeisian "antimonopoly movement"

- Lina Khan's five principles
  4. "Antimonopoly must focus on structures and processes of competition, not outcomes"
     - The antitrust laws should focus on creating and maintaining a *competitive process*, which in turn will produce just outcomes
       - WDC: This is a very Rawlsian perspective[1]
     - A competitive process requires atomistically structured markets
     - Focusing on market outcomes (such as consumer welfare) is fundamentally wrong
       - Cannot specify which outcome is the "right" ("just") outcome (that is, cannot identify the proper social welfare function)
       - Cannot reliably identify the relevant outcomes in the real world of predict them in the but-for world
  5. "There are no such things as market 'forces'"
     - Markets are structured by law and policy, not economic "natural forces"
     - The legal regime could, for example, limit the size of firms—and hence their dominance in the marketplace—regardless of economies of scale or scope or network effects

The key driver for the Neo-Brandeisian approach is the elimination of significant political and economic power by firms in the economy—this focuses on maintaining competitive structures and processes, not competitive market outcomes

[1] *See* JOHN RAWLS, A THEORY OF JUSTICE (rev. ed. 1999).

The antimonopoly movement deconstructed

- Premises
  1. The democracy premise
  2. The economic premise
  3. The individual freedom premise
  4. Line drawing

The antimonopoly movement deconstructed[1]

- Premises
  1. The democracy premise
     - A functioning democracy depends on checking private political power
     - Private concentrations of economic power create political power and undermine democracy
     - Enormous corporations, in particular, wield political power through a variety of means, including lobbying, financing elections, staffing government, and funding research
     - Pursuing democratic values sometimes can require some sacrifice of economic efficiency and consumer welfare

[1] *A caution*: Proponents of the Neo-Brandeisian antimonopoly movement are not completely homogeneous in their philosophies or policy prescriptions. These slides are my effort to distill the movement's central tenets recognizing that there remains considerable room for interpretation, especially in the policy prescriptions.

The antimonopoly movement deconstructed

- Premises
  2. The economic premise
     - The competitive process provides the lowest prices, greatest output, highest quality, largest consumer choice, and highest rate of technological innovation
     - The competitive process also yields a fair and equitable distribution of surplus between consumers and producers and of profits among large and small firms
     - The competitive process depends on absence of private individual or collective concentrations of economic power

The antimonopoly movement deconstructed

- Premises
  3. The individual freedom premise
     - An atomistic economy provides—
       - Consumers with the maximum freedom to choose what products and services to buy and the suppliers from whom they deal
       - Workers with the maximum freedom to choose with whom to work and under what conditions and to earn a just wage
       - Small business (including new entrants) the maximum freedom to compete and innovate and to earn fair profits
     - Private concentrations of economic power limit this freedom
     - Maximizing individual freedom sometimes can require some sacrifice of economic efficiency and consumer welfare

The antimonopoly movement deconstructed

- Premises
  4. Line drawing
     - In principle, there should be a line that determines when private concentrations of economic power become unacceptable
     - In practice, wherever the line, some concentrations of economic power—including some in the hands of individual "superfirms"—are so over the line that they are readily identifiable
     - So deal with the egregious cases first and worry about line drawing and close cases later

The antimonopoly movement deconstructed

- Implications for merger antitrust law and enforcement
  - The standard of legality
    - The focus should be on market structure:
      - Preventing the creation of or increase in private concentrations of economic power and on reducing existing concentrations through breakups or otherwise
      - Concentration on the buy-side can be as problematic as concentration on the sell-side
    - Not on performance:
      - Unlawfulness should not depend on comparing outcomes with and without the challenged conduct, whether it is price, output, quality, or the rate of innovation
  - Market definition
    - Markets do not need to be identified rigorously—simple (noneconomic) tests akin to the *Brown Shoe* approach are sufficient to identify economic concentrations of power and dominant firms
    - In particular, the hypothetical monopolist test should be discarded
      - Much too narrow in focus: Only attempts to determine if firms can profitably increase price
      - Costly yet unreliable to implement in practice
      - Often determines the outcome of merger antitrust litigation
  - Economic concentration
    - Five (six?) meaningful firms in an industry is a lower bound for economic concentration for enforcement purposes

The antimonopoly movement deconstructed

- Horizontal mergers
  - 6-to-5 mergers should be presumptively unlawful
  - An acquisition by a firm with a 30% or greater market share of a firm with 1.67% or more should be presumptively unlawful without more (would yield an HHI change of at least 100)
- Potential competition
  - The time horizon for evaluating potential competition should be the foreseeable future, not two or three years
  - Dominant firms and the largest firms in a concentrated industry should be prohibited from acquiring either—
    - Actual potential competitors that have some prospect now or in the future of entering the market *or*
    - "Nascent" competitors
      - Nascent competitors are firms that have the prospect (usually because of the new technology they are developing), however small and however distance in the future, of significantly undermining the acquiring firm's dominance
      - The nascent competitor may do this on its own or through an acquirer or a third-party licensee
- Vertical mergers
  - Anticompetitive when the merger will give the combined firm the *ability* to deny or anticompetitively price an important input or output (such as a distribution channel) to competitors
  - The *incentive* of the combined firm to foreclose a competitor or raise its rivals' costs—an essential element under the consumer welfare standard—would not be relevant

The antimonopoly movement deconstructed

- Conglomerate mergers
  - Anticompetitive when the merger creates a sufficiently economically or politically powerful firm, regardless of consumer effects
- Modern entrenchment
  - "Entrenched" dominant firms with durable near-monopoly positions—think the high-tech MAMAA firms (Microsoft, Alphabet, Meta, Amazon, and Apple)—should be prohibited from acquiring any business, assets, or technology that has the potential of further entrenching the firm
- Efficiencies
  - Not a defense to a merger
  - Likely viewed as anticompetitive if they give the combined firm a competitive advantage over rivals and enable it to achieve or maintain sufficient economic or political power

A Concluding Thought on the Courts

The courts as a brake on antitrust reform

- Strong judicial precedent reinforces the current "consumer welfare" approach
  - The Supreme Court has repeatedly cited consumer welfare as the lens through which to apply the antitrust laws over the last 40+ years
  - The Areeda & Hovenkamp treatise—a book that almost defines the current approach—is by far the principal nonjudicial authority cited by the courts and adopts the consumer welfare standard
  - The reform movements have nothing comparable
- Generally, a conservative bench on antitrust
  - Almost all judges have grown up in the current antitrust regime
  - 6 of 9 (66.6%) Supreme Court justices were appointed by Republican presidents
  - 91 of 179 (50.1%) federal court of appeals judges were appointed by Republican presidents[1]
  - 341 of 677 (50.4%) district court judges were appointed by Republican presidents

[1] Data from Circuit Status, BallsandStrikes.com (as of July 18, 2023).

The courts as a brake on antitrust reform

- Most importantly, the Supreme Court is conservative with respect to antitrust
  - At least four justices are interested in antitrust cases and would be likely to vote for cert with respect to any significant doctrinal move in the lower courts (including in § 1292(b) appeals)
  - Could easily see six or more justices reaffirming the traditional approach
    - *AMG Capital* (June 21, 2021) (9-0): FTC Act § 13(b) does not authorize FTC to seek monetary relief[1]
    - *Alston* (Apr. 22, 2021) (9-0): Affirming judgment for college players in challenge to NCAA compensation restrictions using the traditional approach
    - *Amex* (June 25, 2018) (5-4): Affirming the Second Circuit's finding that the plaintiffs—the United States and several states—failed to make out a prima facie case of anticompetitive effect
      - Since *Amex* was decided, Justice Breyer, who wrote the dissent, and Justice Ginsberg, who joined the dissent, were replaced by Justices Jackson and Justice Barret
  - Conservative majority would likely grant cert and overturn any FTC rule making under Section 5 that departs materially from the current case law as contrary to the "major questions" or "non-delegation" doctrines

[1] AMG Cap. Mgmt., LLC v. FTC, 141 S. Ct. 1341 (2021).
[2] NCAA v. Alston, 141 S. Ct. 2141 (2021).
[3] Ohio v. American Express Co., 138 S. Ct. 2274 (2018).

CLASS 4 SLIDES

Unit 4. The DOJ/FTC Merger Review Process: The Spinal Implant Merger

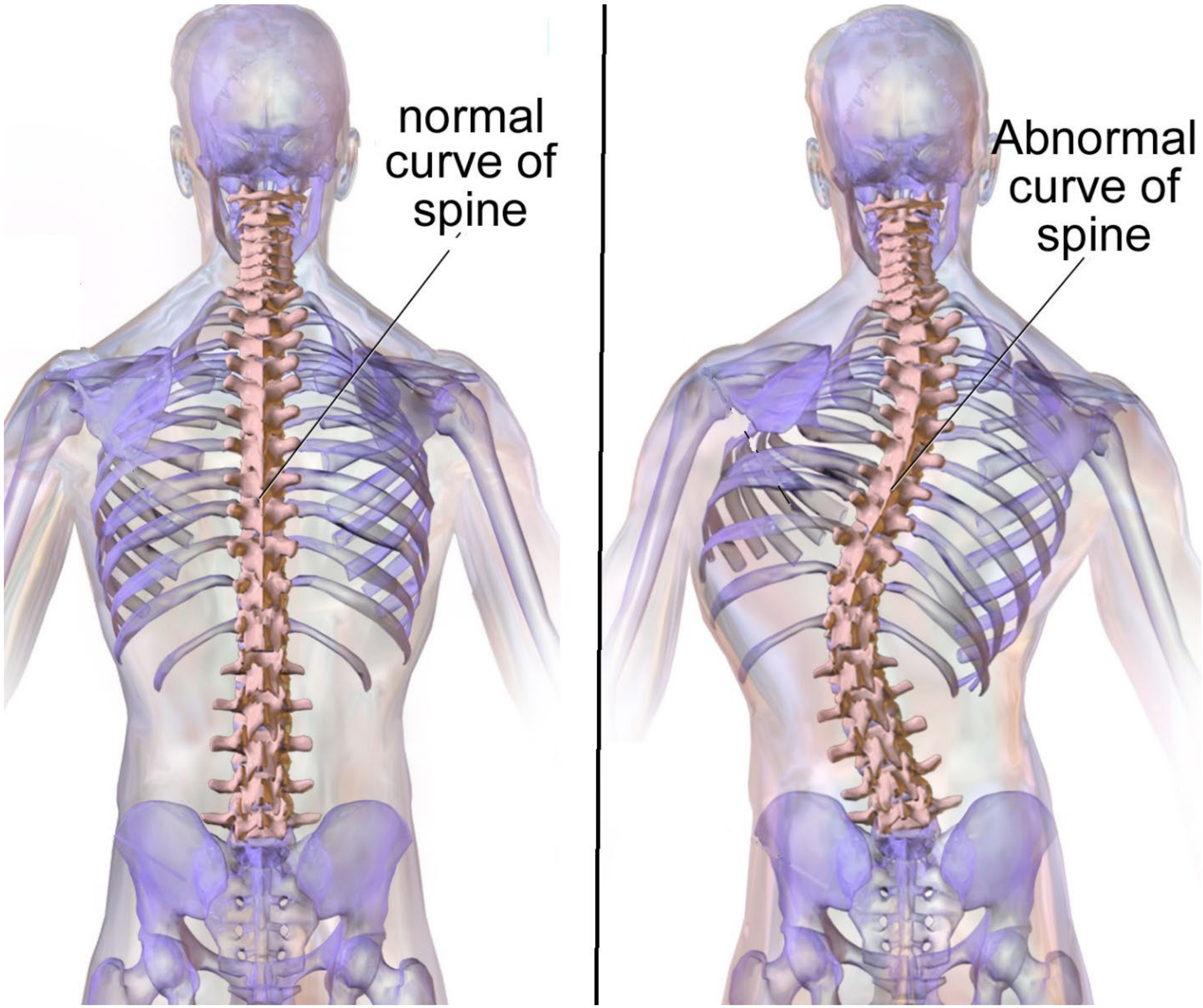
Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

September 7, 2023

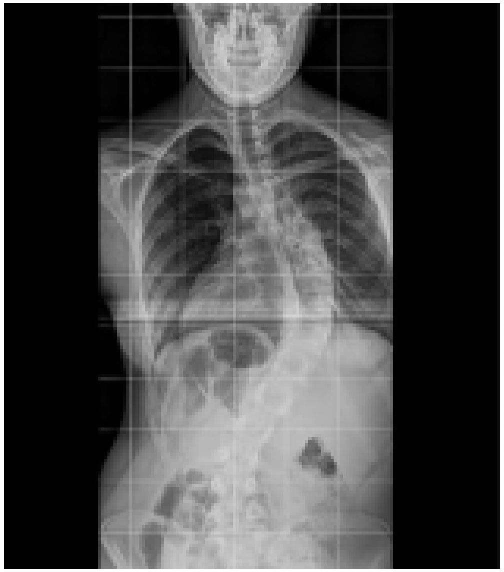
The setup

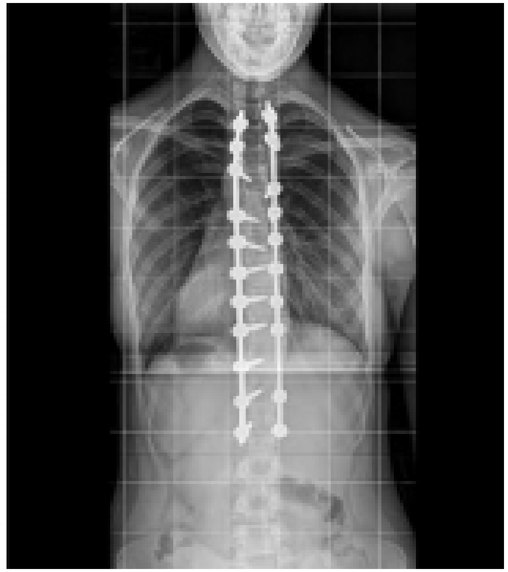
- Dr. Jack Smith, the CEO of your client Danek Group, has called you about a possible merger with Sofamor S.A. through stock swap valued at $750 million
  - Danek and Sofamor overlap in the sale of spinal implants for the surgical treatment of scoliosis in the United States
  - Zimmer Corporation is the only other company that sells spinal implants in the United States
    - Danek and Zimmer manufacture their spinal implants in the United States
    - Sofamor manufacturers its spinal implants in a suburb of Paris, France, and imports its products into the United States
  - Smith estimates the companies have the following U.S. market shares:
    - Danek: 40%
    - Zimmer: 40%
    - Sofamor: 20%
  - You have a meeting with Smith, along with his COO and general counsel, in your office this coming Thursday at 11:10 am to discuss—
    - the antitrust implications of the transaction and
    - the process you recommend for develop the defense of the transaction

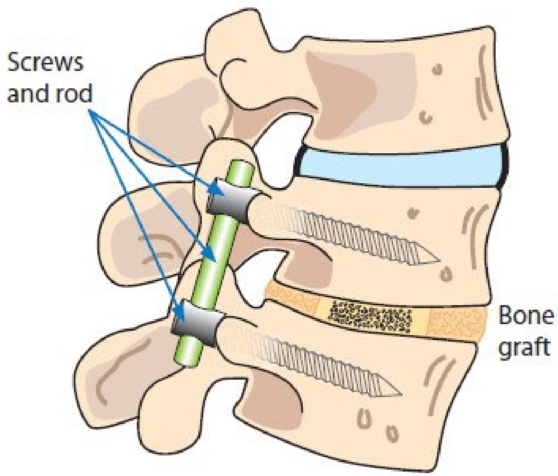
Adolescent idiopathic scoliosis



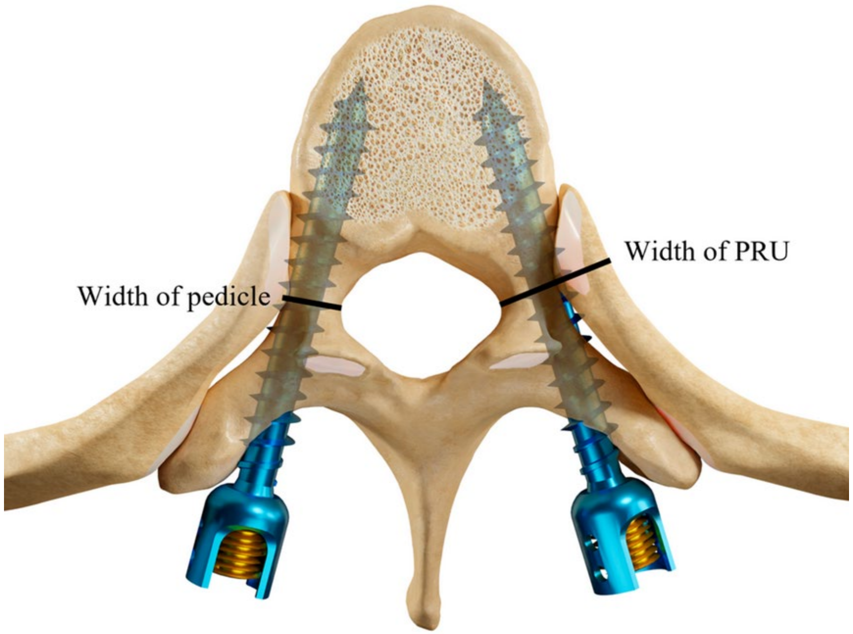
Corrected with spinal implants (rods and screws)

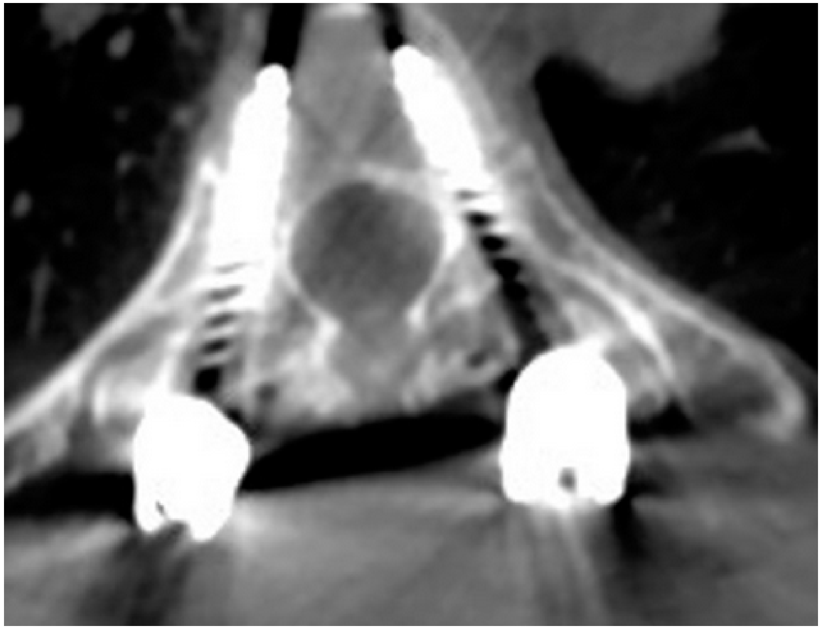






Pedicle screw placement





Spinal implant kits

- This is what Danek and Sofamor sell:

What Should You Do Before the Meeting?

Summary: Things to do before the meeting

1. Collect the information you know from the client
2. Do some initial research on the Internet and public documents
3. Prepare a preliminary information request and sent it to the client

1. What you would like to know at the start

- Who is the client
- Whether the client is a buyer or seller
- Who is the target/seller
- Whether the deal is a negotiated transaction or an auction
- The general range of the purchase price
  - In particular, whether it is > $111.4 million
- The stage of the transaction

2. Initial research (for all involved companies)

- Examine websites
  - General knowledge
  - Horizontal overlaps
- Review the company 10-Ks
- Search the Internet for more information
  - Generally about companies
  - Generally about overlap markets
  - Search in particular for sites that mention both buyer and seller/target

3. Prepare a preliminary information request

- Basic model preliminary information request
  - Be sure to modify any request with the facts you know about the transaction, the products, or the market environment

Attorney Work Product
Privileged and Confidential
Attorney-Client Communication

ABLE & BAKER LLP

September 5, 2023

PRELIMINARY INFORMATION REQUEST

Below is a list of documents and other information that will help us in our initial U.S. antitrust assessment of the acquisition of Target by Danek and will make our meeting on Thursday more productive. Please note that we are asking only for information and materials that are readily available.

1. A list of any overlapping products that Danek and Target sell in the United States.
2. Any strategic or marketing plans for any overlapping product prepared in the last three years.
3. Any internal or external market research reports that mention both Danek and Target prepared in the last three years.
4. Any other documents that discuss Target or the competitive landscape in the United States where both Danek and Target are present.

3. Prepare a preliminary information request

- Basic model preliminary information request

5. Any internal analyses or studies (including those performed by bankers and/or consultants at Danek's request) regarding the acquisition of Target, including any documents that address:
   a. the rationale for the transaction
   b. any synergies you expect from the transaction (including revenue synergies)
   c. financial modeling of the transaction
   d. likely present or future changes in the product line as a result of the transaction
   e. likely changes in investment or direction of future R&D
   f. likely changes in the facilities, distribution systems, or other operations of either company postmerger.

3. Prepare a preliminary information request

- Basic model preliminary information request

Separately, please think about how customers of either company are likely to react to the transaction. The antitrust agencies consider reactions—especially adverse reactions—highly probative of the competitive effect of a transaction. Indeed, the investigating agency will spend considerable time during the merger review calling customers to obtain their views of the transaction. We will discuss likely customer reactions in some detail at the Thursday meeting.

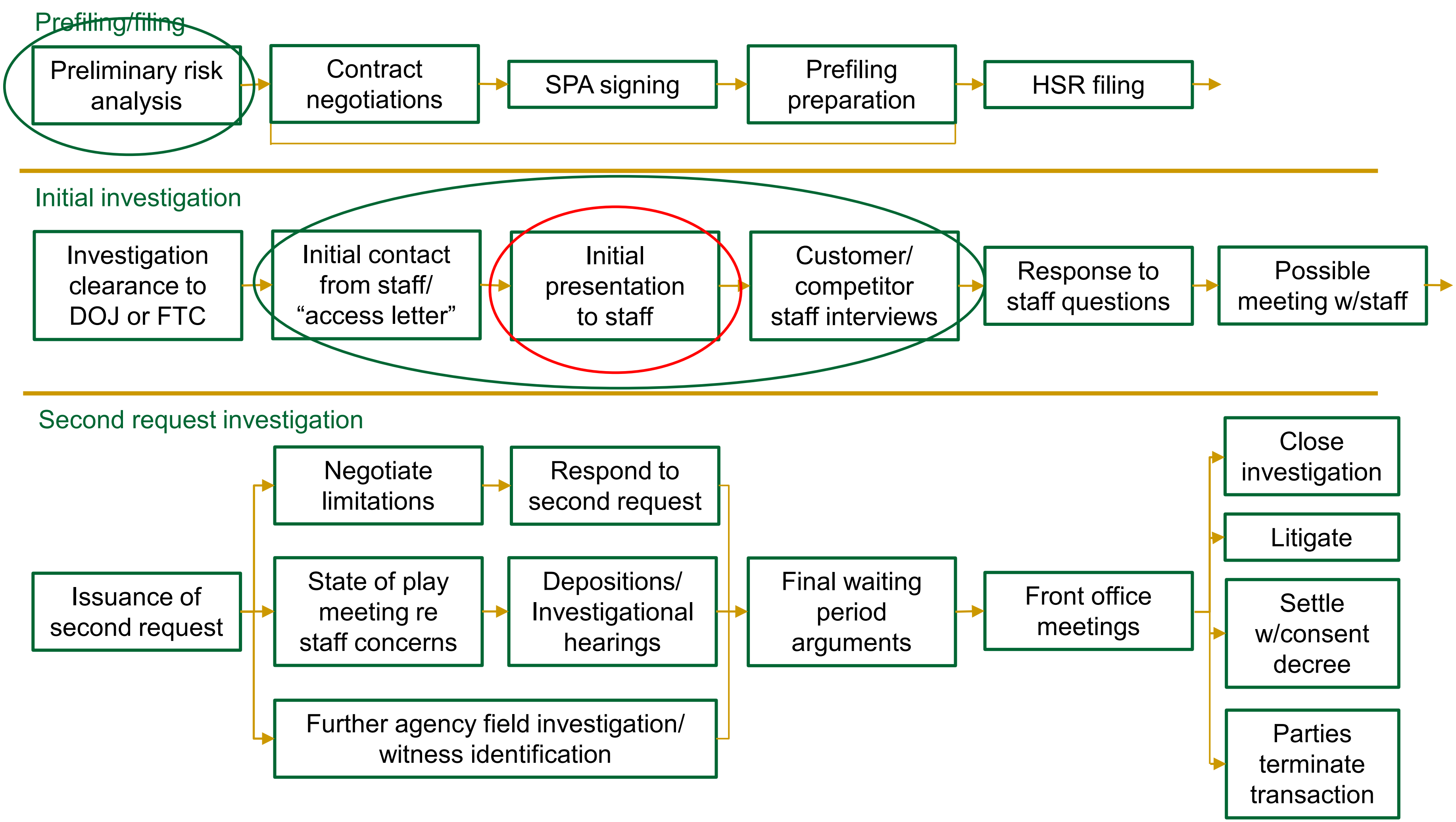
Finally, if you prepare any documents for us at any time, please mark them with the legend "PRIVILEGED & CONFIDENTIAL – PREPARED AT REQUEST OF COUNSEL" so that we can maintain the privilege on all documents that you prepare to help us with the antitrust analysis. If you have any questions about this information request, please do not hesitate to contact us.

Jane Dole
202-555-0170
Jane.dole@ablebaker.com

Robert Jackson
202-555-0189
Robert.jackson@ablebaker.com

What Do You Want To Accomplish at the Meeting?

The HSR merger review process



What do you want to accomplish at the meeting?

1. Find out if the transaction is HSR reportable
2. Find how the business rationale for the deal
3. Develop a working defense strategy
4. Test the defense strategy against customers, company documents, and the target
5. Provide strategy advice
6. Review next steps

1. Find out if the transaction is HSR reportable

- Prima facie reportability threshold in 2023: $111.4 million
- Does an exemption apply?
  - Danek (domestic) stock swapped for Sofamor (foreign) stock →
    - *Foreign stock exemption*: Issuer does not have assets in the U.S. or sales in or into the U.S. over $111.4 million
    - Here, with a purchase price of $750 million and a 20% market share in the United States → Most likely outside the foreign stock exemption
    - Confirm with client
- If reportable, explain the HSR merger review process

2. Teach the client the operational § 7 test

- Important to start with the operational test for Section 7 illegality
  1. Unless the client understands the test, they will not be persuaded by your advice
     - The client will not be persuaded unless they can replicate your analysis and reproduce your conclusion
  2. If the client understands the test, they are more likely to give complete and meaningful answers your factual questions
  3. If the client knows the test, they can continue to think after they leave the meeting about what other facts may be relevant and follow up with you to sharpen the risk analysis
  4. The client needs to know the operational test as they move forward with the transaction

Start prepping the client with the first meeting so that they can understand the antitrust implications of—

- *What they write in their documents*
- *What they say to the press and to customers*
- *What they say in meetings with the investigating agency*

2. Teach the client the operational test

- Start with Clayton Act § 7
  - Governing merger antitrust statute
  - Other statutes may apply, but they will not be more restrictive than Section 7
  - Section 7 prohibits transactions that “may substantially lessen competition”
- But what does this mean *operationally*?
  - A transaction “may substantially lessen competition” when it is likely to harm an identifiable group of customers by—
    1. Increasing prices
    2. Reducing market output
    3. Reducing product or service quality
    4. Reducing the rate of technological innovation or product improvement
    5. [Maybe] reducing product variety

Clients can grasp the operational test immediately

2. Teach the client the operational test

- Tell the client how the investigating agency is going to find the facts about the likely competitive effect
  - HSR reportability and merger review process
    - Time to ask questions to find out if the deal is likely to be reportable
  - The investigating agency will—
    1. Entertain a presentation from the parties on the deal
    2. Interview—and perhaps later depose under oath—you and other relevant employees in both companies
    3. Obtain massive amounts of the documents and data from both companies
    4. Interview customers and competitors (and maybe obtain documents and data from them)
    5. Analyze win-loss records of the companies in bidding for projects
    6. Use economists to assist in analyzing the likely competitive effects of the transaction

2. Teach the client the operational test

- Bottom line
  - The agency's conclusion on the likely effect on customers will determine the outcome of the investigation
    - NB: It is the *agency's conclusion*, not necessarily the truth, that counts
  - The best defense is a good offense
    - Can we argue that the deal is a "win-win" for the merging parties *and* the customers?
    - Companies do not do deals out of the goodness of their heart—*they do deals to make money*
    - Do we have a story consistent with the business model for the transaction, the documents and other company evidence, and the likely customer responses in staff interviews that the deal will be good for customers?

Best story*: The transaction will enable the combined company to make money by reducing costs and by making better products faster to the benefit of our shareholders and our customers*

3. Develop a working defense strategy

1. Learn more about the business and the market environment
2. Learn about the deal rationale
   - *Query*: How will Danek make money from the transaction?
   - *Query*: What are the implications of the business model for customers?
3. What will the company documents say about competition between the two companies?
   - If the government conducts a full investigation, it will see all your documents eventually. Are their any documents that might suggest—or the government might read to suggest—that customers will be harmed in any way by the transaction?
   - We need to know about any bad documents now so that we can deal with them now. Waiting to deal with them later can be disastrous.
4. Identify—
   1. All horizontal overlaps
   2. Any dominant market positions
   3. Any significant vertical relationships

3. Develop a working defense strategy

5. Learn what the client thinks are the benefits of the deal to customers (if any)
   - *Query*: Who are the customers?
   - *Alternative query*: Who is likely to be affected positively or negatively by the deal?
6. Do we have a sales pitch that we can give the customers that the deal will be good for them?
   - Will they accept it?

With this background, work with client in the meeting to develop a working defense strategy

*Critical that the client be involved from the beginning in developing the defense strategy—
You want the client to "own" the strategy and make it theirs*

Why?

4. Test the defense strategy

1. Learn how the customers are likely to react
   - *Query:* Will the defense strategy resonate with our customers?
   - *Query:* Will the defense strategy resonate with the target's customers?
   - *Query*: If a customer wanted to attack the deal as anticompetitive, what would the customer say?
2. Learn what the medical societies are likely to say about the deal
3. Learn whether the company's documents will support or contradict the defense strategy
4. Identify any spinal surgeons we can retain as industry experts to support the deal in the investigation?
   - *Query*: Will the experts support the factual predicates of the defense strategy?
5. Learn what the client thinks the target will support the defense strategy
   - *Query*: Who will support, oppose, seek to modify?

As best we can at this point, reconcile the defense strategy with customers, documents, industry experts, and the target

5. Provide any strategic advice

1. Emphasize the need for a compelling sales pitch for the deal to customers of *both* companies
   - Offer to help the relevant business people develop this pitch and advise on when and how to roll it out
   - Note that it is the customers of the target company that are typically the most difficult to persuade
     - Will eventually need to work with the target company as to how best to persuade its customers
2. Emphasize the need for care in drafting documents
   - “Bad” documents alone can kill a deal
     - Avoid creating documents that suggest—implicitly as well as explicitly—that the deal could harm customers
     - Some documents are “bad” because they were carelessly phrased or factually incorrect, not because they speak the truth—These can also kill a deal
   - If there is one, include the procompetitive business rationale for the deal in as many documents as possible

Provide any strategic advice

3. Consider whether the deal can be structured to make it non-HSR reportable to minimize inquiry risk

5. Review next steps

1. Determine if we have client representatives who will be compelling witnesses (*witness evaluation*)—*not to be discussed at the meeting*
   a. The strength of the client witnesses will be a major factor in the success of the defense
2. Ask the client—
   a. Who are likely to be the best business witnesses for the target, and
   b. How good are they likely to be
3. Follow-up with requests for documents and information that will support the defense strategy
   a. Also, for documents and information that will contradict the defense strategy
4. Prepare a customer "roll-out" strategy
5. Begin to prepare for a joint defense meeting with the target
6. Prepare for merger agreement negotiations
   a. We will defer this until Class 8

6. Final thoughts for the meeting

1. Caution the client that this advice is only preliminary and depends on what the client has told you in the meeting

2. Note that more work should be done with the company
   - Would like to send the client an additional *information request* for easily obtainable documents and data relevant to the defense strategy
   - When confidentiality considerations permit, would like to set up a *meeting with knowledgeable employees* to develop the facts and the arguments further

3. Tell the client that all documents created at the request of counsel should have the following prominent legend:

   PRIVILEGED AND CONFIDENTIAL
   Prepared at the request of counsel

   - Whenever possible, make this legend *machine readable*

Do NOT forget this!!!

Final thoughts for the meeting

4. Note that at some point in the process we will need to bring the target company onboard
   - The target's evidence and customer outreach program will be equally if not more critical to the outcome of any merger review
   - Note that we should be able to work with the target company under the "common interest" privilege
   - We need to think about whether we want this "joint defense meeting" to occur before or after the signing of the merger agreement
5. In addition, we will want to work with the target company to develop a "customer rollout" strategy to maximize customer support and minimize customer opposition to the deal
   - Need finalize and implement the customer rollout before the filing of the HSR forms
6. The target, unless incompetently advised, is likely to recognize the antitrust risk in the transaction
   - Should expect that the target will attempt to negotiate some provisions in the purchase agreement to—
     - Decrease the risk of a deal failure, *and*
     - Compensate the target for risk that cannot be eliminated

What Do During between the First Meeting and the HSR Filing

Immediate postmerger projects

1. Send information requests to the client to obtain additional documents and information that support (or contradict) the defense strategy
2. Work with the client to develop the customer rollout strategy
   - Identify the relevant customers and contact names
   - Develop the “sales pitch” for the deal
3. Make sure that you have all of the documents that the agency is likely to request in the initial waiting period
   - Any “4(c)’ and “4(d)” documents
   - Strategic and marketing plans for the company and, if any, separately for any overlapping products
   - Internal and external market research reports prepared over the last three years
   - Any documents on synergies resulting form the deal
4. Continue to work closely with the client to refine the defense strategy

Presigning projects

- For auctions where the client is the seller (not relevant here)
  - Require antitrust presentations by each strategic buyer on—
    - Their antitrust analysis of the transaction
    - Their strategy for defending the transaction as the buyer
    - Their estimated chances of success (i.e., the deal closes)
  - Aside on privilege
    - Attorney-client privilege
    - Work product doctrine
    - Common interest privilege
- For transactions where the client is the buyer
  - Only if necessary or desirable, make antitrust presentation to the seller presigning
- Assist in the negotiation of the merger agreement
  - Covered in Class 8

Postsigning postannouncement projects

- Internal client meeting with employees knowledgeable about the products of interest but were not "in the loop" until now
  - Modify defense strategy accordingly
- Joint defense meeting with Target to—
  - Convene an in-person "all hands" joint defense strategy meeting
    - Usually 4 hours to two days
    - With follow-up with additional subgroup meetings and conference calls as necessary
  - i. Should include—
    - Client GC, senior client representative on the antitrust business team, client representatives knowledgeable in the areas of antitrust interest, economists
    - Counterparty GG and counterparty representatives knowledgeable in the areas of antitrust interest, counterparty economists
  - Present the defense strategy and get the Target's reaction
    - What do the Target's documents say?
    - What are the likely reactions of the Target's customers?
    - Does the Target see benefits or harms to customers that we have not addressed?
    - Modify the defense strategy accordingly

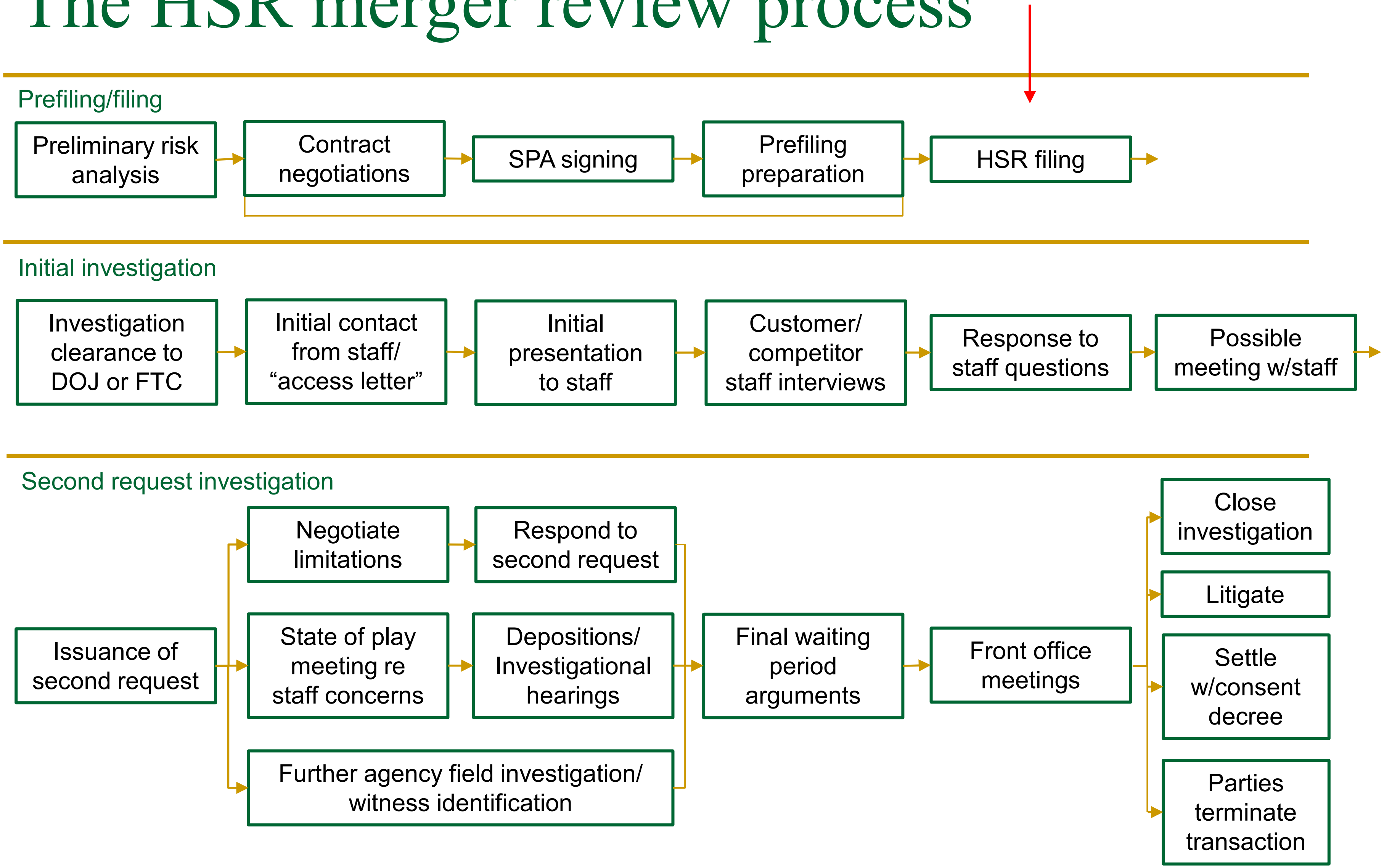
Critical to obtain Target buy-in of the defense strategy

Postsigning postannouncement projects

- Joint defense meeting with Target re joint customer rollout strategy
  - Develop and finalize the "sales pitch" for the deal to be delivered to customers
  - Identify the companies and contacts to be given to the agency after the first meeting
  - Identify who will call each customer contact to make the sales pitch
  - Implement the customer rollout strategy/companies to respond to any concerns
- Interview and retain support industry experts
- Finalize the defense presentation to the agency for the first meeting
- Finalize HSR reports
  - Can usually accomplish all postsigning postannoucement projects 10 business days after deal announcement
  - BE SURE you have collected all "4(c)" and "4(d)" documents
    - Failing to include all responsive documents is likely to result in an ineffective filing

Now You Are Ready To File and Begin the Defense of the Transaction

The HSR merger review process



CLASS 4 SLIDES

Unit 4. The DOJ/FTC Merger Review Process

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

September 7, 2023

Topics

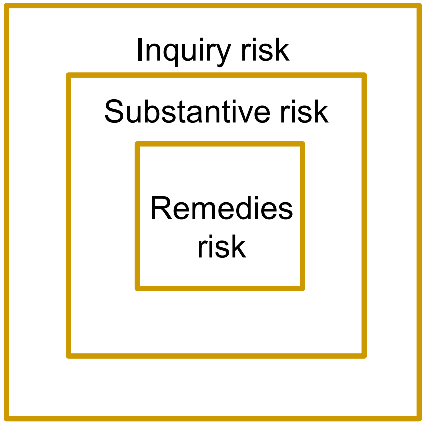
- Inquiry risk: HSR Act merger reviews
- Premerger notification
- Preparing for an investigation
- Initial waiting period investigations
- Second request investigations
- DOJ/FTC merger review outcomes

Inquiry Risk: HSR Merger Reviews

Recall the three types of antitrust risks

1. Inquiry risk
   - The risk that legality of the transaction will be put in issue
2. Substantive risk
   - The risk that the transaction is anticompetitive and hence unlawful
3. Remedies risk
   - The risk that the transaction will be blocked or restructured

Risks are nested



Inquiry risk

- There are two fundamental types of inquiry risk
  1. The risk of an HSR merger review
  2. The risk of a merger antitrust litigation

In this unit, we will examine HSR merger review risk
In Unit 6, we will examine merger litigation risk

Framing inquiry risk

- There are two factors to consider in assessing incentive risk—
  1. Does the putative challenger have the ***means*** to initiate an inquiry?
  2. Does the putative challenger have the ***incentive*** to initiate an inquiry?

---

1. The means: Two potential means—
   a. The ability to initiate a precomplaint investigation
   b. The ability to initiate litigation
2. The incentive calculus: Three questions—
   a. What is the reward/payoff to success?
   b. What is the probability of success?
   c. What is the cost of raising the issue?

Federal enforcement agencies

- *Ability*: Causes of action and forums
  - DOJ
    - Injunctive relief under Clayton Act § 15 in federal district court
    - Treble damages under Clayton Act § 4A in federal district court for injuries (overcharges) to federal agencies
  - FTC
    - Permanent injunctive relief under Clayton Act § 11 in an FTC administrative adjudicative proceeding
    - Preliminary and permanent injunctive relief under FTC Act § 13(b) in federal district court
      - Only a federal court may issue a preliminary injunction—the FTC has no power to issue interim relief
- *Incentive*: The DOJ/FTC are by far the most likely challengers
  - Both charged with enforcing Section 7 of the Clayton Act
  - Are large, experienced in merger antitrust enforcement, and reasonably well-funded
  - Have the benefit of the HSR Act—
    - Premerger reporting
    - Waiting period before the merger can be consummated
    - Precomplaint investigation tools (second requests, CIDs)
  - Have litigation experience (and young attorneys eager to litigate)
  - Do not have to show threatened or actual injury to obtain injunctive relief

The Premerger Notification Process

HSR Act

- Hart-Scott-Rodino Act[1]
  - Enacted in 1976 and implemented in 1978
  - Applies to large mergers, acquisitions and joint ventures
  - Imposes reporting and waiting period requirements
    1. *Preclosing reporting* to both DOJ and FTC by each transacting party
    2. *Post-filing waiting period* before parties can consummate transaction
  - Authorizes investigating agency to obtain additional information and documents from parties during waiting period through a *second request*
  - Designed to alert DOJ/FTC to pending transactions to permit them to investigate—and, if necessary, challenge—a transaction prior to closing
    - *Idea*: Much more effective and efficient to block or fix anticompetitive deal prior to closing than to try to remediate it after closing
  - Not jurisdictional: Agencies can review and challenge transactions—
    - Falling below reporting thresholds,
    - Exempt from HSR reporting requirements, *or*
    - "Cleared" in a HSR merger review—no immunity attaches to a transaction that has successfully gone through a HSR merger review

[1] Clayton Act § 7A, 15 U.S.C. § 18a.

Basic prohibition

- Section 7A(a)

> [N]o person shall acquire, directly or indirectly, any voting securities or assets of any other person, unless both persons (or in the case of a tender offer, the acquiring person) **file notification** . . . and the **waiting period** . . . has expired . . . .

- A reportable transaction is one that—
  1. Involves the ***acquisition*** of ***voting securities*** or ***assets***
  2. Satisfies the ***dollar thresholds*** for ***prima facie reportability***
  3. Does not fall into one of the ***exemptions*** provided by the HSR Act or implemented by the HSR Rules
- Dollar values are adjusted annually for inflation

Acquisition of voting securities or assets

- The HSR Act applies only to acquisitions of *voting securities* or *assets*
- "Voting securities"
  - "[S]ecurities which at present or upon conversion entitle the owner or holder thereof to vote for the election of directors of the issuer"[1]
- "Assets"
  - No special definition
  - The acquisition of a 50% or greater ownership interest in a non-corporate entity (such as a partnership or LLC) is regarded as an acquisition of the entity's underlying assets for HSR Act purposes
  - An exclusive license is regarded as an asset
- "Acquisition"
  - Does not require a formal transfer of legal title
  - Sufficient to obtain a "beneficial interest" in the underlying voting securities or assets
    - What is "beneficial interest"?
    - How can we tell if it has been transferred prior to the transfer of legal title?

The meaning of beneficial interest has not been litigated

[1] 16 C.F.R. § 801.1(f)(1)(i).

Prima facie reportability[1]

Size of transaction*	Prima Facie Reportability		
Up to and including $111.4 million	Not reportable		
Above $111.4 million up to and including $445.5 million	Reportable if : (1) satisfies the "size of person" test, and (2) no exemption applies		
		Size of person test	
	Acquiring person		*Acquired person*
	$222.7 million (in total assets or annual net sales)	and	$22.3 million (in total assets or annual net sales of a person engaged in manufacturing)
	Or		
	$222.7 million (in total assets or annual net sales)	and	$22.3 million (in total assets of a person not engaged in manufacturing)
	Or		
	$22.3 million (in total assets or annual net sales)	and	$222.7 million (in total assets or annual net sales)
In excess of $445.5 million	Reportable absent an exemption		

TOO MUCH TO REMEMBER

* Based on the value of voting securities and assets the acquiring person will hold as a result of the acquisition, including the value of any previously acquired voting securities.

[1] *See* Revised Jurisdictional Thresholds for Section 7A of the Clayton Act, 88 Fed. Reg. 5004 (Jan. 26, 2023) (effective Feb. 27, 2023).

Prima facie reportability

- Simple rule

> If the acquiring person will hold ***$111.4 million*** or more of the voting securities or assets of the acquired person, then the acquisition is likely reportable absent an exemption

  - A transaction that satisfies the dollar thresholds is called ***prima facie reportable***
  - NB: Every year the dollar threshold will be adjusted for inflation
    - So in 2024, the threshold number is likely to be higher

Selected exemptions

- Intraperson
  - Acquiring and acquired person are the same
- Investment
  - Hold no more than 10% of target's outstanding voting securities
    - 15% for certain institutional Investors
  - Acquirer must have a purely passive investment intention
    - Any membership on the board of directors or other involvement in the management of the company (other than voting shares) voids exemption
- Acquisitions of non-U.S. assets
  - Must not generate sales in or into the U.S. of more than $111.4 million
- Acquisitions of non-U.S. voting securities by U.S. persons
  - Issuer does not have assets in the U.S. or sales in or into the U.S. over $111.4 million
- Acquisitions of non-U.S. voting securities by non-U.S. persons that either
  - Do not confer control over the target, or
  - Do not involve assets in the U.S. or sales in or into the U.S. over $111.4 million

Notification thresholds

- An otherwise reportable transaction is not subject to the reporting and waiting period requirements of the HSR Act if
  1. The reporting and waiting period requirements were satisfied within the last five years for a prior acquisition, *and*
  2. The pending acquisition will not cause the acquiring person to cross a notification threshold

Notification thresholds[1]
$111.4 million
$222.7 million
$1.1137 million
25% of the voting securities if their value exceeds $2.2274 billion
50% of the voting securities if their value exceeds $111.4 million

[1] *See* Revised Jurisdictional Thresholds for Section 7A of the Clayton Act, 88 Fed. Reg. 5004 (Jan. 26, 2023) (effective Feb. 27, 2023).

Filing fees

Some very large changes over the prior year

2022[1]		2023[2]	
Value of Transaction[1]	Filing Fee	Value of Transaction[1]	**Filing Fee**
≤ $101.0 million	No filing required	>111.4 million -161,4 million	$30,000
> $101.0 million but < $202.0 million	$45,000	161.5 million - $4999,9 million	$100,000
≥ $202.0 million but < $1.0098 billion	$125,000	$500,000 - $999.9 million	$250,000
≥ $1.0098 billion	$280,000	$1 billion - $1.9 billion	$400,000
		$2 billion - $4.9 billion	$800,000
		$5 billion or more	$2.25 million

- Paid by the purchaser, unless the parties agree to a different arrangement (e.g., split the fee)

[1] *See* Revised Jurisdictional Thresholds for Section 7A of the Clayton Act, 87 Fed. Reg. 3541 (Jan. 24, 2022) (effective Feb. 23, 2022).

[2] *See* Revised Jurisdictional Thresholds for Section 7A of the Clayton Act, 88 Fed. Reg. 5004 (Jan. 26, 2023) (effective Feb. 27, 2023). Congress changed the baseline of the filing fees in the Merger Filing Fee Modernization Act of 2022, contained in the Consolidated Appropriations Act of 2023, Public Law 117-328, Div. GG, 136 Stat. 4459, ____ (Dec. 29, 2022).

HSR Act filing

The FTC has proposed rule changes that, if finalized, would significantly change the nature and amount of information a filing person would be required to submit in an HSR premerger notification.[1]

We will examine first the existing HSR notification regime and at the end of class examine how the proposed rules would change it.

The final rules are likely to be issued in 2024 Q1 with a delayed effective date. The final rules almost surely will be challenged in court as beyond the FTC's authority to promulgate.

[1] *See* Fed. Trade Comm'n, Premerger Notification; Reporting and Waiting Period Requirements, 88 Fed. Reg. 42178 (June 29, 2023) (to be codified at 16 C.F.R. Pts. 801-803); Press Release, Fed. Trade Comm'n, FTC and DOJ Propose Changes to HSR Form for More Effective, Efficient Merger Review (June 27, 2023).

HSR Act filing

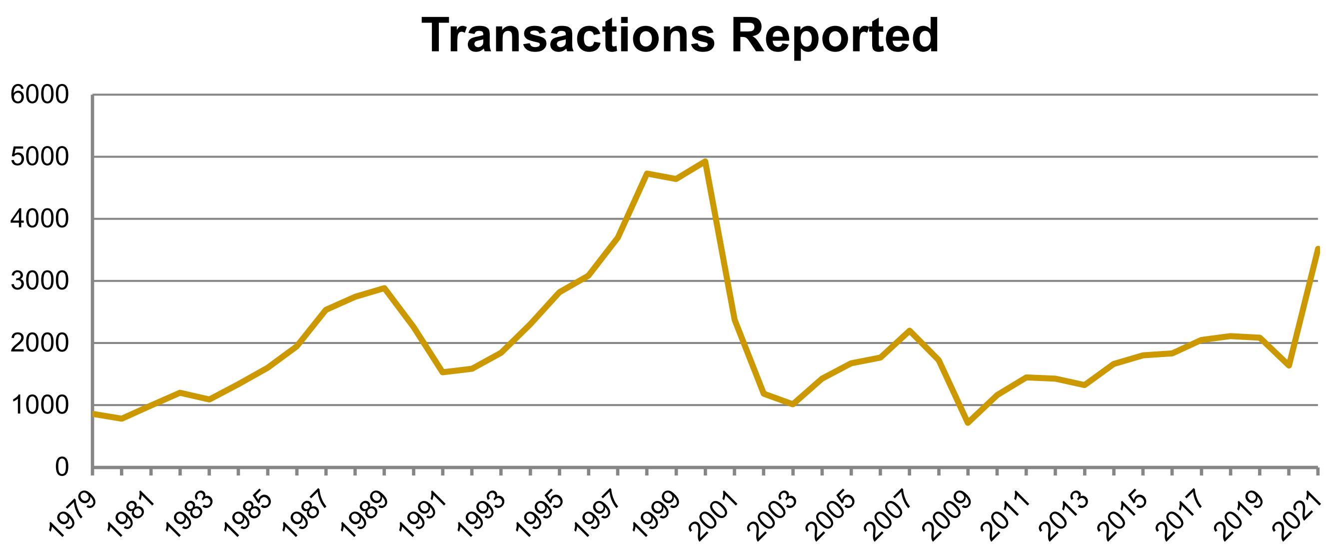
- Uses a prescribed form: Requires no—
  - Market definition
  - Calculation of market shares or market concentration statistics
  - Presentation of any antitrust analysis or defense
- Both the acquiring and acquired persons must submit their own filing
- Key information required:
  1. Transaction documents (e.g., stock purchase agreement)
  2. Annual reports and financial statements
  3. Revenues by North American Industry Classification System (NAICS) codes
  4. Corporate structure information
     - Majority-owned subsidiaries
     - Significant minority shareholders
     - Significant minority shareholdings
  5. "4(c)" and "4(d)" documents

These are the only parts of the filing that really matter

HSR Act filing

- 4(c) and 4(d) documents
  - 4(c) documents: four requirements—
    1. Studies, surveys, analyses or reports
    2. Prepared by or for officers or directors of the company (or any entities it controls)
    3. That analyze the transaction
    4. With respect to markets, market shares, competition, competitors, potential for sales growth, or expansion into product or geographic markets
  - 4(d) documents: three types—
    1. Confidential Information Memoranda (“CIM”)
    2. Third party advisor documents
    3. Synergy and efficiency documents
  - Failure to provide all 4(c) and 4(d) documents
    - Makes the HSR filing ineffective, so that the waiting period never started
      - Usually discovered by investigating agency in the document production in a second request
      - Agencies have required parties to refile and go through the entire process (including a second second request)
    - Subjects the parties to civil penalties (fines) if they close their transaction without making a corrective filing and observing the required waiting period

HSR Act notifications



Source: Fed. Trade Comm'n & U.S. Dept. of Justice, Hart-Scott-Rodino Annual Report Fiscal Year 2021, at App. A, and prior annual reports.

Statutory waiting periods

- General rules
  - Cannot close a reportable transaction until the waiting period is over
  - The duration of the waiting period is prescribed by the HSR Act
- Initial waiting period
  - 30 calendar days generally
  - 15 calendar days in the case of—
    - a cash tender offer, *or*
    - acquisitions under § 363(b) of bankruptcy code
- Extension of waiting period
  - Waiting period extended by the issuance of a second request in the initial waiting period
  - Waiting period extends through—
    - Compliance by all parties with their respective second requests
    - PLUS *final waiting period* of 30 calendar days
      - 10 calendar days in case of a cash tender offer

Early termination

- The investigating agency may grant *early termination* of a waiting period at any time
  - During the initial waiting period
  - Before compliance with the second requests
  - During the final waiting period
- BUT—
  - The Biden enforcement agencies have suspended, whether as a matter of policy or practice, granting early terminations since mid-2021.
  - According to the FTC website, the last early termination was granted on July 21, 2021.[1]

[1] *See* Fed. Trade Comm'n, Legal Library: Early Termination Notices (accessed August 24, 2023).

HSR Act violations

- HSR Act prohibition

> "[N]o person shall acquire, directly or indirectly, any voting securities or assets of any other person" in a reportable transaction without observing the filing and waiting period requirements[1]

  - Recall that the HSR regulations provide that a person holds voting securities or assets when it has a "beneficial interest" in them[2]

- Two basic types of violations
  1. *Failure to file* a reportable transaction and nonetheless closing the transaction
  2. "*Gun jumping*": Acquiring a beneficial interest in the target's assets or voting securities prior to the expiration of the HSR Act waiting period

- Violations can be expensive
  - In 2023, $50,120 per day for every day of the violation—Equals $18.3 million per year[3]
  - Also can put the violator on the radar screen of the agencies for future acquisitions

[1] 15 U.S.C. § 18a(a).
[2] 16 C.F.R. § 801.1(c).
[3] 88 Fed. Reg. 1499 (Jan. 11, 2023) (increasing civil penalty from $46,517 to $50,120 per day effective January 11, 2023, pursuant to the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015, Pub. L. No. 114–74, § 701, 129 Stat. 599 (2015) (requiring a catch-up CPI inflation adjustment from the date of the statute's enactment)).

Preparing for an Investigation

Build your complete defense

- Need to do this prior to the first contact with the investigating staff
  1. Want to make the strongest defense possible at the first substantive encounter with the investigating staff
  2. Do not want to be surprised later by a new fact that undermines the defense
  3. Need buy-in from the client
     - They will eventually have to make the defense themselves before the staff
  4. Need buy-in from the merger partner
     - They too will eventually have to make the defense themselves before the staff

Identify the "face of the deal"

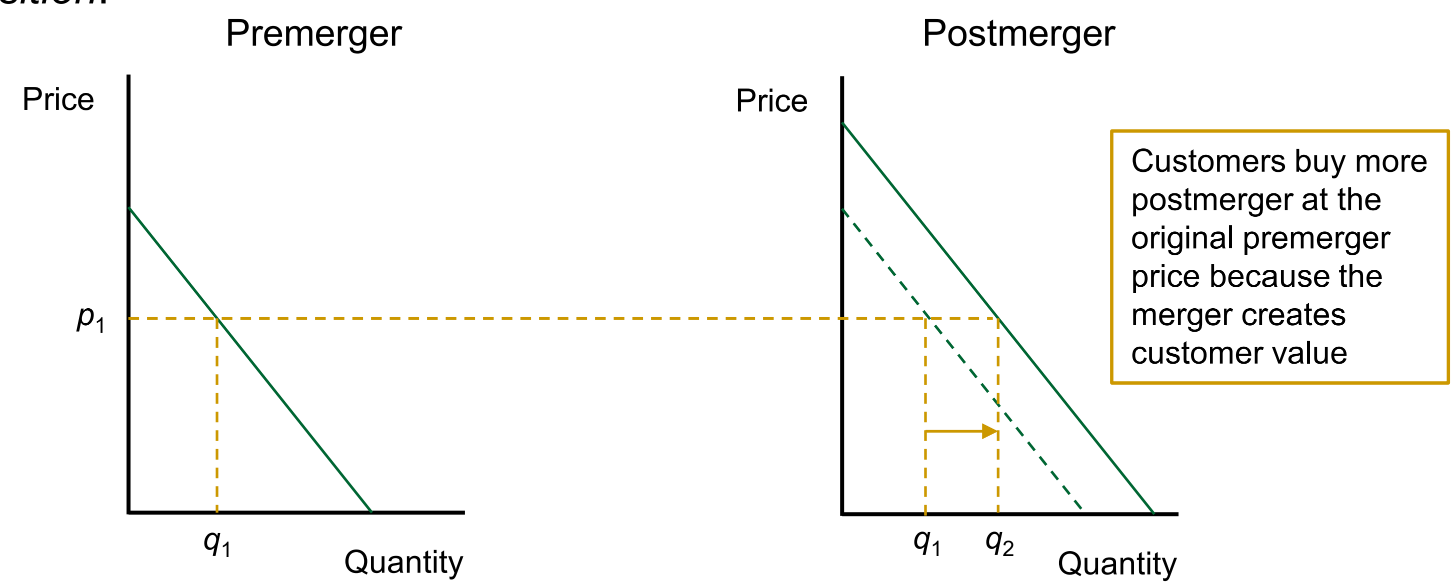
- Which business representative is going to be the most effective in—
  1. Marshalling resources—especially access within the company—to defend the deal?
  2. Leading the defense team within the client?
  3. Working with the merger partner in creating a strong, consistent defense?
  4. Advocating the defense of the deal before the agency?
- Start working with this individual as soon as possible
  - Have to teach them the operational principles of merger antitrust law
  - Need to be involved in every step of building the defense—they need to "own" the defense

Work with the merger partner

- Critical for three reasons—
  1. Need to understand the evidence that is in the hands of the merger partner
  2. Need to ensure that both merging parties are making consistent arguments in defense of the transaction ("singing from the same song sheet")
  3. Need to work with the merger partner on the rollout of the deal to neutralize customer opposition and gain customer support
- Agree in the purchase agreement that the parties will—
  1. Cooperate in the sharing of information
     - Highly confidential information may be shared on an "outside counsel only" basis
  2. Cooperate in the defense of the transaction
     - With the buyer usually taking the lead and making all final strategic decisions
  3. Attend each other's meetings with the investigating agency
- Agencies accept that joint defense meetings between merging parties are protected under the *"common interest" privilege*
- Maneuver to get and begin to prepare the best witnesses from the merger partner

Prepare and implement a customer rollout

- Work with the merging parties to develop and implement a plan to reach out to customers to—
  - Neutralize customer complaints
  - Maximize customer support
- Create a "win-win" argument—
  1. The combined firm will make lots of money
  2. By *shifting the demand curve* to the right by creating a better *customer value proposition*:



Prepare and implement a customer rollout

- Argument must work for customers of both the buyer *and* the target
  - *Remember*: The seller's customers are usually the more difficult to convince that the deal will be good for them
    - They had the opportunity to purchase from the buyer but instead chose to purchase from the target
- Work with the client and the merger partner to find the best people within the company to make the sales pitch for the deal to customers

Prepare and implement a customer rollout

- Form of customer pitch:

"You probably have heard about our deal with Company X. We have very excited about it. We think that it is great for our company, great for our shareholders, and great for our customers. You are one of our most valued customers and we hope that you are as excited by benefits the deal will provide to you as we are.

[FILL IN CUSTOMER BENEFITS]

Do you have any questions or concerns about the deal? We would really like to know what they are so that we can address them.

Aside: Some notes on privilege

- Attorney-client privilege
  - *Rule*: The attorney-client privilege applies to—
    1. A communication
       - Includes verbal exchanges, written correspondence, emails, or any other form of communication
       - The communication may be from the lawyer to the client, from the client to the lawyer, or both
    2. Between an attorney and a client
       - May also encompass agents of either who help facilitate the legal representation
    3. Made in confidence
       - That is, there is an expectation of privacy at the time of the communication, and the communication is not intended to be disclosed to third parties
    4. For the purpose of seeking, obtaining, or providing legal assistance
       - Includes communications from the client containing responses to questions posed by the lawyer
  - *Rule*: The violation of any of these four elements negates the privilege and subjects the communication to discovery
  - *Rule*: The attorney-client privilege shields *communications* from discovery; it does not shield *facts*
    - *Exception*: Facts learned through an attorney-client communication
    - *Possible exception*: Facts learned in collecting information requested by an attorney in order to provide legal advice

These communications and the underlying facts may also be protected under the work product doctrine

Aside: Some notes on privilege

- The work product doctrine
  - *Ordinary work product*:[1] A party may not discover—
    1. documents and tangible things
    2. that are prepared in anticipation of litigation or for trial
    3. by or for another party or its representative
    4. UNLESS the party shows that it—
       a. has substantial need for the materials to prepare its case and
       b. cannot, without undue hardship, obtain their substantial equivalent by other means
  - *Attorney opinion work product*:[2] The exception does not apply to materials that disclose "the mental impressions, conclusions, opinions, or legal theories of a party's attorney or other representative concerning the litigation"
    - NB: If only a portion of otherwise discoverable material contains attorney opinion work product, the protected attorney opinion work product should be redacted and the rest of the material produced
  - *Rule*: Although the work product doctrine applies only to documents and tangible things, the protection cannot be pierced by inquiring into the content of a protected document without seeking the document itself.[3]

[1] Fed. R. Civ. P. 23(b)(3)(A). Rule 23(b)(3)(A) encapsulates the federal ordinary work product doctrine.
[2] *Id*. 23(b)(3)(B).
[3] *See, e.g.*, Order re Petition to Limit or Quash Subpoenas Ad Testificandum Dated April 24, 2009, File No. 091-0064 (July 21, 2009) (in the FTC's investigation of Thoratec Corp.'s pending acquisition of HeartWare International).

Aside: Some notes on privilege

- The work product doctrine
  - Public policy behind the work product doctrine
    - *Promote adversarial litigation*: Allows attorneys to prepare for litigation without fear that their strategy, theories, mental impressions, or research will be exposed to their adversaries
    - *Preserves the integrity of the legal process*: Ensuring that attorneys can candidly evaluate and prepare their cases without concern that their work will be revealed
    - *Prevents unfair advantage*: Avoids situations where one party can free-ride off the investigatory and preparatory work of another attorney
  - Work product in investigations
    - Although the work product doctrines do not automatically apply to all investigations, they do apply if the investigation provides reasonable grounds for anticipating litigation
    - *The practice*: Almost all merger investigations by the FTC or DOJ provide reasonable grounds for anticipating litigation and hence triggering work product protections

Aside: Some notes on privilege

- The problem
  - Merging parties would like to share and coordinate their initial analysis and defense of the transaction
  - BUT ordinarily doing so would violate the attorney-client confidentiality requirement, negate any attorney-client privilege, and subject the communications to discovery by a second request, CID, or subpoena in an agency investigation or litigation

The solution: *The "common interest" privilege provides an exception to the confidentiality requirement and retains the attorney-client privilege for communications among parties with a common legal interest*

Aside: Some notes on privilege

- The "common interest" privilege
  - *Rule*: When the communication involves—
    - The sharing of privileged information
    - Among parties with a common legal interest

    the communication remains protected by the attorney-client privilege
  - *Rule*: Apart from this exception, all parties must continue to satisfy the elements of the attorney-client privilege for shared communications to preserve the privilege
  - *History*:
    - The common interest privilege originated as the "joint defense" privilege
    - But the courts expanded it to include communications outside of the context of litigation

Aside: Some notes on privilege

- The "common interest" privilege
  - *Agency practice*: Recognizes communications among merging parties to share and coordinate their analysis and defense of the transaction, including the sharing of--
    - Antitrust *analyses* of the transaction in the course of negotiations
    - Antitrust analyses of the transaction during the investigation
    - Strategies to defend the transaction generally
    - Strategies to settle the investigation of the transaction through a consent decree or "fix it first" restructuring
  - *Query*: Do differences in commercial objectives defeat the common interest privilege in negotiating risk-shifting provisions (e.g., the cap on a divestiture commitment)?
    - Although both parties share the common legal interest in defending the transaction against an antitrust challenge—
      - The seller wants the deal to close regardless of the cost to the buyer of any divestiture, while
      - The buyer wants the deal to close if and only if the costs of divestiture are not so high that they destroy the attractiveness of the transaction
    - As far as I am aware, this situation has not been addressed by a court

Initial Waiting Period Investigations

Preliminaries

- Parties must file their respective HSR forms with both the DOJ and the FTC
  - Separate forms are required for each reporting person
- FTC Premerger Notification Office (PNO) review of filings
  - Only for technical compliance on form—no review of substance
    - NB: The PNO is also responsible for providing informal interpretations of the HSR Act and implementing regulations
- Allocated to DOJ or FTC for review through the agency "clearance" process
- Responsible agency assigns transaction to a litigating section for substantive review

“Clearance”

- DOJ and FTC decide which, if either, of the agencies will do an investigation
  - This is called the clearance process
- “Liaison agreement” between DOJ and FTC prevents duplicative investigations
  - If neither DOJ nor FTC want to open a preliminary investigation—PNO grants early termination of the waiting period [Temporarily suspended as of February 4, 2021]
  - If DOJ or FTC (but not both) want to open a preliminary investigation—Requesting agency gets clearance to open investigation
  - If both DOJ and FTC want to open a preliminary investigation—Agencies negotiate to allocate the investigation based on prior experience with the industry or the merging parties (and which agency got the last contested clearance)
- Process can be fraught with strategic behavior by agencies
  - *Extreme case*: “Clearance battle” can last until the last day of the initial waiting period
  - Efforts to reform “clearance” process by allocating specific industries to specific agency have failed miserably
    - Neither agencies nor their respective congressional oversight committees want to relinquish jurisdiction over any type of merger

Initial contact by investigating staff

- Usually occurs 7-10 days after filing
- Three purposes
  1. Inform parties of the investigation and introduce the investigating staff
  2. Request that the parties provide certain information to the staff on a voluntary basis—
     a. Most recent strategic, marketing and business plans
     b. Internal and external market research reports for last 3 years
     c. Product lists and product descriptions
     d. (Perhaps) competitor lists and estimates of market shares
     e. Customer lists of the firm's top 10-20 customers (including a contact name and telephone number)
        - The agencies do not ask for customer lists in transactions involving consumer goods sold at retail, since retail customers are not considered sufficiently sophisticated and reliable in predicting the effect of a merger on them
  3. Invite the parties to make a presentation to the staff on the competitive merits of the transaction

Strategic pointer

Make the presentation to the staff before providing the customer lists in order to—

1. *Provide a framework for the competitive analysis,* and
2. *Frame the questions that you want the staff to be asking customers*

Initial merits presentation

- Critical to do completely, coherently, and quickly
  1. Often a large “first mover” advantage in being the first to give the staff a systematic way to think about the transaction
  2. Well-prepared business people are the best to present
     - Agencies not impressed with “testifying” lawyers—especially outside counsel
  3. Need to anticipate and answer staff questions
     - Avoiding answers causes the staff to be more skeptical about the transaction and increases the probability of an in-depth investigation
  4. Need to clear and compelling
     - Cannot win on an argument that the staff does not understand or finds ill-supported
  5. Need to anticipate and be consistent with what the staff is likely to what the staff is likely to see in the company documents and hear from customers
     - Staff will almost always accept the customer view in the event of an inconsistency
  6. Need to do the presentation quickly
     - By the time you get the initial call from the staff, one-third of the initial waiting period will be over
     - Accordingly, must have the presentation “in the can” by the end of the first week of the initial waiting period

Initial merits presentation

- The best presentations—
  1. anticipate all of the issues the staff will raise,
  2. provide answers that are supported by company documents and consistent with customer perceptions, and
  3. have all of the facts right

Ideally, the rest of the investigation needs to do no more than defend the analysis in the first presentation

Initial merits presentation

- Ideal structure (when the facts fit)
  1. Provide an overview of the parties and the transaction
     - Identify other jurisdictions in which the transaction is reportable
  2. Provide an overview of the industry (if the staff is not familiar with the industry)
  3. Explain the business model driving the transaction
     - The deal is procompetitive—a win-win for the company and the customers
     - "We make the most money by providing more value to customers, improving productive efficiency, and reducing costs without reducing product or service quality"
     - Essential to give a compelling reason for doing the deal that is not anticompetitive
  4. Identify the customers benefits implied by the business model
     - Customers will be better off with the transaction than without it
     - NB: Agencies give little credit in the competitive analysis to efficiencies or cost savings that are not passed along to customers
  5. Explain why market conditions would not allow the transaction to be anticompetitive in any event
     - "We could not raise price even if we wanted. Customers have alternatives to which they can turn to protect themselves in the event we try to raise price or otherwise harm them."
     - Alternatives can be other current suppliers, firms in related lines of business that can expand their product lines, new entrants, or customer self-supply/vertical integration

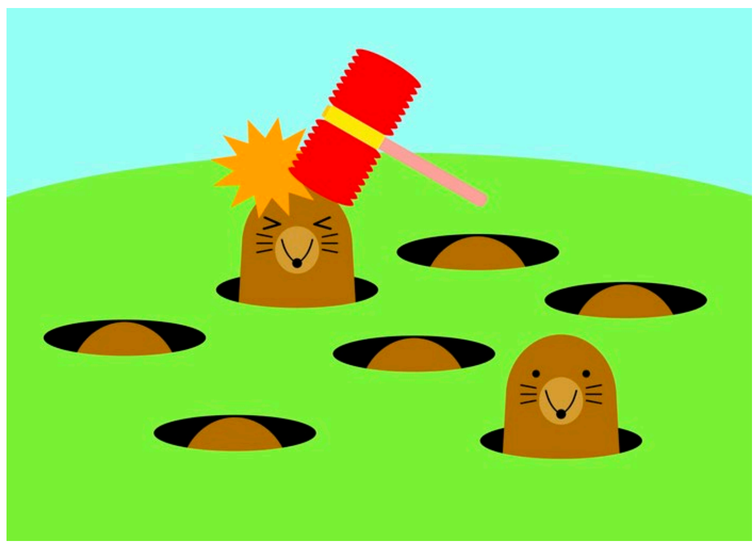
Customer/competitor interviews by staff

- Occupies the bulk of the remaining time in the initial investigation
- Customer views are given great weight
  - *Theory*: The purpose of the antitrust laws is to protect customers from competitive harm, and sophisticated customers should have a good idea of whether they will be competitively harmed by the transaction under review
  - Staff will attempt to call all of the contracts on the customer lists provided by the merging companies in response to the initial voluntary request
  - Staff often will uncritically accept customer complaints but question customer support
  - Customer reactions may differ depending on the position of the contact person
    - The CEO may take a broader and more nuanced view of the transaction than a procurement manager, who only sees the merger reducing the number of available suppliers
- Competitor conclusions are given little weight
  - *Theory*: Anticompetitive transactions are likely to benefit competitors, so competitor complaints are more likely the result of concerns about procompetitive efficiencies than anticompetitive effect
  - But competitor interviews can be useful in understanding more about the industry
    - Complaining competitors are often willing to spend considerable time educating the staff
    - Customers usually just want the staff to go away unless they strongly oppose the deal

Respond to staff questions

- Questions may arise as a result of customer and competitor interviews
- Need to anticipate and respond to these quickly
  - Likely hear from staff in the last week of the initial waiting period
  - A failure to negate any staff concerns will almost surely extend the investigation

Think of this as a serious game of Wack-A-Mole



End of the initial waiting period

- Three options for the agency
  1. Close the investigation
  2. Issue a second request
     - Most important factors—
       - Incriminating company documents
       - Significant customer complaints
       - Four or less competitors postmerger for horizontal transactions (5 → 4 deals)
         - Maybe 6 → 5 later in the Biden administration
       - Merging parties are uniquely close competitors to one another (“unilateral effects”)
       - Merger eliminates a “maverick,” an actual potential competitor, or a “nascent competitor”
       - Obvious significant foreclosure possibilities (for vertical transactions)

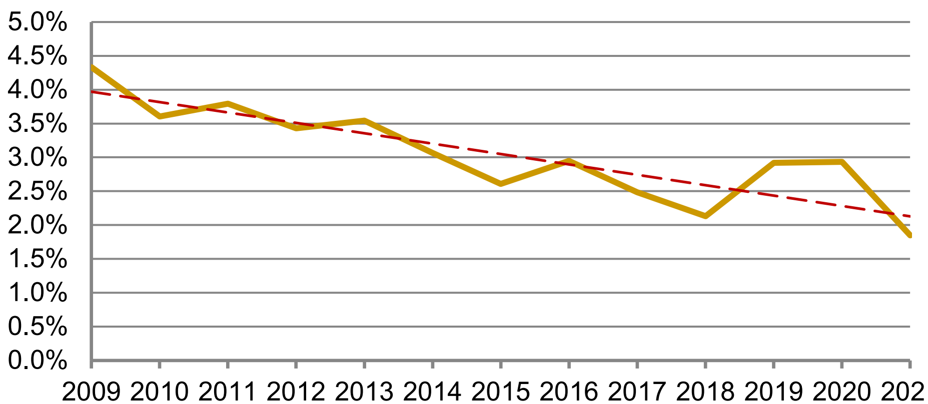
       NB: Any one of these factors can be sufficient to trigger a second request investigation—it does not take much
     - A second request must be authorized—
       - By the assistant attorney general (typically delegated to a deputy assistant attorney general)
       - By the Federal Trade Commission (typically delegated to the chairman or a commissioner)
  3. Convince the parties to “pull and refile” their HSR forms to restart the initial waiting period
     - Typically used when the initial investigation to date indicates no problem but requires a short additional time to complete customer interviews
     - The agency usually grants early termination in the middle of the second initial waiting period

Second Request Investigations

The second request

- HSR Act authorizes investigating agency to issue one request for additional information and documentary material (a "second request") during the initial waiting period to each reporting party
- Issuance of a second request extends waiting period until—
  - All parties comply with their respective second requests, *and*
  - Observe a final waiting period (usually 30 days) following compliance

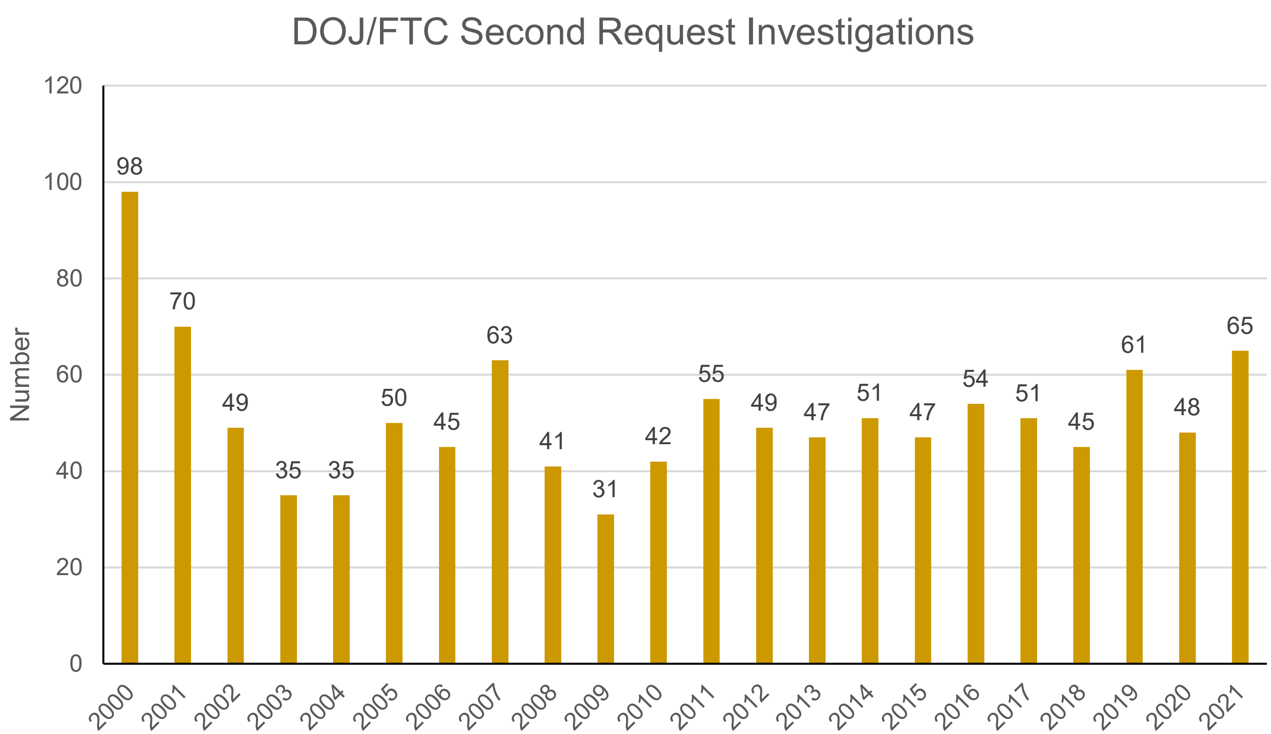
Percentage of Reportable Transactions
Receiving Second Requests



Source: Fed. Trade Comm'n & U.S. Dept. of Justice, Hart-Scott-Rodino Annual Report Fiscal Year 2021, at App. A.

Total number of second request investigations

- By year since 2000



Source: Fed. Trade Comm'n & U.S. Dept. of Justice, Hart-Scott-Rodino Annual Report Fiscal Year App. A (for FY 2010 and FY 2021).

The second request

- Blunderbuss request
  - If you can only ask once, ask for everything
  - DOJ and FTC each have “model” second requests, but typically customized with additional specifications
  - Covers all company documents, including e-mail and other electronic documents

The second request

- Typically takes 6-16 weeks to comply
  - Can cover 60-120 custodians in large multiproduct deals
    - In the past, the agencies had made meaningful efforts to reduce this number, targeting 30-35 custodians
    - BUT often condition this on a "timing agreement" and other commitments
    - Today, the agencies are making second requests more onerous to dissuade companies from doing potentially problematic deals
  - Interrogatories, including—
    - Detailed sales data
    - Bid and win/loss data
    - Requirements for entry into the marketplace
    - Rationale for deal
  - Document requests, including—
    - Business, strategic and marketing plans
    - Pricing documents
    - Product and R&D plans
    - Documents addressing competition or competitors
    - Customer files and customer call reports
  - Non-English language documents must be translated into English

Second request investigations

- Depositions of business representatives of parties
  - Often 3-5 employees for each party
    - Typically includes the senior person knowledgeable about U.S. sales and competition for U.S. customers
    - Can include sales representatives for key accounts
    - R&D directors (if R&D is important to defense)
  - In Washington
  - Attendance can be compelled
    - Civil Investigative Demand (CID) by the DOJ
    - Subpoena by the FTC
  - Transcribed and under oath
  - Typically each lasts 6-8 hours
- Documents and testimony from customers and competitors
  - Adverse testimony will be memorialized in a sworn affidavit
- Expert economic analysis
  - By experts retained by the parties
  - By agency experts
    - Or, in investigations where litigation is foreseeable, by outside experts retained by agency

Final waiting period

- Timing
  - Begins when all parties have submitted proper second request responses
    - *Exception*: In open market transactions, timing depends only on when the acquiring person complies (to avoid delaying tactics by the target in hostile transactions)
  - Ends 30 calendar days later
    - 10 days in a cash tender offer

- The final waiting period is often too short to complete the investigation given the time it takes—
  - For the investigating staff to analyze information and documents submitted by the parties in response to their second requests
  - For the investigating staff to finalize its analysis and recommendation, *and*
  - For agency management to review the staff's recommendation and make a decision on the disposition of the investigation
  - *Conclusion*: The final waiting period provides too little time for the agency to make an informed decision

Timing agreements

- Timing agreements in second request investigations
  - The merging parties can—and typically do—voluntarily commit to give the agency additional time to complete the investigation by executing a contractual timing agreement
    - Commits the parties not to close the transaction for some period of time after the expiration of the HSR Act waiting period
    - Usually in the parties' interest, since the agency will sue to block the transaction if it cannot complete its analysis
      - Provides additional time for agency to complete investigation
      - May be necessary to complete meetings to enable the merging parties to make their arguments
      - Usually better than being sued!
        - The investigating agency will sue to block the transaction if it cannot complete its analysis before the transaction closes
      - May be necessary if a consent decree is being negotiated
  - Typical commitment: An additional 30-60 days beyond the end of the HSR Act waiting period
  - BUT a timing commitment does not technically extend the statutory waiting period
    - Enforceable through contract or detrimental reliance, not as a violation of the HSR Act
    - Typically misunderstood by the parties and the investigating staff
    - Is acknowledged by the FTC Premerger Notification Office
    - Significant because there can be no "gun jumping" after the end of the HSR Act waiting period

The End of the Investigation

The final arguments

- Four formal meetings at the end of the investigation

	DOJ	FTC
1	Investigating staff	Investigating staff
2	Section Chief & staff	Assistant Director & staff
3	Deputy Assistant Attorneys General (legal and economics)	Directors meeting (Bureau of Competition/ Bureau of Economics)
4	Assistant Attorney General	FTC Commissioners (meet individually)

Note: The last meeting with the AAG or the Commissioners is sometimes inappropriately called a “last rites” meeting

- Numerous informal meetings can occur up the chain at the end of the investigation
- *Critical question*: How much of its analysis will the investigating staff disclose to the parties?

Merger Review Outcomes

Possible outcomes in DOJ/FTC reviews

Outcome	Description
Close investigation	• Waiting period terminates at the end of the investigation with the agency taking no enforcement action, or • Agency grants early termination prior to normal expiration
Litigate	• DOJ: Seeks preliminary and permanent injunctive relief in federal district court • FTC: Seeks preliminary injunctive relief in federal district court Seeks permanent injunctive relief in administrative trial
Settle w/consent decree	• Historically, the typical resolution for problematic mergers • DOJ: Consent decree entered by federal district court • FTC: Consent order entered by FTC in administrative proceeding
Parties terminate transaction	• Parties will not settle at the agency's ask and will not litigate, or • Agency concludes that no settlement will resolve the agency's concerns and the parties will not litigate • Examples: AT&T/T-Mobile, NASDAQ/NYSE Euronext
"Fix it first"	• Merging parties restructure transaction to eliminate problematic overlap by narrowing assets to be purchased or selling assets to a third party • Merging parties file new HSR notifications for the restructured transaction • HSR reports also may need to be filed for the restructured transaction • When done to the agency's satisfaction, eliminates the need for a consent decree or other enforcement act

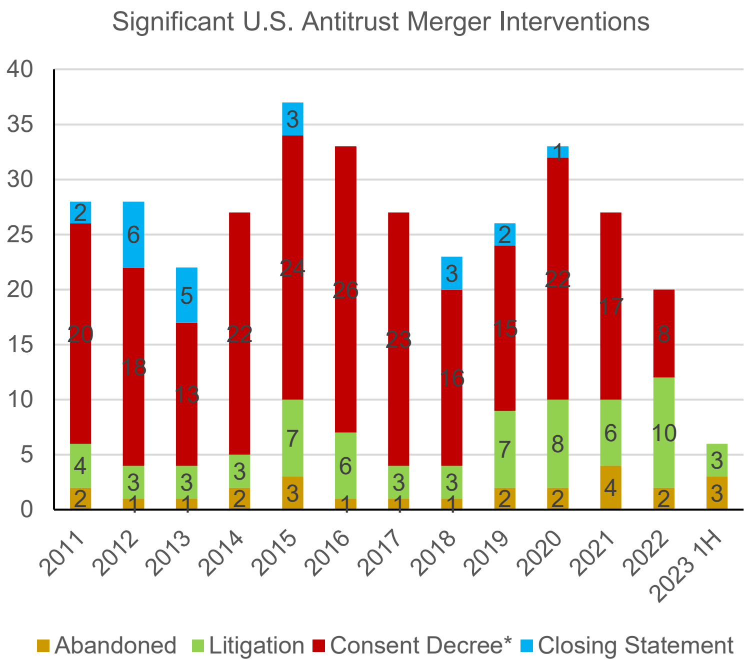
Possible outcomes in DOJ/FTC reviews

Allow deal to close but do not close investigation

- New with the Biden administration
  - No deadline to finish investigation—could remain open indefinitely
  - Agencies send a “preconsumation warning letter” to the parties alerting them to the continuation of the investigation and the possibility of a postclosing challenge[1]
  - Agencies have yet to bring a postclosing challenge to one of these deals

[1] For the FTC’s model letter, see Fed. Trade Comm’n, Sample Pre-Consummation Warning Letter. The DOJ and FTC are free to bring Section 7 actions even after the conclusion of an HSR merger review. The most notable modern example is the FTC’s challenge initiated in 2020 of Facebook’s acquisition of Instagram in 2012 and WhatsApp in 2014. Complaint for Injunctive and Other Equitable Relief, FTC v. Facebook, Inc., No. 1:20-cv-03590 (D.D.C. filed Dec.9, 2020). The district court rejected Facebook’s effort to dismiss the complaint as untimely. See FTC v. Facebook, Inc., 560 F. Supp. 3d 1, 30-32 (D.D.C. 2021).

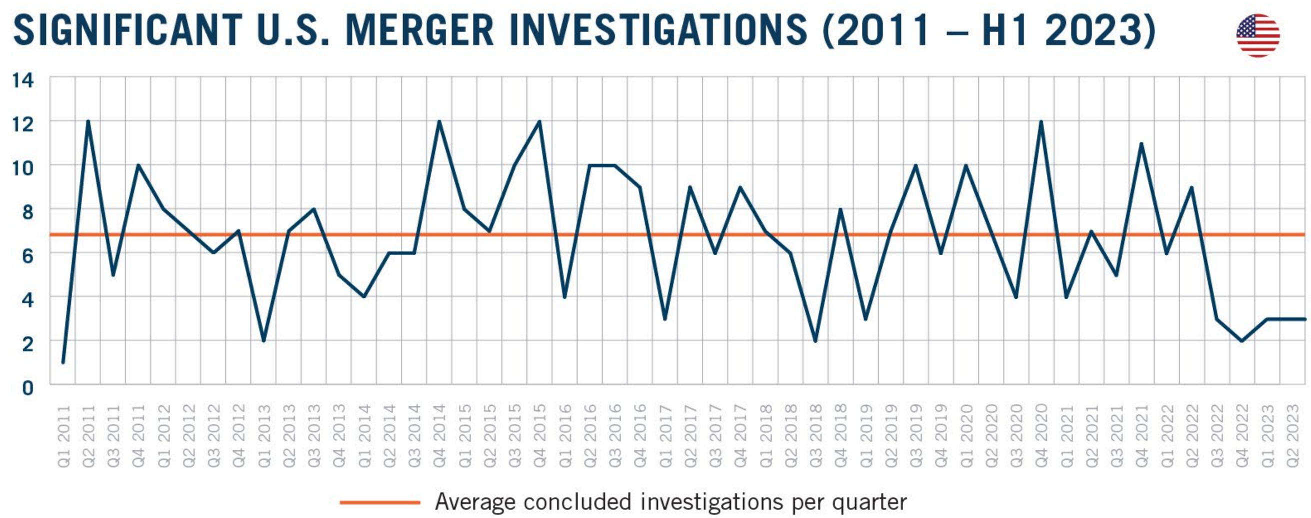
U.S. antitrust merger intervention outcomes



Year	Consent Decree*	Abandoned	Litigation	Closing Statement	c1
2011	20	2	4	2	28
2012	18	1	3	6	28
2013	13	1	3	5	22
2014	22	2	3		27
2015	24	3	7	3	37
2016	26	1	6		33
2017	23	1	3		27
2018	16	1	3	3	23
2019	15	2	7	2	26
2020	22	2	8	1	33
2021	17	4	6		27
2022	8	2	10		20
2023 1H		3	3		6

Source: Dechert LLP, DAMITT Q2 2023: When Avoiding Settlements, Does Merger Enforcement Settle for Less? (July 26, 2023). Dechert LLP, DAMITT 2018 Year in Review (Jan. 24, 2019). Dechert declines a "significant" investigation as one that involves a deal that is HSR reportable for which the result of the investigation is a consent order, a complaint challenging the transaction, an official closing statement by the reviewing antitrust agency, or the abandonment of the transaction with the antitrust agency issuing a press release. It does not include an in-depth second request investigation in which the agency concludes there is no antitrust concern, so in this sense a significant investigation is the same as an intervention outcome. Dechert calculates the duration of an investigation from the date of announcement to the completion of the investigation (presumably including any time necessary to negotiate a consent decree).

Outcomes in “significant” investigations



- Dechert concludes:

> These numbers demonstrate the extent to which the agencies’ avoidance of settlements has reduced overall enforcement activity. Historically, most enforcement actions by the U.S. agencies resulted in consent decrees. The decline in these settlements, however, has not been matched by a corresponding bump in complaints or abandoned transactions. . . . As a result, it is hard to see what the U.S. agencies have gained through their new approach to settlements, especially as the agencies have struggled to defend the complaints that have been filed in court. As of the end of Q2 2023, the agencies have only successfully blocked one transaction through a complaint filed under the Biden administration.

Source: Dechert LLP, DAMITT Q2 2023: When Avoiding Settlements, Does Merger Enforcement Settle for Less? (July 26, 2023).

Update:
New Proposed HSR Notification Changes

Proposed HSR notification changes

- Background
  - On June 27, the FTC announced that it, with the DOJ's concurrence, would be publishing a Notice of Proposed Rulemaking (NPRM) to amend the rules governing the HSR notification process[1]
  - As proposed, the rule would—
    - fundamentally change the HSR notification process, *and*
    - significantly increase the cost, burden, and timing for parties filing HSR notifications
  - This is the first fundamental revision of the HSR reporting requirements since the original form was issued 45 years ago

- Timing
  - The rulemaking is subject to q 60-day public comment period
    - On August 4, the FTC extended the public comment period to September 27, 2023[2]
  - The final rules are likely to be issued in 2024 Q1
    - The effective date is likely to be sometime later

[1] *See* Press Release, Fed. Trade Comm'n, FTC and DOJ Propose Changes to HSR Form for More Effective, Efficient Merger Review (June 27, 2023). The NPRM was published on June 29. Fed. Trade Comm'n, Premerger Notification; Reporting and Waiting Period Requirements, 88 Fed. Reg. 42178 (June 29, 2023) (to be codified at 16 C.F.R. Pts. 801-803) ("HSR NPRM"); [2] 15 U.S.C. § 18a(d)(1).
[2] *See* Press Release, Fed. Trade Comm'n, FTC and DOJ Extend Public Comment Period by 30 Days on Proposed Changes to HSR Form (Aug. 4, 2023).

Key proposed changes

- Competition analysis
  - Narrative explanation of any current and potential future horizontal overlaps between the parties
    - For each overlap, sales information, customer information (including contact information), and a description of any licensing arrangements, noncompete agreements, and nonsolicitation agreements
  - Narrative explanation of any vertical relationships between the parties
  - More granular geographic information at the street-address level for certain overlaps
  - More expansive information regarding acquisitions in the last 10 years of businesses that offer a product that overlaps with the other party
  - Projected revenue streams for pre-revenue companies
  - Information regarding customers for overlapping products and services, including customer contact information
  - Mandatory disclosure of required foreign merger control filings

Key proposed changes

- Information about the transaction
  - Narrative explanation of each strategic rationale for the transaction
    - With citations to supporting documents
  - A diagram of the deal structure with an explanation of all the entities involved persons involved in the transaction
  - A detailed transaction timeline of key dates and conditions to closing
- Required business documents
  - Broadening the scope of Item 4(c) and 4(d) documents that analyze the transaction to include—
    - Documents prepared by or for "supervisory deal team leads" in addition to officers and directors; *and*
    - Drafts (not just final versions) of all responsive documents
  - Full English translations of all foreign-language documents submitted with the HSR filing
  - Board reports and certain semi-annual and quarterly ordinary course business plans that evaluate the competitive aspects of any overlapping product or service.

Key proposed changes

- Information about the reporting company
  - A description of each of the filer's businesses and products/services
    - Can be extensive for conglomerates and private equity (PE) funds
  - Expanding the requirements for identifying minority investors
  - Sweeping new requirements to identify officers, directors, and board observers for all entities within the acquiring and acquired person (or in the case of unincorporated entities, individuals exercising similar functions), as well as those who have served in the position within the past 2 years
  - Identification of the company's communications and messaging systems
  - Certification that the company has taken steps to suspend ordinary document destruction practices for documents and information "related to the transaction," regardless of whether the transaction raises any substantive antitrust issues

Key proposed changes

- Labor markets
  - Provide the aggregate number of employees of the company for each of the five largest occupational categories by six-digit Standard Occupational Classification (SOC) codes
    - The SOC is an employee classification system developed by the Department of Labor Statistics.
  - Indicate the five largest 6-digit SOC codes in which both parties (the acquiring person and the acquired entity) employ workers
    - For each overlapping 6-digit SOC code, list each Employee Research Service (ERS) commuting zone in which both parties employ workers and provide the aggregate number of classified employees in each ERS commuting zone
      - The ERS was developed and maintained by the Department of Agriculture
  - Identify any penalties or findings issued against the filing person by the U.S. Department of Labor's Wage and Hour Division (WHD), the National Labor Relations Board (NLRB), or the Occupational Safety and Health Administration (OSHA) in the last five years and/or any pending WHD, NLRB, or OSHA matters

Key proposed changes

- Agreement documents
  - Current rule:
    - A filing requires a copy of the most recent version of—
      - the contract or agreement, *or*
      - letter of intent (LOI) to merge or acquire
    - The letter of intent can be bare bones and not include even the basic terms of an agreement
  - Proposed rule
    - Requires:

      > [C]opies of all documents that constitute the agreement(s) related to the transaction, including, but not limited to, exhibits, schedules, side letters, agreements not to compete or solicit, and other agreements negotiated in conjunction with the transaction.[1]

    - Documents that constitute the agreement must be executed, but draft documents will suffice *if* they provide sufficient detail" about the transaction:

      > If there is no definitive executed agreement, provide a copy of the most recent draft agreement or term sheet that provides *sufficient detail* about the scope of the entire transaction that the parties intend to consummate.[2]

    - While the proposed rules do not define "sufficient detail," the agencies likely will demand something like a detailed term sheet
      - Bare bones LOIs that have been acceptable in the past almost surely will not be sufficient
      - This means that negotiations will have to be much further along than they are today in many deals

[1] HSR NPRM, 88 Fed. Reg. at 42213. [2] *Id*.

Some observations

- Deficiencies in filing
  - Documents
    - Currently, a party's failure to submit all 4(c) and 4(d) document with the original filing can make the filing inoperative and, once discovered, require the party to make a new complete filing, which starting the running of a new HSR waiting period
    - The proposed expanded document requirements increases the risk that required documents will be missed and that the agencies will reject the original filing as deficient
  - Narratives
    - Currently, an HSR filing does not require the creation of any new narratives
    - The proposed changes require the creation of narratives describing the strategic rationale for the transaction, horizontal overlaps, and supply relationships, raising the possibility that the agency will find the narratives "inadequate" and refuse to recognize the filing as effective
  - Agreement documents
    - Currently, a filing can be made on a bare bones letter of intent
    - The proposed rules require that if the absence of an executed definitive agreement, the parties can file only if the letter of intent or term sheet contains "sufficient detail" about the scope of the transaction, raising the possibility that the agency will find that these documents provide insufficient detail and therefore refuse to recognize the filling as effective

Disputes over the sufficiency of a filing may need to be resolved in a declaratory judgment action in a federal district court

The upshot

- The existing way
  - The reporting regime since the HSR Act was put into effect in 1978 has been to ask for only the minimal information necessary to determine whether to open a preliminary investigation during the initial waiting period
  - In the preliminary investigation, additional information to inform the agency whether to issue a second request was obtained through:
    1. The presentations by the merging parties
    2. Responses by the merging parties to a “voluntary request letter” for documents, data, and other information
    3. Responses by the merging parties to other questions from the investigating staff
    4. Telephone interviews with customers, competitors, industry analysts, and other third parties
    5. Internet research on the merging parties and the products of interest
    6. Presentations, if any, by firms and interest groups opposing the deal
- Under the proposed rules
  - Much of the information the investigation agency gathered from the merging parties during the preliminary investigation will now be required as part of the HSR notification form

The upshot

- The burden
  - In FY 2021[1]—
    - 3413 transactions were reported
    - Clearance was granted to open preliminary investigations in 270 transaction (7.9%)
    - Second requests were issued in 65 transactions (1.9%)

If the proposed rules had been in effect in FY 2021, the burden of the additional reporting requirements would have been imposed on 3142 reportable transactions where neither the DOJ nor the FTC had sufficient concern to request clearance to open a preliminary investigation

[1] Fed. Trade Comm'n & U.S. Dept. of Justice, Hart-Scott-Rodino Annual Report Fiscal Year 2021, at Ex. A, Table I.

Likely challenges

- If the final rules look like the proposed rules, the final rules will almost certainly be challenged in court as being outside of the authority of the FTC to promulgate
  1. The delegation of rulemaking authority is limited to "necessary and appropriate" documents and information to enable the agencies to determine whether the reported transaction violates the antitrust laws[1]
  2. Under the current reporting regime, the agencies notification of pending reportable transactions—Internet research, voluntary access letters, second requests, and field investigations with customers and competitors provide the agencies all the information they need to determine whether a transaction violates the antitrust laws
  3. This is confirmed by the fact that since 1978, when HSR reporting began, the agencies have challenged only a handful of reportable transactions (say, less than four) that were "cleared" in the merger review
     - Under *DuPont/GM*, laches does not run against the DOJ or the FTC, so a postclearance Section 7 challenge—even 30 years after the closing—is not time barred
     - The fact that the agencies are not bringing postclearance challenges indicates that the agencies are able to determine whether a transaction violates Section 7 under the historical reporting regimes, so that the additional requirements are neither "necessary" or "appropriate"

[1] 15 U.S.C. § 18a(d)(1). Also, look at the legislative history of the HSR Act discussed above.

CLASS 4 SLIDES

Unit 4. The DOJ/FTC Merger Review Process: The Spinal Implant Merger

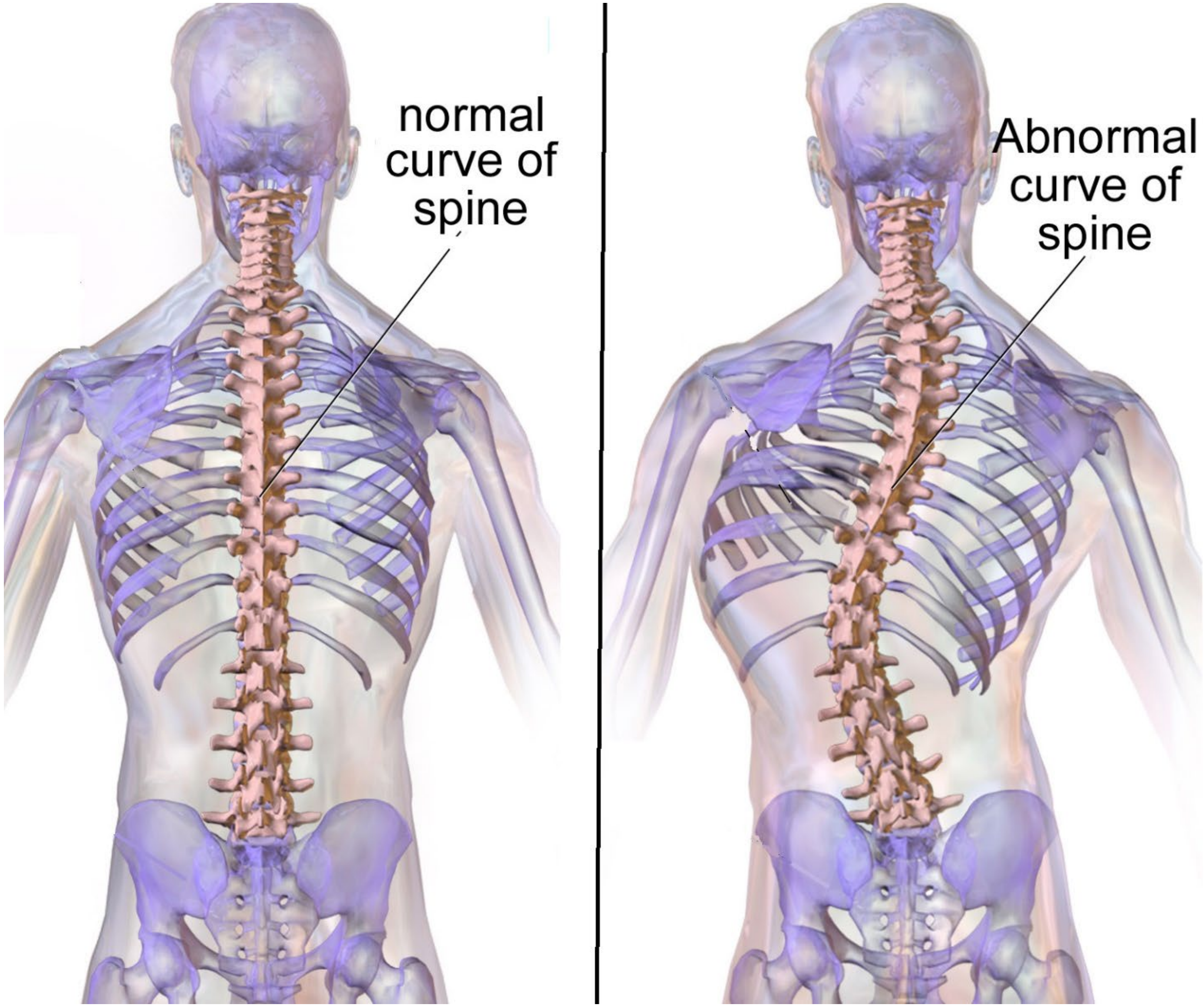
Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

September 7, 2023

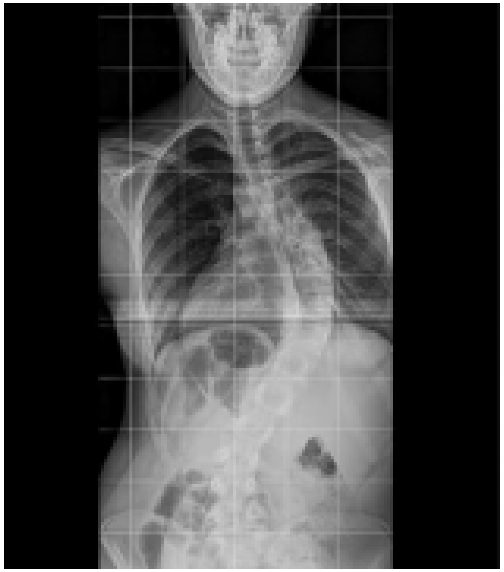
The setup

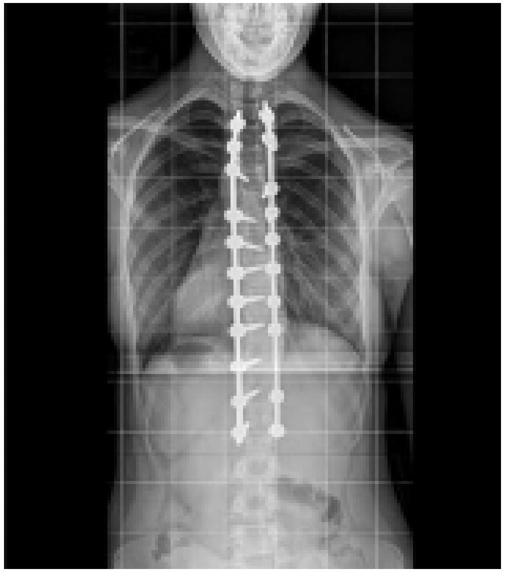
- Dr. Jack Smith, the CEO of your client Danek Group, has called you about a possible merger with Sofamor S.A. through stock swap valued at $750 million
  - Danek and Sofamor overlap in the sale of spinal implants for the surgical treatment of scoliosis in the United States
  - Zimmer Corporation is the only other company that sells spinal implants in the United States
    - Danek and Zimmer manufacture their spinal implants in the United States
    - Sofamor manufacturers its spinal implants in a suburb of Paris, France, and imports its products into the United States
  - Smith estimates the companies have the following U.S. market shares:
    - Danek: 40%
    - Zimmer: 40%
    - Sofamor: 20%
  - You have a meeting with Smith, along with his COO and general counsel, in your office this coming Thursday at 11:10 am to discuss—
    - the antitrust implications of the transaction and
    - the process you recommend for develop the defense of the transaction

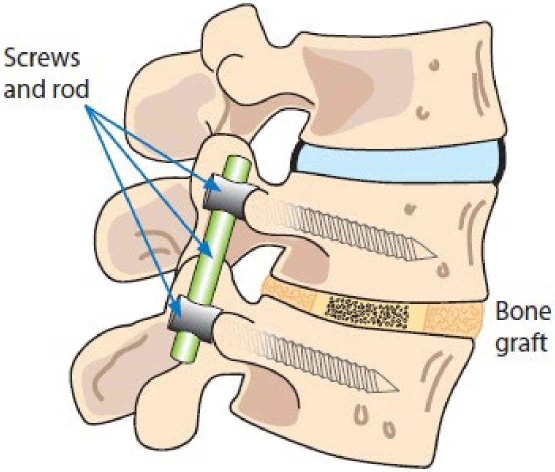
Adolescent idiopathic scoliosis



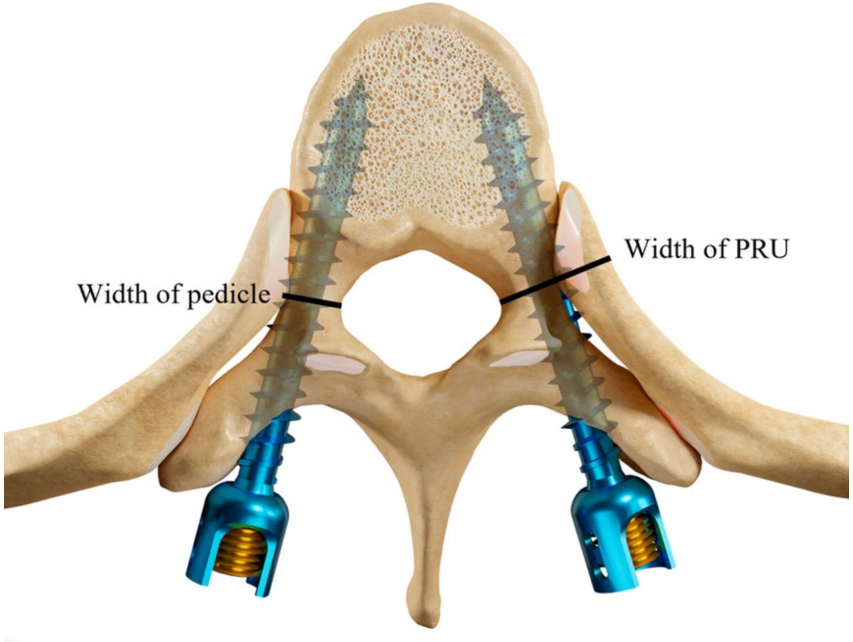
Corrected with spinal implants (rods and screws)

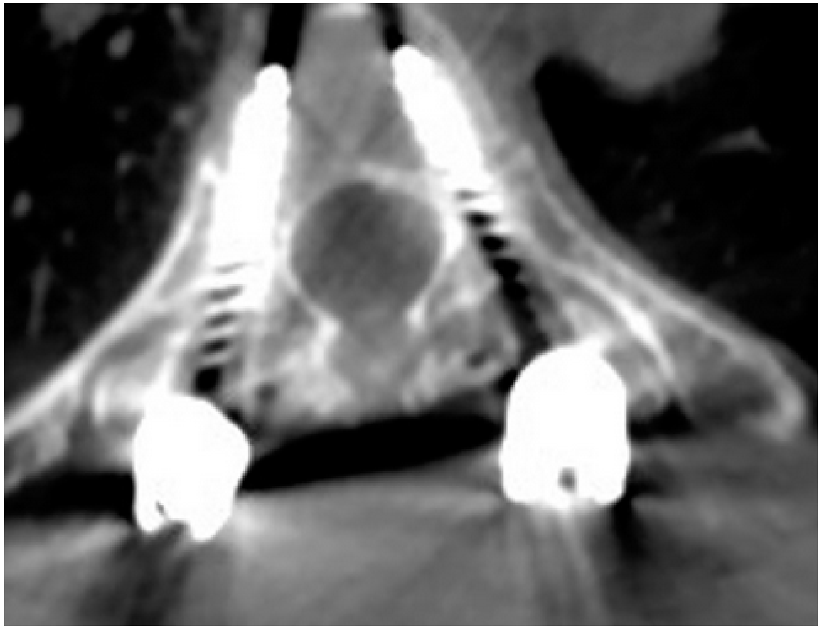






Pedicle screw placement





Spinal implant kits

- This is what Danek and Sofamor sell:

What Should You Do Before the Meeting?

Summary: Things to do before the meeting

1. Collect the information you know from the client
2. Do some initial research on the Internet and public documents
3. Prepare a preliminary information request and sent it to the client

1. What you would like to know at the start

- Who is the client
- Whether the client is a buyer or seller
- Who is the target/seller
- Whether the deal is a negotiated transaction or an auction
- The general range of the purchase price
  - In particular, whether it is > $111.4 million
- The stage of the transaction

2. Initial research (for all involved companies)

- Examine websites
  - General knowledge
  - Horizontal overlaps
- Review the company 10-Ks
- Search the Internet for more information
  - Generally about companies
  - Generally about overlap markets
  - Search in particular for sites that mention both buyer and seller/target

3. Prepare a preliminary information request

- Basic model preliminary information request
  - Be sure to modify any request with the facts you know about the transaction, the products, or the market environment

Attorney Work Product
Privileged and Confidential
Attorney-Client Communication

ABLE & BAKER LLP

September 5, 2023

PRELIMINARY INFORMATION REQUEST

Below is a list of documents and other information that will help us in our initial U.S. antitrust assessment of the acquisition of Target by Danek and will make our meeting on Thursday more productive. Please note that we are asking only for information and materials that are readily available.

1. A list of any overlapping products that Danek and Target sell in the United States.
2. Any strategic or marketing plans for any overlapping product prepared in the last three years.
3. Any internal or external market research reports that mention both Danek and Target prepared in the last three years.
4. Any other documents that discuss Target or the competitive landscape in the United States where both Danek and Target are present.

3. Prepare a preliminary information request

- Basic model preliminary information request

5. Any internal analyses or studies (including those performed by bankers and/or consultants at Danek's request) regarding the acquisition of Target, including any documents that address:
   a. the rationale for the transaction
   b. any synergies you expect from the transaction (including revenue synergies)
   c. financial modeling of the transaction
   d. likely present or future changes in the product line as a result of the transaction
   e. likely changes in investment or direction of future R&D
   f. likely changes in the facilities, distribution systems, or other operations of either company postmerger.

3. Prepare a preliminary information request

- Basic model preliminary information request

Separately, please think about how customers of either company are likely to react to the transaction. The antitrust agencies consider reactions—especially adverse reactions—highly probative of the competitive effect of a transaction. Indeed, the investigating agency will spend considerable time during the merger review calling customers to obtain their views of the transaction. We will discuss likely customer reactions in some detail at the Thursday meeting.

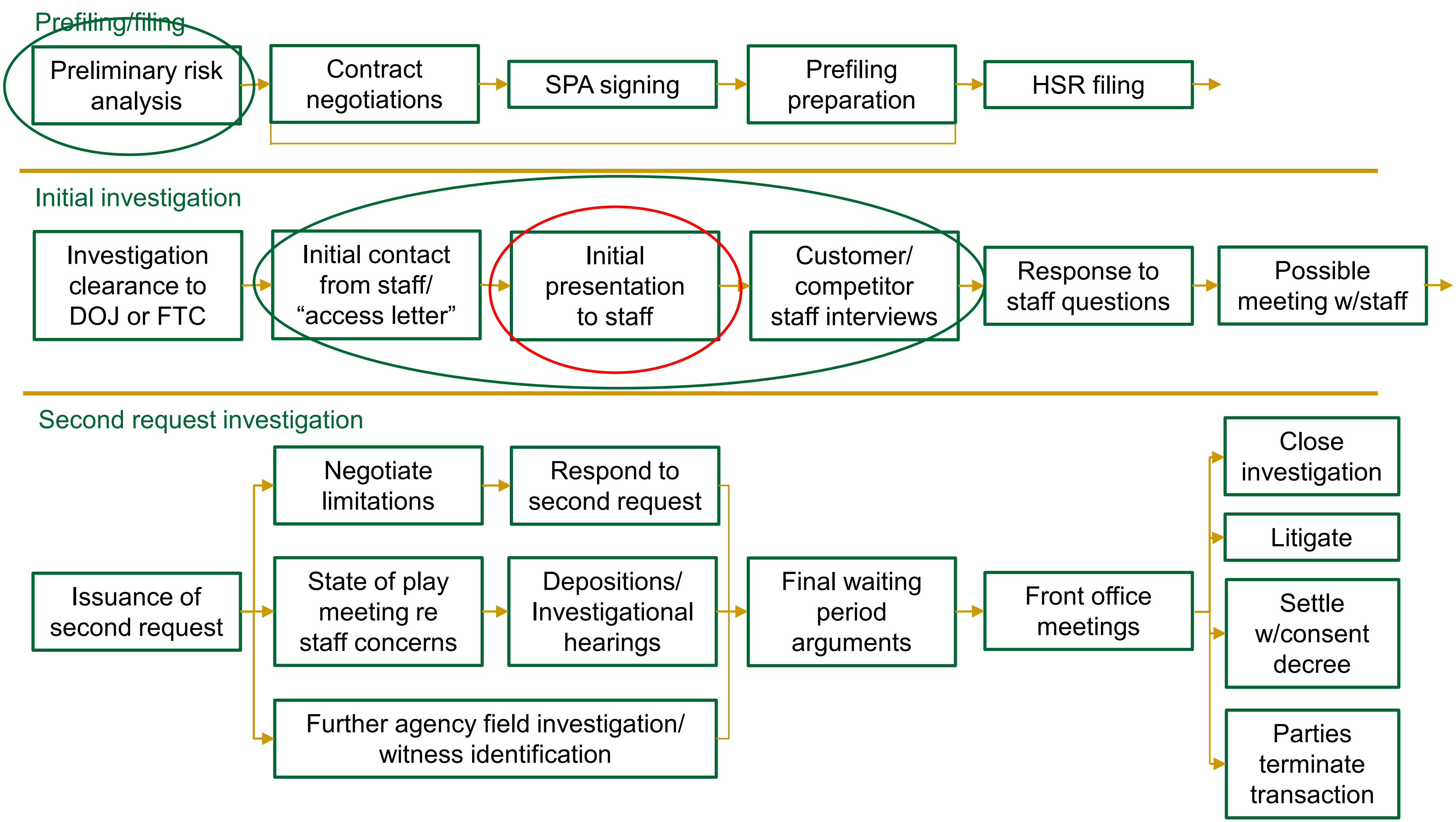
Finally, if you prepare any documents for us at any time, please mark them with the legend "PRIVILEGED & CONFIDENTIAL – PREPARED AT REQUEST OF COUNSEL" so that we can maintain the privilege on all documents that you prepare to help us with the antitrust analysis. If you have any questions about this information request, please do not hesitate to contact us.

Jane Dole
202-555-0170
Jane.dole@ablebaker.com

Robert Jackson
202-555-0189
Robert.jackson@ablebaker.com

What Do You Want To Accomplish at the Meeting?

The HSR merger review process



What do you want to accomplish at the meeting?

1. Find out if the transaction is HSR reportable
2. Find how the business rationale for the deal
3. Develop a working defense strategy
4. Test the defense strategy against customers, company documents, and the target
5. Provide strategy advice
6. Review next steps

1. Find out if the transaction is HSR reportable

- Prima facie reportability threshold in 2023: $111.4 million
- Does an exemption apply?
  - Danek (domestic) stock swapped for Sofamor (foreign) stock →
    - *Foreign stock exemption*: Issuer does not have assets in the U.S. or sales in or into the U.S. over $111.4 million
    - Here, with a purchase price of $750 million and a 20% market share in the United States → Most likely outside the foreign stock exemption
    - Confirm with client
- If reportable, explain the HSR merger review process

2. Teach the client the operational § 7 test

- Important to start with the operational test for Section 7 illegality
  1. Unless the client understands the test, they will not be persuaded by your advice
     - The client will not be persuaded unless they can replicate your analysis and reproduce your conclusion
  2. If the client understands the test, they are more likely to give complete and meaningful answers your factual questions
  3. If the client knows the test, they can continue to think after they leave the meeting about what other facts may be relevant and follow up with you to sharpen the risk analysis
  4. The client needs to know the operational test as they move forward with the transaction

Start prepping the client with the first meeting so that they can understand the antitrust implications of—

- *What they write in their documents*
- *What they say to the press and to customers*
- *What they say in meetings with the investigating agency*

2. Teach the client the operational test

- Start with Clayton Act § 7
  - Governing merger antitrust statute
  - Other statutes may apply, but they will not be more restrictive than Section 7
  - Section 7 prohibits transactions that "may substantially lessen competition"
- But what does this mean *operationally*?
  - A transaction "may substantially lessen competition" when it is likely to harm an identifiable group of customers by—
    1. Increasing prices
    2. Reducing market output
    3. Reducing product or service quality
    4. Reducing the rate of technological innovation or product improvement
    5. [Maybe] reducing product variety

Clients can grasp the operational test immediately

2. Teach the client the operational test

- Tell the client how the investigating agency is going to find the facts about the likely competitive effect
  - HSR reportability and merger review process
    - Time to ask questions to find out if the deal is likely to be reportable
  - The investigating agency will—
    1. Entertain a presentation from the parties on the deal
    2. Interview—and perhaps later depose under oath—you and other relevant employees in both companies
    3. Obtain massive amounts of the documents and data from both companies
    4. Interview customers and competitors (and maybe obtain documents and data from them)
    5. Analyze win-loss records of the companies in bidding for projects
    6. Use economists to assist in analyzing the likely competitive effects of the transaction

2. Teach the client the operational test

- Bottom line
  - The agency's conclusion on the likely effect on customers will determine the outcome of the investigation
    - NB: It is the *agency's conclusion*, not necessarily the truth, that counts
  - The best defense is a good offense
    - Can we argue that the deal is a "win-win" for the merging parties *and* the customers?
    - Companies do not do deals out of the goodness of their heart—*they do deals to make money*
    - Do we have a story consistent with the business model for the transaction, the documents and other company evidence, and the likely customer responses in staff interviews that the deal will be good for customers?

Best story*: The transaction will enable the combined company to make money by reducing costs and by making better products faster to the benefit of our shareholders and our customers*

3. Develop a working defense strategy

1. Learn more about the business and the market environment
2. Learn about the deal rationale
   - *Query*: How will Danek make money from the transaction?
   - *Query*: What are the implications of the business model for customers?
3. What will the company documents say about competition between the two companies?
   - If the government conducts a full investigation, it will see all your documents eventually. Are their any documents that might suggest—or the government might read to suggest—that customers will be harmed in any way by the transaction?
   - We need to know about any bad documents now so that we can deal with them now. Waiting to deal with them later can be disastrous.
4. Identify—
   1. All horizontal overlaps
   2. Any dominant market positions
   3. Any significant vertical relationships

3. Develop a working defense strategy

5. Learn what the client thinks are the benefits of the deal to customers (if any)
   - *Query*: Who are the customers?
   - *Alternative query*: Who is likely to be affected positively or negatively by the deal?
6. Do we have a sales pitch that we can give the customers that the deal will be good for them?
   - Will they accept it?

With this background, work with client in the meeting to develop a working defense strategy

Critical that the client be involved from the beginning in developing the defense strategy—
You want the client to "own" the strategy and make it theirs

Why?

4. Test the defense strategy

1. Learn how the customers are likely to react
   - *Query:* Will the defense strategy resonate with our customers?
   - *Query:* Will the defense strategy resonate with the target's customers?
   - *Query*: If a customer wanted to attack the deal as anticompetitive, what would the customer say?
2. Learn what the medical societies are likely to say about the deal
3. Learn whether the company's documents will support or contradict the defense strategy
4. Identify any spinal surgeons we can retain as industry experts to support the deal in the investigation?
   - *Query*: Will the experts support the factual predicates of the defense strategy?
5. Learn what the client thinks the target will support the defense strategy
   - *Query*: Who will support, oppose, seek to modify?

As best we can at this point, reconcile the defense strategy with customers, documents, industry experts, and the target

5. Provide any strategic advice

1. Emphasize the need for a compelling sales pitch for the deal to customers of *both* companies
   - Offer to help the relevant business people develop this pitch and advise on when and how to roll it out
   - Note that it is the customers of the target company that are typically the most difficult to persuade
     - Will eventually need to work with the target company as to how best to persuade its customers
2. Emphasize the need for care in drafting documents
   - "Bad" documents alone can kill a deal
     - Avoid creating documents that suggest—implicitly as well as explicitly—that the deal could harm customers
     - Some documents are "bad" because they were carelessly phrased or factually incorrect, not because they speak the truth—These can also kill a deal
   - If there is one, include the procompetitive business rationale for the deal in as many documents as possible

Provide any strategic advice

3. Consider whether the deal can be structured to make it non-HSR reportable to minimize inquiry risk

5. Review next steps

1. Determine if we have client representatives who will be compelling witnesses (*witness evaluation*)—*not to be discussed at the meeting*
   a. The strength of the client witnesses will be a major factor in the success of the defense
2. Ask the client—
   a. Who are likely to be the best business witnesses for the target, and
   b. How good are they likely to be
3. Follow-up with requests for documents and information that will support the defense strategy
   a. Also, for documents and information that will contradict the defense strategy
4. Prepare a customer "roll-out" strategy
5. Begin to prepare for a joint defense meeting with the target
6. Prepare for merger agreement negotiations
   a. We will defer this until Class 8

6. Final thoughts for the meeting

1. Caution the client that this advice is only preliminary and depends on what the client has told you in the meeting

2. Note that more work should be done with the company
   - Would like to send the client an additional *information request* for easily obtainable documents and data relevant to the defense strategy
   - When confidentiality considerations permit, would like to set up a *meeting with knowledgeable employees* to develop the facts and the arguments further

3. Tell the client that all documents created at the request of counsel should have the following prominent legend:

   PRIVILEGED AND CONFIDENTIAL
   Prepared at the request of counsel

   - Whenever possible, make this legend *machine readable*

Do NOT forget this!!!

Final thoughts for the meeting

4. Note that at some point in the process we will need to bring the target company onboard
   - The target's evidence and customer outreach program will be equally if not more critical to the outcome of any merger review
   - Note that we should be able to work with the target company under the "common interest" privilege
   - We need to think about whether we want this "joint defense meeting" to occur before or after the signing of the merger agreement
5. In addition, we will want to work with the target company to develop a "customer rollout" strategy to maximize customer support and minimize customer opposition to the deal
   - Need finalize and implement the customer rollout before the filing of the HSR forms
6. The target, unless incompetently advised, is likely to recognize the antitrust risk in the transaction
   - Should expect that the target will attempt to negotiate some provisions in the purchase agreement to—
     - Decrease the risk of a deal failure, *and*
     - Compensate the target for risk that cannot be eliminated

What Do During between the First Meeting and the HSR Filing

Immediate postmerger projects

1. Send information requests to the client to obtain additional documents and information that support (or contradict) the defense strategy
2. Work with the client to develop the customer rollout strategy
   - Identify the relevant customers and contact names
   - Develop the “sales pitch” for the deal
3. Make sure that you have all of the documents that the agency is likely to request in the initial waiting period
   - Any “4(c)’ and “4(d)” documents
   - Strategic and marketing plans for the company and, if any, separately for any overlapping products
   - Internal and external market research reports prepared over the last three years
   - Any documents on synergies resulting form the deal
4. Continue to work closely with the client to refine the defense strategy

Presigning projects

- For auctions where the client is the seller (not relevant here)
  - Require antitrust presentations by each strategic buyer on—
    - Their antitrust analysis of the transaction
    - Their strategy for defending the transaction as the buyer
    - Their estimated chances of success (i.e., the deal closes)
  - Aside on privilege
    - Attorney-client privilege
    - Work product doctrine
    - Common interest privilege
- For transactions where the client is the buyer
  - Only if necessary or desirable, make antitrust presentation to the seller presigning
- Assist in the negotiation of the merger agreement
  - Covered in Class 8

Postsigning postannouncement projects

- Internal client meeting with employees knowledgeable about the products of interest but were not “in the loop” until now
  - Modify defense strategy accordingly
- Joint defense meeting with Target to—
  - Convene an in-person “all hands” joint defense strategy meeting
    - Usually 4 hours to two days
    - With follow-up with additional subgroup meetings and conference calls as necessary
  - i. Should include—
    - Client GC, senior client representative on the antitrust business team, client representatives knowledgeable in the areas of antitrust interest, economists
    - Counterparty GG and counterparty representatives knowledgeable in the areas of antitrust interest, counterparty economists
  - Present the defense strategy and get the Target’s reaction
    - What do the Target’s documents say?
    - What are the likely reactions of the Target’s customers?
    - Does the Target see benefits or harms to customers that we have not addressed?
    - Modify the defense strategy accordingly

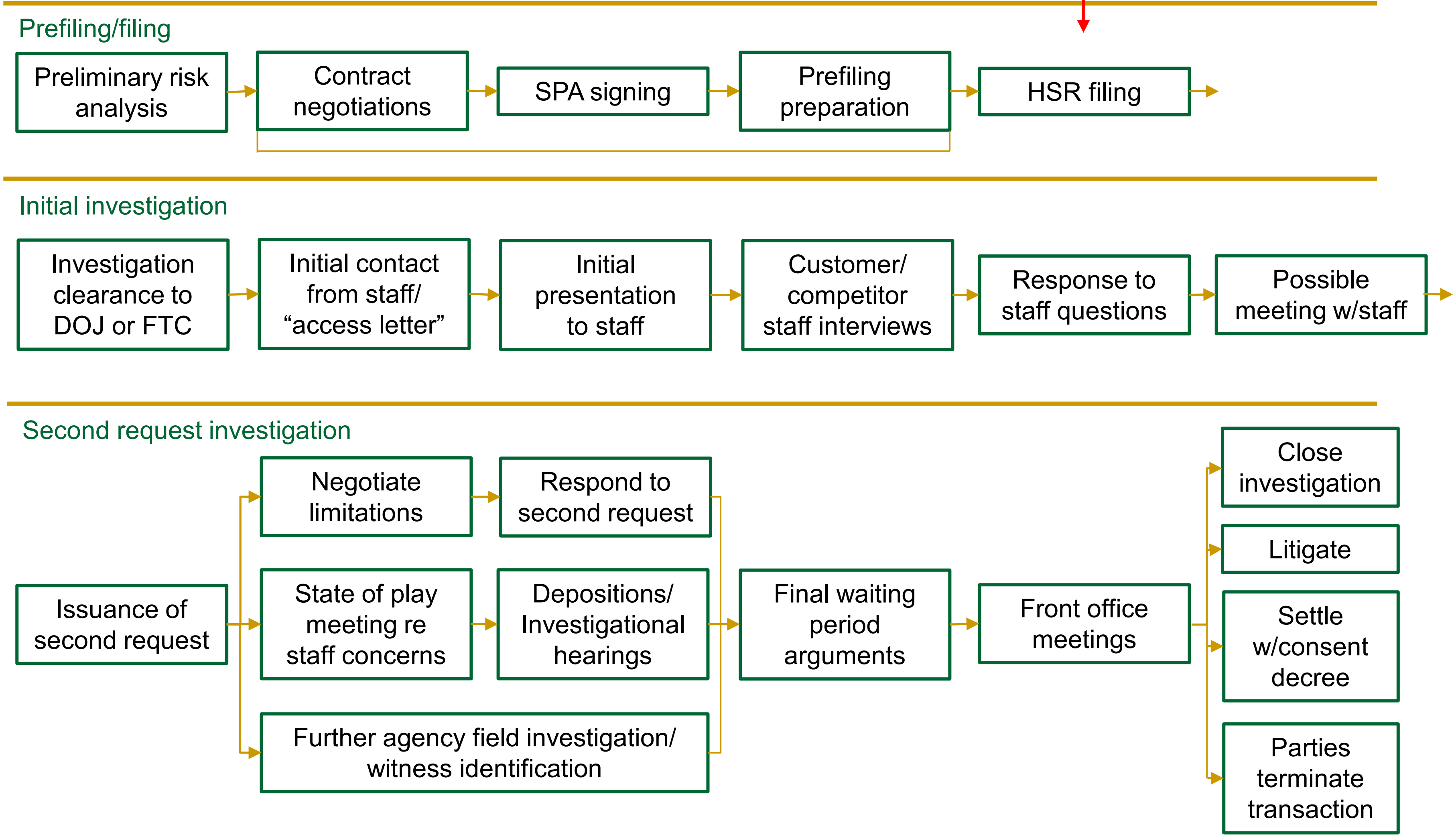
Critical to obtain Target buy-in of the defense strategy

Postsigning postannouncement projects

- Joint defense meeting with Target re joint customer rollout strategy
  - Develop and finalize the “sales pitch” for the deal to be delivered to customers
  - Identify the companies and contacts to be given to the agency after the first meeting
  - Identify who will call each customer contact to make the sales pitch
  - Implement the customer rollout strategy/companies to respond to any concerns
- Interview and retain support industry experts
- Finalize the defense presentation to the agency for the first meeting
- Finalize HSR reports
  - Can usually accomplish all postsigning postannoucement projects 10 business days after deal announcement
  - BE SURE you have collected all “4(c)” and “4(d)” documents
    - Failing to include all responsive documents is likely to result in an ineffective filing

Now You Are Ready To File and Begin the Defense of the Transaction

The HSR merger review process



CLASS 5 SLIDES

Unit 5. Merger Antitrust Settlements

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

September 11, 2023

Topics

- The basic idea
- Some important legal technicalities
- DOJ/FTC enforcement practice
- Consent decrees
  - Fixing the antitrust concern (the “fix”)
  - Other important provisions
  - The process
- Consent decree violations
- Two variations
  - “Litigating the fix”
  - “Fix it first”

Possible outcomes in DOJ/FTC reviews

Close investigation	• Waiting period terminates at the end of the investigation with the agency taking no enforcement action, or • Agency grants early termination prior to normal expiration
Litigate ("Litigate the fix")	• DOJ: Seeks preliminary and permanent injunctive relief in federal district court • FTC: Seeks preliminary injunctive relief in federal district court Seeks permanent injunctive relief in administrative trial
Settle w/consent decree	• Typical resolution for problematic mergers • DOJ: Consent decree entered by federal district court • FTC: Consent order entered by FTC in administrative proceeding
Parties terminate transaction	• Parties will not settle at the agency's ask and will not litigate, or • Agency concludes that no settlement will resolve the agency's concerns and the parties will not litigate • Examples: AT&T/T-Mobile, NASDAQ/NYSE Euronext
"Fix it first"	• Merging parties restructure transaction to eliminate problematic overlap by narrowing assets to be purchased or selling assets to a third party • Merging parties file new HSR notifications for the restructured transaction • HSR reports also may need to be filed for the restructured transaction • When done to the agency's satisfaction, eliminates the need for a consent decree or other enforcement action

The Basic Idea

The basic idea

- The Section 7 concern

  The merger combines two significantly competing firms →
  1. *Eliminating one independent market force and*
  2. *Likely substantially reducing competition in the relevant market*

- The solution

  Require the buyer (or the target) to sell its business to a third party with the ability and the incentive to run the divested business with at least the same competitive force as the divestiture seller

- The upshot

  The market structure does not change: The same number of firms continue to operate in the market with the same competitive force postmerger as premerger

The basic idea

- The fundamental consent decree requirement:

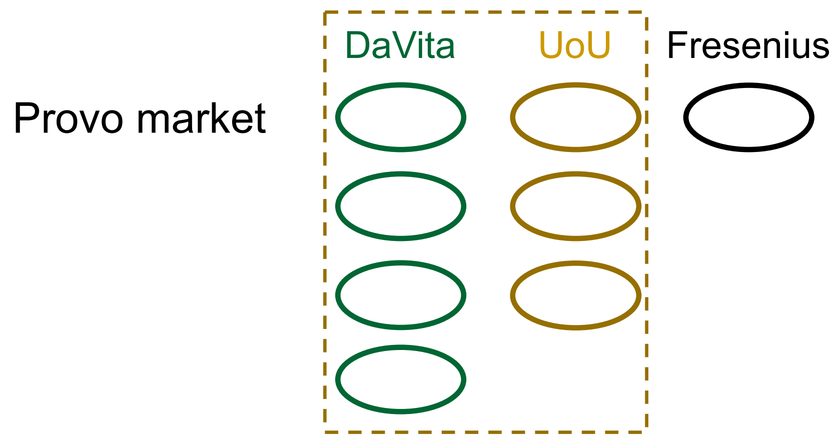
  The divestiture buyer must preserve the level of premerger competition in the market of concern so that the putative anticompetitive effect never materializes postmerger

- Two requirements here
  1. The divestiture buyer must have the *ability* and the *incentive* to preserve the premerger level of competition postmerger for the foreseeable future
     - *Corollary 1*: The divestiture business must be *financially viable* in the hands of the divestiture buyer
     - *Corollary 2*: Financial viability may require the divestiture of additional assets not strictly necessary to eliminate the antitrust problem
  2. The divestiture must preserve competition *ab initio*—there cannot even be a transitory anticompetitive effect postmerger

The divestiture buyer is said to "step into the shoes" of the divestiture seller

The basic idea

- *Illustration*: DaVita/University of Utah[1]
  - The deal
    - In September 2021, DaVita, the largest operator of outpatient dialysis clinics in the United States, agreed to acquire the University of Utah's 18 dialysis clinics in and around Utah in a non-HSR reportable transaction
  - The antitrust problem
    - In the greater Provo market, there were only three dialysis providers:
      - DaVita: 4 clinics
      - UoU: 3 clinics
      - Fresenius: 1 clinic



    - Barriers to entry into dialysis clinics are very high and no new entry was likely postmerger
    - The transaction would reduce the number of competitors in the Provo market from three to two (a "3 → 2 transaction"), with DaVita operating seven out of the eight clinics in the area

[1] For the consent order and related documents, see the DaVita/University of Utah case study in the Unit 5 supplemental materials.

The basic idea

- *Illustration*: DaVita/University of Utah
  - The consent decree
    - The FTC and DaVita resolved the FTC's concerns at the end of the investigation through a consent decree requiring DaVita to—
      - Divest the three UoU Provo clinics to Sanderling Renal Services, Inc. ("SRS"), a small but established operator of dialysis clinics nationwide but without any presence in Utah — Requires a "buyer upfront" (standard in most cases)
      - Provide transition services to SRS for up to one year — Standard provision
      - Assist SRS in hiring the employees at the divested clinics and refrain from soliciting those employees for 180 days — Standard provision
      - Prohibit DaVita from entering into or enforcing noncompete agreements with any University nephrologist — New provision
      - Prohibit DaVita from entering into any non-solicitation agreement with SRS that would prevent SRS from soliciting DaVita's employees for hire — New provision
      - Requires DaVita to obtain prior approval from the Commission for any future acquisition of any ownership interests in any dialysis clinic in Utah — New provision

Reflects the FTC's new concerns about the effect of mergers on labor

Once the FTC provisionally accepted the consent order on October 25, 2021, the parties were free to close the main transaction. The settlement, however, required DaVita to divest the three Provo clinics to SRS within ten days of the closing of the main transaction.

The basic idea

- *Illustration*: DaVita/University of Utah
  - The FTC found no antitrust problems with DaVita's acquisition of the other 15 UoU clinics

The key to a consent decree is the existence of other parts of the deal that do not present antitrust problems and the separability of the parts of the deal that do

The basic idea

- There are three ways to restructure a deal to avoid a problematic antitrust overlap:
  1. Postmerger sale to a third party under a consent decree
     - Restructure the transaction under a consent decree to sell one side of the problematic overlap (either the buyer or seller) to a third party approved by the agency under a divestiture agreement approved by the agency *after* the buyer and seller close their main transaction
     - Report the original transaction on the HSR filing—shows the overlap
     - (Maybe) The third party could be a newly created "Spin Co." if properly structured
  2. Leave the seller's overlap business with the seller
     - Restructure the transaction with the seller so that the seller retains its side of the problematic overlap, so it never passes to the buyer
     - Report only the restructured transaction on the HSR filing—shows no overlap
  3. Premerger sales to a third party ("Fix it first" without a consent decree)
     - Restructure the transaction so that one side of the problematic overlap (either the buyer or the seller) is sold to a third party *before* the buyer and seller close their main transaction
     - The "fix" without the consent decree
     - Report only the restructured transaction on the HSR filing—shows no overlap

The basic idea

- A caution:
  - In many deals, it is not clear what overlaps, if any, the agency will find problematic
    - In some deals, there is a meaningful prospect that the original deal can be successfully defended and that no "fix" is necessary
    - In other deals with multiple horizontal overlaps, it may be difficult if not impossible to determine precisely what overlaps the agency will conclude are problematic and hence have to be fixed[1]
  - The only way to find out for sure is to go through the HSR investigation and negotiate a mutually acceptable solution with the investigating agency

In the absence of a mutually acceptable solution, the only alternatives are to—

1. *Litigate the merits of the original deal*
2. *Litigate the fix*
3. *Voluntarily terminate the transaction*

The basic idea

- Three basic divestiture consent decree paradigms
  1. Divest standalone business complete with all necessary back office and other support
     - Divestiture of a legal entity—a corporation or an LLC—is desirable since all employees and contacts with the company follow the sale to the divestiture buyer
     - If the Commission is unsure whether an acceptable divestiture buyer will emerge, the Commission will insist on a "buyer upfront"—that is, it will not accept the consent decree until the Commission vets and approves the divestiture buyer and the definitive purchase agreement
       - This can delay the closing of the main transaction for several months
     - Today, buyers upfront are more the rule than the exception
  2. Divest an operating business
     - Core business operations divested—Divestiture buyer to provide back office and other support
     - Agencies almost always demand an upfront buyer
  3. Divest assets necessary for divestiture buyer to operate the divestiture business
     - Divestiture buyer to provide all support necessary to operate the business
     - Agencies always demand an upfront buyer

These three paradigms also apply in "fix it first" solutions

Some Important Legal Technicalities

Some important legal technicalities

1. Consent decree are final judgments in a judicial or administrative adjudicative proceeding
   - A judicial or administrative complaint must initiate these civil proceedings
   - DOJ consent decrees are federal district court permanent injunctions
     - Violations are enforceable through civil and criminal contempt sanctions
   - FTC consent orders are administrative "cease and desist orders"
     - Violations are enforceable through federal district court action for civil penalties
       - Penalties are inflation adjusted
       - In 2022, the maximum penalty is $46,517 per day (adjusted annually)
     - The district court will also issue an injunction to prevent future violations of the FTC consent order
       - These district court orders are enforceable through judicial contempt sanctions (criminal and civil)
       - Contempt sanctions can expose the company to greater liability than the per day civil penalty

Some important legal technicalities

2. Committed to agency discretion
   - The decision whether to enter into consent decree negotiations or to reject a consent decree is committed to the investigating agency's discretion
   - Agency decisions to refuse to accept a consent decree are not subject to review under the Administrative Procedure Act

Some important legal technicalities

3. No finding of facts or liability
   - Consent decrees are entered by the court or FTC without adjudication of the merits or the finding of any facts
     - There is typically no active litigation: Most consent decrees are negotiated prior to the filing of the complaint and filed simultaneously with the complaint
     - Antitrust consent decrees historically have contained an explicit disclaimer that the parties' acceptance of the consent settlement—
       1. Is for settlement purposes only
       2. Does not constitute an admission by Respondents that they violated the law as alleged in the complaint
       3. Does not constitute an admission by the respondents that the facts as alleged in the complaint (other than jurisdictional facts) are true
          - *Note*: An admission of jurisdictional facts is necessary to provide the court or administrative tribunal with subject matter jurisdiction to enter the consent decree

Some important legal technicalities

4. The role of consent
   - In the absence of an adjudication of the merits, the power of the court or agency to enter a consent settlement as a final order rests on the consent of the parties to the settlement:

> [I]t is the parties' agreement that serves as the source of the court's authority to enter any judgment at all. More importantly, it is the agreement of the parties, rather than the force of the law upon which the complaint was originally based, that creates the obligations embodied in a consent decree.[1]

   - Corollaries
     - Because the source of the court's authority to enter a consent decree is the parties' agreement and not a violation of law, no proof or admission of a violation of a legal obligation is needed before a court can enter and enforce a consent decree as a judicial order
     - Conversely, a person (including a party in the same litigation) that is not a signatory to a consent decree is not bound by it, nor can a consent decree modify a third-party's rights or impose obligations or duties on a third party[2]
       - Accordingly, if a consent decree imposes obligations on a party that results in a breach of that party's obligations to a third party, the third party may sue for breach and the consent decree does not provide immunity for the breach

[1] Int'l Ass'n of Firefighters Local 93. v. City of 478 U.S. 501, 522 (1986) (citations omitted).
[2] *Id.* at 529; United States v. Ward Baking Co., 376 U.S. 327 (1964); Hughes v. United States, 342 U.S. 353 (1952).

Some important legal technicalities

5. Dual nature of consent decrees
   - *Basic rule*: United States v. ITT Cont'l Baking Co. (1975):

> Consent decrees and orders *have attributes both of contracts and of judicial decrees* or, in this case, administrative orders. While they are arrived at by negotiation between the parties and often admit no violation of law, they are motivated by threatened or pending litigation and must be approved by the court or administrative agency. *Because of this dual character, consent decrees are treated as contracts for some purposes but not for others*.[1]

   - Whether a consent decree will be treated as a contract will depend upon the particular context in which the issue arises

[1] United States v. ITT Cont'l Baking Co., 420 U.S. 223, 237 n. 10 (1975) (internal citation omitted).

Some important legal technicalities

6. Construing consent decrees
   - Courts generally construe consent decrees as contracts between the settling parties
     - Consent decrees "closely resemble contracts" and their "most fundamental characteristic" is that they are voluntary agreements negotiated by the parties for their own purposes[1]
     - As a general rule, courts construe consent decrees to give effect to the parties' intent as expressed in the decree itself
     - "[S]ince consent decrees and orders have many of the attributes of ordinary contracts, they should be construed basically as contracts, without reference to the legislation the Government originally sought to enforce but never proved applicable through litigation."[2]
       - *Query*: Is this still the state of the law?
   - But the contract analogy does not extend to third-party beneficiary enforcement
     - A consent decree is not enforceable directly or in collateral proceedings by those who are not parties to it[3]
     - Even intended third-party beneficiaries of a consent decree lack standing to enforce its terms

[1] Int'l Ass'n of Firefighters Local 93. v. City of 478 U.S. 501, 519, 522 (1986).
[2] United States v. ITT Cont'l Baking Co., 420 U.S. 223, 236-37 (1975).
[3] Blue Chip Stamps v. Manor Drug Stores, 421 U.S. 723, 750 (1975).

Some important legal technicalities

7. Modifying consent decrees
   - Modification with consent of all parties
     - Courts generally will modify the terms of a consent decree with the consent of all parties, provided that the modification does not contravene the public interest
   - Modification over the opposition of a party
     - In *United States v. Swift & Co*., the Supreme Court rejected the contention that a consent decree should be considered a contract for purposes of determining whether the courts have the power to modify such a decree absent the parties' consent[1]

Consider three different scenarios

[1] 286 U.S. 106, 114-15 (1932); *see* Rufo v. Inmates of Suffolk Cnty. Jail, 502 U.S. 367, 378 (1992) ("[A consent decree] is an agreement that the parties desire and expect will be reflected in, and be enforceable as, a judicial decree that is subject to the rules generally applicable to other judgments and decrees.").

Some important legal technicalities

7. Modifying consent decrees
   - Modification over the opposition of a party (con't)
     - *Scenario 1*: Conditions have changed since the entry of the consent decree, the restrictions in the consent decree now affirmatively harm the public interest, and the private party bound by the restrictions seeks modification. The government opposes.
       - Following *Swift*, courts will modify or terminate a consent order over the government's opposition if, because of changed circumstances, the consent order harms the public interest[1]
       - Rule 60(b)(5) also provides that a court may relieve a party from a final judgment or order if "applying [the judgment] prospectively is no longer equitable"[2]

[1] United States v. Swift & Co., 286 U.S. 106, 114 (1932).
[2] Fed. R. Civ. P. 60(b)(5); *see* Rufo v. Inmates of Suffolk Cnty. Jail, 502 U.S. 367, 378 (1992) (noting application of Rule 60(b) to a consent decree).

Some important legal technicalities

7. Modifying consent decrees
   - Modification over the opposition of a party (con’t)
     - *Scenario 2*: Conditions have changed since the entry of the consent decree, and the government concludes that the restrictions it negotiated in the consent decree are now inadequate to preserve competition and seeks modification to include new or enhanced restrictions. The private party opposes.
       - *WDC*: Most likely, courts will be reluctant to impose new obligations on the respondent over the respondent’s opposition unless the consent agreement contemplates such changes in light of changed circumstances.

Some important legal technicalities

7. Modifying consent decrees
   - Modification over the opposition of a party (con't)
     - *Scenario 3*: Conditions have *not* changed since the entry of the consent decree, but the government concludes it has negotiated inadequate relief to preserve competition and seeks to include new or enhanced restrictions. The private party opposes.
       - *WDC*: In the absence of changed circumstances, courts are likely to deny modifications to strengthen the consent order over the respondent's opposition, reasoning that the government must live with the relief it originally negotiated.

An important aside: *Cleveland Firefighters*

- *Cleveland Firefighters*[1]
  - *Rule*: A court may enter a consent decree as a final judgment even if the consent decree contains relief that a court could not award in a fully litigated proceeding
    - *Corollary*: An agency may demand relief in a consent decree that a court could not award the agency in a litigated proceeding
  - *Qualifications*: The Court qualified this rule in two significant ways:
    1. The consent decree cannot conflict with or violate the law on which the complaint was based
    2. Inclusion of relief in a consent does not immunize the parties from a collateral attack that discharging their consent decree obligations—
       - Violates some other law, *or*
       - Breaches some contractual obligation to a third party

    Query: Would the court abuse its discretion if it entered a consent decree that it knew required the respondent to violate some law or breach some contract?

[1] Int'l Ass'n of Firefighters Local 93. v. City of Cleveland, 478 U.S. 501 (1986).

Agency Perspectives

Agency perspectives

- Consent settlements
  - The acceptance of a consent settlement is in the unfettered discretion of the investigating agency
  - The agency's willingness to accept a consent decree settlement depends largely on the confidence the agency has that the settlement will in fact negate the anticompetitive effect the agency believes the transaction will create
    - Depending on administration, the requisite level of confidence can be anything from likely to a near-certainty that the consent settlement will negate all anticompetitive effects of the merger

Agency perspectives

- Consent settlements
  - To satisfy the agency, the consent settlement must—
    1. Eliminate the agency’s competitive concerns with the main acquisition
    2. Be workable in practice
    3. Must not involve the agency in continuous oversight or affirmative regulation
    4. Must not create its own antitrust concerns

The history

- Since at least 1982, the DOJ/FTC has accepted divestiture consent decrees in most cases to resolve competitive concerns

Year	Abandoned	Complaint	Consent Decree*	Closing Statement	Total
2011	2	4	20	2	28
2012	1	3	18	6	28
2013	1	3	13	5	22
2014	2	3	22		27
2015	3	7	24	3	37
2016	1	6	26		33
2017	1	3	23		27
2018	1	3	16	3	23
2019	2	7	15	2	26
2020	2	8	22	1	33
2021	4	6	17		27
2022	2	10	8		20
2023 1H	3	3			6

* Includes two "fix it first" resolutions in 2012

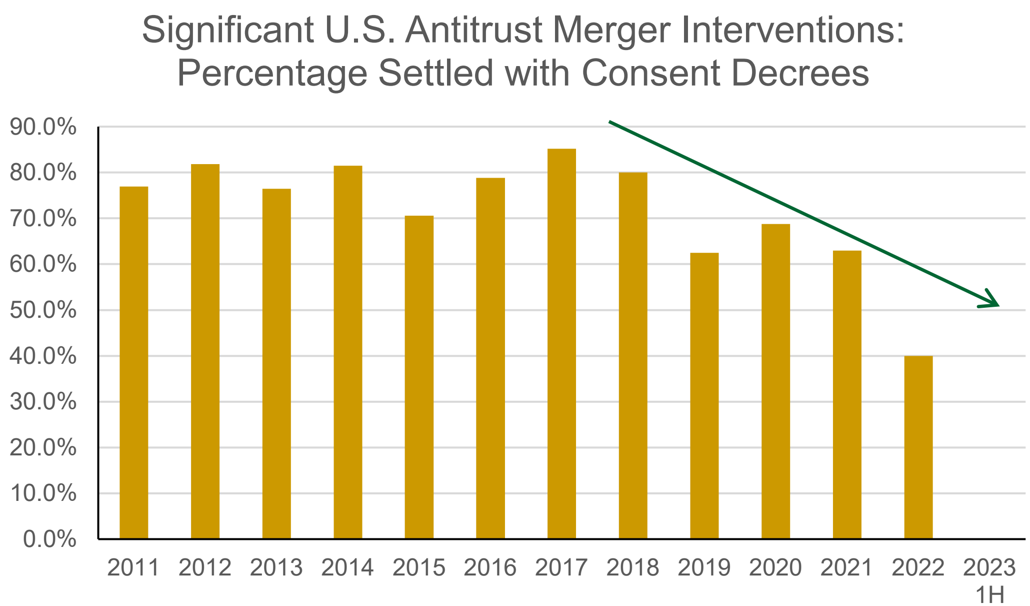
Source: Dechert LLP, DAMITT Q2 2023: When Avoiding Settlements, Does Merger Enforcement Settle for Less? (July 26, 2023).); Dechert LLP, DAMITT 2018 Year in Review (Jan. 24, 2019). Dechert declines a "significant" investigation as one that involves a deal that is HSR reportable for which the result of the investigation is a consent order, a complaint challenging the transaction, an official closing statement by the reviewing antitrust agency, or the abandonment of the transaction with the antitrust agency issuing a press release. It does not include an in-depth second request investigation in which the investigating agency concludes there is no antitrust concern but issues no closing statement, resulting in the number of investigations in which the agency takes no enforcement action is undercounted. Dechert calculates the duration of an investigation from the date of announcement to the completion of the investigation (presumably including any time necessary to negotiate a consent decree).

The history

- Through most of the Obama administration, the agencies believed that consent decrees provided the best way to resolve the agency concerns from society’s perspective
  - The agencies presumed that there were likely significant efficiencies in the nonproblematic parts of the deal, and if the agency did not accept a consent decree and the deal collapsed, consumers would lose the benefits of the nonproblematic parts of the deal
  - So even if the consent decree did not completely negate the transaction’s anticompetitive effect, there was an offsetting social benefit from the efficiencies from the part of the transaction that was allowed to close

The history

- Beginning in 2017, however, the DOJ/FTC have resolved a decreasing percentage of their interventions with consent relief
  - Nonetheless, the percentage of interventions resolved through consent relief remains high



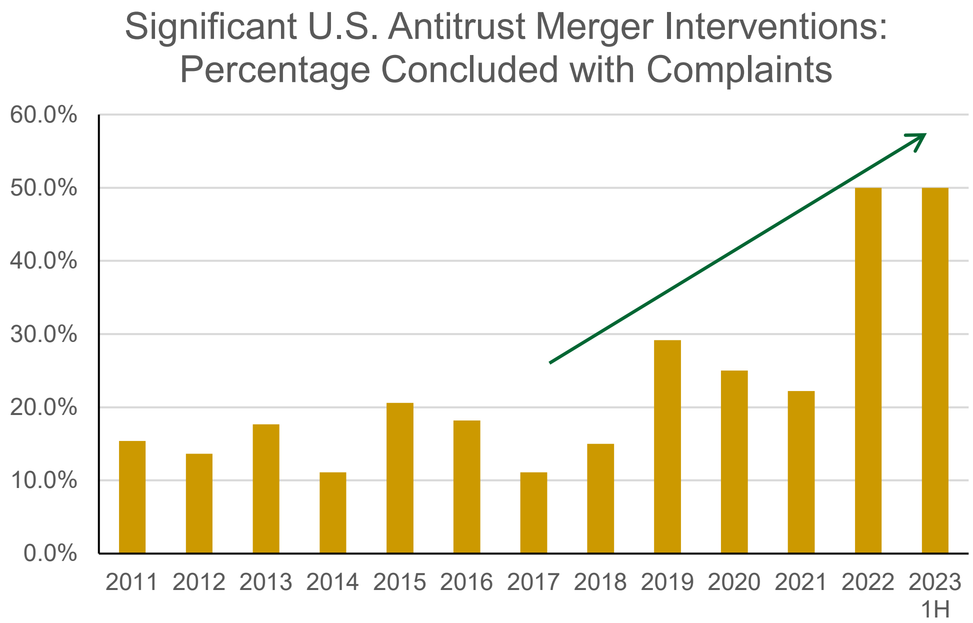
Note 1: Observe the decline in the Trump administration and the Biden administration to date

Note 2: In the last two eeks in August, the FTC provisionally accepted three consent orders (two in litigation)

Source: Dechert LLP, DAMITT Q2 2023: When Avoiding Settlements, Does Merger Enforcement Settle for Less? (July 26, 2023); Dechert LLP, DAMITT 2018 Year in Review (Jan. 24, 2019). Interventions occur when the investigation concludes that the transaction violates Section 7, which is resolved either by consent decree, a complaint, or the parties voluntarily abandoning the transaction.

The history

- As resolutions through consent relief have decreased, the percentage of interventions resolved through complaints has increased
  - NB: Some of these litigations were settled by consent decree in litigation but before trial



- Agencies increasingly less willing to accept consent settlements at the end of an investigation
- Merging parties increasingly more willing to litigate

Source: Dechert LLP, DAMITT Q2 2023: When Avoiding Settlements, Does Merger Enforcement Settle for Less? (July 26, 2023); Dechert LLP, DAMITT 2018 Year in Review (Jan. 24, 2019).

The history

- Obama/Trump administrations
  - Beginning late in the Obama administration and continuing to some degree in the Trump administration, the agencies began to become more skeptical that consent decrees would cure their perceived competitive problems
  - Two sources for this skepticism—
    1. The emergence of several studies purportedly finding anticompetitive price increases in the market in the wake of a divestiture consent decree, *and*
    2. An increasing view that the nonproblematic parts of a merger did not yield significant efficiencies

Note: Both results are subject to vigorous academic dispute

The history

- The Biden administration
  - DOJ
    - As a matter of principle, consent decrees are not usually an acceptable solution to a problematic merger[1]
      - Consent settlements fail frequently and unpredictably
      - The proper remedy for a problematic horizontal merger is a blocking permanent injunction
    - Since Jonathan Kanter was sworn in as AAG On November 16, 2021, the DOJ has not accepted a consent settlement in an investigation
      - The court essentially forced the DOJ to accept a consent decree in litigation
  - FTC
    - Over the last year, the Commission has exhibited increasing resistance to accepting consent decrees
    - Since Lina Khan was sworn in as FTC Chair on June 15, 2021, the Commission has given—
      - Final approval to ten divestiture consent settlements
        - None in 2023
      - Provisional approval to three divestiture consent settlements
        - All three in the last two weeks of August 2023
        - Two settled in litigation

[1] Jonathan Kanter, Ass't Att'y Gen., Antitrust Div., U.S. Dep't of Justice, Antitrust Enforcement: The Road to Recovery, Prepared Remarks at the University of Chicago Stigler Center, Chicago, IL (Apr. 21, 2022).

The history

- The Biden administration
  - An emerging work-around: “Fix it first”
    - In a “fix it first,” the parties restructure the transaction to eliminate the problematic horizontal overlap and file their HSR notifications only on the restructured, nonoverlapping transaction
    - The divestiture sale must be consummated *before* the main transaction closes because the HSR filings will not cover a transaction with the overlap
      - However, the divestiture closing of the divestiture sale may be delayed until the main (restructured) transaction “clears” the merger review
    - The antitrust concern presented by the original overlap must be entirely eliminated by the “fix it first” divestiture to the satisfaction of the investigating agency in—
      - in the business and assets to be divested
      - the manner of divestiture (including any ancillary transaction agreements), *and*
      - the identity of the divestiture buyer

      Otherwise, the agency will challenge the transaction as violating Section 7
    - The merging parties can "litigate the fix" if the investigating agency rejects the "fix it first" solution
    - Since the buyer never takes control of the two overlapping businesses, there is no need for a consent decree

Consent Remedies in Horizontal Cases: The Details

Mergers and acquisitions involving competitors are by far most common type of business combination challenged under the merger antitrust laws. We will examine relief in other types of transactions later in the course.

Agency requirements

1. Almost always require the sale of a complete "business"
2. Will permit "trade up" solutions
3. Typically will require a "buyer upfront"
4. Everything associated with the business to be divested must go
   a. Divest all physical assets
   b. Divest all IP
   c. Make designated "key" employees available for hire by divestiture buyer
   d. Assign/release customer contracts and revenues
   e. Transfer all business information
5. Merged firm must provide any necessary short-term transition services and support so that the divestiture can immediately compete
6. Often will require a "monitor" to oversee performance of obligations
7. No long-term entanglements between the merged firm and the divestiture buyer

Agency requirements

8. Agency will require the right of approval over divestiture buyer *and* the divestiture sales agreement
9. Agency will require a very tight deadline for closing the divestiture
   - 10 business days for buyers upfront
   - 3 months otherwise
10. If the consent decree has a divestiture obligation, it will contain a provision for the appointment of a "trustee" in the event the merged firm fails to divest in the time required by the decree
11. Agency can withdraw consent, in its discretion, any time before the entry of the final judgment

Agency requirements

- New development: Prior approval provisions
  - Provision requiring prior approval by the reviewing agency of future acquisitions by the defendant-buyer
    - When used in the past, applied only to acquisitions that were not HSR-reportable
      - Does not appear to be part of the Biden antitrust enforcement policy
    - Likely to be included to consent decrees for all types of mergers
  - The FTC has started including provisions in some consent decrees that purport to require the divestiture buyer to obtain the prior approval of the Commission before any sale of the divestiture assets during the term of the consent decree

Consent Remedies: The Process

The basic idea

- The process
  1. The enforcement agency and parties agree on the antitrust concern to be resolved
  2. The parties negotiate a package of business operations, assets, and ancillary commitments that would permit a qualified third-party divestiture buyer to maintain the premerger level of competition
  3. The parties memorialize the divestiture package in a proposed consent decree and related documents
  4. The merging parties find a divestiture buyer
  5. The divestiture buyer applies for agency approval
  6. The agency approves the divestiture package and divestiture buyer
     - Assumes the agency requires a "buyer upfront"
     - In some cases, the agency will accept a consent agreement that provides for the identification of the divestiture buyer after the agency accepts the consent settlement
  7. DOJ files complaint and motion for entry of consent decree in federal district court/ FTC provisionally accepts consent order
  8. The agency publishes the proposed consent decree in the federal register and other venues inviting public comments
  9. The court/FTC considers public comments and agency response
  10. The court/FTC enters the consent decree as a final judgment

Consent settlement documents

DOJ (federal district court proceeding)	FTC (FTC administrative proceeding)
Complaint	Administrative complaint

Consent settlement documents

DOJ (federal district court proceeding)	FTC (FTC administrative proceeding)
Complaint	Administrative complaint
Proposed Hold Separate Stipulation and Order —Proposed Final Judgment —[Contained in body of stipulation]	Agreement Containing Consent Orders —Proposed Decision and Order —Order to Maintain Assets

Consent settlement documents

DOJ (federal district court proceeding)	FTC (FTC administrative proceeding)
Complaint	Administrative complaint
Proposed Hold Separate Stipulation and Order —Proposed Final Judgment —[Contained in body of stipulation]	Agreement Containing Consent Orders —Proposed Decision and Order —Order to Maintain Assets
Competitive Impact Statement	Analysis of Proposed Consent Order to Aid Public Comment

Consent settlement documents

DOJ (federal district court proceeding)	FTC (FTC administrative proceeding)
Complaint	Administrative complaint
Proposed Hold Separate Stipulation and Order —Proposed Final Judgment —[Contained in body of stipulation]	Agreement Containing Consent Orders —Proposed Decision and Order —Order to Maintain Assets
Competitive Impact Statement	Analysis of Proposed Consent Order to Aid Public Comment
Hold Separate Stipulation and Order (so ordered by the court)	Decision and Order (accepting consent settlement for public comment and entering Order to Maintain Assets)

Consent settlement documents

DOJ (federal district court proceeding)	FTC (FTC administrative proceeding)
Complaint	Administrative complaint
Proposed Hold Separate Stipulation and Order —Proposed Final Judgment —[Contained in body of stipulation]	Agreement Containing Consent Orders —Proposed Decision and Order —Order to Maintain Assets
Competitive Impact Statement	Analysis of Proposed Consent Order to Aid Public Comment
Hold Separate Stipulation and Order (so ordered by the court)	Decision and Order (accepting consent settlement for public comment and entering Order to Maintain Assets)
Federal Register and newspaper notice [Public comment period: 60 days]	Federal Register notice [Public comment period: 30 days]

Consent settlement documents

DOJ (federal district court proceeding)	FTC (FTC administrative proceeding)
Complaint	Administrative complaint
Proposed Hold Separate Stipulation and Order —Proposed Final Judgment —[Contained in body of stipulation]	Agreement Containing Consent Orders —Proposed Decision and Order —Order to Maintain Assets
Competitive Impact Statement	Analysis of Proposed Consent Order to Aid Public Comment
Hold Separate Stipulation and Order (so ordered by the court)	Decision and Order (accepting consent settlement for public comment and entering Order to Maintain Assets)
Federal Register and newspaper notice [Public comment period: 60 days]	Federal Register notice [Public comment period: 30 days]
Final Judgment	Decision and Order (final)

Typical settlement process—Overview

Negotiations with investigating staff

Staff drafts consent decree and other necessary documents

DOJ

- AAG proves filing of settlement papers with federal district court
- Court "so orders" stipulation (including maintain assets/hold separate)

FTC

- FTC Bureau management recommends settlement
- Commission provisionally accepts consent settlement and enters Maintain Assets/Hold Separate Order

Merging firms may close transaction

DOJ

- 60-day public comment period commences with Federal Register and newspaper notice
- DOJ responds in court filing to public comments (if any)
- Court enters proposed consent decree as the final judgment in the case

FTC

- 30-day public comment period commences with Federal Register notice
- FTC staff responds to public comments (if any)
- Commission enters provisionally accepted consent order as the final cease and desist order in the case

Consent Decree Violations

Consent decree violations

- DOJ
  - DOJ consent decrees are technically injunctions ordered by a federal district court
  - Violations are punishable by civil or criminal contempt
  - Actionable contempt requires a showing by “clear and convincing evidence” that the defendant violated a “clear and unambiguous” prohibition in the consent decree
- FTC
  - FTC consent orders are technically cease and desist orders issued by the FTC
  - Violations are subject to civil penalties in federal district court
    - The maximum amount of the penalty today has been inflation-adjusted to $43,792 for 2021
    - If the district court enters an injunction in aid of a Commission order pursuant to FTC Act § 5(l), violations of that injunction are subject to civil and criminal contempt sanctions

Consent decree violations

- DOJ
  - A finding of contempt in the D.C. Circuit requires a showing by "clear and convincing evidence" that the defendant violated a "clear and unambiguous" prohibition in the consent decree[1]
  - New innovation in the Trump administration
    - Recent DOJ consent decrees contain language designed to lower the evidentiary standard for DOJ to prove civil contempt for a consent decree violation from clear and convincing evidence to a preponderance of the evidence:

> The United States retains and reserves all rights to enforce the provisions of this Final Judgment, including its right to seek an order of contempt from this Court. Defendants agree that in any civil contempt action, any motion to show cause, or any similar action brought by the United States regarding an alleged violation of this Final Judgment, the United States may establish a violation of the decree and the appropriateness of any remedy therefor by **a preponderance of the evidence**, and they waive any argument that a different standard of proof' should apply.[2]

[1] *See* United States v. Microsoft Corp., 980 F. Supp. 537, 541 (D.D.C. 1997). Other circuits have similar requirements, although the articulation may be different.
[2] *See* United States v. TransDigm Grp. Inc., No. 1:17-CV-02735-ABJ, 2018 WL 2382602, at *9 (D.D.C. Apr. 4, 2018).

Consent decree violations

- FTC
  - Violations of an FTC cease and desist order issued under FTC Act § 5 are subject to civil penalties and possible subsequent criminal contempt sanctions
  - Civil penalties: FTC Act § 5(l)

> Any person, partnership, or corporation who violates an order of the Commission after it has become final, and while such order is in effect, shall forfeit and pay to the United States a civil penalty of not more than $10,000 for each violation, which shall accrue to the United States and may be recovered in a civil action brought by the Attorney General of the United States. Each separate violation of such an order shall be a separate offense, except that in a case of a violation through continuing failure to obey or neglect to obey a final order of the Commission, each day of continuance of such failure or neglect shall be deemed a separate offense. In such actions, the United States district courts are empowered to grant mandatory injunctions and such other and further equitable relief as they deem appropriate in the enforcement of such final orders of the Commission.[1]

    - The maximum amount of the penalty today has been inflation-adjusted to $46,517 for 2022
    - Civil penalty actions are subject to the preponderance of the evidence standard
  - Enforcement injunctions
    - If the district court enters an injunction in aid of a Commission order pursuant to Section 5(l), violations of that injunction are subject to civil and criminal contempt sanctions

[1] 15 U.S.C. § 5(l).

“Litigating the Fix”

Options if the agency refuses to settle

- If the agency refuses to settle at the end of an investigation, the merging parties have three choices—
  1. They can preempt litigation by voluntarily terminating their merger agreement and withdrawing their HSR filings
  2. They can proceed to court and litigate the merits of the original deal
     - The agency will litigate to obtain what the agency believes is a suitable permanent injunction (almost always a blocking injunction in a preclosing challenge)
  3. They can "litigate the fix"
     - That is, they can contractually implement their proposed divestiture consent decree by agreeing to sell the proposed divestiture business and assets to a third party
     - The court will evaluate the merits of the transaction with the "fix" in place, that is, it will evaluate—
       - Whether the main transaction, without the business and assets subject to the fix, violates Section 7, *and*
       - Whether the fix—including the business and assets to be divested and the qualifications of the divestiture buyer—is sufficient to preserve competition in the alleged problematic market
         - If the fix will not preserve competition, then the main transaction violates Section 7

"Litigating the fix"

- Reasons the agency might reject a proffered fix—
  1. Does not cover all of the relevant markets of concern to the agency,
  2. Fails to include all of the assets the agency believes are necessary for the divestiture buyer to preserve the premerger level of competition, *or*
  3. Does not involve a divestiture buyer with the ability or resources the agency believes is—
     a. Financially viable, *or*
     b. Capable of preserving the premerger level of competition

“Litigating the fix”

- Burden of proof in litigating the fix
  - The burden is on the parties to show that the fix defeats the agency prima facie case against the original deal
  - Depending on the case, this may require the merging parties to—
    - Defeat the agency prima facie case in the relevant markets not addressed by the fix
    - Persuade the court that the necessary assets in the hands of a qualified divestiture buyer will eliminate any reasonable likelihood of an anticompetitive effect in the relevant market in which the fix operates
    - Persuade the court that the divestiture buyer has the incentive and ability with the divestiture assets to preserve the premerger level of competition in the relevant market in which the fix operates

In many if not most cases, the merging parties will have to do all three

If the “fix” does not defeat the government’s prima facie case in some market, then the restructured transaction violates Section 7

"Litigating the fix"

- Collateral attack
  - Third parties can collaterally attack the sufficiency of a DOJ/FTC consent decree in their own Section 7 action
  - This is what a group of states did in the T-Mobile/Sprit deal after the DOJ accepted a consent decree[1]

[1] *See* New York v. Deutsche Telekom AG, 439 F. Supp. 3d 179 (S.D.N.Y. 2020). Unfortunately, the states did not prevail in their challenge. In retrospect, most observers now believe that the DOJ consent decree in fact failed to preserve competition. We will examine T-Mobile/Sprint later in the course.

Class 5 slides

Unit 5: Merger Antitrust Settlements—Kroger/Albertsons

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

September 12, 2023

Kroger/Albertsons

The Deal

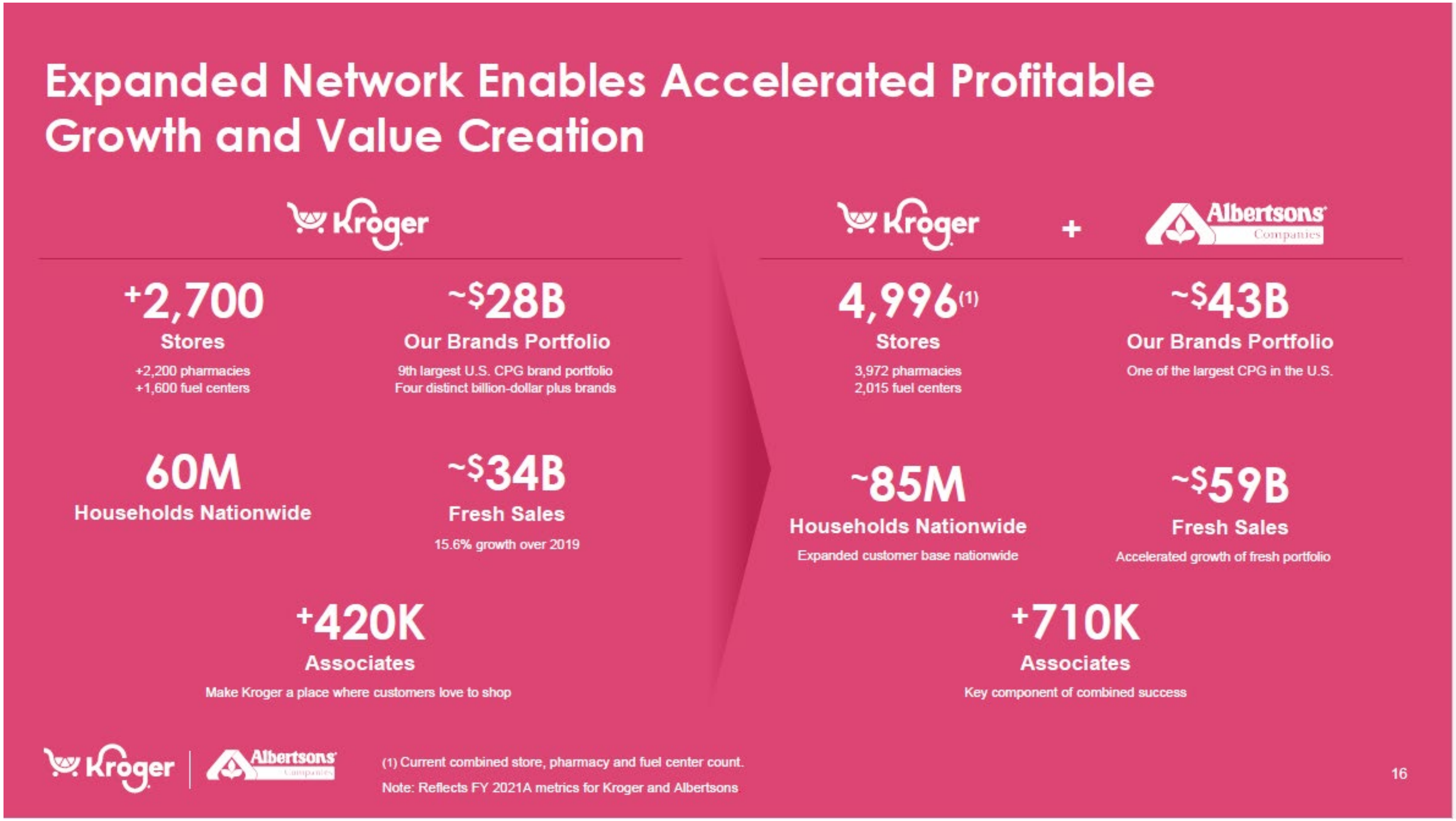
The deal

- Kroger will acquire all outstanding shares of Albertsons
  - Announced October 14, 2022
  - Estimated total consideration of $34.10 per share in cash
  - Represents a 32.8% premium to the unaffected closing price of Albertson's common stock on October 12, 2022
- Combines the two largest standalone grocery store chains
- Combined company enterprise value: $24.6 billion
- Expects to achieve $1 billion annual run-rate synergies net of divestitures within first four years postclosing
  - Approximately 50% achieved within the first two years postclosing
- Accretive to earnings in the first year following closing
  - Double-digit accretive to earnings by year four, excluding one-time costs

The merging companies

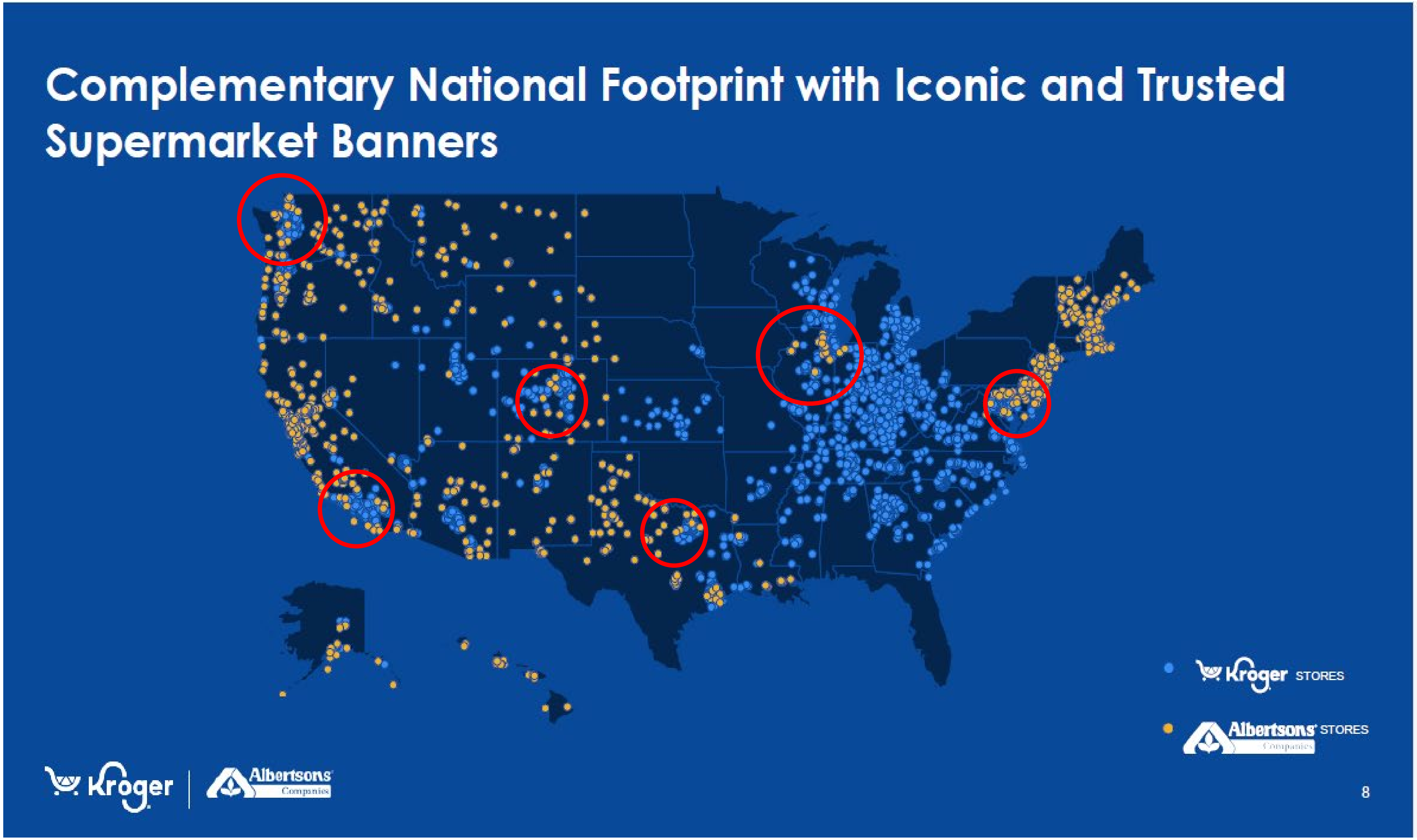
- Kroger
  - 2700+ stores
  - Operates under 28 banners, including Kroger, Ralphs, Harris Teeter, and Pay Less
- Albertsons
  - 2273 stores
  - Operates under 24 banners, including Albertsons, Vons, Acme, Pavilions, and Star Market

The combined company



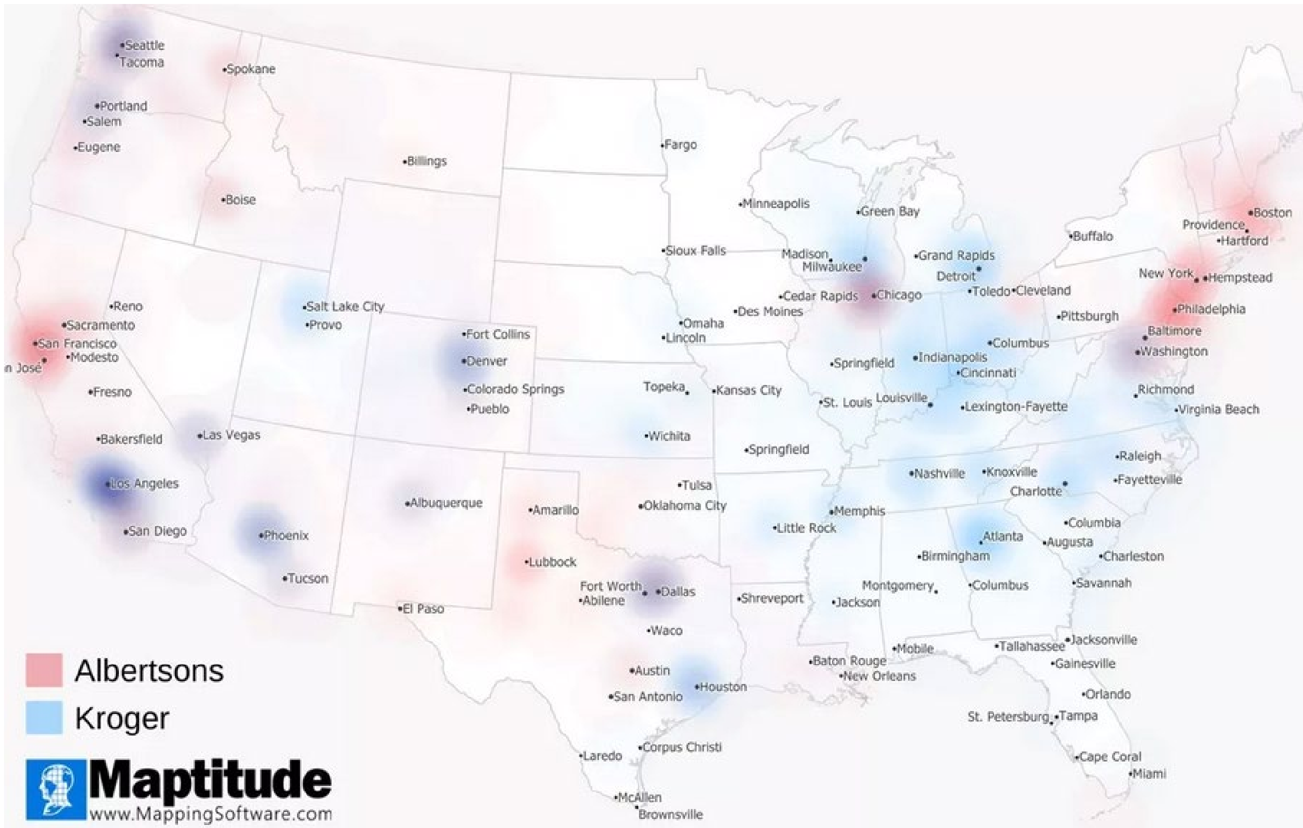
The Kroger Co. and Albertsons Companies, *Investor Presentation* 16 (Oct. 14, 2022)

Overlaps



The Kroger Co. and Albertsons Companies, *Investor Presentation* 8 (Oct. 14, 2022).

Overlaps: Another look



Areas in darker red indicate concentrations of Albertsons (e.g., San Francisco, Philadelphia, Lubbock), areas in darker blue indicate concentrations of Kroger (e.g., Houston, Atlanta, Detroit), and areas in purple indicate where there is overlap between the two stores (e.g., Los Angeles, Dallas, Washington DC).

Max Bahar, Maptitude blog, *Albertsons and Kroger Geographic Market Analysis* (undated).

Antitrust considerations

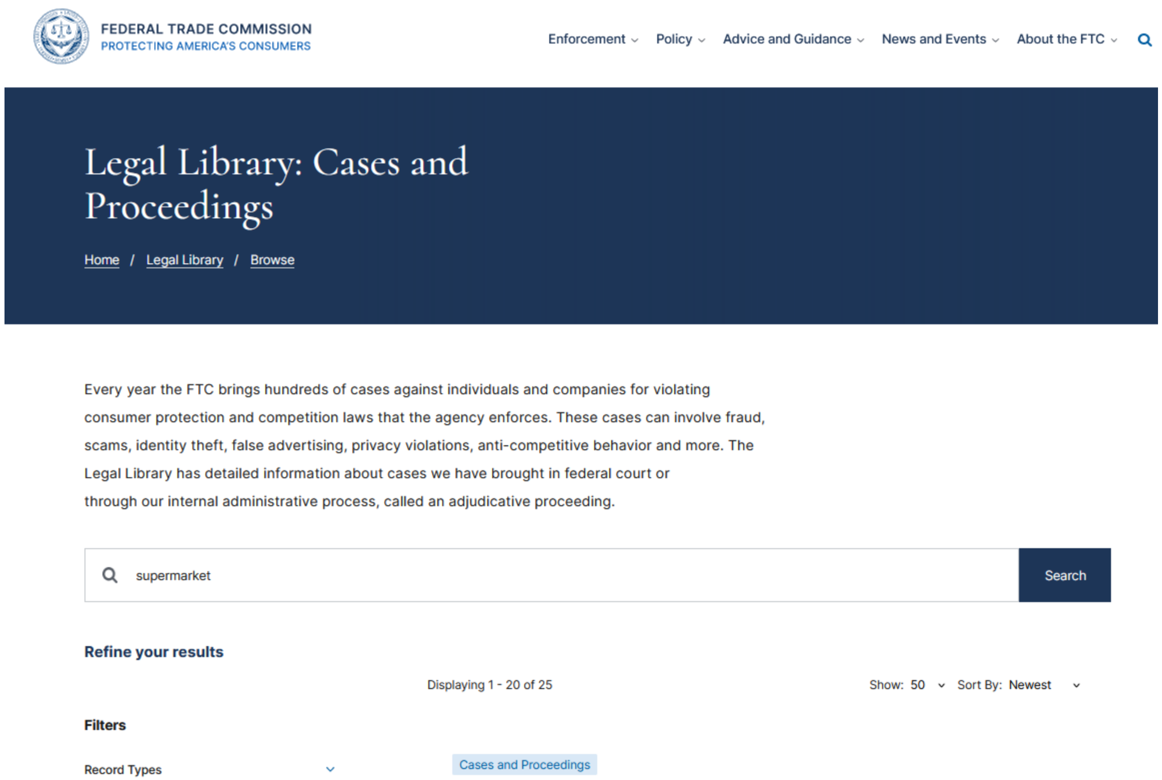
- Merging companies say they will have to sell between 100-375 stores to alleviate FTC concerns
- Merger agreement provides for the divestiture of up to 650 stores if necessary to satisfy the FTC
- Also, an antitrust reverse termination fee (ARTF) to be paid by Kroger to Albertsons if the deal does not close for antitrust reasons

Opposition

- Opponents
  - “Stop the Merger” coalition (over 100 interest groups)
  - American Antitrust Institute
  - Some state AGs
  - What will the FTC do?
- Putative antitrust victims
  - *Consumers* will face less competition for their patronage, leading to higher prices, lower quality, and less product choice
  - *Workers* will face less competition for their services, leading to lower wages, and poorer working conditions
  - *Suppliers* will face less competition for the products, leading to lower input prices and reduced profits
  - *Small independent grocers* will face larger firms with even greater bargaining power with suppliers, leading to more price and supply discrimination and less competitive businesses

What will the FTC do?

- Find the most recent FTC enforcement action against a supermarket merger (Price Chopper/Tops Markets):



FTC web page: https://www.ftc.gov/legal-library/browse/cases-proceedings

What will the FTC do?

- Find the alleged relevant markets
  - Alleged product market: “Supermarkets

> 10. For purposes of this Complaint, the term “supermarket” means any full-line retail grocery store that enables customers to purchase substantially all of their weekly food and grocery shopping requirements in a single shopping visit with substantial offerings in [enumerated categories].[1]
>
> 11. Supermarkets provide a distinct set of products and services and offer consumers convenient one-stop shopping for food and grocery products. Supermarkets typically carry more than 10,000 different items, typically referred to as stock-keeping units (SKUs), as well as a deep inventory of those items. In order to accommodate the large number of food and non-food products necessary for one-stop shopping, supermarkets are large stores that typically have at least 10,000 square feet of selling space.[2]

[1] Complaint ¶ 10, Golub Corp., No. C-4753 (F.T.C. Nov. 5, 2021) (Price Chopper/Tops Markets).
[2] *Id.* ¶ 11

What will the FTC do?

- Find the alleged relevant markets
  - Alleged geographic markets

> 14. Customers shopping at supermarkets are motivated by convenience and, as a result, competition for supermarkets is local in nature. Generally, the overwhelming majority of consumers' grocery shopping occurs at stores located very close to where they live.[1]

[1] Complaint ¶ 14, Golub Corp., No. C-4753 (F.T.C. Nov. 5, 2021) (Price Chopper/Tops Markets).

What will the FTC do?

- Find out what happened
  - Complaint alleged a Section 7 violation in 11 local markets across upstate New York and Vermont[1]
  - Settled investigation by divestiture consent order
    - Requires Price Chopper and Tops to divest the 12 Tops stores and related assets to C&S Wholesale Grocers on a rolling basis, beginning by Jan. 17, 2022, at a rate of two stores per week for six weeks[2]

[1] Complaint ¶¶ 16, 19, Golub Corp., No. C-4753 (F.T.C. Nov. 5, 2021) (Price Chopper/Tops Markets).
[2] Decision, Golub Corp., No. C-4753 (F.T.C. Jan. 20, 2022).

Albertsons/Safeway

- Relevant factoid: Albertsons/Safeway
  - In 2015, Albertsons acquired Safeway for $2.0 billion
    - At the time, Albertsons was owned by Cerberus Capital Management
  - At the end of the FTC review, the FTC concluded that the acquisition would violate Section 7 in 130 local markets
    - To resolve the FTC's concerns, Albertsons agreed to a consent order requiring it to sell 168 stores to four FTC-preapproved buyers:
      - Haggen Holdings LLC acquired 146 Albertsons and Safeway stores located in Arizona, California, Nevada, Oregon, and Washington
      - Increased Haggen's—
        - Locations from 18 to 164
        - Employees from about 2,000 to about 10,000[1]
      - Will convert all the acquired Albertsons and Safeway stores to the Haggen banner in phases during the first half of 2015

[1] Press Release, Haggen Holdings LLC, *Haggen to Expand from 18 Stores to 164 Stores with Major Acquisition* (Dec. 19, 2014).

Albertsons/Safeway

- What happened?
  - July 2015: Haggen lays off employees and cut worker hours in the face of what it called "unprecedented" competition[1]
  - July 2015: Albertsons files suit against Haggen alleging accusing the grocer committed fraud in failing to pay more than $41 million for inventory at 38 divestiture stores[2]
  - August 14, 2015: Haggen announced that it was closing 27 stores[3]
  - August 2015: Haggen files suit against Albertsons for $1 billion alleging that Albertsons—
    - "made false representations to both Haggen and the FTC about Albertsons' commitment to a seamless transformation of the stores into viable competitors" and
    - engaged in "coordinated and systematic efforts" to eliminate Haggen as a competition[4]

[1] *See* Kevin Smith, *Why Is No One Shopping at Southern California's New Haggen Supermarkets?,* San Gabriel Valley Tribune, July 24, 2015.
[2] Shan Li, *Albertsons Sues Haggen Stores*, L.A. Times, July 1, 2015, at C2.
[3] Shan Li, *Grocer Haggen Closing 27 Stores, Including 16 California Supermarkets*, L.A. Times, Aug. 14, 2015.
[4] Julie Gallagher, *News Haggen Sues Albertsons for More than $1 Billion*, Supermarket News, Sept. 1, 2015.The two actions settled in early 2016. *See* Peg Brickley, Albertsons Settles Litigation Over Haggen Troubles, Wall St. J., Jan. 22, 2016.

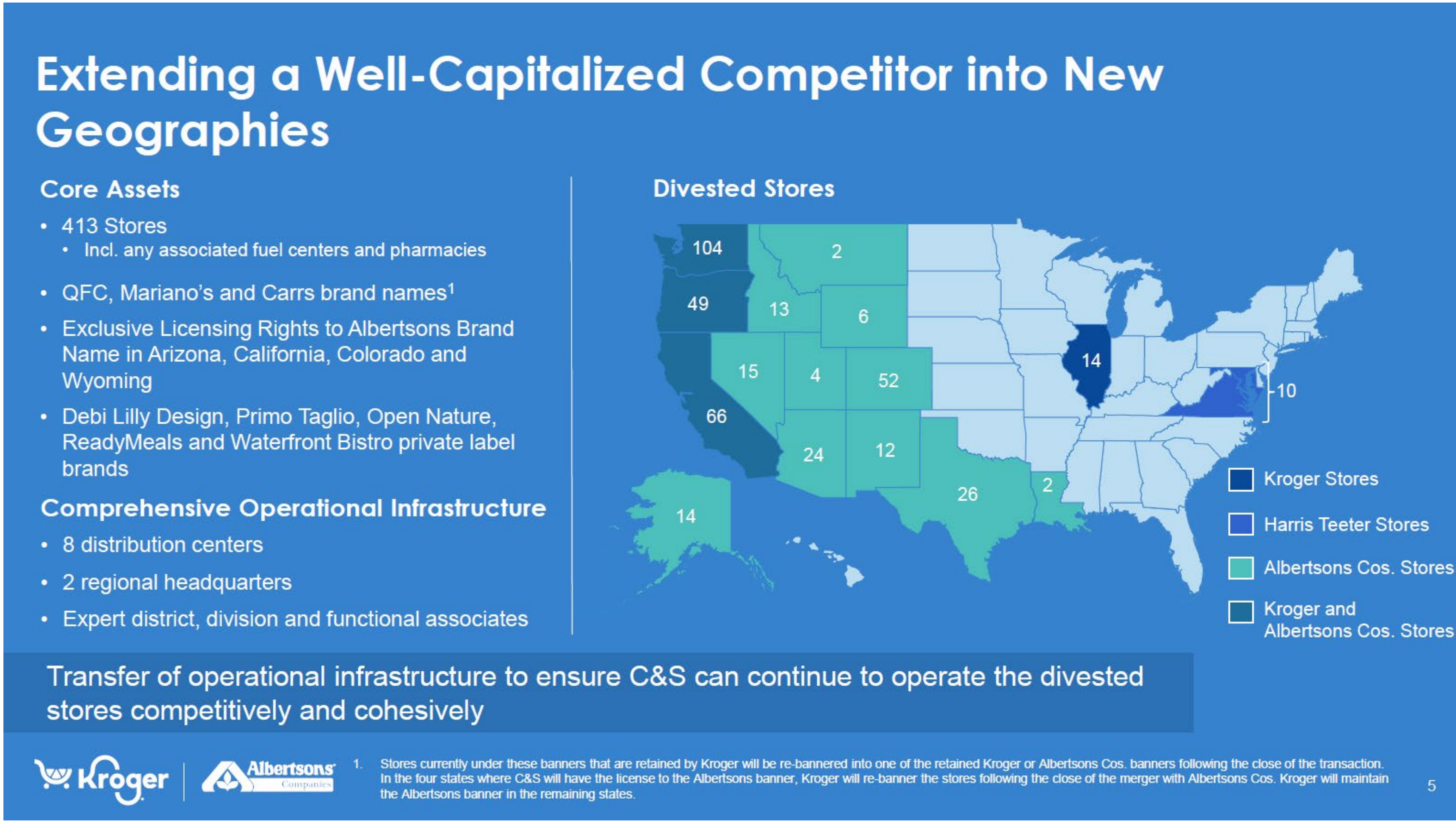
Albertsons/Safeway

- What happened?
  - September 9, 2015: Haggen declares bankruptcy[1]
  - November 2015: Albertsons reacquires 33 of the 146 stores divested to Haggen in a bankruptcy auction[2]
  - Following bankruptcy, Haggen abandons the divestiture stores it could not sell and reverts to operating as a strictly Washington state grocery chain
  - Lina Khan declares the Haggen divestiture a "spectacular failure"[3]

[1] Ángel González, *Struggling Haggen Files for Bankruptcy Protection, Parts with Southwest Co-CEO*, Seattle Times, Sept. 9, 2015.
[2] *See* Jon Springer, Judge Approves Sale of 47 Haggen Stores; 33 to Albertsons, Supermarket News, Nov. 9, 2015.
[3] Lina Khan & Sandeep Vaheesan, *Market Power and Inequality: The Antitrust Counterrevolution and Its Discontents*, 11 Harv. L. & Pol'y Rev. 235, 288 (2017).

The Divestiture

The substance



The Kroger Co. and Albertsons Companies, *Comprehensive Divestiture Plan with C&S Wholesale Grocers, LLC* 5 (Sept. 8, 2023) (investor presentation).

The divestiture buyer

Also $30 billion in annual revenue

C&S is Positioned to Successfully Operate and Grow Iconic Brands into the Future

C&S Wholesale Grocers, one of the largest privately-held companies in the U.S., is an industry leader in wholesale grocery supply chain solutions with 104 years of food industry experience and a strong track record as a successful grocery retailer:

- Supplies more than 7,500 independent supermarkets, retail chain stores and military bases
- Operates Grand Union supermarkets and Piggly Wiggly® franchise and corporate-owned stores
- FTC-approved divestiture buyer in prior grocery transactions with strong track record of successfully transitioning union employees and their associated collective bargaining agreements
- Provides end-to-end wholesale, supply and marketing services to its retailer customers
- Through its wholesale and retail operations, C&S purchases more than 100,000 products, giving it the ability to provide customers with the best product selection and pricing available
- C&S has established a retail holding entity to ensure a seamless closing process

Agreement follows robust and thoughtful process to identify buyer with management experience, a sound business plan, strong balance sheet and financial stability to continue to serve our communities

Kroger | Albertsons Companies

4

The Kroger Co. and Albertsons Companies, *Comprehensive Divestiture Plan with C&S Wholesale Grocers, LLC* 4 (Sept. 8, 2023) (investor presentation).

Other details

Divestiture Plan Delivers on Our Commitments

2023 Divestiture Plan	2022 Merger Commitments Delivered
Ensures that no stores will close as a result of the merger	✓ Zero store closures
Ensures frontline associates will remain employed	✓ Zero frontline associate job loss
Existing collective bargaining agreements will be honored, with continued investment in associates and stores for the long term	✓ Secures union jobs
Maintaining healthcare & pension benefits, and bargained-for wages	✓ Continued industry-leading benefits
C&S has a strong balance sheet and a sound business plan	✓ Well-capitalized buyer
Seasoned operators with track record as a successful grocery retailer	✓ Strong management team

6

The Kroger Co. and Albertsons Companies, *Comprehensive Divestiture Plan with C&S Wholesale Grocers, LLC* 6 (Sept. 8, 2023) (investor presentation).

The divestiture agreement

Reaffirming Compelling Shareholder Value Creation Opportunity

Combined company on track to meet financial commitments once merger and sale to C&S are completed

Divestiture Plan Consideration	• The definitive purchase agreement has customary representations and warranties and covenants of a transaction of its type • Subject to fulfillment of customary closing conditions, including FTC and other governmental clearance, and the completion of the Kroger-Albertsons Cos. merger, C&S will pay Kroger all-cash consideration of approximately $1.9 billion, including customary adjustments • Prior to the closing, Kroger may, in connection with securing FTC and other governmental clearance, require C&S to purchase up to an additional 237 stores in certain geographies • As a result of the comprehensive divestiture plan announced with C&S, the spin-off previously contemplated by Kroger and Albertsons Cos. is no longer a requirement under the merger agreement and will no longer be pursued

Financial Performance and Value Creation	• Divestiture plan marks a key step forward in the merger process, allowing us to reaffirm our financial commitments for the combined company, including:
	  ◦ **Synergies:** Expects to achieve $1B annual run-rate synergies net of divestitures within first four years post-close; approximately 50% achieved within first two years post-close
	  ◦ **Accretion:** Accretive to earnings in the first year following close and double digit accretive to earnings by year four, excluding one-time costs
	  ◦ **Free Cash Flow:** Continued strong free cash flow generation; 30% accretive to total annual free cash flow by year four
	  ◦ **Total Shareholder Return**: Expected average TSR well above Kroger standalone model of 8-11% in the first four years following close

Financing	• Due to strong operating performance and comprehensive divestiture plan, Kroger remains on track to deliver on initial target to achieve 2.5x net debt to EBITDA leverage ratio within first 18-24 months post-close
Path to Close	• Remain on track to close in early 2024 subject to required regulatory approvals and other customary closing conditions • Committed to working cooperatively with the regulators and all other interested parties to complete transaction

Kroger | Albertsons Companies | C&S Wholesale Grocers

7

The Kroger Co. and Albertsons Companies, *Comprehensive Divestiture Plan with C&S Wholesale Grocers, LLC* 7 (Sept. 8, 2023) (investor presentation).

CLASS 6 SLIDES

Unit 6. Merger Antitrust Litigation

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

September 14, 2023

Possible outcomes in DOJ/FTC reviews

Close investigation

- Waiting period terminates at the end of the investigation with the agency taking no enforcement action, or
- Agency grants early termination prior to normal expiration

Litigate

- DOJ: Seeks preliminary and permanent injunctive relief in federal district court
- FTC: Seeks preliminary injunctive relief in federal district court
  Seeks permanent injunctive relief in administrative trial

Settle w/consent decree

- Typical resolution for problematic mergers
- DOJ: Consent decree entered by federal district court
- FTC: Consent order entered by FTC in administrative proceeding

Parties terminate transaction

- Parties will not settle at the agency's ask and will not litigate, or
- Agency concludes that no settlement will resolve the agency's concerns and the parties will not litigate
  - Examples: AT&T/T-Mobile, NASDAQ/NYSE Euronext

"Fix it first"

- Merging parties restructure transaction to eliminate problematic overlap by narrowing assets to be purchased or selling assets to a third party
- Merging parties file new HSR notifications for the restructured transaction
  - HSR reports also may need to be filed for the restructured transaction
- When done to the agency's satisfaction, eliminates the need for a consent decree or other enforcement act

Plaintiffs and Forums

Antitrust merger litigation generally

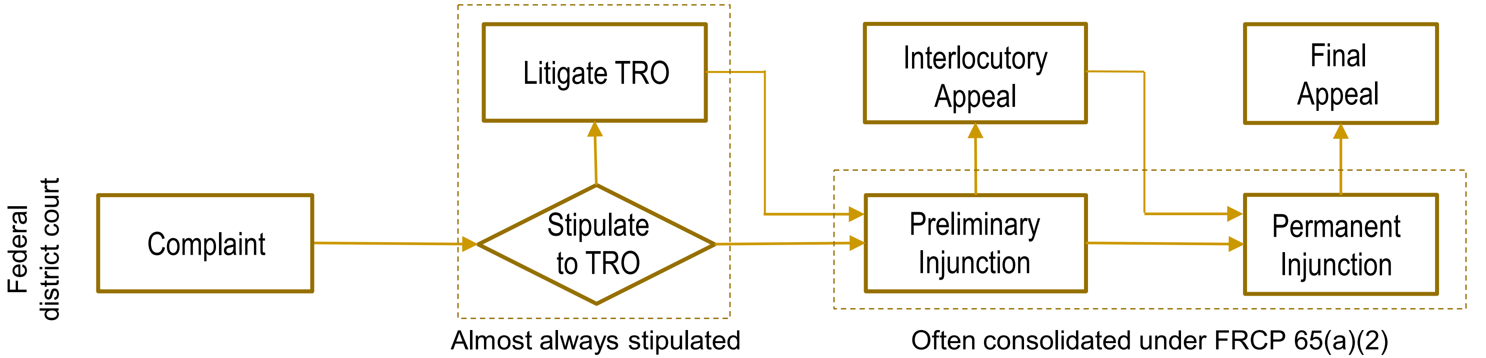
Plaintiff	Trial Forum	Appeal
DOJ	Federal district court	Court of appeals
FTC –Preliminary inj. –Permanent inj.	 Federal district court FTC administrative trial	 Court of appeals Full commission, then any court of appeals with venue
State AGs*	Federal district court	Court of appeals
Private parties*	Federal district court	Court of appeals

* May bring state claims in state court or join state claims in federal court

Typical Litigation Paradigms

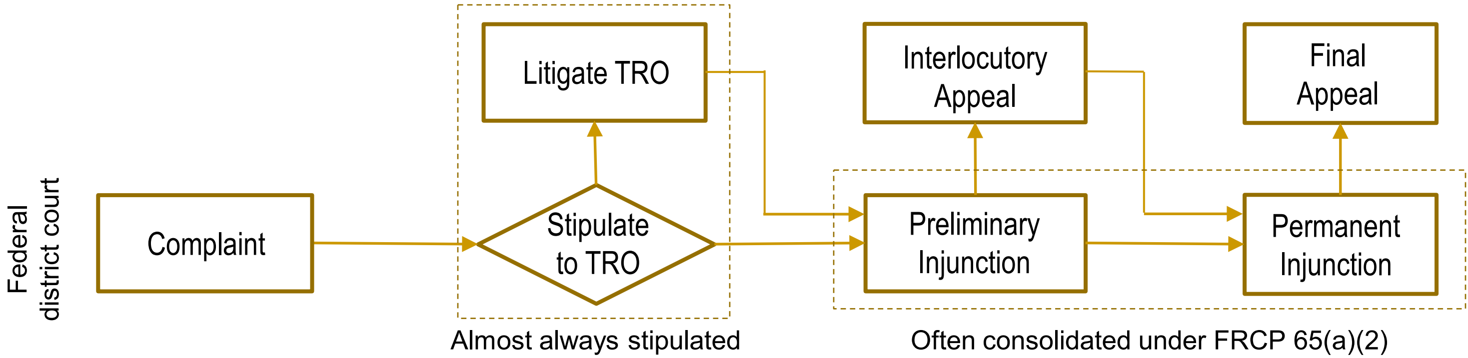
Typical litigation paradigms

DOJ preclosing challenge

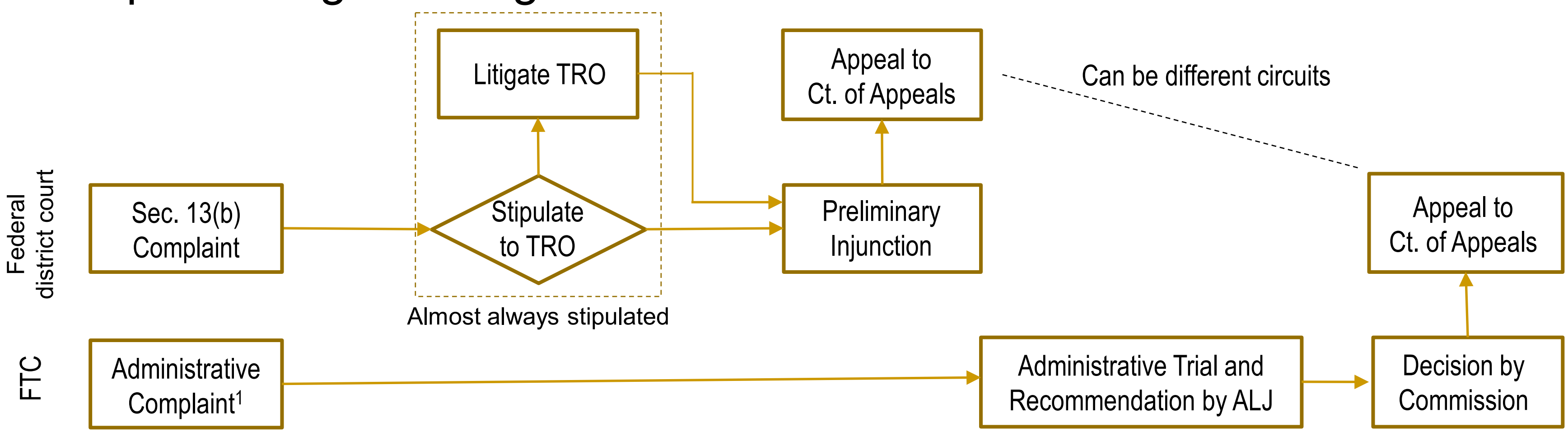


Typical litigation paradigms

DOJ preclosing challenge



FTC preclosing challenge



[1] The FTC must issue its administrative complaint within 20 days of the entry of a preliminary injunction. FTC Act § 13(b). As a matter of practice, the FTC issues its administrative complaint before or on the date it seeks a preliminary injunction.

Typical litigation paradigms

DOJ postclosing challenge

FTC postclosing challenge

Litigation timing

- WDC views on timing for preclosing challenges

Proceeding	Plaintiff	Formum	Likely timing
Preliminary injunction	DOJ or FTC	Federal district court	6.5 months from filing of the complaint
Appeal from the grant or denial of a PI	DOJ or FTC	Federal court of appeals	Likely to be granted expedited treatment, in which case 6 months
Full trial on the merits	DOJ	Federal district court	Typically consolidated with PI hearing under Rule 65(a)(2)
“Recommended decision” by the ALJ[1]	FTC	FTC administrative law judge (ALJ)	Within 1 year from issuance of administrative complaint
Decision by the Commission	FTC	Full FTC	At the Commission’s discretion
Appeal from an FTC decision on the merits	FTC	Federal court of appeal	One year or more

This timing is critical to know in the negotiation of the termination date in the merger agreement

Aside: Constitutional challenges to the FTC

- History
  - Prior to 2023
    - Constitutional challenges to the FTC's administrative adjudicative process could only be made in the course of the administrative adjudication
    - However, the administrative agency is not competent to decide the constitutionality of its own processes, so the resolution of the constitutional claims had to await an appeal to the court of appeals following a final administrative decision
  - *Axon* (2023)
    - In Axon Enterprise v. FTC,[1] the Supreme Court rejected this view and held that constitutional challenges to the structural aspects of an agency adjudicative process may be litigated collaterally in district court
      - Constitutional challenges related to the conduct of a particular administrative adjudication still must be litigated in the administrative proceeding
  - Upshot
    - Respondents in FTC administrative adjudications are raising raised constitutional challenges to the FTC's adjudicative process in—
      - Collateral district court proceedings (raised as claims), *and*
      - FTC Act 13(b) preliminary injunction proceedings (raised as affirmative defenses and counterclaims)
    - *Query*: Is it legal malpractice today not to raise a constitutional challenge to the FTC's administrative adjudicative process if the FTC commences administrative litigation against the deal?

[1] 142 S. Ct. 895 (2023).

Aside: Constitutional challenges to the FTC

- *Example*: Intercontinental Exchange/Black Knight[1]
  - Raised as defenses to the PI and independently as counterclaims for a declaratory judgment
    1. Constraints on removal of the Commissioners and the Administrative Law Judge violate Article II of the Constitution and the separation of powers
    2. Congress unconstitutionally delegated legislative power to the Commission by failing to provide an intelligible principle by which the Commission would exercise the delegated power
       - The idea here appears to be that the FTC's ability to assign matters to agency adjudication without intelligible principle violates the nondelegation doctrine
    3. Granting the relief sought would constitute a taking of Intercontinental Exchange's property in violation of the Fifth Amendment to the Constitution
    4. The adjudication of the Complaint against Intercontinental Exchange through the related administrative proceedings violates Intercontinental Exchange's Seventh Amendment right to a jury trial
    5. The adjudication of the complaint against Intercontinental Exchange through the related administrative proceedings adjudicates private rights and therefore violates Article III of the U.S. Constitution and the Seventh Amendment

[1] Defendant Intercontinental Exchange, Inc.'s Answer and Affirmative Defenses and Counterclaims, Defenses Fourth through Eight and Counterclaims ¶¶ 39-48, FTC v. Intercontinental Exchange, Inc., No. 3:23-cv-01710-AMO (N.D. Cal. filed Apr. 25, 2023). The case settled in August shortly before the PI hearing, so the constitutional issues will not be decided. *See* Joint Stipulation For Dismissal Without Prejudice, FTC v. Intercontinental Exchange, Inc., No. 3:23-cv-01710-AMO (N.D. Cal. filed Aug. 7, 2023). *Query*: To what extent did the constitutional challenges put pressure on the FTC to settle?

Aside: Constitutional challenges to the FTC

- FTC diminishes the role of administrative law judges
  - In part in response to the constitutional challenges and in part to gain more control and authority over Commission decisions, the Commission has revised its rules of practice to diminish the role of its administrative law judges in administrative adjudications
  - Prior to July 5, 2023, ALJs issued "initial decisions," which became the order of the Commission unless modified or reversed on appeal.
    - As such, ALJ initial decisions has some informal "weight" even if they were modified or rejected by the Commission on appeal
  - Effective July 5, 2023, ALJs issue only a "recommended decision"
    - The Commission decides the case de novo on the evidentiary record complied by the ALJ in the administrative trial
    - The Commission may accept the ALJ's recommended decision, modify the recommended findings of fact, conclusions of law, or order of relief, or may reject the recommendation in its entirety and issue a completely different decision
    - In effect, ALJs have reverted to hearing examiners

1 *See* Fed. Trade Comm'n, Rules of Practice, 88 Fed. Reg. 42872 (July 5, 2023); Press Release, Fed. Trade Comm'n, FTC Approves Publication of Federal Register Notice on Revisions to Parts 0-4 of the Commission's Rules of Practice (June 2, 2023); Jonathan M. Moses, Nelson O. Fitts & Adam L. Goodman, FTC Diminishes Role of Administrative Law Judge (June 12, 2023).

Injunctive Relief

Types of injunctions in merger cases

Injunction type	Relief ordered	
TRO	Maintain status quo pending decision on a preliminary injunction	
Preliminary injunction	Premerger:	Blocking injunctions
	Postmerger:	Hold separate/preserve assets for divestiture
		Recission in rare cases
Permanent injunction	Premerger:	Blocking injunction
	Postmerger:	Divestiture (recission in one case)

NB: Since actions for injunctive relief sound in equity, they are tried to the court, not to a jury

Temporary restraining orders (TROs)

- Emergency interim relief a court may enter to maintain the status quo pending a fuller hearing on a motion for a preliminary injunction
- Can be entered ex parte
- Duration
  - Not to exceed 14 calendar days
  - May be extended for good cause by the court for an additional 14 calendar days
  - The parties may agree on a longer extension (stipulated TRO)
  - Short duration is the safeguard against the lack of higher standards
    - Absent consent, if of a longer duration, the TRO will be treated as a preliminary injunction and must conform to the more rigorous preliminary injunction standards
- Standard
  - The standard for issuing a temporary restraining order is the same as the standard for issuing a preliminary injunction
  - But the respective harms to the parties and the public interest will be assessed in light of the very limited duration of the TRO (as opposed through the end of the trial on the merits for a preliminary injunction)

Temporary restraining orders (TROs)

- Rarely employed in modern merger antitrust practice
  - Judges strongly dislike the timing pressures of an adjudicated TRO and believe that the litigating parties should be able to agree on a scheduling order that will—
    1. Permit the merging parties to take all necessary discovery on an expedited basis before the preliminary injunction hearing, *and*
    2. Include a stipulation not to close the transaction until the motion for a preliminary injunction is decided
  - Since the same judge will decide preliminary injunction, usually unwise to be the party responsible for *not* reaching an agreement on a stipulated TRO

Preliminary injunctions

- The enabling statutes

DOJ: Clayton Act § 15	FTC: FTC Act § 13(b)
"The several district courts of the United States are invested with jurisdiction to prevent and restrain violations of this Act, and it shall be the duty of the several United States attorneys, in their respective districts, under the direction of the Attorney General, to institute **proceedings in equity** to prevent and restrain such violations."	"Upon a proper showing that, [1] **weighing the equities** and [2] **considering the Commission's likelihood of ultimate success**, [3] such action would be in the **public interest**, and after notice to the defendant, a temporary restraining order or a preliminary injunction may be granted without bond"

Preliminary injunctions

- DOJ

Clayton Act § 15	Judicial standard (modified *Winter*[1])
"The several district courts of the United States are invested with jurisdiction to prevent and restrain violations of this Act, and it shall be the duty of the several United States attorneys, in their respective districts, under the direction of the Attorney General, to institute **proceedings in equity** to prevent and restrain such violations."	"A [private] plaintiff seeking a preliminary injunction must establish [1] that he is **likely to succeed on the merits**, ~~[2] that he is likely to suffer irreparable harm in the absence of preliminary relief~~, [3] that the **balance of equities** tips in his favor, and [4] that an injunction is in the **public interest**."

[1] Winter v. Natural Res. Def. Council, Inc., 555 U.S. 7, 20 (2008).

Preliminary injunctions

- FTC

FTC: FTC Act § 13(b)	Judicial standard
"Upon a proper showing that, [1] weighing the equities and [2] considering the Commission's likelihood of ultimate success, [3] such action would be in the public interest, and after notice to the defendant, a temporary restraining order or a preliminary injunction may be granted without bond."	"[1] The issue is whether the Commission has demonstrated a likelihood of ultimate success. The Commission meets its burden if it **'raise[s] questions going to the merits so serious, substantial, difficult and doubtful as to make them fair ground for thorough investigation, study, deliberation and determination by the FTC** in the first instance and ultimately by the Court of Appeals.'" + [2] Balance of the equities + [3] Public interest

Interim injunctions—Appeals

- Appeal
  - The grant or denial of a motion for a preliminary injunction is immediately appealable as a matter of right under 28 U.S.C. § 1292(a)(1):

    > [T]he courts of appeals shall have jurisdiction of appeals from: (1) Interlocutory orders of the district courts of the United States . . . or of the judges thereof, granting, continuing, modifying, refusing or dissolving injunctions, or refusing to dissolve or modify injunctions, except where a direct review may be had in the Supreme Court;

  - The standard of review is abuse of discretion
    - Review legal conclusions de novo
    - Review factual findings for clear error

Permanent injunctions

- Identical to usual federal court preliminary injunction standard
  - EXCEPT that a permanent injunction requires *actual* success on the merits[1]
  - Success on the merits requires proof by the preponderance of the evidence
  - Also, the record for a decision on a permanent injunction may be more developed if additional discovery and briefing have occurred since the preliminary injunction hearing
- Factual findings in the preliminary injunction hearing
  - Not binding in the permanent injunction trial (or even entitled to deference)
  - BUT unlikely to be overturned in the absence of new evidence

[1] Amoco Prod. Co. v. Vill. of Gambell, Alaska, 480 U.S. 531, 546 n.12 (1987).

Appeals

Appeals: Jurisdiction

- Statutorily prescribed
  - Courts of appeal must be assigned jurisdiction by statute to hear an appeal
- Jurisdiction in three types of appeal
  1. Appeals of final judgments (28 U.S.C. § 1291)
  2. Appeals of the grant or denial of injunctive relief (28 U.S.C. § 1292(a))
  3. Interlocutory appeals (28 U.S.C. § 1292(b))

Appeals: Jurisdiction

- Appeals of final judgments—28 U.S.C. § 1291
  - Courts of appeal have appellate jurisdiction over all "final decisions" of the district courts
  - Appeal may be taken as a matter of right

Appeals: Jurisdiction

- Certified interlocutory appeals—28 U.S.C. § 1292(b)
  - Appeals of interlocutory orders are not as of right
  - Certification: Two-tiered screening procedure—
    1. District court certification:
       1. the order involves a controlling question of law
       2. as to which there is substantial ground for difference of opinion, *and*
       3. that an immediate appeal from the order may materially advance the ultimate termination of the litigation[1]
    2. Court of appeals acceptance: Discretionary with the appellate court
  - Rarely successfully invoked

Appeals: Standards of review

- Interpretation of the law—De novo
  - *Query*: Is the FTC accorded *Chevron* deference?
- Finding of facts
  - In a bench trial—Clearly erroneous rule
  - By a jury—Substantial evidence rule
  - By the FTC—Substantial evidence rule
- Others matters
  - In federal court—Abuse of discretion
  - FTC—[No articulated rule? But in any event, very deferential]

CLASSES 7-8 SLIDES

Unit 7. Hertz/Avis Budget/Dollar Thrifty

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

September 21, 2023

Hertz/Avis Budget/Dollar Thrifty

Thrifty Car Rental

DOLLAR RENT A CAR

The 2010 Hertz/Dollar Thrifty Deal

2010 Hertz/Dollar Thrifty deal

- Hertz
  - $7.1 billion in revenues
  - Two brands: Hertz and Advantage
  - Hertz
    - 8200 rental locations worldwide
    - Premium global rental car brand
    - Focus on corporate and high-end leisure
    - #1 in U.S. airport rentals (78 major airports)

  - Advantage
    - 26 airports in the U.S.
    - "Flanker" brand to compete for price-conscious travelers at airports[1]
      - A flanker brand is a new brand introduced into the market by a company that already has an established brand in the same product category
      - Designed to compete in the category without damaging the existing item's market share by targeting a different group of consumers
    - Different counters/lower price proposition/fewer service attributes

[1] *See generaly* Nancy Giddens & Amanda Hofmann, Building Your Brand with Flanker Brands (June 2010),

2010 Hertz/Dollar Thrifty deal

- Dollar Thrifty
  - $1.5 billion in revenues
  - $1.9 global enterprise value
  - Dollar Rent A Car and Thrifty Car Rental brands
    - "Middle market" airport brands
  - 1558 corporate and franchise locations worldwide
    - 298 corporate-owned
    - 1260 franchisee locations

2010 Hertz/Dollar Thrifty deal

- 2010 merger agreement
  - Signed on April 26, 2010
  - Hertz to buy Dollar Thrifty for $41.00 per share (= $1.3B equity value)
    - $6.88 in special Dollar Thrifty dividend (= $200 million)[1]
    - $25.92 to be paid by Hertz in cash (= $756 million)
    - $12.88 in Hertz stock (valued at the closing price on April 23, 2010) (= $317 million)
      - As a result, DT shareholders will hold 5.5% of Hertz after closing
  - 19% deal premium to 30-day closing average on Dollar Thrifty stock
    - 81% above lowest closing price over last 3 months
  - Annual recurring synergies: $180 million
    - Primarily in fleet, IT systems, and procurement savings

[1] Compare the Albertsons special dividend of $6.85 per share (= $4 billion) in the pending Kroger/Albertsons merger to be paid in November 2022. Funded with $2.5B of 3.0B cash on hand and $1.5B by its line of credit. Actually paid in January 2023. The Kroger/Albertsons merger agreement was executed as of October 13, 2022.

2010 Hertz/Dollar Thrifty deal

- Two questions

Why did Hertz want to do this deal?

Why did Dollar Thrifty to do this deal?

Hertz business rationale

Significant Strategic & Financial Benefits

Strategic Rationale

- Gain instant scale in middle tier sector with established brand and airport infrastructure
- Allows Hertz to pursue aggressive value strategy without risking dilution to Hertz brand
- Provides Hertz with multiple strategic options to address leisure business and compete with multi-brand peers in all three tiers of the market

Significant Synergy Potential

- At least $180 million of annual run-rate synergies expected
- Key areas of cost reduction / operational improvement include
  - Procurement: significant portion of Dollar Thrifty's spend is decentralized
  - IT: overlapping systems and future capital spend
  - Fleet: benefit from fleet sharing and reduced cap. cost
  - Public company costs

All cost savings

Positive Financial Impact

- 20% equity used to maintain strong credit profile

($ in millions)

	As of December 31, 2009	
	Hertz Standalone	Hertz Pro Forma
Total Corp. Debt / Corp. EBITDA	**4.8x**	**4.4x**
Total Corp. Debt / Corp. EBITDA (w/ syn)		**3.7x**
Total Debt / Gross EBITDA	3.6x	3.4x
Total Debt / Gross EBITDA (w/ syn)		3.2x

- Earnings accretive

Hertz business rationale

Significant Strategic & Financial Benefits

Unquantified revenue synergies

Strategic Rationale

- Gain instant scale in middle tier sector with established brand and airport infrastructure
- Allows Hertz to pursue aggressive value strategy without risking dilution to Hertz brand
- Provides Hertz with multiple strategic options to address leisure business and compete with multi-brand peers in all three tiers of the market

Significant Synergy Potential

- At least $180 million of annual run-rate synergies expected
- Key areas of cost reduction / operational improvement include
  - Procurement: significant portion of Dollar Thrifty's spend is decentralized
  - IT: overlapping systems and future capital spend
  - Fleet: benefit from fleet sharing and reduced cap. cost
  - Public company costs

All cost savings

Positive Financial Impact

- 20% equity used to maintain strong credit profile

($ in millions)

	As of December 31, 2009	
	Hertz Standalone	**Hertz Pro Forma**
Total Corp. Debt / Corp. EBITDA	**4.8x**	**4.4x**
Total Corp. Debt / Corp. EBITDA (w/ syn)		**3.7x**
Total Debt / Gross EBITDA	3.6x	3.4x
Total Debt / Gross EBITDA (w/ syn)		3.2x

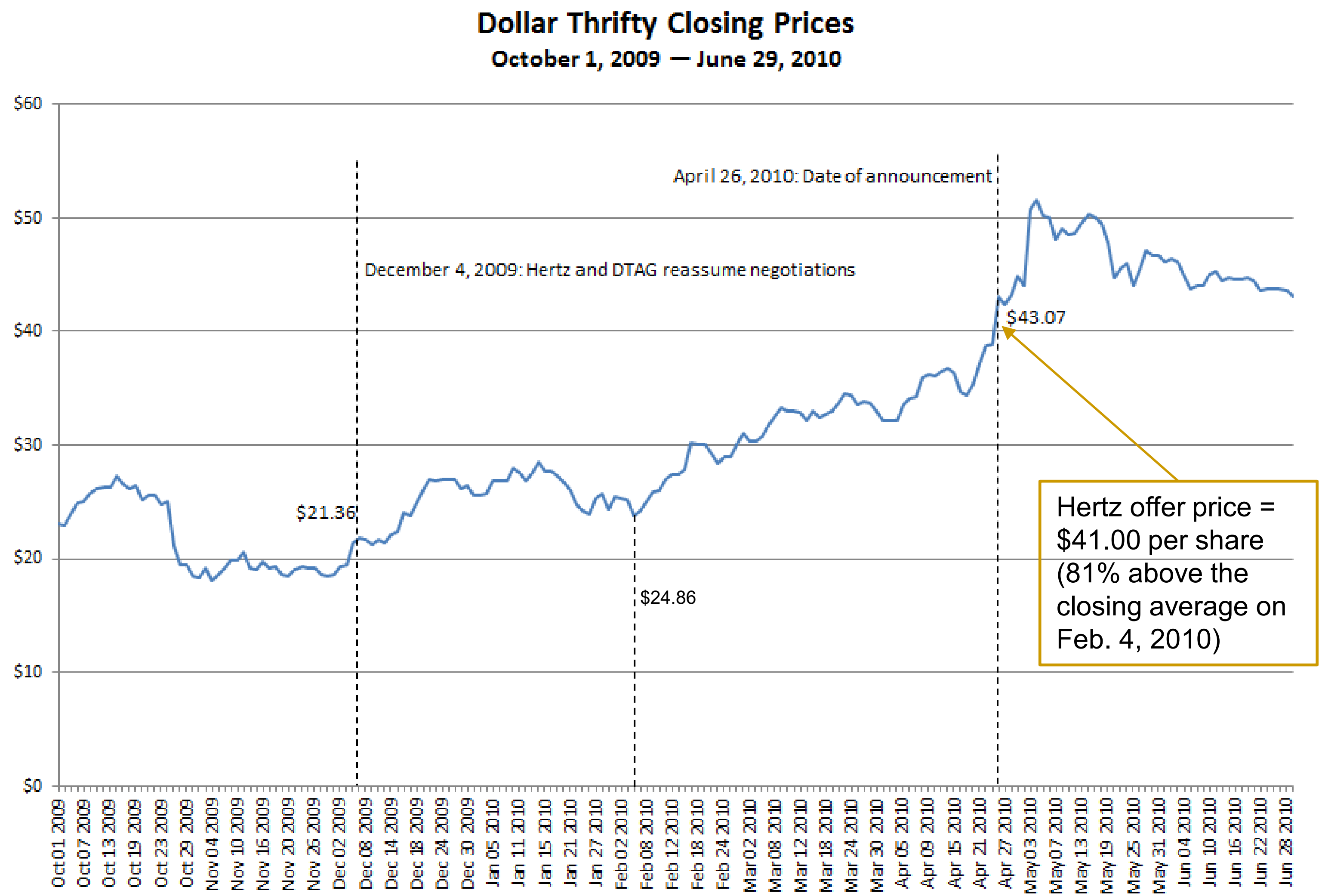
- Earnings accretive

Hertz business rationale

- Slide from Hertz investor presentation on the deal:

Hertz	Dollar Thrifty Automotive Group, Inc.	Advantage Rent A Car
Premium global brand competing with Avis, National Corporate, higher-end leisure, special occasions High service, higher-end fleet mix Making inroads in Off-Airport segment historically dominated by Enterprise	Middle market airport brands competing with, but differentiated from Enterprise, Budget, Alamo Value proposition emphasizing lower price but consistently delivering essential services (speed, reliability) Consider dual brand operationally, but keep separate for marketing, positioning, e.g., separate websites	Flanker airport brand to compete for economy leisure business against Payless, Fox, etc. Lower price proposition for price-focused leisure customers Reliable, clean cars, but fewer service attributes

Dollar Thrifty business rationale



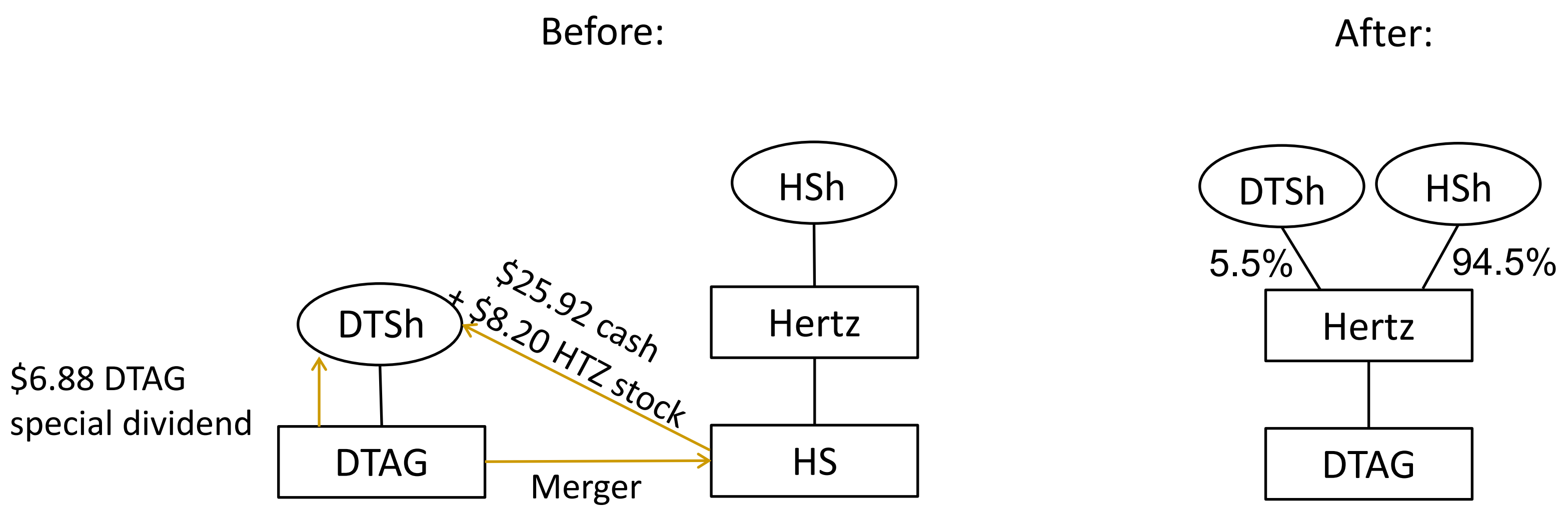
The deal price

- Payments to Dollar Thrifty shareholders (per DTAG share)

$6.88	Dollar Thrifty special cash dividend (paid by Dollar Thrifty)
$25.92	Cash (paid by Hertz)
$8.20	0.6366 Hertz shares, valued on the closing price on April 23, 2010 (the last business day before the announcement on April 26, 2010)
$41.00	Total consideration

- Some implications
  - Special DTAG cash dividend = $200 million →
    - DTAG shareholders would receive $953m in cash
    - But Hertz would only pay $753m in cash
    - For a total Hertz payment of $25.92 in cash and $8.20 in stock = $32.12 per share
      - BUT the $200 million in the DTAG special dividend is still real money to Hertz because DTAG will be worth $200 million less with the dividend payout

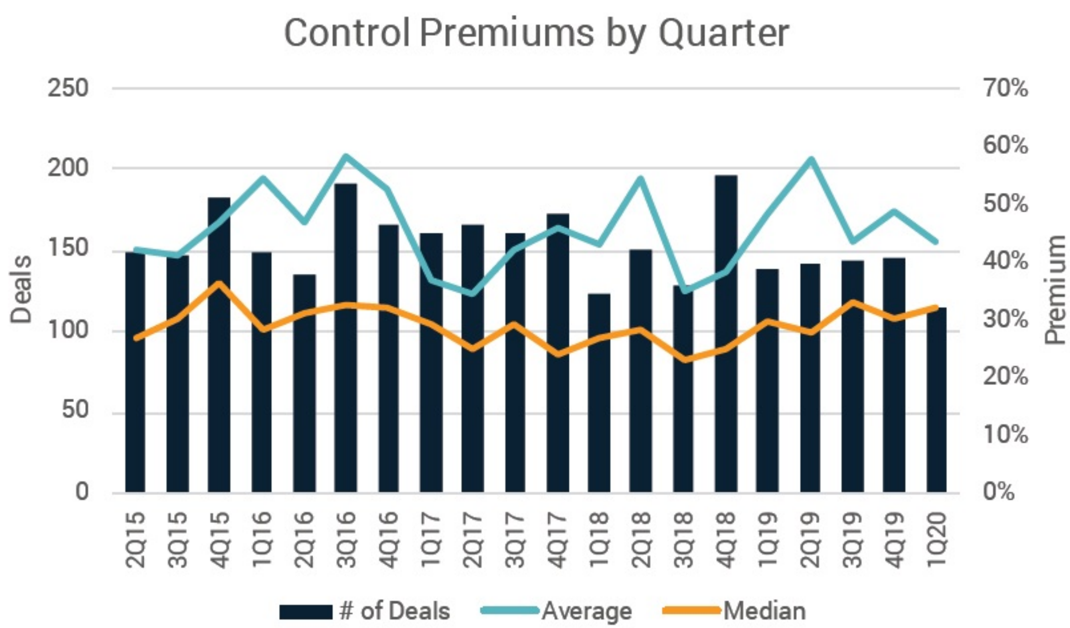
Hertz/DTAG Reverse Triangular Merger



where	DTAG	Dollar Thrifty Automotive Group (target firm)
	DTSh	DTAG's premerger shareholders
	Hertz	Acquiring firm
	HSh	Hertz premerger shareholders
	HS	Hertz acquisition subsidiary

Deal premium

- Why did Hertz pay a deal premium?
  - In almost all deals, the buyer pays a price significantly above the price of the target's stock in the period just before when the stock price is affected by the prospect of an acquisition
  - BVR/FactSet Control Premium Study updated for 2020 Q1:



Rolling 12-month historical averages

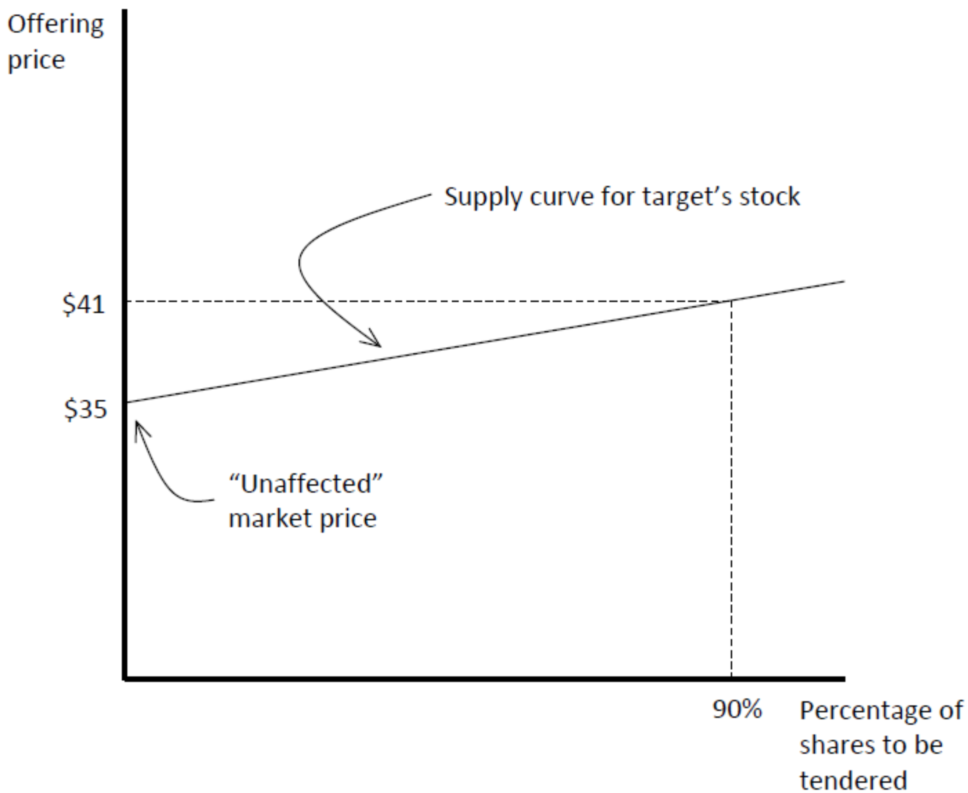
Average: 35.9%
Median: 23.5%

Deal premium

- Why did Hertz pay a deal premium?
  - Two reasons for a deal premium—
    1. Upward-sloping supply curve for DTAG stock
    2. Bargaining game over the synergies gain

Deal premium

- Why did Hertz pay a deal premium?
  - Upward-sloping supply curve for DTAG stock



Deal premium

- Why did Hertz pay a deal premium?
  - Upward-sloping supply curve for DTAG stock
    - Why is the supply curve of stock upward sloping?
      - *Ordinary course*: Different shareholders have different expectations about the value of the stock
        - Different expectations about future dividends
        - Different expectations about capital appreciation
      - *In a deal*: Different expectations of what the selling price will be

If we rank order the shareholders by their reservation sales price from lowest to highest, this traces out an upward-sloping supply curve for the target's stock

Deal premium

- Why did Hertz pay a deal premium?
  2. Bargaining game over the synergies gain—Three parts
     a. Hertz determines its reservation price (the maximum price it would be willing to pay for DTAG)
        - But does not tell DTAG
     b. DTAG determines its reservation price (the minimum price the DTAG board would recommend that the shareholders accept)
        - But does not tell Hertz

The difference is the "gain from trade"

     c. *Problem*: Parties must agree on a purchase price (which will allocate the gain from trade)
        - Think of the purchase price as the going concern value + deal premium
        - The allocation of the gains from trade will occur through the deal premium

Let's turn to the bargaining game to determine the deal premium

Deal premium

- Why did Hertz pay a deal premium?
  2. Bargaining game over the synergies gain—Hertz' reservation price
     - Total value Hertz (V_t) assigns to the DTAG merger equals the going concern value of DTAG (V_{DTAG}) plus all synergy gains (V_s) Hertz expects to result from the transaction:

$$V_t = V_{DTAG} + V_s$$

       - This is not what the Hertz shareholders necessarily receive, since—
         - Will pay a deal premium to the DTAG shareholders, and
         - Will suffer some dilution since DTAG postmerger will own a portion of Hertz
     - Hertz sets the going concern value V_{DTAG} of DTAG at $932 million (after payment of the special dividend)

What is going concern value?

Deal premium

- Why did Hertz pay a deal premium?
  2. Bargaining game over the synergies gain—Hertz' reservation price
     - *Background*: Going concern value
       - *Definition*: The economic value of an entity as an operating unit
       - *Components*:
         1. The present discounted value (PDV) of the *free cash flow* during the valuation period
            - *Free cash flow*: The cash a company generates after accounting for cash outflows to support operations and maintain its capital assets
            - Effectively, the cash generated by the company that is available for investment and to pay dividends (does not count borrowing)
         2. The present discounted value of the residual value calculated at the end of the valuation period
         3. The value of the assets considered unnecessary to operate the entity
            - *Examples*: Excess working capital, non-operating assets, assets that can be liquidated

What is discounted present value?

Deal premium

- Why did Hertz pay a deal premium?
  2. Bargaining game over the synergies gain—Hertz' reservation price
     - *Background*: Discounted present value
       - *Problem 1*: Say someone was going to give you \$1.00 a year from now. How much would you be willing to take today to sell this right to receive \$1.00 a year from now?
         - *Answer*: Your reservation price should be that price *p** at which you could invest *p** today and will have \$1.00 a year from now
         - This is equal to the amount you receive today (*p**) plus the earnings on that amount over the next year (*p*r*):

$$p^* + p^* r = 1.00$$

where *r* is the percentage annual investment rate

Simplifying: $$p^* \bullet (1 + r) = 1.00$$

Solving for *p**: $$p^* = \frac{1.00}{1+r}$$

If *r* = 6%, then: $p^* = \dfrac{1.00}{1.06} = 0.943396$ (rounded)[1]

So you would be willing to take a little less than \$0.95 to sell your right to receive \$1 a year from now

[1] MathPapa is a great algebraic calculator.

Deal premium

- Why did Hertz pay a deal premium?

  2. Bargaining game over the synergies gain—Hertz' reservation price
     - *Background*: Discounted present value
       - *Problem 2*: Same problem, only the $1.00 gets paid 2 years from now
         - *Answer*: *p** such that *p** invested for one year and then the resulting amount invested for another year yields $1.00:

$$\underbrace{\left(\overbrace{p^*(1+r)}^{\text{Amount at end of year 1}}\right)(1+r)}_{\text{Amount at end of year 2}} = 1.00 \quad \text{or} \quad p^* = \frac{1.00}{(1+r)^2}$$

If r = 6%, then:

$$p^* = \frac{1.00}{(1+r)^2} = \frac{1.00}{(1+0.06)^2} = 0.889996 \text{ (rounded)}$$

So you would be willing to take a little less than $0.90 to sell your right

- General formula for *n* periods at a constant investment rate *r* per period:

$$p^* = \frac{F}{(1+r)^n}$$

Where *F* is the future value at the end of the n^{th} period ($1.00 in Problem 2)

Deal premium

- Why did Hertz pay a deal premium?
  2. Bargaining game over the synergies gain—Hertz' reservation price
     - *Background*: Discounted present value
       - *Problem 3*: Say someone was going to give you \$1.00 a year from now and another \$1.00 two years from now. How much would you be willing to take today to sell this right to receive \$1.00 a year and another dollar two years from now?
         - *Answer*: Your reservation price *p** will be the sum of—
           - The PDV of \$1.00 one year from now
           - PLUS the PDV of \$1.00 two years from now

$$p^* = \frac{1.00}{1+r} + \frac{1.00}{(1+r)^2}$$
$$= 0.943396 + 0.889996 = 1.833392$$

       - General formula for a constant annuity *A* at a constant investment rate *r*:

$$p^* = \sum_{i=1}^{n} \frac{A}{(1+r)^i} = A\left[\frac{1-(1+r)^{-n}}{r}\right]$$

For a perpetual annuity:
*p** = *A*/*r*

Deal premium

- Why did Hertz pay a deal premium?
  2. Bargaining game over the synergies gain—Hertz' reservation price
     - Hertz claimed an expected annually recurring synergy gain of $180 million (*A*)
       - The present discounted value V_s of an annual recurring cash payment in perpetuity (that is, a *perpetual annuity*) discounted at rate *r* (say 7%) is:

$$V_s = \frac{A}{r} = \frac{\$180 \text{ million}}{0.07} = \$2.57 \text{ billion}$$

       - But say that Hertz values synergies only over a 10-year period. Then:

$$V_s^{10} = A\left[\frac{1-(1+r)^{-n}}{r}\right] = \$180 \text{ million times } \left[\frac{1-(1+0.07)^{-10}}{0.07}\right] = \$1.26 \text{ billion}$$

Deal premium

- Why did Hertz pay a deal premium?
  2. Bargaining game over the synergies gain—Hertz' reservation price
     - So Hertz expects that the total value V_t of Dollar Thrifty postmerger will be:

$$V_t = V_c + V_s^{10}$$
$$= \$932 \text{ million} + \$1.26 \text{ billion}$$
$$= \$2.17 \text{ billion}$$

     - But Hertz shareholders will own only 94.5% of the combined company
       - The original Hertz shareholders will not own the whole company because their interest is being diluted by the Hertz stock going to the DTAG shareholders
       - The original Hertz shareholders would hold only 94.5% of the Hertz stock postmerger, so they would get only that portion of V_t (= \$2.075 billion)

So Hertz shareholders should be willing to pay a maximum of \$2.075 billion for the deal (or about \$71 per DTAG share)

Deal premium

- Why did Hertz pay a deal premium?
  2. Bargaining game over the synergies gain—DTAG's reservation price
     - No shareholder would sell for less than the "unaffected" current stock price
       - That is, the stock price in the complete absence of merger negotiations or rumors

> To study the negotiated division of the synergies gain separate from the upward-sloping supply curve, we will (unrealistically) assume that all DTAG shareholders have a reservation price equal to the unaffected stock price[1]

       - In fact, DTAG shareholders expectations about the ultimate division of the synergies gain will be reflected in the DTAG stock supply curve

Suppose that the unaffected stock price is $32

Deal premium

- Why did Hertz pay a deal premium?
  3. Bargaining game over the synergies gain—The purchase price
     - DTAG shareholders will not accept anything lower than their reservation price
     - BUT they can also bargain for some of the gain resulting from the deal, since unless they agree to the deal Hertz shareholders will receive no gain
     - At $41 per share under Hertz's terms, DTAG shareholders receive a significant deal premium over the "unaffected" price:

	Closing price	Deal premium
Mar. 23, 2010	34.60	18.5%
Feb. 23, 2010	28.37	44.5%
Jan. 22, 2010	24.29	68.8%

- So this looks like a good deal to the DTAG shareholders
- Also looks like a good deal to the Hertz shareholders
  - Willing to pay up to $71 per share, but paid only $41 per share

Deal premium

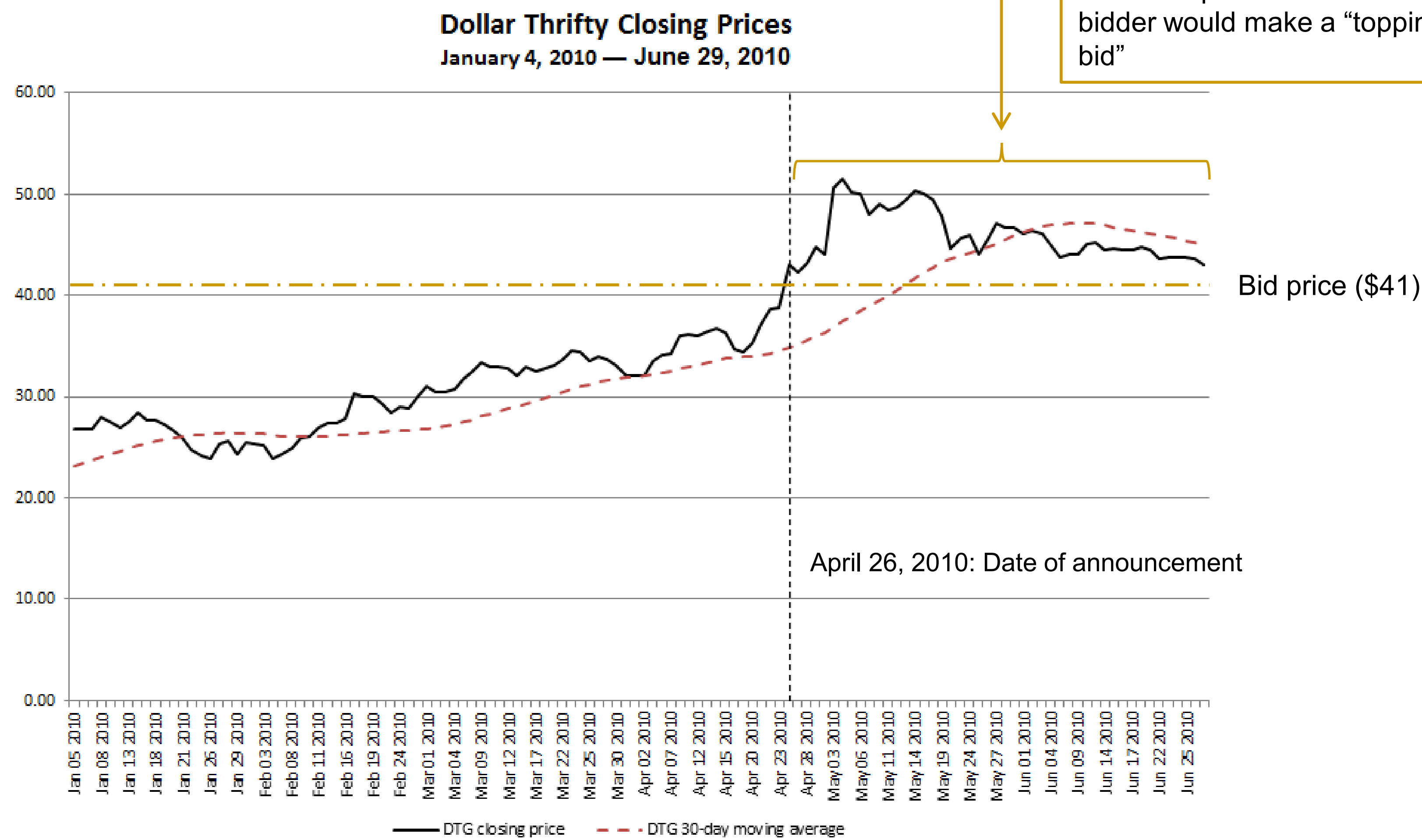
- Why did Hertz pay a deal premium?
  2. Bargaining game over the synergies gain
     - Division of the synergy gains

		Surplus gain
Hertz reservation price	$71	$30
Deal price	$41	
DTAG reservation price	$32	$9

- *Query*: Why did DTAG accept so low a share of the synergies gain?
  - Two most likely possibilities (not exclusive):
    - Hertz was better at playing the bargaining game
    - DTAG estimated the deal synergies significantly below Hertz' estimates

Market reaction

Post-announcement trading prices *above* the Hertz bid price of $41 indicates that the market expected a second bidder would make a "topping bid"



Class 8 Homework Assignment

Class 8 homework assignment

- The problem
  - Aon to acquire Willis Towers Watson Plc (WTW) for $30 billion in an all-stock deal
    - The combined company would be valued at $80 billion
    - WTW shareholders will own 37% of the combined company
  - On June 16, 2021, the DOJ has sued to block the Aon/WTW deal
  - The trial court said it would likely deliver a decision in February 2022
  - The drop date date in the merger agreement is September 9, 2021
  - If the deal does not close for antitrust reasons, Aon will pay WTW an antitrust reverse termination fee of $1 billion
  - Aon wants to litigate the merits

Should WTW terminate the agreement on the September 9 drop dead date or extend it to February and litigate?

Class 8 homework assignment

- Strategy
  1. Identify WTW's options
  2. Identify the possible outcome(s) for each option
  3. Calculate WTW's expected payoff (in PDV) for each outcome
  4. Select the option with the highest expected payoff

Class 8 homework assignment

3. Identify the expected payoffs for each outcome

Option
1. Do not extend drop dead date
2. Extend drop dead date

Class 8 homework assignment

3. Identify the expected payoffs for each outcome

Option	Outcomes	Payoff
1. Do not extend drop dead date	Terminate agreement on drop dead date (September 9, 2021)	Receive antitrust reverse termination fee (ARTF = $1B)

To be sure we are comparing apples to apples, calculate the PDVs as of the drop dead date

Class 8 homework assignment

3. Identify the expected payoffs for each outcome

Option	Outcomes	Payoff
1. Do not extend drop dead date	Terminate agreement on drop dead date (September 9, 2021)	Receive antitrust reverse termination fee (ARTF = $1B)
2. Extend drop dead date	a. Litigate and lose	i. Loss of litigation costs
		ii. PDV of ARTF received in February 2022 rather than September 2021
		iii. Further loss of going concern value

To be sure we are comparing apples to apples, calculate the PDVs as of the drop dead date

Class 8 homework assignment

3. Identify the expected payoffs for each outcome

Option	Outcomes	Payoff
1. Do not extend drop dead date	Terminate agreement on drop dead date (September 9, 2021)	Receive antitrust reverse termination fee (ARTF = $1B)
2. Extend drop dead date	a. Litigate and lose	i. Loss of litigation costs
		ii. PDV of ARTF received in February 2022 rather than September 2021
		iii. Further loss of going concern value
	b. Litigate and win	i. Loss of litigation costs
		ii. Gain of deal premium on closing of the deal
		iii. Gain of pro rata share of synergies as Aon shareholders

To be sure we are comparing apples to apples, calculate the PDVs as of the drop dead date

Class 8 homework assignment

1. Do not extend drop dead date: Terminate agreement
   - Antitrust reverse termination fee = $1 billion

Payoff for Strategy 1: $1 billion

Class 8 homework assignment

2. Extend drop dead date and litigate
   a. Litigate and lose
      i. Additional litigation costs = −$10 million
      ii. Present discounted value of ARTF received in February 2022 as opposed to September 2021

$$PV = \frac{FV}{(1+r)^n},$$

where

PV is the discounted present value
FV is the future value (here $1 billion)
r is the discount rate (here 5.16% annually or 0.43% monthly)
n is the number of periods (here 5 months)

Applied:

$$PV = \frac{FV}{(1+r)^n} = \frac{\$1000}{(1+0.0043)^5} = \$978.77 \text{ million}$$

So the delay in receiving the ARTF causes the WTW shareholders to lose $21.23 million in present value in the litigate and lose scenario

Class 8 homework assignment

2. Extend drop dead date and litigate
   a. Litigate and lose
      iii. Further loss of going concern value
         - The signing occurred on March 9, 2020, and the drop dead date was 18 months later
         - Most of the damage to WTW's going concern value probably will occur during this 18-month period, with relatively little or no additional damage expected during the additional five months between the drop dead date and the end of the litigation
         - Loss associated with additional diminution in going concern value: $0

Total expected value to WTW shareholders if they litigate and lose:

− $10 million + $978.77 million − $ 0 million = $968.77 million

For a loss of $31.23 million compared to terminating on the drop dead date

Class 8 homework assignment

2. Extend drop dead date and litigate
   b. Litigate and win
      i. Loss of litigation costs = −$10 million
      ii. Gain of deal premium on closing of the deal
         - The parties' investor presentation states that the WTW shareholders will receive Aon stock valued at $30 billion in exchange for their WTW shares, yielding a deal premium of 16.2%
         - Consequently, the deal premium is about $4.182 billion[1]
            - Let x be the unaffected price. The 0.162x is the deal premium. The unaffected price plus the deal premium yields the purchase price. So—

$$x + 0.162x = 30 \rightarrow x = \frac{30}{1.162} = 25.82$$

            - The deal premium is 0.162x or $4.182 billion
         - But the deal premium will not be received until February 2022, so it needs to be discounted to the present (i.e., September 2021):

$$PV = \frac{FV}{(1+r)^n} = \frac{\$4182}{(1+0.0043)^5} = \$4095.27 \text{ million}$$

[1] This is not quite right, but I did not give you the information necessary to do the correct calculation. See note 10 in the instructor's answer to the homework assignment for an explanation.

Class 8 homework assignment

2. Extend drop dead date and litigate
   b. Litigate and win
      iii. Gain of pro rata share of synergies as Aon shareholders
         - The parties anticipate total annual run-rate synergies of $800 million beginning in year 3
         - They also expect total gross synergies to be $267 million in the first year and $600 million in the second year
         - Attaining these synergies entail transitional costs of $1.62 billion split equally in the first two years
         - In addition, the companies expect transaction costs of approximately $200 million and retention costs of up to $400 million, all to be incurred in the first year
         - The WTW shareholders will hold 37% of the combined company and hence be entitled to 37% of the combined firm's net deal synergies

Class 8 homework assignment

2. Extend drop dead date and litigate
   b. Litigate and win
      iii. Gain of pro rata share of synergies as Aon shareholders:

WTW pro rata 37% share of 10 years of net synergies discounted at 8%[1]

= $1072.72 million

[1] I used 8% rather than WTW's WACC of 5.16% given that interest rates could be considerably higher in the future than today and the risk that the combined company will not achieve the anticipated $800 million in run-rate synergies and the risk that the nominal value of the synergies will decline over time with changes in products or the competitive landscape.

Combined Company Synergy NPV
(discounted at 8%)

Year	Synergies	Costs	Net CF	PV	NPV	37%
1	$267.00	$1,300.00	($1,033.00)	($956.48)	($956.48)	($353.90)
2	$600.00	$700.00	($100.00)	($85.73)	($1,042.22)	($385.62)
3	$800.00	$0.00	$800.00	$635.07	($407.15)	($150.65)
4	$800.00	$0.00	$800.00	$588.02	$180.87	$66.92
5	$800.00	$0.00	$800.00	$544.47	$725.34	$268.38
6	$800.00	$0.00	$800.00	$504.14	$1,229.48	$454.91
7	$800.00	$0.00	$800.00	$466.79	$1,696.27	$627.62
8	$800.00	$0.00	$800.00	$432.22	$2,128.48	$787.54
9	$800.00	$0.00	$800.00	$400.20	$2,528.68	$935.61
10	$800.00	$0.00	$800.00	$370.55	$2,899.24	$1,072.72
11	$800.00	$0.00	$800.00	$343.11	$3,242.34	$1,199.67
12	$800.00	$0.00	$800.00	$317.69	$3,560.04	$1,317.21
13	$800.00	$0.00	$800.00	$294.16	$3,854.19	$1,426.05
14	$800.00	$0.00	$800.00	$272.37	$4,126.56	$1,526.83
15	$800.00	$0.00	$800.00	$252.19	$4,378.76	$1,620.14
16	$800.00	$0.00	$800.00	$233.51	$4,612.27	$1,706.54
17	$800.00	$0.00	$800.00	$216.22	$4,828.48	$1,786.54
18	$800.00	$0.00	$800.00	$200.20	$5,028.68	$1,860.61
19	$800.00	$0.00	$800.00	$185.37	$5,214.05	$1,929.20
20	$800.00	$0.00	$800.00	$171.64	$5,385.69	$1,992.71

Class 8 homework assignment

2. Extend drop dead date and litigate
    b. Litigate and win

Total gain to WTW shareholders if they litigate and win:

− *$10 million + $4085.27 million + $1072.72 million = $5147.99 million*

Class 8 homework assignment

4. Compare payoffs

Option	Outcomes	Payoff
1. Do not extend drop dead date	Terminate agreement on drop dead date (September 9, 2021)	+ $1000 million ARTF
2. Extend drop dead date	a. Litigate and lose	+ $969 million
	b. Litigate and win	+ $5147.99 million

- The difference in payoffs between taking the ARTF in September and losing the litigation in February is $31.32 million
- The difference in payoffs between taking the ARTF in September and wining the litigation and closing the deal in February is about $4.18 billion

So the question is whether the WTW shareholders would be willing to risk losing $31.32 million in order to gain about $4.18 billion

Class 8 homework assignment

- What is the tipping point?
  - Let p be WTW's (subjective) probability of winning the case and closing the deal
  - If WTW was risk neutral and maximized expected value, then the tipping probability p^* would equate the expected value of extending the drop dead date with the expected value of terminating on September 9:

$$\text{E(extending)} = \text{E(terminating)}$$

$$(p^*)(\text{extending and winning}) + (1-p^*)(\text{extending and losing}) = \text{E(terminating)}$$

$$(p^*)(5147.99) + (1-p^*)(969) = 1000$$

  - Solving for p^*, the tipping point is 0.74%

Bottom line: WTW should terminate and take the $1 billion ARTF on September 9 only if it believes that the probability of winning is less than 0.74% → EXTEND THE DROP DEAD DATE

Class 8 homework assignment

- What actually happened?

Empower Results®

Overview | Stock Information | Investor News | Financial Reports | Events & Presentations

You are here: Aon ▸ About Aon ▸ Investor Relations ▸ Investor News ▸ News Release Details

Aon and Willis Towers Watson Mutually Agree to Terminate Combination Agreement

07/26/2021

Download this Press Release (PDF)

DUBLIN, July 26, 2021 /PRNewswire/ -- Aon plc (NYSE: AON) and Willis Towers Watson (NASDAQ: WLTW) announced today that the firms have agreed to terminate their business combination agreement and end litigation with the U.S. Department of Justice (DOJ). The proposed combination was first announced on March 9, 2020.

"Despite regulatory momentum around the world, including the recent approval of our combination by the European Commission, we reached an impasse with the U.S. Department of Justice," said Aon CEO Greg Case. "The DOJ position overlooks that our complementary businesses operate across broad, competitive areas of the economy. We are confident that the combination would have accelerated our shared ability to innovate on behalf of clients, but the inability to secure an expedited resolution of the litigation brought us to this point."

. . .

Class 8 homework assignment

- How did the market react?
  - WTW stock dropped 9.0% the day of the announcement

Percentage Change in WTW Closing Prices
July 1, 2021 – September 10, 2021

Arbs with WTW shares were betting on an extension to litigate!

Class 8 homework assignment: Bonus question

Should Aon agree to extend the drop dead date in order to litigate, or should it terminate the deal on September 9 and pay WTW the $1 billion breakup fee?

- Assume:
  - Aon will pay $15 million in out-of-pocket expenses for its part in the litigation
  - On July 15, 2021, Aon's weighted average cost of capital (WACC) was 5.8% and its return on invested capital (ROIC) was 8.47%
- Analysis
  - Options
    - Terminate and pay WTW $1 billion ARTF
    - Extend and litigate
      - Litigate and lose
      - Litigate and win

Class 8 homework assignment: Bonus question

1. Do not extend drop dead date: Terminate agreement
   - Pay antitrust reverse termination fee = −\$1 billion

Aon payoff for Strategy 1: −\$1 billion

Class 8 homework assignment: Bonus question

2. Extend drop dead date and litigate
   a. Litigate and lose
      i. Loss of litigation costs = −$15 million
      ii. Present discounted value of ARTF paid in February 2022 as opposed to September 2021

$$PV = \frac{FV}{(1+r)^n} = \frac{-\$1000}{(1+0.0048)^5} = -\$976.34 \text{ million}$$

where

PV is the discounted present value
FV is the future value (here, $1 billion)
r is the discount rate (here, 5.8% annually or 0.48% monthly)
n is the number of periods (here, 5 months)

So the present value of the *gain* to Aon on the value of the ARTF for delay is:

FV – PV = $1000 million − $976.34 = $23.66 million

Total loss to Aon shareholders if they litigate and lose:

−$15 million − $976.34 million = −$991.34 million

For a *gain* of $8.66 million compared to terminating on the drop dead date

If the ARTF is big enough, it can pay for the buyer to litigate and lose!

Class 8 homework assignment: Bonus question

2. Extend drop dead date and litigate
   b. Litigate and win
      i. Loss of litigation costs = −$15 million
      ii. Value of the deal premium: $ 4182 million delayed for five months at Aon's 5.8% WACC:

$$PV = \frac{FV}{(1+r)^n} = \frac{\$4182}{(1+0.0048)^5} = \$4083.1 \text{ million}$$

Class 8 homework assignment: Bonus question

2. Extend drop dead date and litigate
   b. Litigate and win
      iii. Gain of pro rata share of synergies as Aon shareholders:

Aon pro rata 63% share of 10 years of net synergies discounted at 8%[1]

= $1826.52 million

Combined Company Synergy NPV
(discounted at 8%)

Year	Synergies	Costs	Net CF	PV	NPV	63%
1	$267.00	$1,300.00	($1,033.00)	($956.48)	($956.48)	($602.58)
2	$600.00	$700.00	($100.00)	($85.73)	($1,042.22)	($656.60)
3	$800.00	$0.00	$800.00	$635.07	($407.15)	($256.50)
4	$800.00	$0.00	$800.00	$588.02	$180.87	$113.95
5	$800.00	$0.00	$800.00	$544.47	$725.34	$456.96
6	$800.00	$0.00	$800.00	$504.14	$1,229.48	$774.57
7	$800.00	$0.00	$800.00	$466.79	$1,696.27	$1,068.65
8	$800.00	$0.00	$800.00	$432.22	$2,128.48	$1,340.94
9	$800.00	$0.00	$800.00	$400.20	$2,528.68	$1,593.07
10	$800.00	$0.00	$800.00	$370.55	$2,899.24	$1,826.52
11	$800.00	$0.00	$800.00	$343.11	$3,242.34	$2,042.68
12	$800.00	$0.00	$800.00	$317.69	$3,560.04	$2,242.82
13	$800.00	$0.00	$800.00	$294.16	$3,854.19	$2,428.14
14	$800.00	$0.00	$800.00	$272.37	$4,126.56	$2,599.73
15	$800.00	$0.00	$800.00	$252.19	$4,378.76	$2,758.62
16	$800.00	$0.00	$800.00	$233.51	$4,612.27	$2,905.73
17	$800.00	$0.00	$800.00	$216.22	$4,828.48	$3,041.94
18	$800.00	$0.00	$800.00	$200.20	$5,028.68	$3,168.07
19	$800.00	$0.00	$800.00	$185.37	$5,214.05	$3,284.85
20	$800.00	$0.00	$800.00	$171.64	$5,385.69	$3,392.99

[1] I used 8% rather than Aon's WACC of 5.8% for the same reason I used 8% in calculating the PDV for WTW's share of synergies.

Class 8 homework assignment: Bonus question

2. Extend drop dead date and litigate
   b. Litigate and win

Total gain to Aon shareholders if they litigate and win:

− \$15 million − \$4083.1 million + \$1826.52 million = −\$2271.58 million

Class 8 homework assignment: Bonus question

- Compare payoffs

Option	Outcomes	Payoff
1. Do not extend drop dead date	Terminate agreement on drop dead date (September 9, 2021)	− $1000 million ARTF
2. Extend drop dead date	a. Litigate and lose	− $991.34 million
	b. Litigate and win	− $2271.58 million

  - The difference in payoffs between paying ARTF in September and losing the litigation in February is $8.66 million
  - The difference in payoffs between taking the ARTF in September and wining the litigation and closing the deal in February is -$1.271.58 billion

So unless Aon is essentially certain it will lose the litigation, it should terminate the deal and pay the $1 billion ARTF to WTW

Class 8 homework assignment: Bonus question

- What is the tipping point?
  - Let *p* be Aon's (subjective) probability of winning the case and closing the deal
  - If Aon was risk neutral and maximized expected value, then the tipping probability *p** would equate the expected value of extending the drop dead date with the expected value of terminating on September 9:

$$E(\text{extending}) = E(\text{terminating})$$

$$(p^*)(\text{extending and winning}) + (1-p^*)(\text{extending and losing}) = E(\text{terminating})$$

$$(p^*)(-2271.58) + (1-p^*)(-991.34) = -1000$$

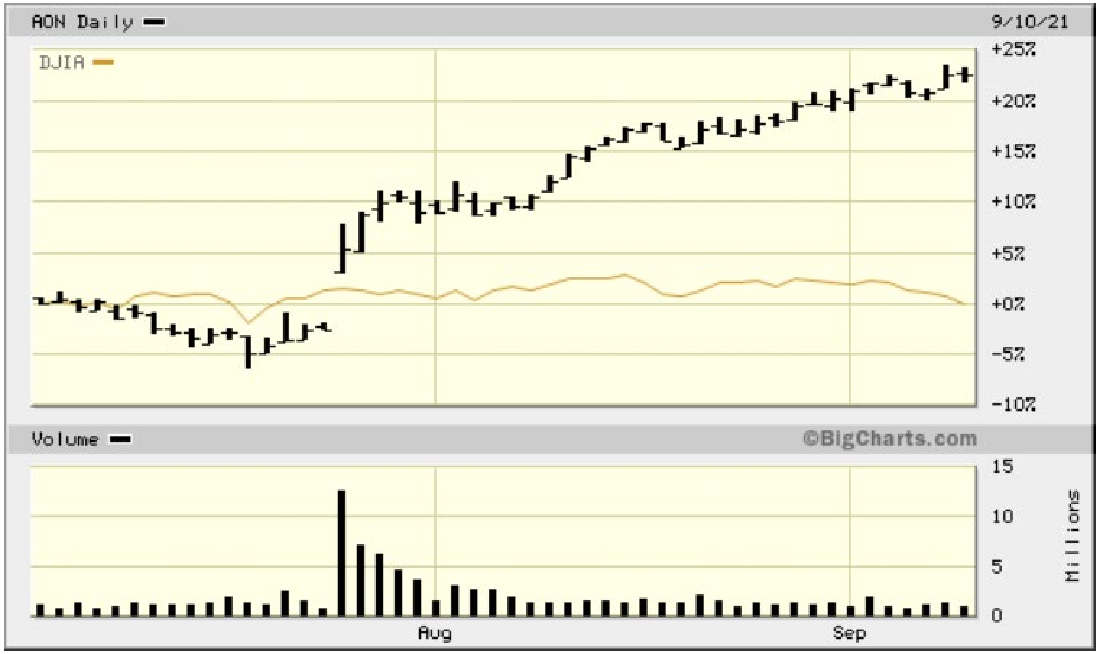
  - Solving for *p**, the tipping point is 0.68%

Bottom line: Aon should terminate and pay the $1 billion ARTF on September 9 if it believes that the probability of winning is greater than 0.68%

Class 8 homework assignment: Bonus question

- How did the market react to the deal termination?
  - Aon stock increased 8.2% the day of the announcement and continued to increase in the following days

Percentage Change in Aon Closing Prices
July 1, 2021 – September 10, 2021



Arbs with Aon stock expected an extension for litigation but were delighted that the deal terminated

Class 8 homework assignment: Bonus question

- What is going on here? Why did Aon do the deal at all?
  - The Aon investor presentation anticipates—

> "**over $10 billion** of expected shareholder value, from the capitalized value of expected pre-tax synergies and net of expected one time transaction, retention and integration costs."

  - A NPV of $10 billion for the combined company yields a NPV benefit to the Aon shareholders of $6.3 billion *at the time of announcement* given Aon's 63% ownership of the combined company
  - The net present value of the deal to the Aon shareholders is then:

$$\underbrace{\$6{,}300 \text{ million}}_{\text{PDV synergies}} - \underbrace{\$4{,}182 \text{ million}}_{\text{PDV deal premium}} - \underbrace{\$15 \text{ million}}_{\text{Litigation costs}} = \boxed{+\$1{,}485 \text{ million}}$$

Net expected PDV gain to Aon shareholders from litigating and winning

Class 8 homework assignment: Bonus question

- What is going on here? Why did Aon do the deal at all?
  - *Query*: Does the $10 billion in the present value of synergy gains net of costs make sense?
    - implies a PDV synergies gross gain of $12 billion before $2 billion in transition costs
    - At $800 million/year
      - At a 0% discount rate, would take 15 years to earn $12 billion
      - At an 8% discount rate, would take over 100 years to cover the deal premium
  - How did Aon get $10 billion in net PDV?
    - Consider a perpetual annuity of $800 million/year. What discount rate would produce a PDF of $12 billion (before costs)?

$$PV = \frac{A}{r}$$

$$12000 = \frac{800}{r} \rightarrow r = 6.7\%$$

    - A discount rate of 6.7% is—
      - 87 basis points greater than Aon's WACC of 5.8%
      - 1800 basis points lower than Aon's ROIC of 8.47%
    - Suggests that a NPV synergy gain of $10 billion for the combined company is unrealistically high and that, when properly evaluated, the deal did not make sense from the beginning for Aon

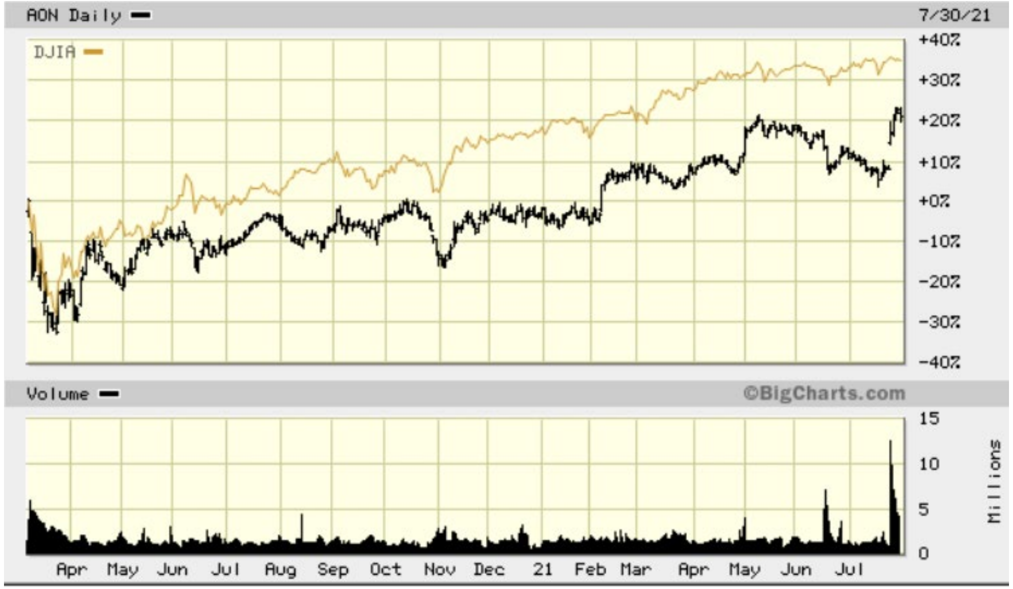
Class 8 homework assignment: Bonus question

- The market agreed the deal was a loser from the beginning:

Aon stock dropped 16.7% on the day of announcement

Class 8 homework assignment: Bonus question

- Moreover, Aon stock did not recover over time when compared to the Dow Jones Industrial Average:



  - Between of the announcement (March 9, 2020) and the date before termination (July 24, 2021)—
    - Aon stock rose 17.1%
    - The DJIA rose 35.9%

Hertz/Avis Budget/Dollar Thrifty

Thrifty Car Rental

DOLLAR RENT A CAR

Antitrust Risk

What was the antitrust risk in this deal?

1. How serious is the inquiry risk?
   - Deal was HSR reportable
   - Highly visible companies—Likely to receive considerable press
   - *Query*: Any likely interest from state AGs?
   - *Query*: Would any customers likely complain to the DOJ/FTC?
   - *Query*: Would any competitors likely complain to the DOJ/FTC?

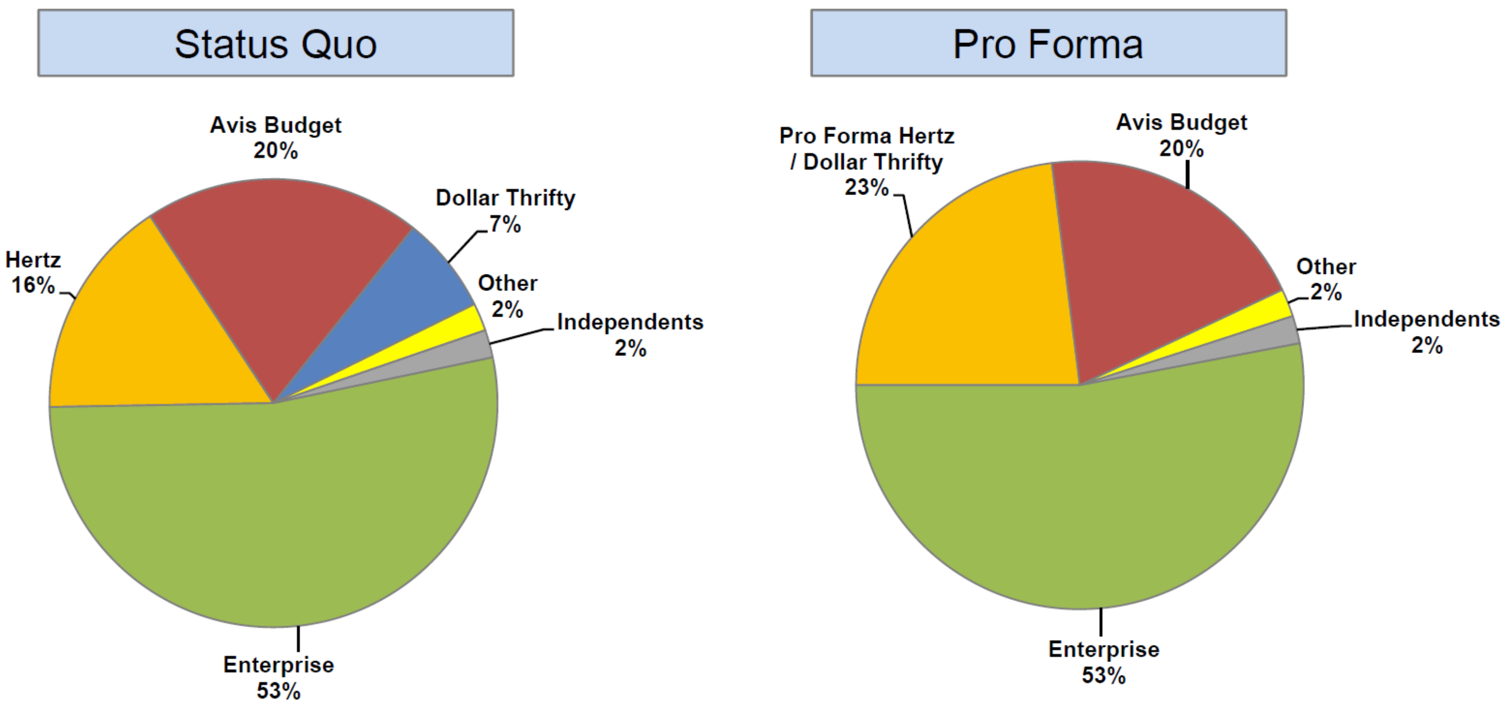
Bottom line:

- *The DOJ/FTC is almost certain to investigate the transaction*
- *Other significant challengers are unlikely and, in any event, insignificant compared to the DOJ/FTC*

What was the antitrust risk in this deal?

2. How serious is the substantive risk?

Total U.S. Rental Car Market Revenue Share 2009

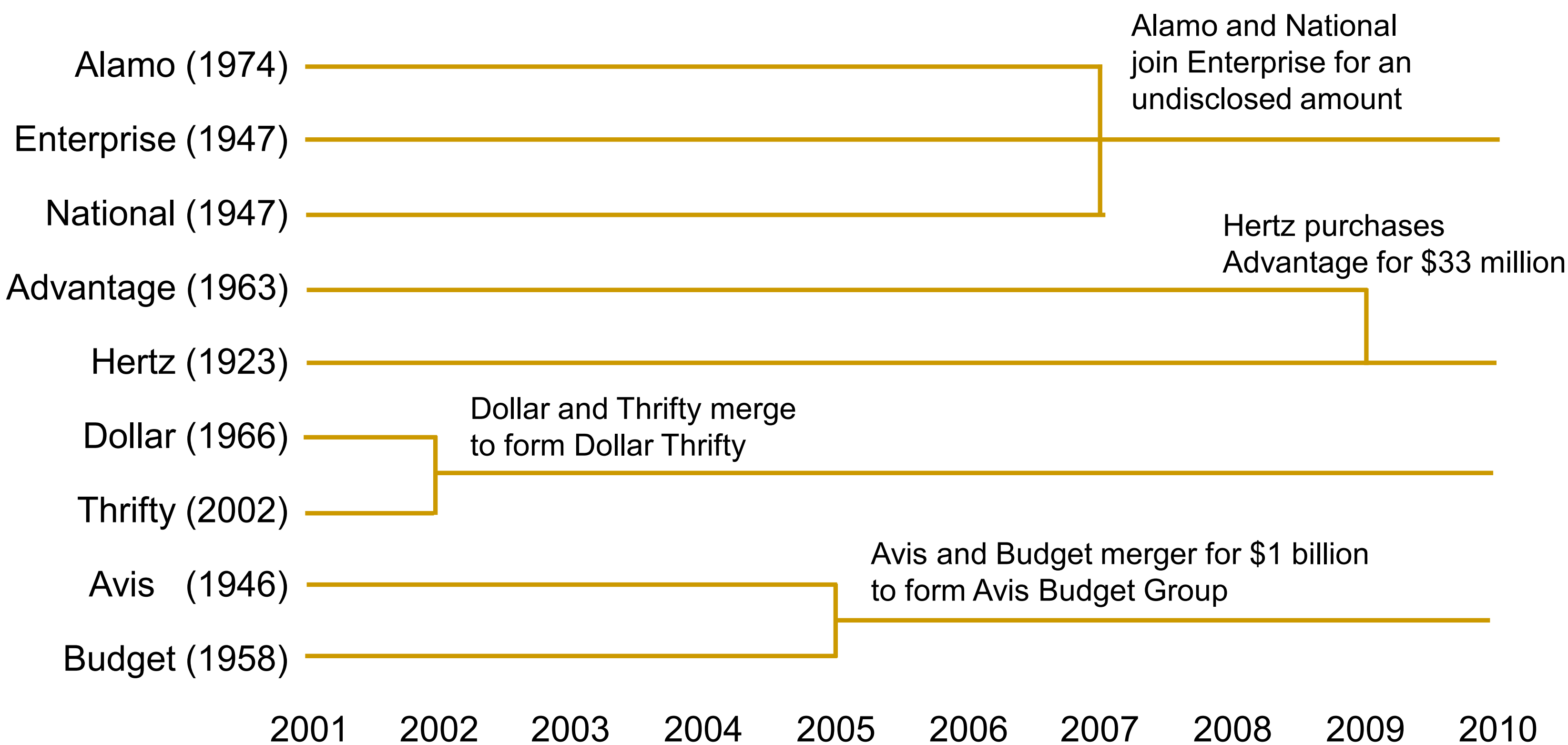


Source: Auto Rental News, 2010 Fact Book

Does not look like much changes with the acquisition

What was the antitrust risk in this deal?

2. How serious is the substantive risk?
   - But extensive consolidation in the rental car industry



What was the antitrust risk in this deal?

2. How serious is the substantive risk?
   - And the market could be further segmented by location
     - Individual airport markets
     - Some in-town markets
     - National accounts

What was the antitrust risk in this deal?

2. How serious is the substantive risk?

U.S. Rental Car Market 2011

Company	Cars	Locations	%Cars
Enterprise Holdings (Alamo, Enterprise, National)	920,861	6,187	52.3%
Hertz (includes Advantage)	320,000	2,500	18.2%
Avis Budget Group	285,000	2,300	16.2%
Dollar Thrifty Automotive Group	118,000	445	6.7%
U-Save Auto Rental System	11,500	325	0.7%
Fox Rent A Car	11,000	13	0.6%
Payless Car Rental System	10,000	32	0.6%
ACE Rent A Car	9,000	90	0.5%
Zipcar	7,400	128	0.4%
Rent-A-Wreck of America	5,500	181	0.3%
Triangle Rent-A-Car	4,200	28	0.2%
Affordable/Sensible	3,300	179	0.2%
Independents	55,000	5,350	3.1%
	1,760,761		100.0%

Combined national share = 24.9%

What was the antitrust risk in this deal?

2. How serious is the substantive risk?

Combined national airport share = 37.0%

U.S. Rental Car Market 2011

Company	**Cars**	**Locations**	**%Cars**	**Airport**
			Overall	
Enterprise Holdings (Alamo, Enterprise, National)	920,861	6,187	52.3%	34.0%
Hertz (includes Advantage)	320,000	2,500	18.2%	25.0%
Avis Budget Group	285,000	2,300	16.2%	26.0%
Dollar Thrifty Automotive Group	118,000	445	6.7%	12.0%
U-Save Auto Rental System	11,500	325	0.7%	
Fox Rent A Car	11,000	13	0.6%	
Payless Car Rental System	10,000	32	0.6%	
ACE Rent A Car	9,000	90	0.5%	
Zipcar	7,400	128	0.4%	
Rent-A-Wreck of America	5,500	181	0.3%	
Triangle Rent-A-Car	4,200	28	0.2%	
Affordable/Sensible	3,300	179	0.2%	
Independents	55,000	5,350	3.1%	
	1,760,761		100.0%	

What was the antitrust risk in this deal?

2. How serious is the substantive risk?
   - Overlaps at some individual airports have even higher combined market shares

Significant Individual Airport Market Overlaps

1	Albuquerque, New Mexico (Albuquerque International Sunport Airport)
2	Atlanta, Georgia (Hartsfield-Jackson International Airport)
3	Austin, Texas (Austin-Bergstrom International Airport)
4	Baltimore, Maryland (Baltimore/Washington International Thurgood Marshall Airport)
5	Boston, Massachusetts (Logan International Airport)
6	Burbank, California (Burbank Bob Hope Airport)
7	Burlington, Vermont (Burlington International Airport)
8	Charleston, South Carolina (Charleston International Airport)
9	Charlotte, North Carolina (Charlotte Douglas International Airport)
10	Chicago, Illinois (Chicago Midway International Airport)
11	Chicago, Illinois (Chicago O'Hare International Airport)
12	Cincinnati, Ohio (Cincinnati/Northern Kentucky International Airport)
13	Cleveland, Ohio (Cleveland Hopkins International Airport)
14	Colorado Springs, Colorado (Colorado Springs Airport)
15	Dallas, Texas (Dallas Love Field Airport)
16	Dallas, Texas (Dallas/Fort Worth International Airport)
17	Detroit, Michigan (Detroit Metro Airport)
18	Denver, Colorado (Denver International Airport)

What was the antitrust risk in this deal?

2. How serious is the substantive risk?

Significant Individual Airport Market Overlaps

19 Des Moines, Iowa (Des Moines Airport)
20 El Paso, Texas (El Paso Airport)
21 Fort Lauderdale, Florida (Fort Lauderdale-Hollywood Airport)
22 Fort Myers, Florida (Southwest Florida International Airport)
23 Fort Walton Beach, Florida (Fort Walton Beach Regional Airport)
24 Harlingen, Texas (Valley International Airport)
25 Hartford, Connecticut (Bradley International Airport)
26 Hilo, Hawaii (Hilo International Airport)
27 Honolulu, Hawaii (Honolulu International Airport)
28 Houston, Texas (George Bush Intercontinental Airport)
29 Houston, Texas (William P. Hobby Airport)
30 Jacksonville, Florida (Jacksonville International Airport)
31 Kahului, Hawaii (Kahului Airport)
32 Las Vegas, Nevada (McCarran International Airport)
33 Lihue, Hawaii (Lihue Airport)
34 Los Angeles, California (Los Angeles International Airport)
35 Louisville, Kentucky (Louisville International Airport)
36 Manchester, New Hampshire (Manchester-Boston Regional Airport)
37 Miami, Florida (Miami International Airport)
38 Milwaukee, Wisconsin (Milwaukee International Airport)
39 Minneapolis-St. Paul, Minnesota (Minneapolis-St. Paul International Airport)

What was the antitrust risk in this deal?

2. How serious is the substantive risk?

Significant Individual Airport Market Overlaps

40	Nashville, Tennessee (Nashville International Airport)
41	New York, New York (LaGuardia Airport)
42	New York, New York (John F. Kennedy International Airport)
43	Newark, New Jersey (Newark Liberty International Airport)
44	Norfolk, Virginia (Norfolk International Airport)
45	Oakland, California (Oakland International Airport)
46	Oklahoma City, Oklahoma (Will Rogers World Airport)
47	Omaha, Nebraska (Omaha Airport)
48	Los Angeles, California (Ontario International Airport)
49	Orange County, California (John Wayne Airport)
50	Orlando, Florida (Orlando International Airport)
51	Pensacola, Florida (Pensacola International Airport)
52	Phoenix, Arizona (Sky Harbor Airport)
53	Pittsburgh, Pennsylvania (Pittsburgh International Airport)
54	Portland, Oregon (Portland International Airport)
55	Providence, Rhode Island (T.F. Green Airport)
56	Raleigh-Durham, North Carolina (Raleigh-Durham International Airport)
57	Reno, Nevada (Reno-Tahoe International Airport)
58	Richmond, Virginia (Richmond International Airport)
59	Sacramento, California (Sacramento International Airport)

What was the antitrust risk in this deal?

2. How serious is the substantive risk?

Significant Individual Airport Market Overlaps

60	Salt Lake City, Utah (Salt Lake City International Airport)
61	San Antonio, Texas (San Antonio International Airport)
62	San Diego, California (San Diego International Airport)
63	Sanford, Florida (Orlando-Sanford International Airport)
64	San Francisco, California (San Francisco International Airport)
65	San Jose, California (Norman Y. Mineta San Jose International Airport)
66	Sarasota, Florida (Sarasota Bradenton International Airport)
67	Seattle, Washington (Seattle-Tacoma International Airport)
68	Tampa, Florida (Tampa International Airport)
69	Tulsa, Oklahoma (Tulsa International Airport)
70	Washington, District of Columbia (Ronald Reagan National Airport)
71	Washington, District of Columbia (Washington Dulles International Airport)
72	West Palm Beach, Florida (Palm Beach International Airport)

Source: Complaint ¶ 5, FTC v. Hertz Global Holdings, Inc., No. C-4376 (F.T.C. Nov. 15, 2012)

What was the antitrust risk in this deal?

2. How serious is the substantive risk?
   - *Query*: Who are the customers who might be adversely affected in each market?
     - All customers?
     - Only business customers?
     - Only “value” customers?

What was the antitrust risk in this deal?

3. How serious is the remedies risk?
   - Possibilities
     1. Entire deal is blocked
        - Likely relief the FTC will seek in a fully litigated proceeding
        - Merging parties could "litigate the fix," BUT—
          1. What would be the scope of an acceptable fix to the court in the face of DOJ opposition?
          2. Can the merging parties find and sign a buyer in time?
          3. Would the buyer be acceptable to the court in the face of DOJ opposition?
     2. In each problematic market, either entire Hertz or entire DTAG business must be divested
        - Likely FTC demand unless FTC segments customers into business/value
        - Probably would eliminate most if not all value from the deal
        - Likely would create negative value in the absence of a purchase price adjustment
     3. In each problematic market, either entire Hertz "value" or entire DTAG "value" business must be divested
        - Hertz could divest Advantage (the Hertz value business)

Advice to Hertz

1. Inquiry risk
   - Almost certain second request investigation by the FTC
2. Substantive risk
   - Almost certain antitrust violations in some airport markets
     - Especially in "value" business overlap
   - Possible violations in other airport markets
   - And perhaps non-airport markets as well
3. Remedies risk
   - Deal could be blocked in litigation
     - Litigating the fix is risky since the scope of a fix acceptable to the court is uncertain
   - If the deal is to close, must settle with a consent decree
     - Consent decree must be limited to preserve deal value
     - Preferably to the Hertz Advantage business
     - + Maybe a limited number of DTAG airport locations that the FTC may conclude overlap with Hertz-branded location

Critical business considerations

Advice to Hertz

- Bottom line

Hertz should sign a purchase agreement only if—

Advice to Hertz

- Bottom line

Hertz should sign a purchase agreement only if—

1. *The deal provides Hertz with significant expected value at the time of signing*

Advice to Hertz

- Bottom line

Hertz should sign a purchase agreement only if—

1. *The deal provides Hertz with significant expected value at the time of signing*
2. *Any divestitures Hertz might have to make in order to overcome any antitrust objections would still preserve significant expected value, and*

Advice to Hertz

- Bottom line

Hertz should sign a purchase agreement only if—

1. *The deal provides Hertz with significant expected value at the time of signing*
2. *Any divestitures Hertz might have to make in order to overcome any antitrust objections would still preserve significant expected value, and*
3. *Hertz has the right to terminate the merger agreement and walk away from the deal in the event it cannot settle for the divestiture of not much more than the Advantage business*

Advice to DTAG

1. Inquiry risk
   - Almost certain second request investigation by the FTC
2. Substantive risk
   - Almost certain antitrust violations in some airport markets
   - Possible violations in other airport markets
   - And perhaps non-airport markets as well
3. Remedies risk
   - Deal could be blocked in litigation
     - Litigating the fix is very risky given the number of potentially problematic markets
   - If the deal is to close, must settle with a consent decree
     - Hertz is likely to want to limit any consent decree to the Hertz Advantage business in order to preserve value
     - BUT is this enough for DTAG to go forward or can it negotiate to require hertz to make additional divestitures if necessary to secure a consent decree?

Advice to DTAG

- Bottom line:

  This deal has significant antitrust risk. DTAG needs to negotiate not only a good price but also provisions that maximize certainty of closing recognizing:

Advice to DTAG

- Bottom line:

  This deal has significant antitrust risk. DTAG needs to negotiate not only a good price but also provisions that maximize certainty of closing recognizing:

  1. *Hertz will require a deal that provides it with significant expected value at the time of signing,*

Advice to DTAG

- Bottom line:

  This deal has significant antitrust risk. DTAG needs to negotiate not only a good price but also provisions that maximize certainty of closing recognizing:

  1. *Hertz will require a deal that provides it with significant expected value at the time of signing,*
  2. *Hertz's expected value will be a function of the gains from trade it expects and the level of divestitures to which it will be exposed as a result of the antitrust risk, and*

Advice to DTAG

- Bottom line:

This deal has significant antitrust risk. DTAG needs to negotiate not only a good price but also provisions that maximize certainty of closing recognizing:

1. *Hertz will require a deal that provides it with significant expected value at the time of signing,*
2. *Hertz's expected value will be a function of the gains from trade it expects and the level of divestitures to which it will be exposed as a result of the antitrust risk, and*
3. *Hertz will want to be able to terminate the merger agreement if the divestitures required to close the deal will not provide it with an adequate return given the purchase price*

Contractual Risk Allocation

Party objectives in M&A agreements

- Sellers
  - Three goals
    1. Obtain the highest purchase price possible
       - Ideally, extract in the purchase price all the gains from trade that the buyer expects to obtain from the deal
    2. Close the transaction prior to the *termination date*
       - The termination date is the date on which either party can terminate the merger agreement without cause—usually one year from signing
       - Called *certainty of closing*—Sellers do deals in order to get paid
       - Sellers tend to lose value during pendency of the transaction
         - The "damaged goods" problem
           - Target often lacks strategic direction and focus during pendency of transaction
           - Key employees often leave company for jobs in other companies
           - Customers may leave given uncertainty of what will happen with the target
         - Purchase price in a second auction after a failed transaction is typically much less even after accounting for damaged goods problem
    3. Minimize the delay between signing and closing
       - Usually a minor concern compared to the purchase price and certainty of closing

Party objectives in M&A agreements

- Buyers
  - Three goals
    1. Obtain the lowest purchase price possible
       - Ideally, retain in the purchase price all of the gains from trade that the buyer expects to obtain from the deal
    2. Close the transaction provided the deal generates sufficient value; otherwise, walk away from transaction without loss of value
       a. The DOJ/FTC might require divestitures that would reduce the benefits of the deal and perhaps even make them negative
       b. The market/regulatory environment might change in ways that make the deal a bad deal
       c. The target might suffer a material adverse change in its business
       d. The buyer might suffer a material adverse change in its business
    3. Minimize the delay between signing and closing
       - Usually a much more important consideration to buyers than to sellers

Negotiating the contract

1. Need an “out” if the deal is illegal
   - Neither party wants to be contractually obligated to close a deal that would be illegal and subject the party to sanctions
2. Need an “out” if the deal no longer provides positive value
   - Each party wants a right to terminate the purchase agreement if the party no longer finds the deal in its interest
3. Each party wants to maximize the probability that the deal *will* close IF AND ONLY IF the party *wants* the deal to close
   - Objectives for each party:
     a. Include provisions in the contract that will obligate the counterparty to—
        i. Take all necessary steps to proceed to the closing before the *termination date*, and
        ii. Minimize its ability to terminate the contract before the termination date
     b. Maximize the ability of the party to terminate the contract if and when it concludes that the deal is no longer in its interests

Negotiating the contract

- Valuing the deal/weighing the trade-offs
  - The buyer and the seller are likely to view the deal as a *gamble with risk*
  - If so, each party will value the deal on its own (risk-adjusted) *expected value* of signing the contract
    - That is, each party will consider:
      1. The net benefits of closing the deal (which will be positive) :

Respective gains from trade before deal costs

$$B_{Buyer} = V_c + V_s - P - D_{Buyer}$$
$$B_{Seller} = P - V_c - D_{Seller}$$

where V_c is the target's going concern value, V_s is the expected total synergies, D is the deal costs, and P is the purchase price

2. The net benefits of not closing the deal (which may be negative):

$$B_{Buyer} = P - D_{Buyer}$$
$$B_{Seller} = (V_c - L_c) - D_{Seller}$$

where L_c is the loss of going concern value

3. The subjective probability that the deal will close to discount these benefits
   - The buyer and the seller may be significantly different probabilities

Negotiating the contract

- Valuing the deal/weighing the trade-offs
  - The probability of the deal closing (or not closing) will be a function of the risk-shifting provisions in the contract
    - The stronger the provisions forcing the buyer to take steps to eliminate the antitrust concerns, the higher the probability of closing
  - BUT the net benefits of the deal closing to the buyer also will be a function of the risk-shifting provisions in the contract
    - Typically, the stronger the provisions forcing the buyer to accept a consent decree and close, the less the synergy gain for the buyer
      - In many deals, the bulk of the synergies gain will come in the overlap areas
    - If stronger provisions are likely to reduce deal synergies, the buyer will reduce the maximum purchase price it is willing to pay
  - Similarly, the net benefits of the deal closing to the seller also will be a function of the risk-shifting provisions in the contract
    - The stronger the provisions, the greater the probability of closing
    - BUT stronger provisions are likely to reduce deal synergies, which will lower the maximum purchase price the buyer is willing to pay

The structure of a merger agreement

- The antitrust-related provisions:
  1. Closing conditions (conditions precedent)
     - Protect a party from the obligation to close unless and until the closing conditions are satisfied
  2. Termination provisions
     - Especially the *"drop-dead" date*: The date on which either party is free to unilaterally terminate the merger agreement without cause
     - Merger agreement can provide for early termination or extensions in specified contingencies
  3. Affirmative covenants
     - Negotiated to increase the probability that the conditions precedent will be satisfied for the drop-dead date
     - NB: The obligations under affirmative covenants usually expire upon the termination of the agreement

The structure of a merger agreement

- Three questions
  1. What does each party want in these provisions to best achieve its objectives?
  2. Where will the parties agree or disagree on the content of a provision?
  3. How will the disagreements be resolved?

1. Protection against an unlawful closing

- Conditions precedent

	Conditions Precedent	Affirmative Covenant
Waiting period	HSR waiting period has expired or been terminated	Efforts to satisfy condition precedent

1. Protection against an unlawful closing

- Conditions precedent

	Conditions Precedent	Affirmative Covenant
Waiting period	HSR waiting period has expired or been terminated	Efforts to satisfy condition precedent
Injunctions and other legal restraints	No injunction or legal restraint making the closing unlawful	Efforts to avoid entry of injunction or other legal restraint

1. Protection against an unlawful closing

- Conditions precedent

	Conditions Precedent	Affirmative Covenant
Waiting period	HSR waiting period has expired or been terminated	Efforts to satisfy condition precedent
Injunctions and other legal restraints	No injunction or legal restraint making the closing unlawful	Efforts to avoid entry of injunction or other legal obstacle to closing
Litigation	No obligation -or- [Sometimes] No threatened or pending litigation that seeks to enjoin the transaction	— Efforts to defend litigation to remove legal obstacles to closing

2. Protection against unwanted closing

- Termination

Event	Termination right
By mutual agreement	At any time by mutual consent

2. Protection against unwanted closing

- Termination

Event	Termination right
By mutual agreement	At any time by mutual consent
Termination date	By either party after the Termination Date (“drop-dead date”) —Usually 12 months —Termination right not available to any party whose breach of any provision of the agreement resulted in the failure of the merger to be consummated on or before such date

2. Protection against unwanted closing

- Termination

Event	Termination right
By mutual agreement	At any time by mutual consent
Termination date	By either party after the Termination Date ("drop-dead date") —Usually 12 months —Termination right not available to any party whose breach of any provision of the agreement resulted in the failure of the merger to be consummated on or before such date
Extensions to finish antitrust investigation and, if desirable, litigate	Usually 6 months

2. Protection against unwanted closing

- Termination

Event	Termination right
By mutual agreement	At any time by mutual consent
Termination date	By either party after the Termination Date ("drop-dead date") —Usually 12 months —Termination right not available to any party whose breach of any provision of the agreement resulted in the failure of the merger to be consummated on or before such date
Extensions to finish antitrust investigation and, if desirable, litigate	Usually 6 months
Unlawful transaction	By either party if a law or court order (having exhausted all appeals) makes the closing unlawful

3. Getting the deal to closing

- Other affirmative covenants

Stage	Objective	Affirmative Covenants
Prefiling period	Finalize defense Customer roll-out Prepare DOJ/FTC presentation	General “efforts” covenant Share information Cooperate in defense (may provide that Buyer takes lead)

3. Getting the deal to closing

- Other affirmative covenants

Stage	Objective	Affirmative Covenants
Prefiling period	Finalize defense Customer roll-out Prepare DOJ/FTC presentation	General “efforts” covenant Share information Cooperate in defense (may provide that Buyer takes lead)
HSR filing	File HSR forms	Obligation to file HSR forms (usually 10 business days after signing)

3. Getting the deal to closing

- Other affirmative covenants

Stage	Objective	Affirmative Covenants
Prefiling period	Finalize defense Customer roll-out Prepare DOJ/FTC presentation	General “efforts” covenant Share information Cooperate in defense (may provide that Buyer takes lead)
HSR filing	File HSR forms	Obligation to file HSR forms (usually 10 business days after signing)
Initial waiting period	Make initial presentation Answer staff questions Follow-up with customers	
Second request period	Comply with second request Defend depositions Answer staff questions Respond to staff theories	
Final waiting period	Make final arguments	

3. Getting the deal to closing

- Other affirmative covenants

Stage	Objective	Affirmative Covenants
Prefiling period	Finalize defense Customer roll-out Prepare DOJ/FTC presentation	General “efforts” covenant Share information Cooperate in defense (may provide that Buyer takes lead)
HSR filing	File HSR forms	Obligation to file HSR forms (usually 10 business days after signing)
Initial waiting period	Make initial presentation Answer staff questions Follow-up with customers	Efforts to obtain government consents and clearances Obligations to respond to government requests Obligations to consult in prosecuting defense Right to attend each other’s meetings
Second request period	Comply with second request Defend depositions Answer staff questions Respond to staff theories	
Final waiting period	Make final arguments	

3. Getting the deal to closing

- Investigation outcome affirmative covenants

Investigation outcome	Covenant
Close investigation	Proceed to closing if all conditions precedent satisfied

3. Getting the deal to closing

- Investigation outcome affirmative covenants

Investigation outcome	Covenant
Close investigation	Proceed to closing if all conditions precedent satisfied
Settle investigation	No obligation -or- “High-or-high water” provision -or- Qualified HOHW provision

3. Getting the deal to closing

- Investigation outcome affirmative covenants

Investigation outcome	Covenant
Close investigation	Proceed to closing if all conditions precedent satisfied
Settle investigation	No obligation -or- “High-or-high water” provision -or- Qualified HOHW provision -or- Antitrust reverse termination fee -or- Ticking fee -or- ”Take or pay” provision Seller uses these, not so much to get paid, but rather to incentivize the buyer to resolve the antitrust problems

3. Getting the deal to closing

- Investigation outcome affirmative covenants

Investigation outcome	Covenant
Close investigation	Proceed to closing if all conditions precedent satisfied
Settle investigation	No obligation -or- "High-or-high water" provision -or- Qualified HOHW provision -or- Antitrust reverse termination fee -or- Ticking fee -or- "Take or pay" provision Seller uses these, not so much to get paid, but rather to incentivize the buyer to resolve the antitrust problems
Litigate	No obligation -or- Obligation to litigate (will be subject to termination provisions)

3. Getting the deal to closing

- Investigation outcome affirmative covenants

Investigation outcome	Covenant
Close investigation	Proceed to closing if all conditions precedent satisfied
Settle investigation	No obligation -or- “High-or-high water” provision -or- Qualified HOHW provision -or- Antitrust reverse termination fee -or- Ticking fee -or- ”Take or pay” provision
Litigate	No obligation -or- Obligation to litigate (will be subject to termination provisions)
Voluntarily terminate agreement	Usually not covered in merger agreement

Risk-shifting summary

	Buyer-friendly	⟷	Seller-friendly
Level of efforts	Commercially reasonable efforts	Reasonable best efforts	Best efforts
Obligation to make divestitures	Silent/expressly excluded	Divestitures up to cap – measured in asset or revenue terms or MAC applying to part or all of acquired or merged business	Obligation to make any and all divestitures necessary to gain clearance no matter how much or what impact is (HOHW)
Timing for other aspects of regulatory review	Silent/may be deadline for submission of HSR filing	Silent/may be deadline for submission of HSR filing	Express timing for submission of filing, Second Request compliance and other milestones
Timing for offering divestitures	Silent	Silent	Express timing for offering remedies to obtain clearance
Control of regulatory process	Buyer controls; require cooperation from Seller and may give access and information	Buyer leads; Seller entitled to be present at meetings, calls; obligation on Buyer to communicate certain matters to Seller	Full involvement of Buyer in negotiations with regulators; Seller prohibited from communicating without Buyer (except as required by law)
Obligation to litigate	Silent/expressly exclude/litigate at buyer's option	Silent/expressly exclude	Obligation to litigate if regulators block exercisable at seller's option; does not relieve buyer of obligations to make divestitures
Termination provisions	Open-ended, extendable at buyer's option	Tolling at either party's option	Tolling at seller's option
Reverse break-up fee	None	Possible	Substantial fee; provision for interim payments and interest
Time to termination date	As long as buyer anticipates needing to fully defend transaction on merits, plus ability to extend at buyer's option	Tolling at either party's option	Tolling at seller's option at specified inflection points (e.g., second request compliance, commencement of litigation)
"Take or pay" provision	None	None	Requires payment of full purchase price by termination date even if transaction cannot close

Avis Budget Enters the Bidding

2012 Hertz/Dollar Thrifty deal

Contested Takeover Dance

April 26, 2010	Hertz to buy at $1.2 billion
May 3, 2010	Avis sends letter to DT saying it will make a "superior offer"
May 13, 2010	Avis files HSR form for an open market purchase
May 14, 2010	Hertz files HSR form for April 26 deal
June 15, 2010	Avis receives a second request
June 16, 2010	Hertz receives a second request
July 28, 2010	Avis offers $1.33 billion ($46.50 per share 80/20 cash/stock)
Aug. 3, 2010	DT rejects offer as "superior" because of —Lack of deal certainty (no JDA → no exchange of AT analysis) —No antitrust reverse breakup fee
Aug. 31, 2010	Hertz releases comparative AT analysis —Avis is 3 → 2 in mid-tier value brands —Avis closer in average rental price than Hertz to DT —Avis would require a much larger brand divestiture —Avis deal provides less contractual protection on AT risk ($250m v. $335m in U.S. HOHW revenue cap; no ARTF v. $44.6m)

2012 Hertz/Dollar Thrifty deal

Contested Takeover Dance

Sept. 2, 2010	Avis raises bid to $1.36 billion —Rejects significance of ARTF —Hertz has higher leisure revenue than Avis Budget (AAA)
Sept. 12, 2010	Hertz to $1.43 billion ($50/share)
Sept. 23, 2010	Avis raises bid to $1.5 billion ($52.71/share v. $50.25/share)
Sept. 24, 2010	Hertz affirms bid is "best and final"
Sept. 27, 2010	DT rejects Avis bid and affirms recommendation for Hertz merger
Sept. 27, 2010	Avis announces it will launch a (hostile) exchange offer for DT —Asks that DT shareholder vote be delayed from 9/30 until 12/30
Sept. 29, 2010	Hertz announces it will terminate merger agreement if DT shareholders reject merger agreement
Sept. 30, 2010	DT shareholders rejects Hertz merger agreement
Sept. 30, 2010	Hertz announces it will terminate 2010 merger agreement
Sept. 30, 2010	Avis reaffirms commitment to acquire DT and pursue exchange offer

2012 Hertz/Dollar Thrifty deal

Contested Takeover Dance

Oct. 5, 2010	Avis and DT agree to cooperate in seeking regulatory approval
Jan. 11, 2011	FTC update—review continuing
May 9, 2011	Hertz offers $2.1 billion ($72/share 80/20) [ARTF ?]
May 12, 2011	Hertz and DT to cooperate in seeking regulatory approval
May 24, 2011	Hertz commences exchange offer for DT
June 6, 2011	DT recommends that shareholders take no action on either deal
July 14, 2011	Hertz files HSR form for exchange offer
Aug. 15, 2011	Hertz receives second request
Aug. 21, 2011	DT wants best and final offers by Oct. 10
Sept. 14, 2011	Avis pulls out of bidding
Oct. 10, 2011	No new proposals submitted by Hertz or Avis
	DT formally terminates solicitation process
Oct. 27, 2011	Hertz withdraws bid
Aug. 23, 2012	DT major shareholders say they would accept a $2.4 billion bid
Aug. 27, 2012	Sign deal at $2.3 billion

2012 Hertz/Dollar Thrifty deal

- Comparison with 2010 deal

	2010 Deal	2012 Deal
Total price	$1.3 billion	$2.3 billion
Price per share	$41.00 (80/20)	$87.50 cash
Deal structure	Rev. triangular	Tender offer*
Annual synergies	$180 million	$160 million
Termination date	12 months	4 months
HOHW cap	Advantage + ≤ $175 m rev.	Advantage presold + undisclosed “Proposed Consent Agreement”
ARTF	$44.6 million	None
Reimbursement of expenses	Up to $5 million	Up to $5 million

* Pursuant to Agreement and Plan of Merger between Hertz and Dollar Thrifty.

2012 deal premium

- Analysis
  - Hertz' estimate of the going concern value V_c of DTAG appears to be \$1.64 billion
    - Hertz set the corporate enterprise of DTAG postmerger at \$2.3 billion, which equals 7.8x the midpoint of DTAG's EBITDA guidance for 2012 (\$298 million)
    - Hertz said the DTAG enterprise value represented a 40% premium over DTAG's premerger multiple
    - Discounting for the 40% premium gives a V_c of \$1.64 billion
    - Compare to \$932 million (after dividend) in 2010
  - Hertz claimed an expected annually recurring synergy gain of \$160 million
    - Value as a 10-year annuity:

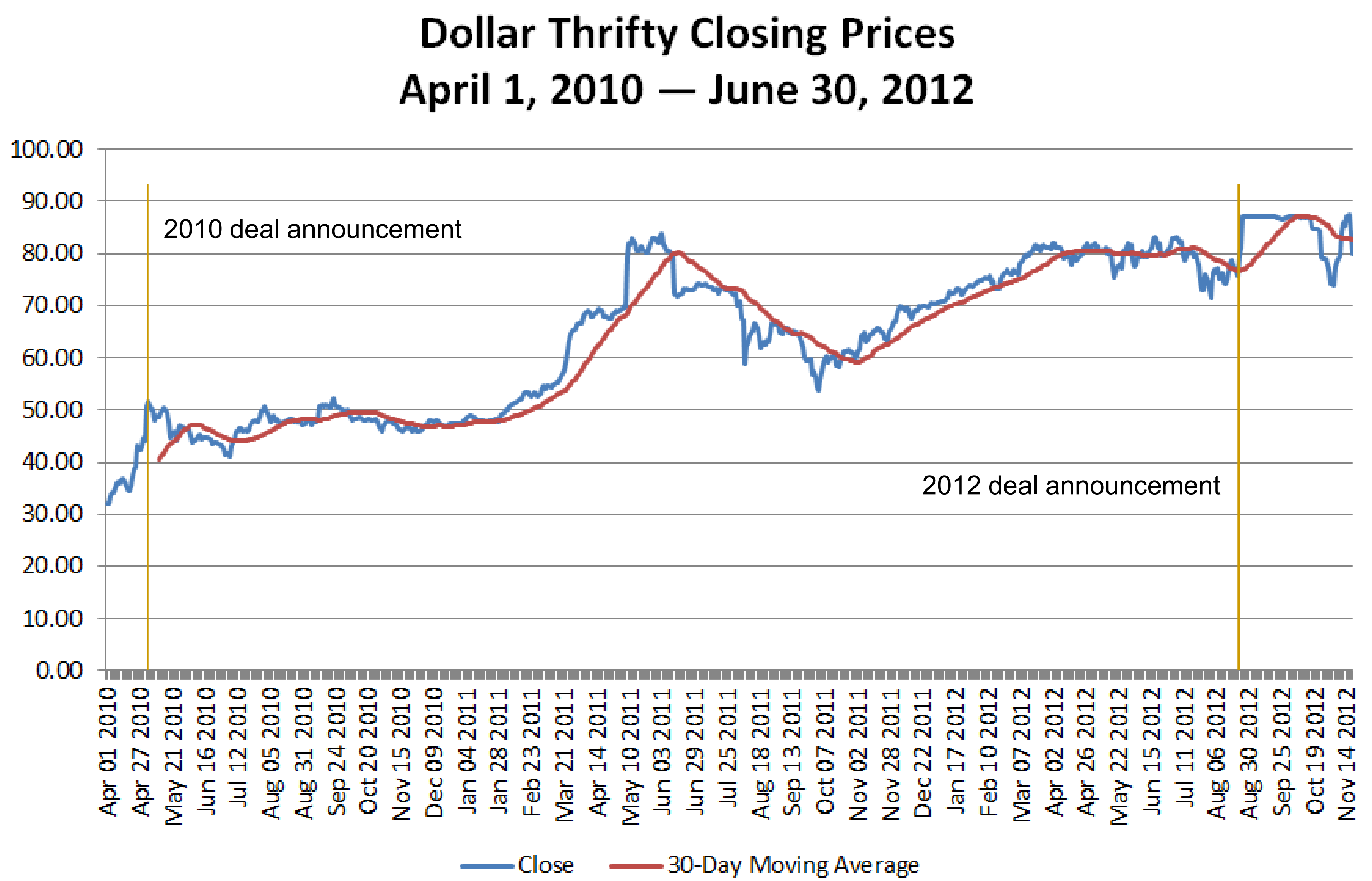
$$V_g = A\left[\frac{1-(1+r)^{-n}}{r}\right] = \$160\text{ million}\left[\frac{1-(1+0.07)^{-10}}{0.07}\right] = \$1.12\text{ billion}$$

  - So Hertz expects that the total value V_t of Dollar Thrifty postmerger will be:

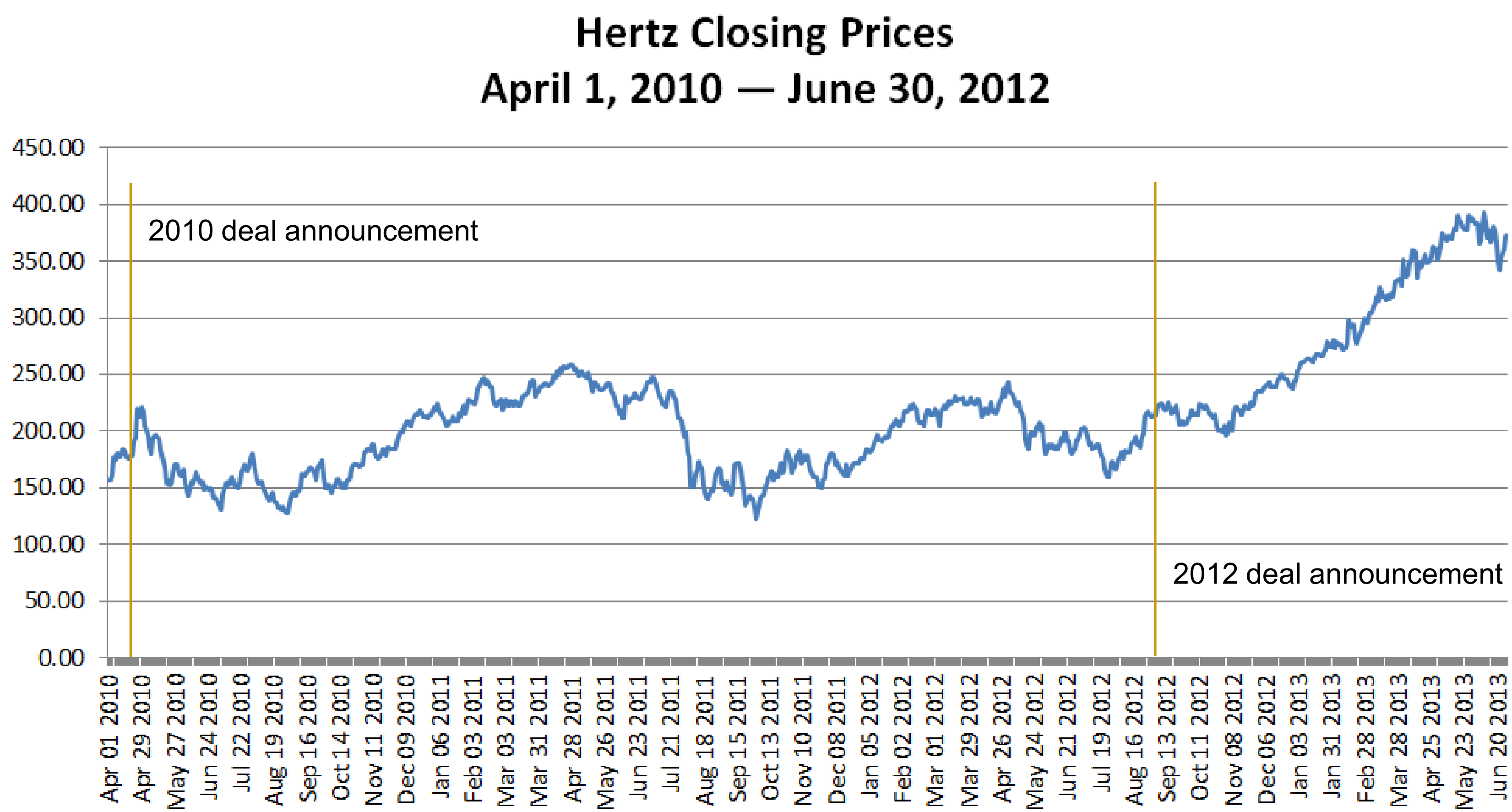
$$V_t = V_c + V_g = \$1.64\text{ billion} + \$1.12\text{ billion}$$
$$= \$2.76\text{ billion}$$

The purchase price of \$2.3 billion implies that Hertz gave up most of the synergies to DTAG shareholders *under our assumptions*

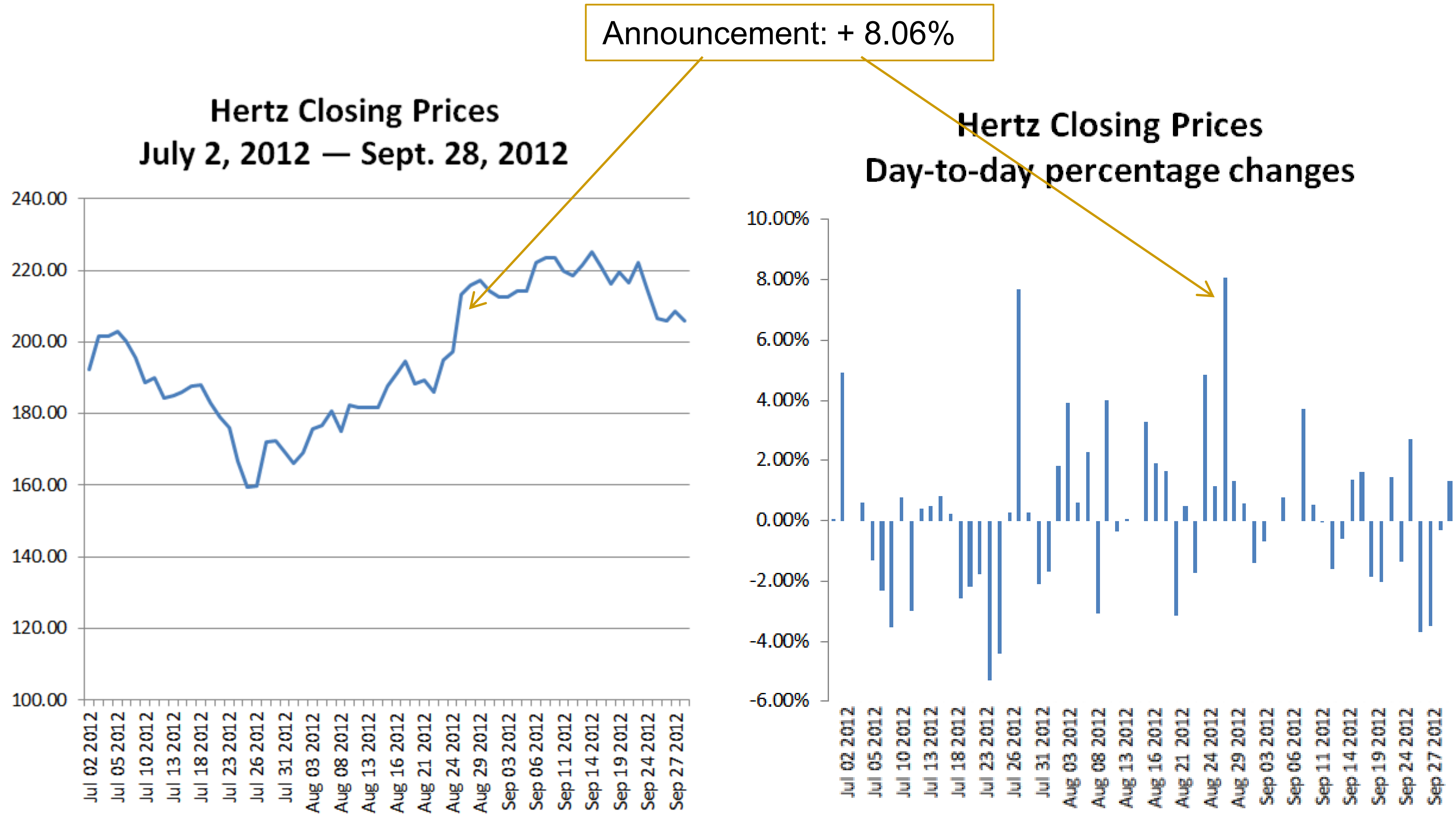
Dollar Thrifty stock prices



Hertz stock prices



Hertz stock prices



The FTC Consent Order

FTC Complaint

- Issued November 15, 2012
  - Eight-month investigation
- Relevant markets
  - Product market: Airport car rentals
    - Alternative: Non-contracted airport car rentals (excludes rentals made at prenegotiated rates and terms)
  - Geographic markets: 72 individual airport locations
- Competitive effects
  - Eliminates direct competition between parties (all markets)
  - Eliminates future competition between parties (several markets)
  - Increases likelihood of unilateral exercise of market power by Hertz
  - Increases likelihood of coordinated interaction
  - Increases likelihood that customers will pay higher prices

FTC Complaint

- Violations
  - Acquisition, if consummated, would violate Clayton Act § 7 and FTC Act § 5
  - Acquisition agreement violates FTC Act § 5
- Allegations regarding barriers to entry:
  - On-airport concession locations
  - Recognized brand
  - Relationships with online travel agencies and other distribution channels
  - Sufficient size to achieve economies of scale

FTC Consent Order

- Agreement containing consent order(s)
  - Negotiated and signed by parties prior to Commission vote
  - Parties to the FTC agreement
    - Hertz Global Holdings, Inc.—merging party
    - Franchise Services of North America Inc. (FSNA) (operates U-Save rental business)—divestiture buyer
    - Macquarie—providing financing for divestiture buyer

FTC Consent Order

- Proposed consent order: Hertz to divest—
    1. Its Advantage Rent-a-Car business (consisting of 62 locations, including 35 on-airport locations)[1] + 16 Dollar Thrifty on-airport locations where Advantage does not yet operate to FNSA/Macquarie jv
        - Advantage: 15 days after the Effective Date or December 12, 2012, whichever is later
        - DT assets: 90 days after the Effective Date
        - Purchase price: $16 million—1/2 of what Hertz paid to acquire Advantage out of bankruptcy in 2009[2]
    2. 13 Dollar Thrifty on-airport locations to FNSA/Macquarie jv or another Commission-approved buyer (post-acquisition)
        - 60 days after signing of Agreement to submit signed divestiture agreement
        - 6 months after the Effective Date to divest
- Maintain assets order
    - Contrast with Hold Separate Order

[1] Hertz Global Holdings, Inc., Form 10-K for the fiscal year ended December 31, 2012, at 6.
[2] Hertz reported a loss of $31.4 million on the Advantage divestiture. *See id.* at 54. This implies that Hertz received on 33.8% of the value of Advantage as carried on Hertz' books.

FTC Consent Order

- Commission vote to provisionally accept consent order
  - 4-1, with Rosch dissenting from acceptance of consent order (insufficient as relief at several dozen airports)
- Subsequent events
  - November 26, 2012: Federal Register notice published to begin comment period
    - 30 days for the FTC under Commission rules
    - 60 days for the DOJ under the Tunney Act
  - December 17, 2012: Comment period ends
    - Six comments received
  - July 11, 2013: Commission final acceptance of consent order
    - 3-0-1, with Rosch dissenting and Wright not participating

Aftermath

- Divestiture arrangement and leasing risk
  - JV buyer to lease 24,000 vehicles from Hertz and bear the residual value risk
  - When JV began to turn over fleet, experienced significant losses
  - October 25, 2013: JV had lost $8.6 million
- Divestiture solution falls apart
  - October 2, 2013: JV missed scheduled payment to Hertz
  - November 2, 2013
    - Refinancing negotiations fail
    - Hertz terminates Master Lease Agreement and seeks return of all leased vehicles
  - November 5, 2013: JV seeks bankruptcy protection

Aftermath

- Subsequent transactions
  - January 30, 2014: FTC grants FSNA's petition FTC to sell Advantage to Catalyst Capital Group (winning bidder in bankruptcy auction—40 locations, excluded 28)
  - May 29, 2014: FTC grants FNSA's petition to sell 22 former Advantage locations to Hertz (10) and Avis (12)
  - September 5, 2014: FTC grants FNSA's petition to sell Portland location to Avis and San Jose locations to Sixt Rent-A-Car

Class 9-10 slides

Unit 8. Competition Economics

Part 1. Demand, Costs, and Profits

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

September 25, 2023

0. Opening Thoughts

Economics is common sense made difficult

To hide the fact that their discipline is no more than common sense, economists have created a thicket of esoteric mumbo-jumbo.
—Mail & Guardian (Mar. 13, 1998)

Economic science is but the working of common sense aided by appliances of organized analysis and general reasoning, which facilitate the task of collecting, arranging, and drawing inferences from particular facts.
—Alfred Marshall, Principles of Economics (1890)

Antitrust and economics

- The role of economics in antitrust
  - In per se violations, no need to prove actual or likely anticompetitive effect
    - So only the role for economics is proof of damages
  - In rule of reason violations, need to prove actual or likely anticompetitive effect
    - Economics is critical to predicting competitive effects
    - But very few rule of reason cases are investigated or litigated
    - Challenges are to practices that are already in place and can observe competitive effects
      - But still need economics for assessing the "but for" world
  - In monopolization or attempted monopolization cases, need to prove anticompetitive exclusionary conduct
    - Some role for economics in identifying anticompetitive exclusionary conduct
    - But relatively few Section 2 cases are investigated or litigated
    - Challenges are to practices that are already in place and can observe competitive effects
      - But still need economics for assessing the "but for" world
  - In merger cases, need to prove actual or likely anticompetitive effect
    - Economics is essential (under current law)
    - Many mergers are investigated and challenged
    - With the HSR Act, almost all are investigated prior to closing when likely effects cannot be observed and must be predicted
    - Economics provides the principal tool for predicting likely future competitive effects both with and without the merger

More on motivation

- The purpose of merger antitrust law
  - Section 7 of the Clayton Act prohibits mergers and acquisitions that "may be substantially to lessen competition, or to tend to create a monopoly"[1]
  - In modern terms, a transaction may substantially lessen competition when it threatens, with a reasonable probability, to create or facilitate the exercise of market power to the harm of consumers
  - Operationally, a transaction harms consumer when it result in—
    - Higher prices
    - Reduced market output
    - Reduced product or service quality in the market as a whole, *or*
    - Reduced rate of technological innovation or product improvement in the market

    compared to what would have been the case in the absence of the transaction (the "but for" world) and without any offsetting consumer benefits

Merger antitrust analysis typically focuses on price effects (see Unit 2)

Consequently, a central focus in merger antitrust law is the effect a merger is likely to have on the profit-maximizing incentives and ability of the merged firm to raise price in the wake of the transaction. In the first instance, this requires us to know how a profit-maximizing firm operates. The basic tools to enable us to do this analysis is the subject of this unit. These same tools are also fundamental to an understanding of merger antitrust law defenses.

[1] 15 U.S.C. § 18.

Antitrust economics

- Two starting points
  1. The *law of demand*: Demand curves are downward sloping
  2. *Profit maximization*: Firms act to maximize their profits
- With these starting points, economics enables us to—
  1. Analyze the incentives and abilities of a profit-maximizing firm given the demand curve facing the firm (the *residual demand curve*)
  2. Analyze how the firm's residual demand curve might change with a merger
  3. Predict how the merged firm might act differently postmerger from the two merging firms premerger
  4. Predict how other firms inside and outside the market may react to the merger
  5. Predict the consumer welfare consequences of this change in behavior

Profit maximization

To begin the analysis, we must understand how a firm makes its choices of price, production level, and other operating variables to maximize its profits

Profit maximization

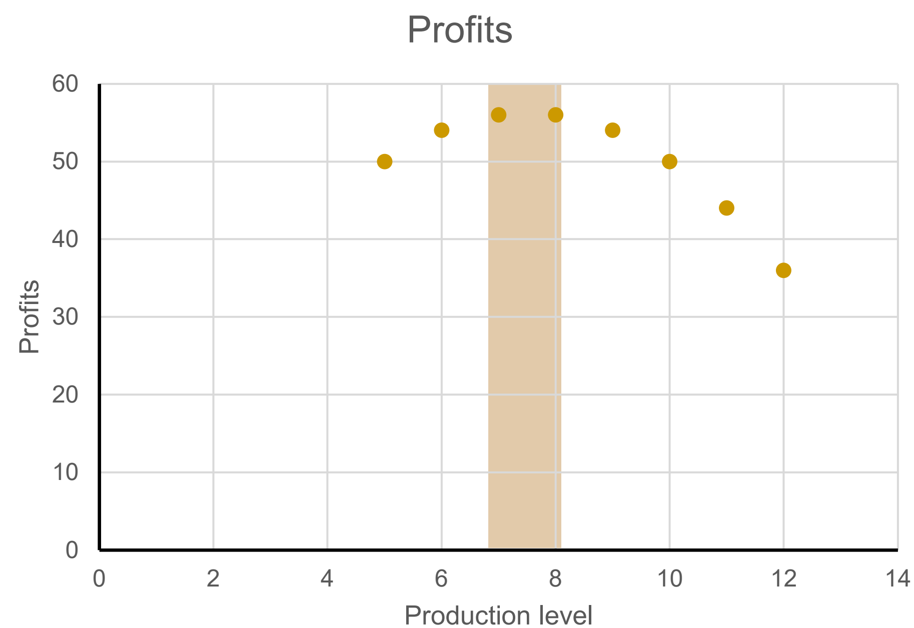
- Consider a very simple problem:
  - Avco makes widgets at a cost of $5 each
    - When Avco makes 5 widgets, it can sell out at a price of $15 per widget. Since Avco makes $10 on each widget, Avco makes profits of $50
  - Avco is thinking of increasing its production. It will do so only if this will increase its profits
    - If Avco makes 6 widgets, it must drop its price to $14 to sell out. Since Avco makes $9 on each widget, Avco would now make profits of $54. Avco should increase its production
  - Should Avco increase its production even more?
    - If Avco makes 7 widgets, it must drop its price to $13 to sell out. Since Avco makes $8 on each widget, Avco would now make profits of $56
    - If Avco makes 8 widgets, it must drop its price to $12 to sell out. Since Avco makes $7 on each widget, Avco would now make profits of $56
    - If Avco makes 9 widgets, it must drop its price to $11 to sell out. Since Avco makes $6 on each widget, Avco would now make profits of $54
    - If Avco makes 10 widgets, it must drop its price to $10 to sell out. Since Avco makes $5 on each widget, Avco would now make profits of $50
    - If Avco makes 11 widgets, it must drop its price to $9 to sell out. Since Avco makes $4 on each widget, Avco would now make profits of $44

So Avco should increase its production to 7 (or 8) widgets in order to maximize its profits

Profit maximization

- We can see this on a graph:

Quantity	Price	Revenues	Cost	Profits
5	15	75	25	50
6	14	84	30	54
7	13	91	35	56
8	12	96	40	56
9	11	99	45	54
10	10	100	50	50
11	9	99	55	44
12	8	96	60	36



Profit maximization

- Let's look at this in another way that better illustrates the underlying economics
  - If Avco were to increase its production from 5 units to 6 units and drop its price from $15 to $14, two things would happen:
    1. Avco would gain an additional sale, *and*
    2. Avco would have to lower its price on all the units it would sell to clear the market
  - These two effects would have two consequences for Avco's profits:
    1. On the one customer Avco gained, Avco would make an additional profit of $9
       - Additional sale of 1 unit times the profit margin of $9 (at a sales price of $14 and a unit cost of $5)
    2. On its original sales of 5 units, Avco would have to lower its price by $1 and so reduce its profits on those sales by $5 (since each unit still costs $5 to make)
       - Original sale price of $15 minus the new sales price of $14 equals a $1 loss on each original sale
       - Five original sales times $1 loss on each sale equals a $5 profit loss
  - The change in Avco's profits is then:
    - The gain in profits from the additional sales at the new price ($9)
    - *Minus* the loss in profits from lowering the price on the original sales ($5)
    - For a net profit gain of $4 (this is called the *incremental profit*)

Rule: Avco should increase its production whenever the incremental profit gain is positive

Profit maximization

- Let's look at this in another way that better illustrates the underlying economics
  - Now if Avco were to increase its production from 10 units to 11 units and drop its price from $10 to $9, the same two things would happen:
    1. Avco would gain an additional sale
    2. Avco would have to lower its price on all the units it would sell
  - These two effects would have two consequences for Avco's profits:
    1. On the customer Avco gained, Avco would make an additional profit of $4
       - Additional sale of 1 unit times the profit margin of $4 (at a sales price of $9 and a unit cost of $5) equals $4 profit gain
    2. On its original sale, it would have to lower the price by $1 and so reduce profits on those sales by $10
       - Original sale price of $10 minus the new sales price of $9 equals $1 loss on each original sale
       - Ten original sales times $1 loss on each sale equals a $10 profit loss
  - The change in Avco's profits is then:
    - The gain in profits from the additional sales at the new price ($4)
    - Minus the loss in profits from lowering the price on the original sales ($10)
    - For a net profit loss of $6
  - Indeed, running the same analysis on a decrease in production from 10 units to 9 units would show that Avco would increase its profits

Rule: Avco should decrease its production whenever the incremental profit gain is negative

Profit maximization

- Bottom line:

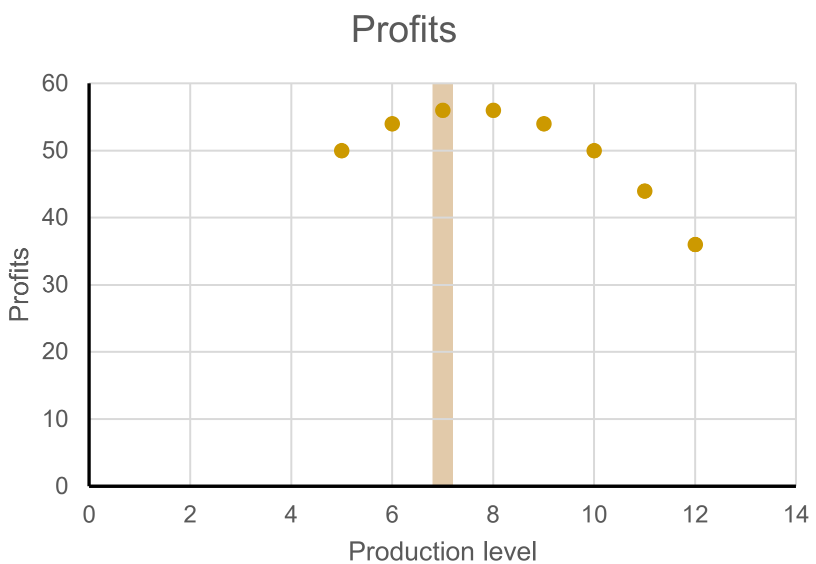
Avco maximizes its profit when its incremental profit is zero

  - *Incremental profit* is the profit earned on selling the *next* unit

This is important: Incremental profit looks to the *next* sale, not the *last* sale

- We can see this on the chart:

Quantity	Price	Revenues	Cost	Profits	Incremental Profit
5	15	75	25	50	4
6	14	84	30	54	2
7	13	91	35	56	0
8	12	96	40	56	-2
9	11	99	45	54	-4
10	10	100	50	50	-6
11	9	99	55	44	-8
12	8	96	60	36	



Profit maximization

- Some definitions
  - *Marginal sales*: Sales that are lost with an increase of one unit in price
    - *Marginal customers* are the customers connected with marginal sales
  - *Inframarginal sales*: Original sales that are retained when price increases
    - *Inframarginal customers* are the customers connected with inframarginal sales
  - *Marginal profit*: The net profits a firm would make by increasing its production by one unit
    - May be positive or negative
    - *Incremental profits* are the net profits a firm would make increasing its production by some specified amount (which may be more than one unit)
  - *Marginal revenue*: The net revenue a firm would earn by increasing its production by one unit
    - May be positive or negative
    - *Incremental revenue* are the net revenues a firm would earn increasing its production by some specified amount (which may be more than one unit)
  - *Marginal cost*: The net cost to the firm of increasing its production by one unit
    - Always positive
    - *Incremental costs* are the costs a firm would incur by increasing its production by some specified amount (which may be more than one unit)

Profit maximization

- Some important relationships
  1. At a profit maximum, marginal profits are zero
  2. Marginal profit is equal to marginal cost minus marginal revenue
  3. Therefore, to maximize profits, a firm operates
     so as to set its marginal revenue equal to its marginal cost
  4. For a linear inverse demand curve of the form $p = a + bq$,
     the marginal revenue curve is $mr = a + 2bq$
     - The parameter b will always be negative (since the demand curve is downward sloping)
  5. Marginal revenue can be decomposed into two parts:
     - The gross gain in profits from the sale of an additional unit at the new price, *and*
     - The gross loss in the profit margin from the sale of the inframarginal units at the new lower price

What you should be able to do after Part 1

For a firm—

- Facing a downward sloping residual (inverse) demand curve $p = a + bq$
- With fixed costs f and constant marginal costs c

1. Determine and graph the profit-maximizing levels of—
   - Output q^*
   - Price p^*
   - Profits π^*

   "*" (star) indicates that the variable is at its profit-maximizing level

   "Δ" (delta) indicates the change in the variable (read this term as "delta q")

2. Determine and graph the net incremental revenue for a firm increasing output by some amount Δq, including—
   - The gross gain in revenues from the increase in output, and
   - The gross loss in revenues from the reduction of price for sales at the original price
3. Derive and graph an inverse demand curve given a demand curve

1. Profit Maximization

An observation by Dave Berry

Later on, Newton also invented calculus, which is defined as “the branch of mathematics that is so scary it causes everybody to stop studying mathematics.” That's the whole point of calculus. At colleges and universities, on the first day of calculus, professors go to the board and write huge, incomprehensible “equations” that they make up right on the spot, knowing that this will cause all the students to drop the course and never return to the mathematics building. This frees the professors to spend the rest of the semester playing cards and regaling one another with stories about the “mathematical symbols” they've invented over the years. (“Remember the time Professor Hinkwattle drew a ‘cosine derivative’ that was actually a picture of a squid?” “Yes! Students were diving out the windows! From the fourth floor!”)[1]

[1] Dave Berry, *Up in the Air on the Question of Gravity,* Baltimore Sun, Mar. 16, 1997, at 3J.

Profits

1. When the firm produces output q, its profits $\pi(q)$ are equal to its revenues $r(q)$ minus its total costs $t(q)$:

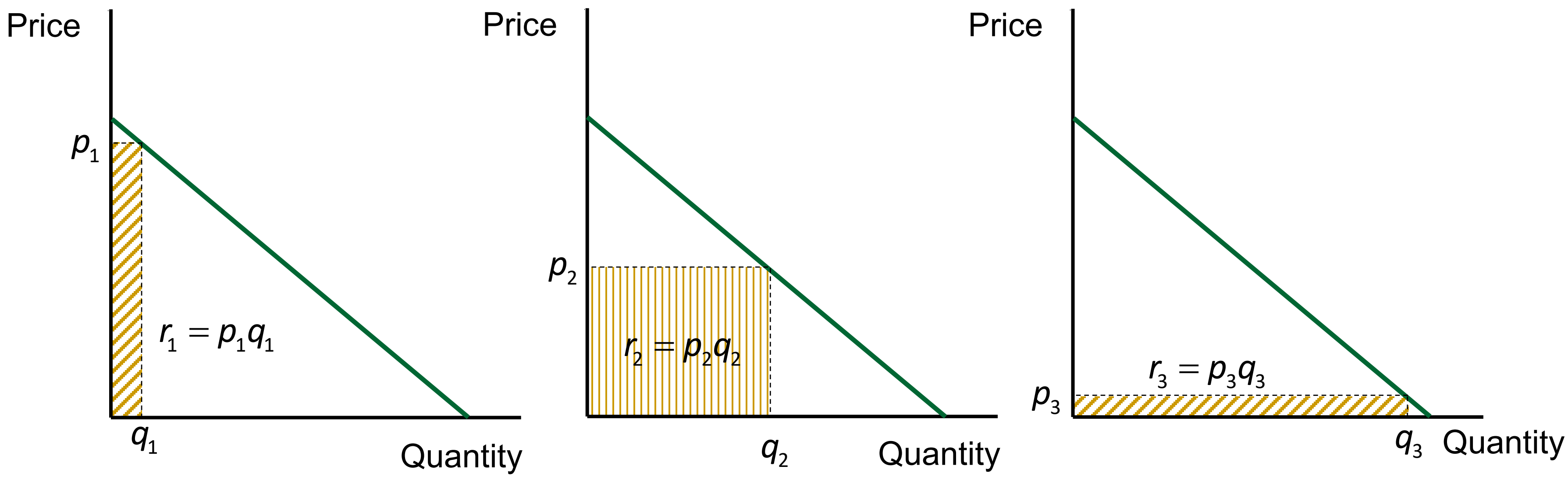
$$\pi(q) = r(q) - t(q)$$

We write $\pi(q)$ rather than just π to remind us that profit is a function of the quantity the firm sells

2. Revenues $r(q)$ are equal to price p times output q:

$$r(q) = pq$$

3. Revenues can be shown as a rectangle in a price-quantity chart:



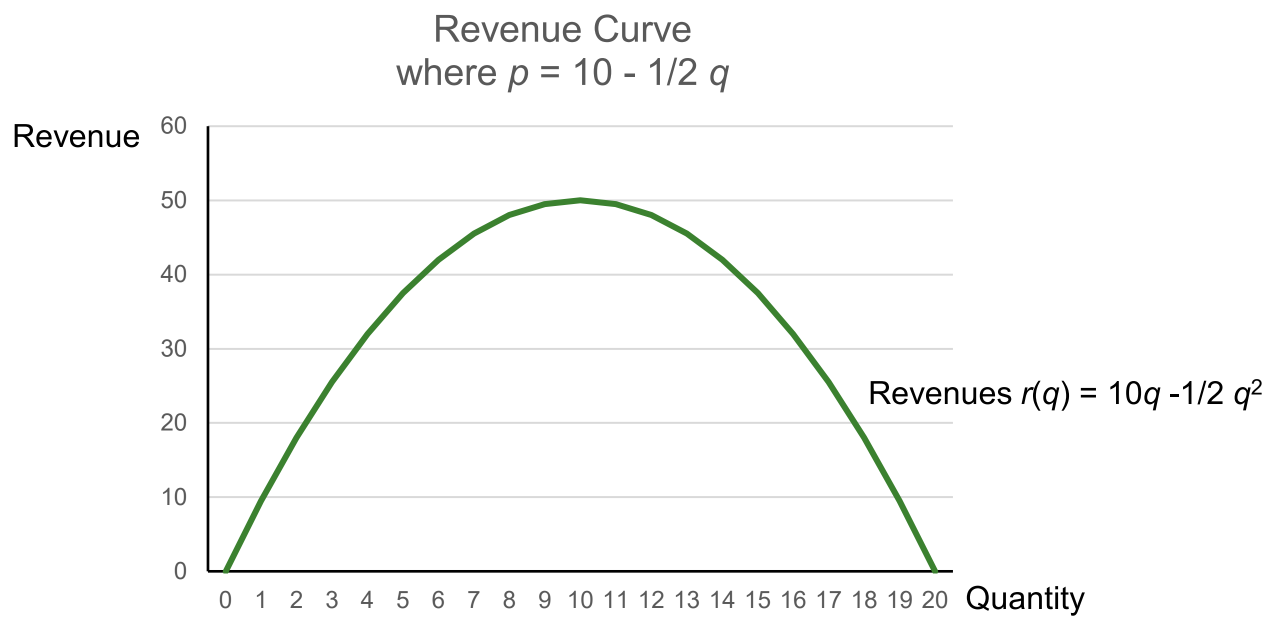
Profits

4. When the firm faces a linear downward-sloping residual (inverse) demand curve $p = a + bq$:

The parameter b will be negative since the inverse demand curve is downward sloping

$$r(q) = pq$$
$$= (a + bq)q$$
$$= aq + bq^2$$

- The graph of the firm's revenues as a function of q is a parabola:



Profits

5. At output q, total costs $t(q)$ are equal to fixed costs f plus variable costs $v(q)$:

$$t(q) = f + v(q)$$

Note that fixed costs f are NOT a function of production quantity q

- With *constant marginal costs c*, variable costs $v(q)$ are equal to marginal cost c times output q:

$$v(q) = cq$$

- Then total costs $t(q)$ may be expressed as:

$$\begin{aligned} t(q) &= f + v(q) && \text{generally} \\ &= f + cq && \text{in the case of constant variable costs} \end{aligned}$$

Profits

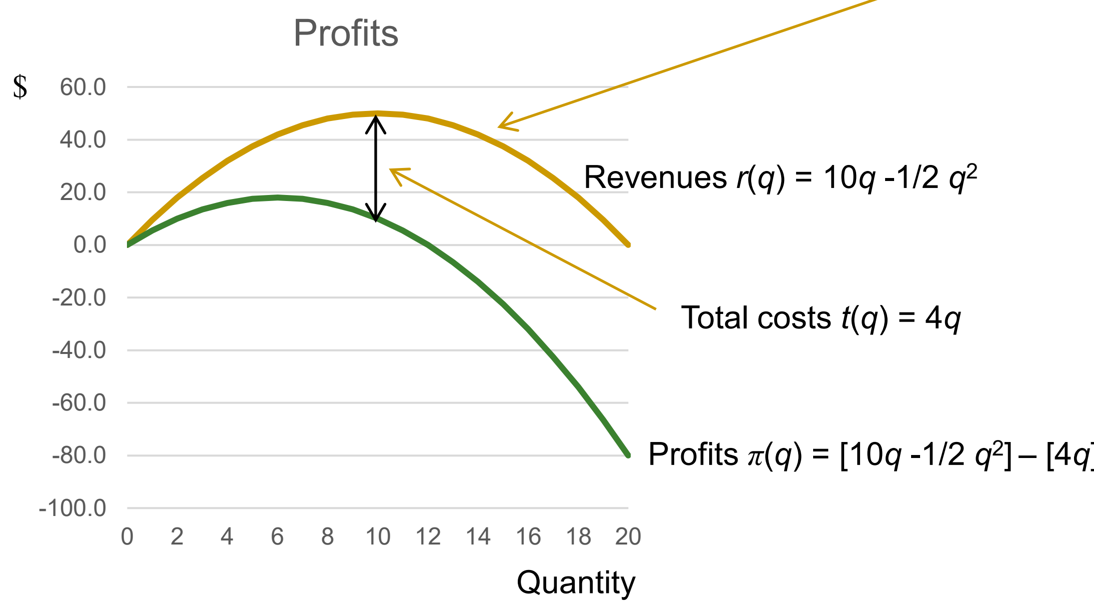
6. Now we can express total profits $\pi(q)$ as:

$$\begin{aligned}\pi(p) &= r(q) - t(q) \\ &= (a + bq)q - [f + cq] \\ &= [aq + bq^2] - [f + cq]\end{aligned}$$

Since this is a second-order polynomial, its graph is a parabola

- Graphically:

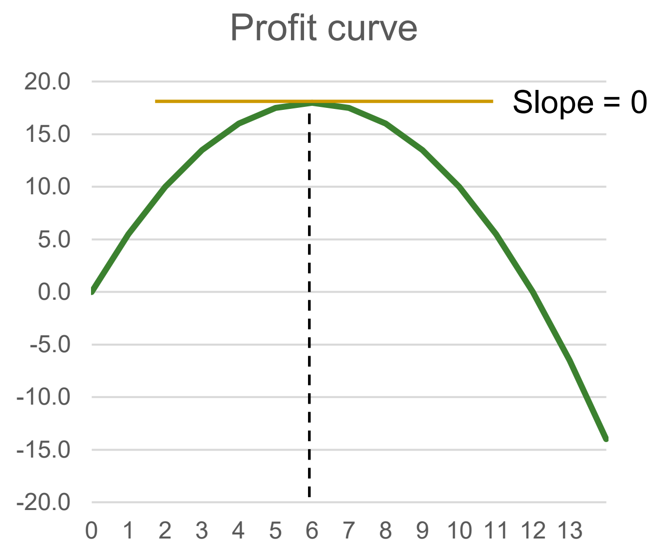
where
$p = 10 - ½\, q$
$f = 0$
$c = 4$



Profit maximization

7. The slope at the top of the profit "hill" is zero (a horizontal line):

where
$p = 10 - ½ q$
$f = 0$
$c = 4$



- Definition
  - The *slope of a line* is the change in the *y-values* (Δy) divided by the change in the *x-values* (Δx):

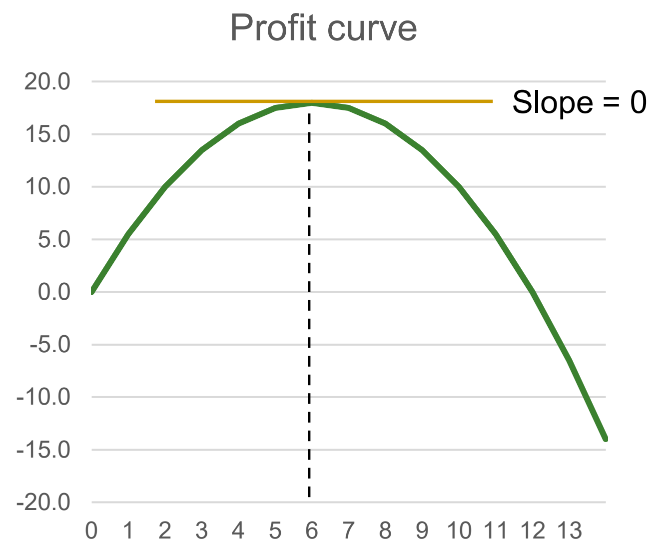
$$\text{Slope} = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$$

  - The *slope of a curve* at a point is the slope of the tangent line at that point (as shown above)
    - *For calculus geeks*: The slope of a curve at a point is the *derivative* of the function at that point

Profit maximization

8. The slope at the top of the profit "hill" is zero (a horizontal line):

where
$p = 10 – ½ q$
$f = 0$
$c = 4$



Solve the problem:

- From the chart, we see that the profit-maximizing output q^* is 6
- From the inverse demand curve, we can calculate $p^* = p(6) = 10 – (1/2)(6) = 7$
- $r^* = r(6) = p^*q^* =(7)(6) = 42$
- $f = 0$ (from the hypothetical)
- $v^* = v(6) = cq^*= (4)(6) = 24$
- $t^* = t(q^*) = f +v(q^*) = 0 + 24 = 24$
- $\pi^* = \pi(q^*) = r^* - t^* = 42 – 24 = 18$

Profit maximization

- Marginal analysis—Some definitions
  - The slope of the revenue curve at an output *q* is called the *marginal revenue mr*(*q*)
    - Think of marginal revenue as the revenue the firm would earn if it produced one *additional* unit
    - You can also think of the marginal revenue as the *rate of change* in revenue for an increase in output
    - If $r(q) = aq + bq^2$ (the revenue function for a linear inverse demand curve), then:

$$mr(q) = a + 2bq$$

In the continuous case—think of this as the *instantaneous rate of change* of revenue with respect to output

  - The slope of the total cost curve at an output *q* is called the *marginal cost mc*(*q*)
    - Think of marginal cost as the cost the firm would earn if it produced one *additional* unit
    - If $t(q) = f + cq$ (total costs with constant marginal costs), then:

$$mc(q) = c$$

  - The slope of the profit curve at an output *q* is called the *marginal profit* $m\pi(q)$
    - Think of marginal profit as the profit the firm would earn if it produced one additional unit
    - Marginal profit is marginal revenue minus marginal cost:

$$m\pi(q) = mr(q) - mc(q)$$

For calculus geeks: The marginal function is the derivative of the primary function. So, for example, the marginal revenue function is the derivative of the revenue function.

Profit maximization

OPTIONAL but well worthwhile. You should not be satisfied to be told the formula for the marginal revenue curve. You should want to understand its derivation from the definition of marginal revenue. This provides that explanation.

- Marginal analysis—Deriving the marginal revenue function (continuous case)
  - If $r(q) = aq + bq^2$ (the revenue function for a linear inverse demand curve), then:

    $$mr(q) = a + 2bq$$

    in the continuous case (that is, when one unit is infinitesimally small compared to firm output q)

  - *Proof*: Let q be the firm's output. Then marginal revenue is technically defined as:

    $$mr(q) = \frac{r(q+\Delta q) - r(q)}{\Delta q}, \quad \text{where } \Delta q = 1$$

    Substituting the inverse demand function for r and simplifying:

    $$mr(q) = \frac{\left[a(q+\Delta q) + b(q+\Delta q)^2\right] - \left[aq + bq^2\right]}{\Delta q}$$

    $$= \frac{\left[(aq + a\Delta q) + (bq^2 + 2bq\Delta q + b\Delta q^2) - \left[aq + bq^2\right]\right]}{\Delta q}$$

    $$= \frac{a\Delta q + 2bq\Delta q + b\Delta q^2}{\Delta q}$$

    $$= a + 2bq + b\Delta q$$

But if Δq is very small compared to q, it may be ignored. So $mr(q) = a + 2bq$ in the continuous case. Q.E.D.

Profit maximization

- First order condition (FOC)
  - From Slide 22, we know that profits are maximized at the top of the profit "hill," which is where the slope of the profit curve is zero
  - From Slide 24, we know that the slope of the profit curve at an output *q* is the marginal profit $m\pi(q)$ evaluated at output *q*
  - From Slide 24, we also know that the marginal profit $m\pi(q)$ is equal to the marginal revenue $mr(q)$ minus the marginal cost $mc(q)$, all evaluated at output *q*, that is:

$$m\pi(q) = mr(q) - mc(q)$$

  - The *first order condition* for a profit-maximizing level of output q^* is that the marginal profit at q^* equals zero, that is:

$$m\pi(q^*) = mr(q^*) - mc(q^*) = 0$$

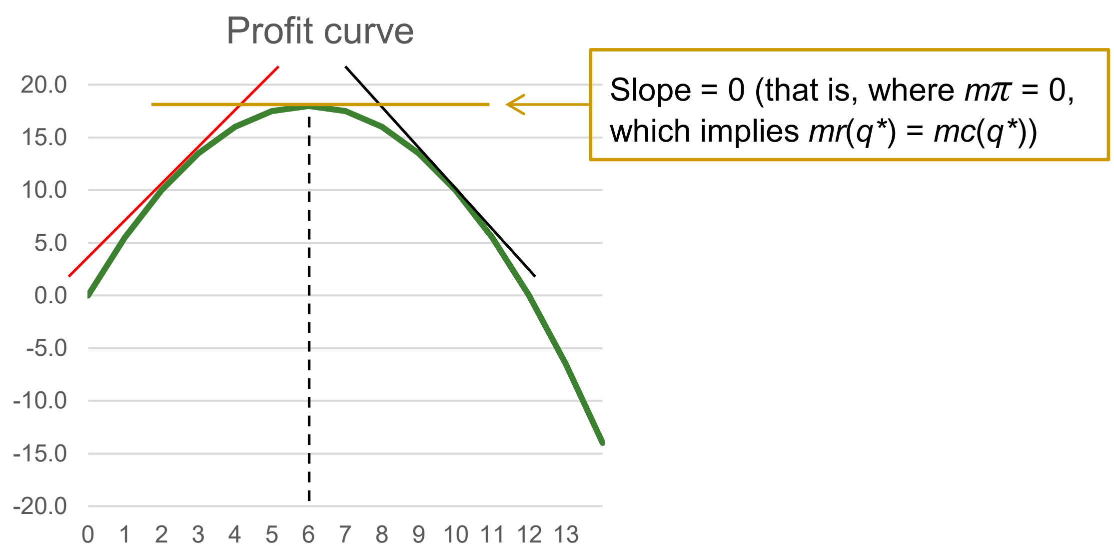
or equivalently: $$mr(q^*) = mc(q^*)$$

A profit-maximizing firm sets its production level q so that its marginal revenue is equal to its marginal cost

Profit maximization

- First order condition—Example

where
$p = 10 - ½ q$
$f = 0$
$c = 4$



- *Key concept*: Think of the slope as the *instantaneous rate of change* of profits with respect to output
  - If the slope is positive ($m\pi > 0$), then profits are increasing with increases in output
  - If the slope is negative ($m\pi < 0$), then profits are decreasing with increases in output
  - If the slope is zero ($m\pi = 0$), then a change in output in either direction will decrease profits (i.e., the firm is at a profit maximum)

Profit maximization

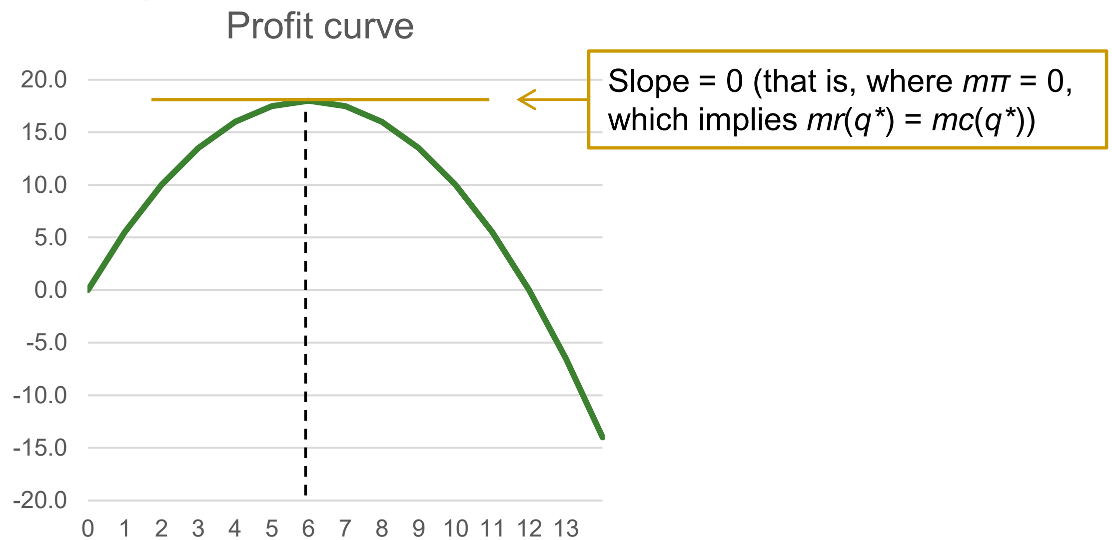
- First order condition—Example

where

$p = 10 - \frac{1}{2} q$

$f = 0$

$c = 4$



1. $r(q) = p(q)q = (10 - \frac{1}{2} q)q = 10q - \frac{1}{2} q^2$
2. $mr(q) = 10 - q$ (from the formula on Slide 14)
3. $mc(q) = 4$ (from the hypothetical)
4. FOC: $mr(q^*) = mc(q^*)$

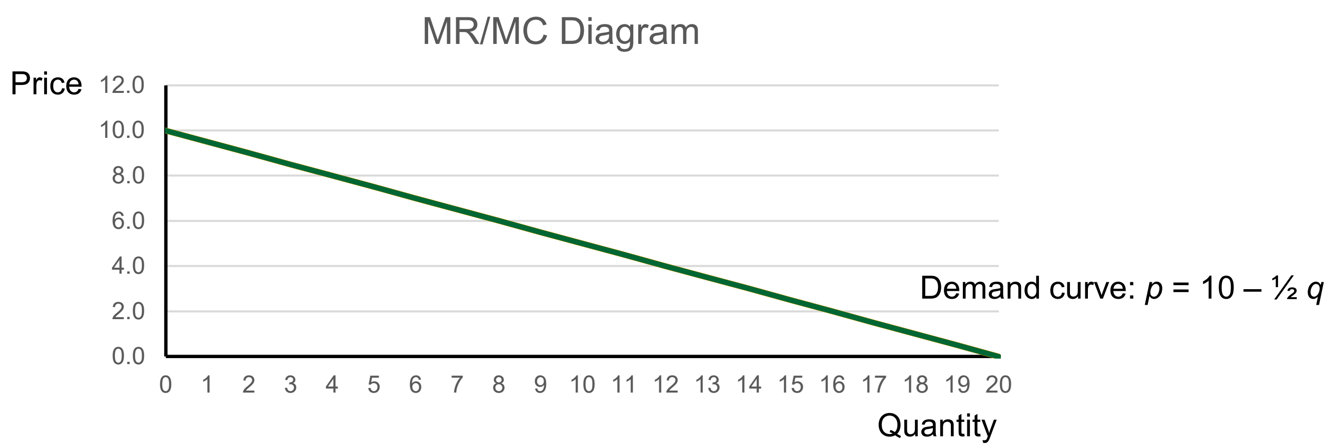
   So $10 - q^* = 4$ or $q^* = 6$ (as shown in the diagram)
5. $p^* = p(q^*) = 10 - \frac{1}{2} q^*$

   $= 10 - (\frac{1}{2})(6) = 7$ (from the inverse demand curve)

Profit maximization

- Marginal revenue/marginal cost diagrams
  - Will build this step-by-step in five steps

a. Consider an (inverse) demand curve: $p = 10 - \frac{1}{2} q$



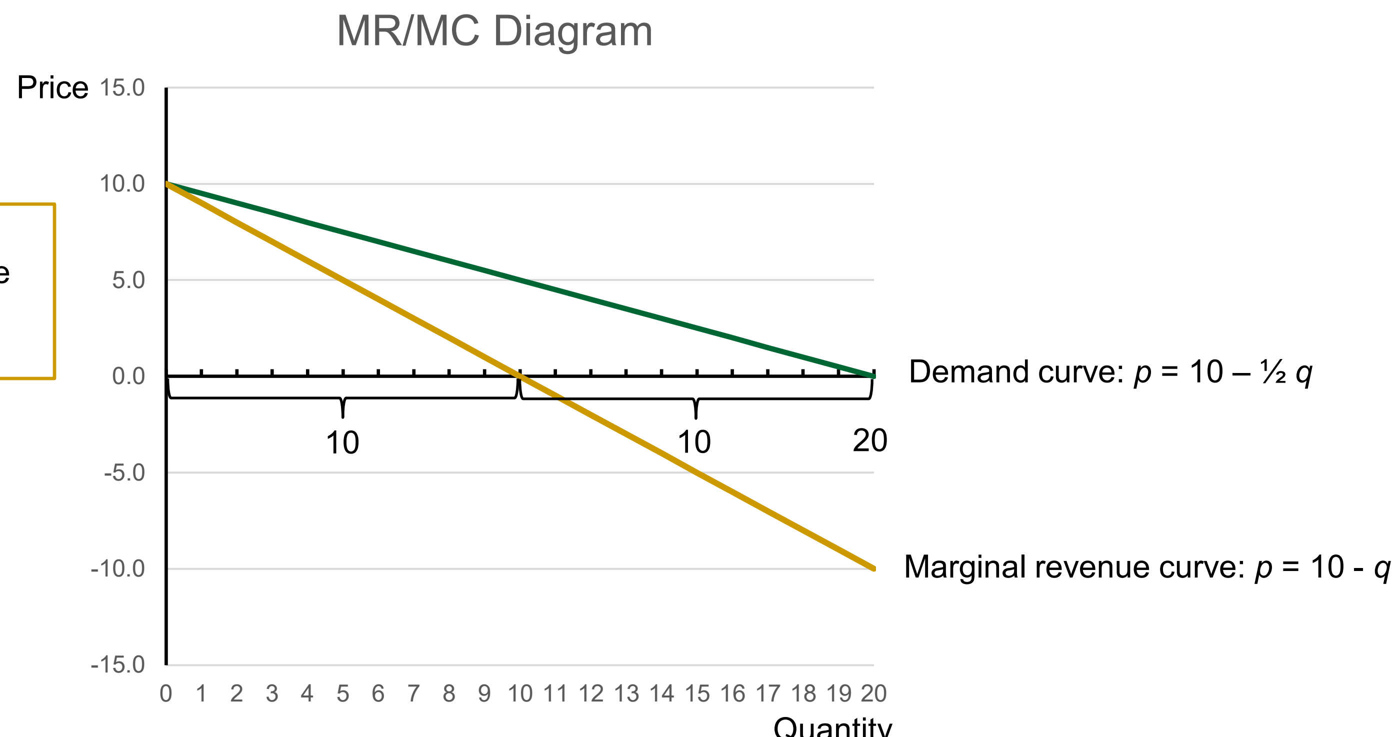
Profit maximization

- Marginal revenue/marginal cost diagrams
  - Will build this step-by-step

a. Consider an (inverse) demand curve: $p = 10 - ½ q$

b. Add the marginal revenue curve: $p = 10 - q$

Note: With linear demand, the marginal revenue curve falls twice as fast as the inverse demand curve



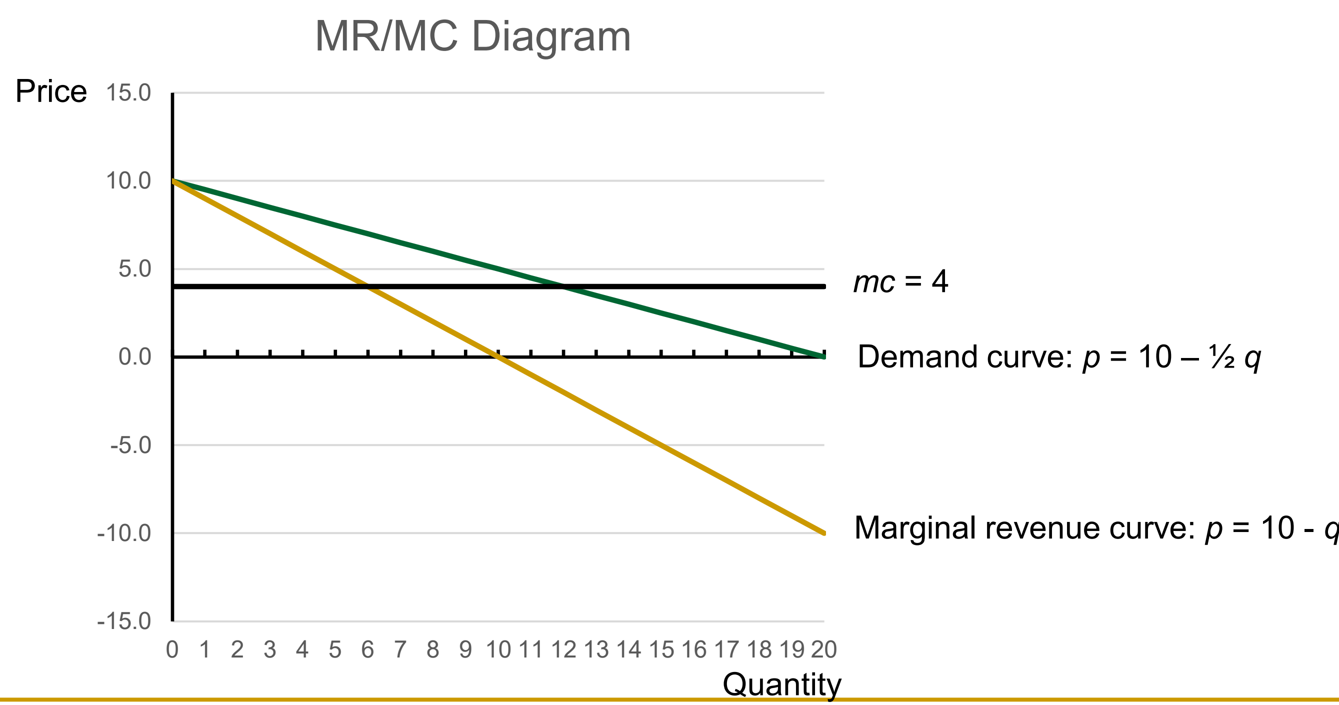
Profit maximization

- Marginal revenue/marginal cost diagrams
  - Will build this step-by-step

a. Consider an (inverse) demand curve: $p = 10 - \frac{1}{2} q$

b. Add the marginal revenue curve: $p = 10 - q$

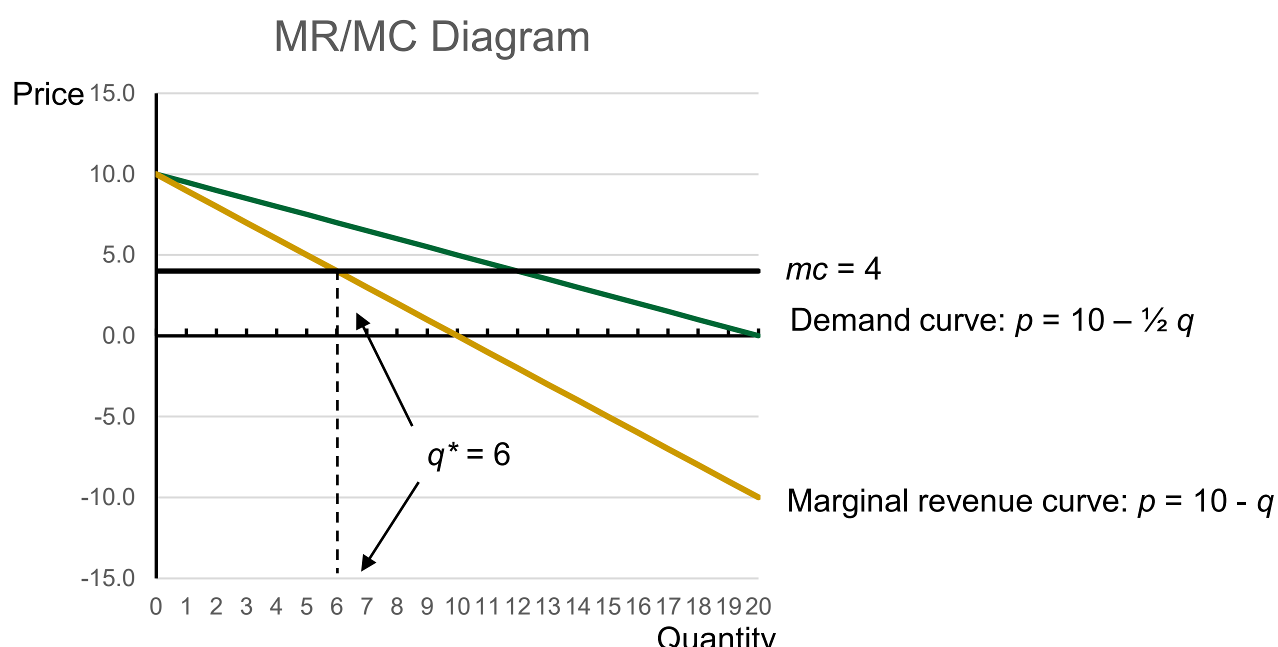
c. Add the marginal cost curve: $c = 4$ (constant marginal cost)



Profit maximization

- Marginal revenue/marginal cost diagrams
  - Will build this step-by-step

a. Consider an (inverse) demand curve: $p = 10 - ½ q$
b. Add the marginal revenue curve: $p = 10 – q$
c. Add the marginal cost curve: $c = 4$ (constant marginal cost)
d. Find intersection of *mr* and *mc* curves to determine profit-maximizing q^* (= 6)



Profit maximization

- Marginal revenue/marginal cost diagrams
  - Will build this step-by-step

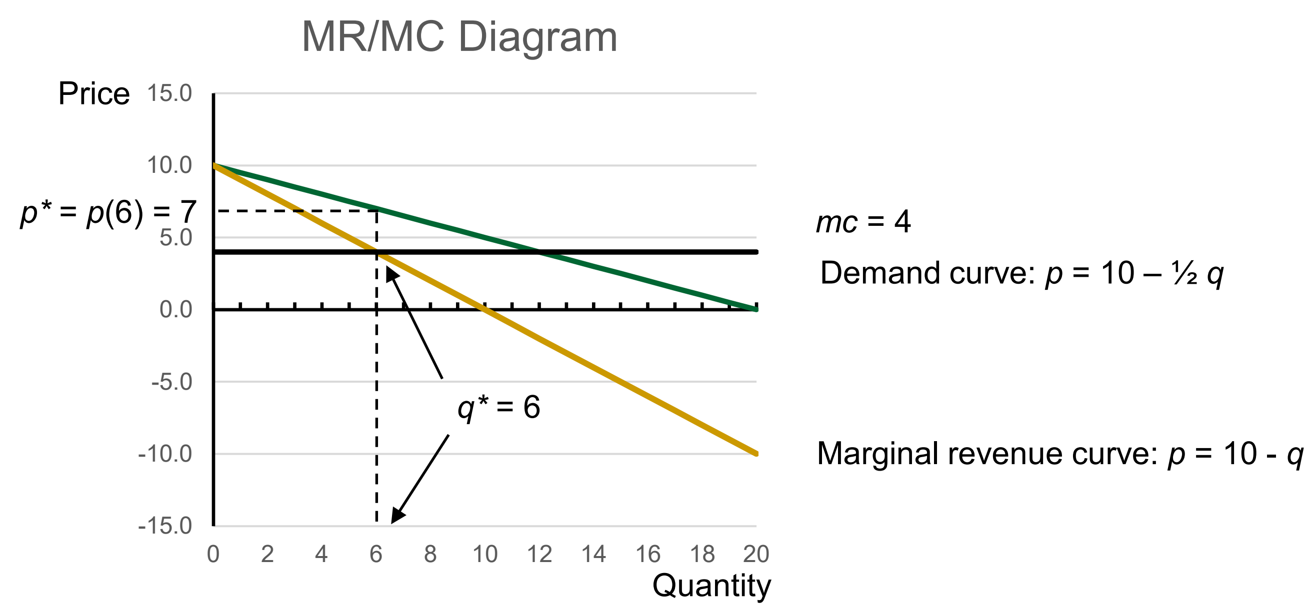
a. Consider an (inverse) demand curve: $p = 10 - ½\, q$

b. Add the marginal revenue curve: $p = 10 – q$

c. Add the marginal cost curve: $c = 4$ (constant marginal cost)

d. Find intersection of *mr* and *mc* curves to determine profit-maximizing q^* (= 6)

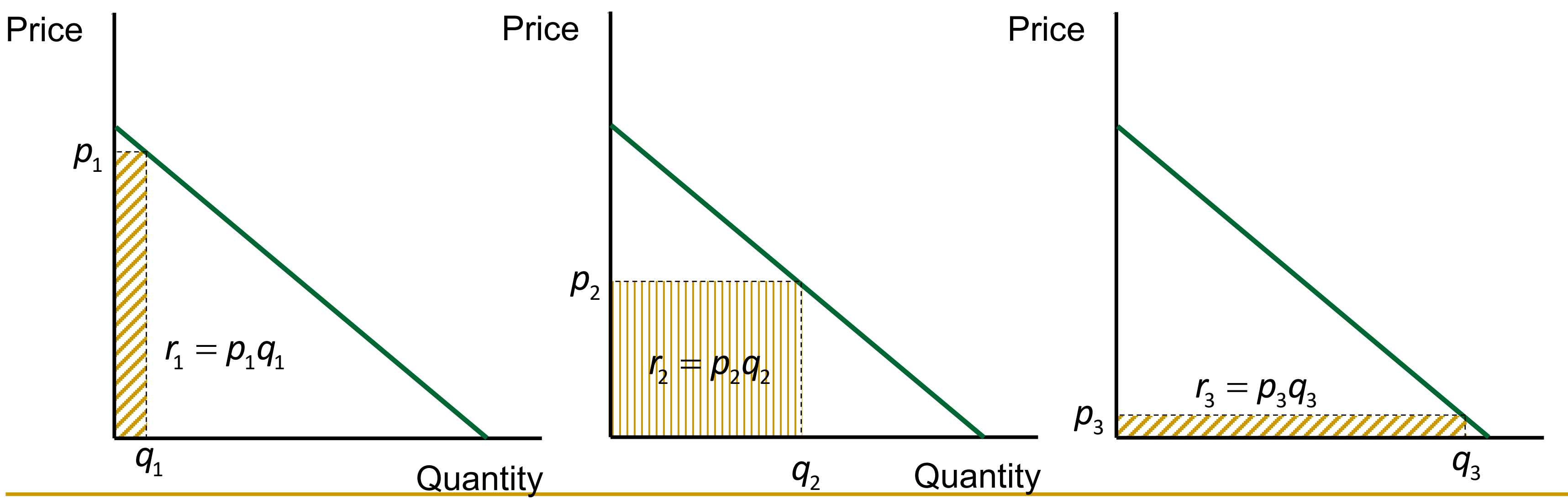
→ e. Find $p^* = p(q^*)$ from the inverse demand curve ($p^* = 7$)



2. Incremental Revenue and Profits

Incremental revenue

- Introduction
  - *Incremental revenue* is the net gain in revenue that a firm could earn if it were to increase its product by some discrete amount Δq
  - Incremental revenue is important when determining whether a firm should change its output level to increase its profits
  - Incremental revenue can be positive or negative
    - Moving from q_1 to q_2 increases revenue (incremental revenue is positive)
    - Moving form q_2 to q_3 decreases revenue (incremental revenue is negative)



Incremental revenue

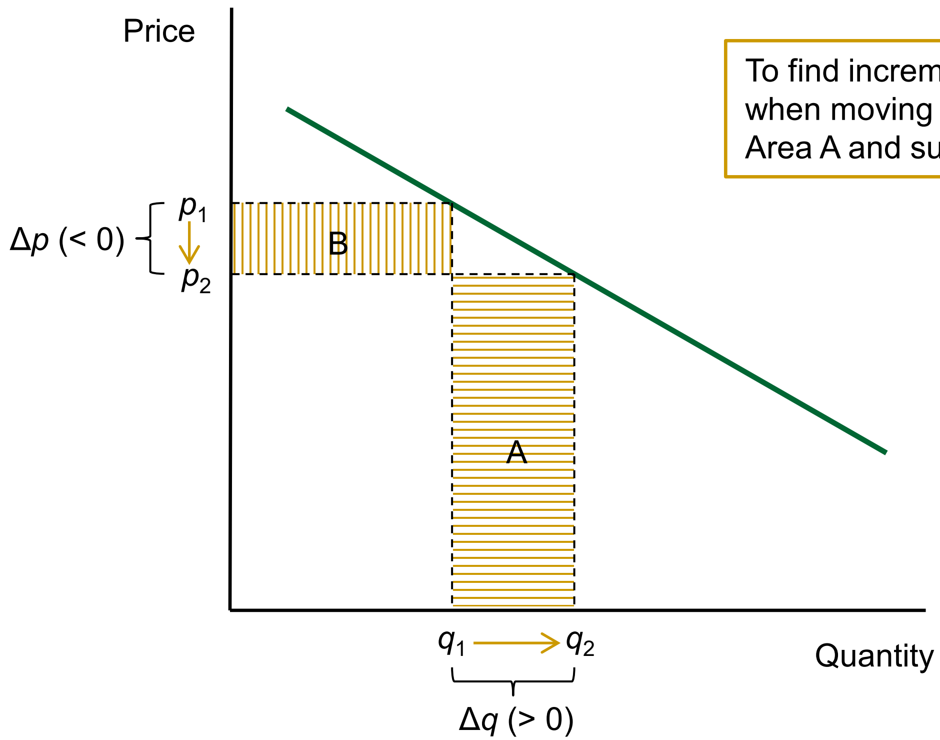
- Think about incremental revenue in two parts:
  1. The *gain* in revenue due to the sale of the additional units at the lower market-clearing price
     - Since there are more units to sell and demand is downward-sloping, the price will drop to clear the market
     - The gain in revenue on the additional sales is equal to $\Delta q(p - \Delta p)$, where—
       - Δq is the additional quantity to be sold
       - Δp is the market price decrease necessary to clear the market with the sale of the additional units
  2. Minus the *loss* of revenue on prior units sold due to the decrease in the market-clearing price
     - This loss of margin is the prior quantity *p* times the required price decrease, or [$q\Delta p$]
- So

$$IR = \Delta q\left(p - \Delta p\right) - q\Delta p$$

This is the formula for *marginal revenue* in the discrete case when $\Delta q = 1$

Incremental revenue

- Graphically



To find incremental revenue *IR* when moving from q_1 to q_2, add Area A and subtract Area B

Area A = $\Delta q(p_1 - \Delta p)$ is the *gain* in revenue from the additional sales Δq at the lower price $p_2 = p_1 - \Delta p$
Area B = $q_1 \Delta p_1$ is the *loss* in revenue due to the sales of q_1 at the lower price p_2

So

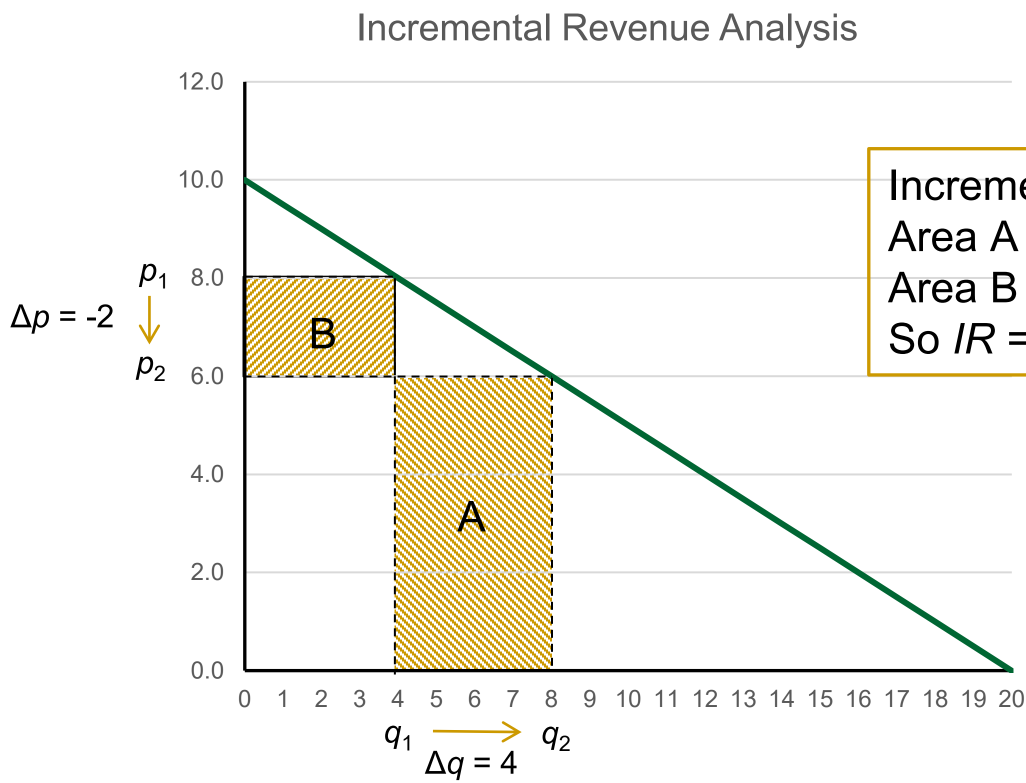
$$IR = \overbrace{\Delta q\left(p - \Delta p\right)}^{\text{Area A}} - \overbrace{q\Delta p}^{\text{Area B}}$$

Incremental revenue

- Example
  - (Inverse) demand: p =10 – ½ q
  - Starting point: q_1 = 4
  - End point: q_2 = 8

You need to calculate these variables:

So $p_1 = 8$ $\Delta q = q_2 - q_1 = 8 - 4 = 4$
So $p_2 = 6$ $\Delta p = p_2 - p_1 = 6 - 8 = -2$

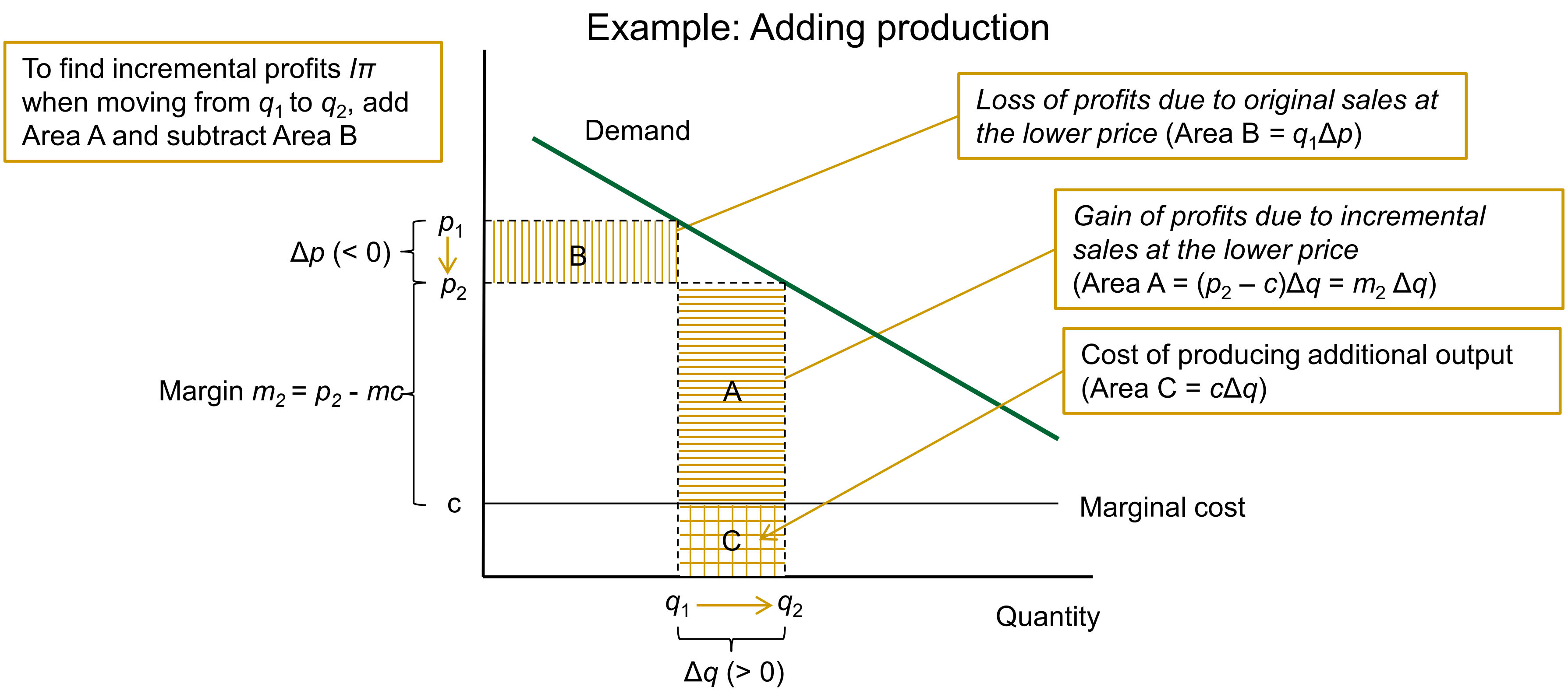


Incremental revenue = Area A – Area B
Area A = $p_2\Delta q$ = (6)(4) = 24
Area B = $q_1\Delta p$ = (4)(-2) = -8
So IR = 32 – 8 = 16

That is, the firm makes $16 more in revenues by moving from q_1 to q_2

Incremental profit

- We can easily extend the analysis of incremental revenues to incremental profits—We just have to:
  - Add the costs of additional production if we are adding to output ($\Delta q > 0$), *or*
  - Subtract the costs if we are reducing output ($\Delta q < 0$)



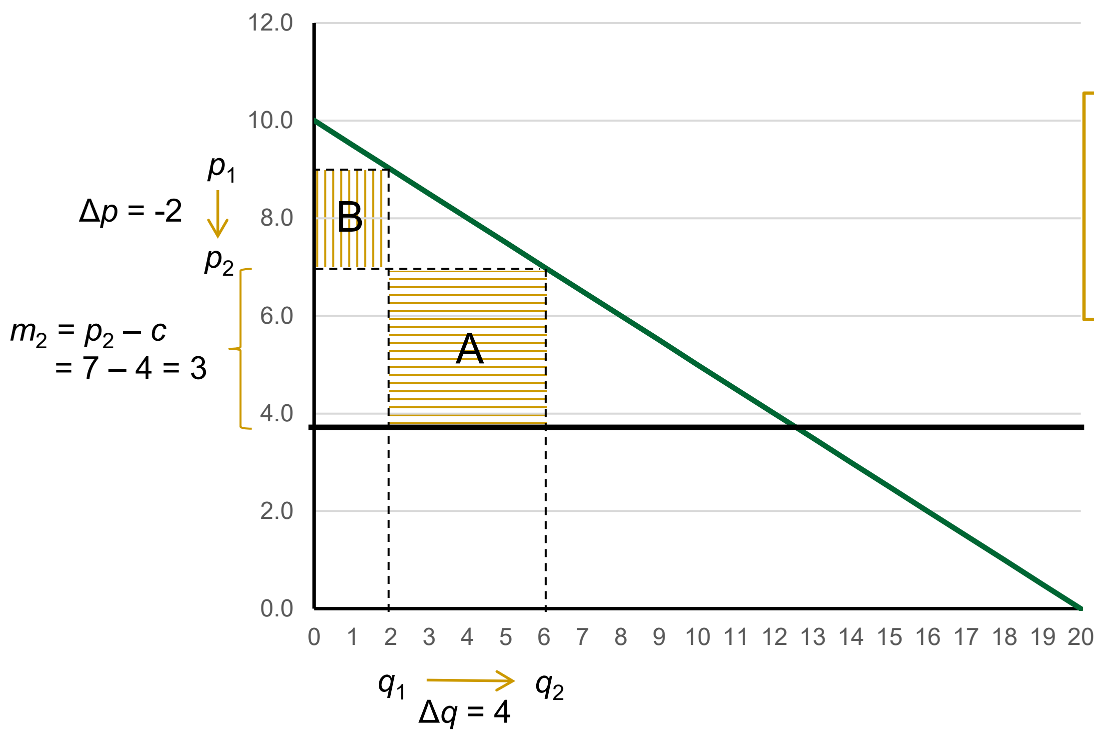
Incremental profit

- *Example*: Output increase
  - (Inverse) demand: p =10 – ½ q
  - Starting point: q_1 = 2
  - End point: q_2 = 6
  - Constant marginal cost c = 4

You need to calculate these variables:

So $p_1 = 9$
So $p_2 = 7$

$\Delta q = q_2 - q_1 = 6 - 2 = 4$
$\Delta p = p_2 - p_1 = 7 - 9 = -2$
Margin $m_2 = p_2 - c$
$= 7 - 4 = 3$



Incremental profits = Area A – Area B
Area A = $m_2 \Delta q$ = (3)(4) = 12
Area B = $q_1 \Delta p$ = (2)(-2) = 4
So $I\pi$ = 12 – 4 = 8

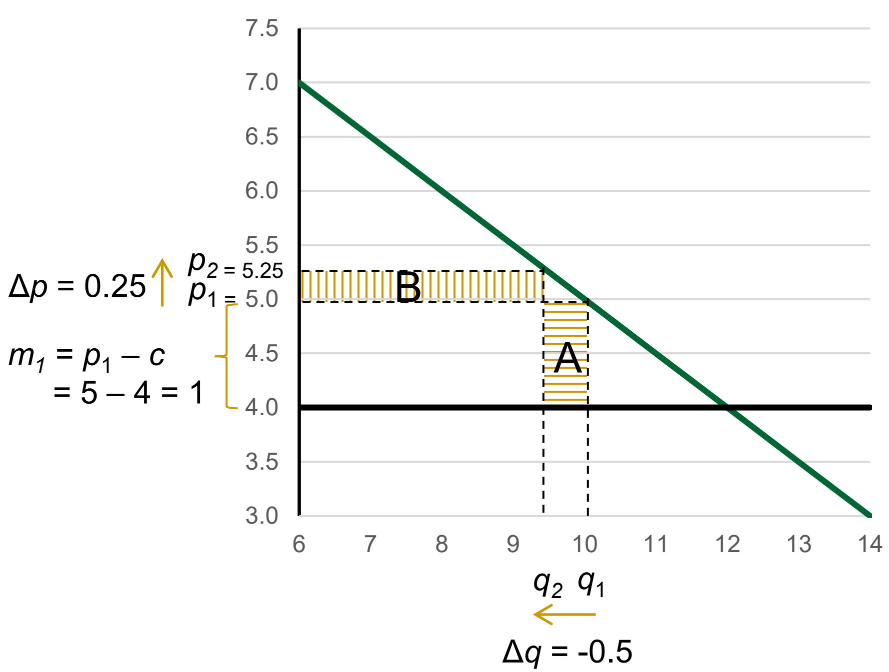
That is, the firm makes $8 more in profits by moving from q_1 to q_2

Incremental profit

- *Example*: Price increase (decreasing production)
  - (Inverse) demand: $p = 10 - ½ q$
  - Starting point: $p_1 = 5$
  - End point: $p_2 = 5.25$
  - Constant marginal cost $c = 4$

You need to calculate these variables:

So $q = 20 - 2p$
So $q_1 = 10$ $\Delta q = q_2 - q_1 = 9.5 - 10 = -0.5$
So $q_2 = 9.5$ $\Delta p = p_2 - p_1 = 5.25 - 5 = 0.25$



With an increase price and a concomitant *reduction* in output, the roles of Areas A and B are *reversed*:

Area A now represents the *loss* of profits from lost sales that would have been made at original price p_1 (= $m_1\Delta q$)

Area B represents the *gain* of profits from the increased price charged on the sales that continue to be made (= $q_2\Delta p$)

Incremental profits = Area B – Area A
Area B = q2Δp = (9.5)(0.25) = 2.375
Area A = m1Δq = (1)(-0.5) = -0.5
So incremental profits = 2.375 – 0.5 = 1.875

Incremental profit

- Observations
  - The prior example shows that under the conditions of the hypothetical, a 5 percent price increase would be profitable to the firm

> This is mathematically identical to the exercise required by the *hypothetical monopolist test*, which is the primary analytical tool used by the agencies and the courts to define relevant markets. The hypothetical monopolist test asks whether a hypothetical monopolist of the candidate market could profitably sustain a "small but significant and nontransitory increase in price" (SSNIP), usually taken to be 5 percent. If so, the candidate market is a relevant market. In the prior example, if we assume that the demand curve is for the candidate market as a whole, this will be the residual demand curve for the hypothetical monopolist. If the original market price was $5 (as in the hypothetical), the hypothetical monopolist would find it profitable to reduce output in order to raise price by a 5 percent SSNIP.
>
> We will confront the hypothetical monopolist test in almost every case study going forward, starting with the H&R Block/TaxAct case study next week. You will have plenty of opportunities to become familiar with the mechanics of the hypothetical monopolist test.

Appendix 1: Inverting Demand and Inverse Demand Functions

Inverting demand and inverse demand functions

- Motivation
  - You will be given either the demand function or the inverse demand function in a problem. But you may need to derive the other function in order to solve the problem.
  - Example
    - In the price increase problem on Slide 41, you were given the inverse demand function:

$$p = 10 - \frac{1}{2}q$$

    - But the problem gave you p_1 and p_2 and required you to calculate q_1 and q_2. To do this, you need to convert the inverse demand function into the demand function, so that you could use the prices to calculate the associated quantities
    - To create the demand function, you need to algebraically manipulate the inverse demand equation to isolate q on the left-hand side, so that quantities (which you need) are expressed in terms of prices (which the problem gives you)

Inverting demand and inverse demand functions

- Mechanics
  - An equality is maintained if you perform the same operation to both sides of the equation
  - Here are the steps to convert the above inverse demand function to a demand function:

Add ½ q to both sides:

$$p + \frac{1}{2}q = 10 - \frac{1}{2}q + \frac{1}{2}q$$
$$= 10$$

Subtract p from both sides:

$$p + \frac{1}{2}q - p = 10 - p$$

Simply:

$$\frac{1}{2}q = 10 - p$$

Multiply both sides by 2:

$$(2)\left(\frac{1}{2}q\right) = (2)(10 - p)$$

Simply:

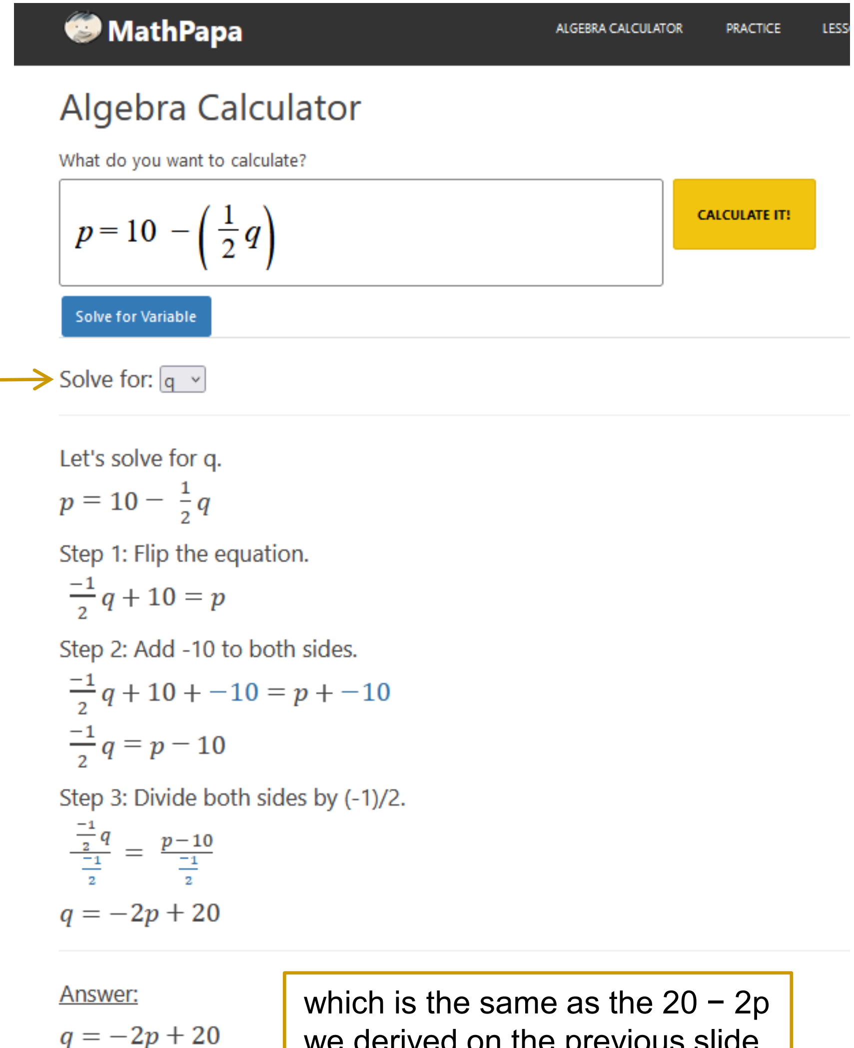
$$q = 20 - 2p$$

This is the demand curve that you would need for the price increase incremental revenue problem

  - The same technique can be used to convert a demand curve into an inverse demand curve

Inverting demand and inverse demand functions

- Or use an algebraic calculator:



We want q on the right-hand side, so solve for q

which is the same as the 20 − 2p we derived on the previous slide

Unit 7. Competition Economics

Part 2. Markets and Market Equilibria

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

September 25, 2023

Topics

- Substitutes, complements, and elasticities
- Markets and market equilibria
  - Perfectly competitive markets
  - Perfectly monopolized markets
  - Imperfectly competitive markets
    - Cournot oligopoly models
    - Bertrand oligopoly models
    - Dominant firm with a competitive fringe

Substitutes, Complements, Elasticities, and Diversion Ratios

Substitutes/Complements

- Substitutes
  - *Definition*: Two products or services are *substitutes* if, when consumer demand increases for one product, it will decrease for the other product
    - Symbolically:

$$\frac{\Delta q_2}{\Delta q_1} < 0$$

Because Δq_1 and Δq_2 move in opposite directions, they will have different signs (i.e., one will be positive and the other will be negative)

  - Examples
    - Coke and Pepsi
    - iPhone and Galaxy S series mobile phones
    - Nike and Adidas shoes
    - Hertz and Avis rental cars
  - *Horizontal mergers* involve combinations of firms that offer substitute products

Substitutes/Complements

- Substitutes
  - Substitutes and prices
    - If products 1 and 2 are substitutes, then as the price of 1 increases, the demand for 2 increases:

A negative number times a negative number is a positive number

$$\overset{(-)}{\frac{\Delta q_2}{\Delta q_1}}\ \overset{(-)}{\frac{\Delta q_1}{\Delta p_1}} = \overset{(+)}{\frac{\Delta q_2}{\Delta p_1}} > 0$$

Slope of the demand curve for product 1 (< 0 since downward sloping)

Substitutes/Complements

- Complements
  - *Definition*: Two products are *complements* if, when consumer demand increases for one product, consumer demand also will increase for the other product
  - Symbolically:

$$\frac{\Delta q_2}{\Delta q_1} > 0$$

  - Examples
    - *Vertical mergers* involve complements
      - Television LCD screens and TV sets
      - Car engines and cars
      - Cable TV programming and cable TV distribution (AT&T/Time Warner)
      - Drug manufacture and drug distribution
    - But some conglomerate mergers can also involve complements
      - Printers and ink cartridges
      - Razors and razor blades
      - Computers and computer software

Substitutes/Complements

- Complements
  - Complements and prices
    - If products 1 and 2 are complements, then as the price of 1 increases, the demand for 2 decreases

A positive number times a negative number is a negative number

$$\overset{(+)}{\frac{\Delta q_2}{\Delta q_1}}\ \overset{(-)}{\frac{\Delta q_1}{\Delta p_1}} = \overset{(-)}{\frac{\Delta q_2}{\Delta p_1}} < 0$$

Slope of the demand curve for product 1 (< 0 since downward sloping)

Elasticities

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

The Greek letter epsilon (ε) is the usual symbol in economics for elasticity

$$\varepsilon \equiv \frac{\%\Delta q_i}{\%\Delta p_i}$$

Percentage change q_i in the quantity of product i demanded

Percentage change p_i in the price of product i

    - This is sometimes called *elasticity of demand* or *price elasticity of demand*
    - Own-elasticities are always *negative in sign* since changes in prices and quantities move in opposite directions along a downward-sloping demand curve
  - Examples:
    - If price increases by 5% and demand decreases by 10%, then the own-elasticity is -2 (= -10%/5%)
    - If price increases by 3% and demand deceases by 1%, then the own-elasticity is -1/3 (= -1%/3%)

Technically, these are *arc elasticities* because they give percentage changes for discrete changes in prices and quantities

Elasticities

- Own-elasticity of demand: Some numerical estimates

Product	ε	Product	ε
Salt	0.1	Movies	0.9
Matches	0.1	Shellfish, consumed at home	0.9
Toothpicks	0.1	Tires, short-run	0.9
Airline travel, short-run	0.1	Oysters, consumed at home	1.1
Residential natural gas, short-run	0.1	Private education	1.1
Gasoline, short-run	0.2	Housing, owner occupied, long-run	1.2
Automobiles, long-run	0.2	Tires, long-run	1.2
Coffee	0.25	Radio and television receivers	1.2
Legal services, short-run	0.4	Automobiles, short-run	1.2-1.5
Tobacco products, short-run	0.45	Restaurant meals	2.3
Residential natural gas, long-run	0.5	Airline travel, long-run	2.4
Fish (cod) consumed at home	0.5	Fresh green peas	2.8
Physician services	0.6	Foreign travel, long-run	4.0
Taxi, short-run	0.6	Chevrolet automobiles	4.0
Gasoline, long-run	0.7	Fresh tomatoes	4.6

Source: Preston McAfee & Tracy R. Lewis, Introduction to Economic Analysis ch. 3.1 (2009)

Elasticities

- Own-elasticity of demand
  - Relationship to the slope of the residual demand curve:

Slope of the demand curve

$$\varepsilon_i \equiv \frac{\%\Delta q_i}{\%\Delta p_i} \equiv \frac{\dfrac{\Delta q_i}{q_i}}{\dfrac{\Delta p_i}{p_i}} = \frac{\Delta q_i}{\Delta p_i}\frac{p_i}{q_i},$$

that is, the own-elasticity at a point on the firm's residual demand curve is equal to the slope of the residual demand curve at that point times the ratio of price to quantity at that point

---

  - *Mathematical note (optional)*
    - *In calculus terms:*

$$\varepsilon_i \equiv \frac{dq_i}{dp_i}\frac{p_i}{q_i}$$

This deals with the continuous case

Elasticities

For intuition only
(NOT technically correct,
but it is usually the
intuition that is important)

- Some important definitions
  - *Inelastic demand*: Not very price sensitive

$$|\varepsilon| = \left|\frac{\%\text{change in quantity}}{\%\text{change in price}}\right| < 1$$

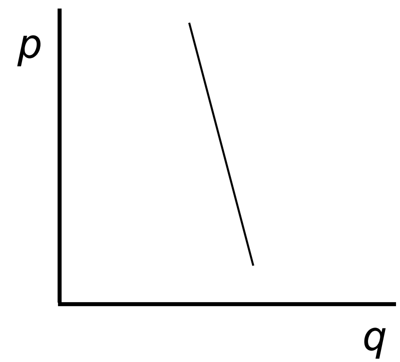
  - *Unit elasticity*:

$$|\varepsilon| = \left|\frac{\%\text{change in quantity}}{\%\text{change in price}}\right| = 1$$

  - *Elastic demand*: Price sensitive

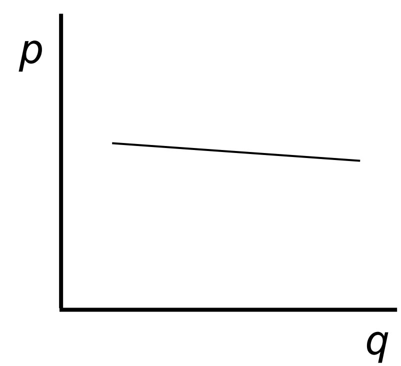
$$|\varepsilon| = \left|\frac{\%\text{change in quantity}}{\%\text{change in price}}\right| > 1$$

Inelastic demand



Little sensitivity to changes in price

Elastic demand



More sensitivity to changes in price

Note: |*x*| is the *absolute value* of *x*, which is the magnitude of *x* without the sign. So |3| = |-3| = 3.

Elasticities

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

- Elasticity of demand and the slope of the demand curve
  - Even when the demand curve is linear (so that the slope is constant), elasticity varies along the demand curve because the ratio of p_i to q_i changes along the curve

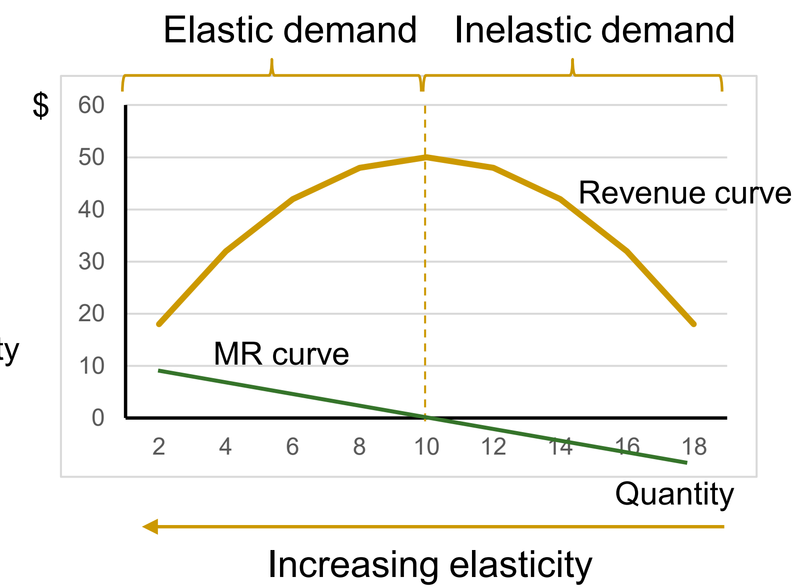
Inverse demand curve:
$p = 20 - 2q$

p	*q*	Slope	*p*/*q*	ε	Total revenue
1	18	-2	0.0556	-0.1111	18
2	16	-2	0.1250	-0.2500	32
3	14	-2	0.2143	-0.4286	42
4	12	-2	0.3333	-0.6667	48
5	10	-2	0.5000	-1.0000	50
6	8	-2	0.7500	-1.5000	48
7	6	-2	1.1667	-2.3333	42
8	4	-2	2.0000	-4.0000	32
9	2	-2	4.5000	-9.0000	18

Inelastic demand $|\varepsilon| < 1$

Unit elasticity $|\varepsilon| = 1$

Elastic demand $|\varepsilon| > 1$



General rules:
Elasticity decreases as quantity increases and prices decreases → lower *p*/*q* ratios
Elasticity increases as quantity decrease and prices increase → higher *p*/*q* ratios

Elasticities

- Predicting quantity changes for a given price increase
  - An approximation
    - We can approximate a percentage quantity change $\%\Delta q$ for a given percentage price change $\%\Delta p$ by multiplying the own-elasticity ε by the percentage price change:

$$\varepsilon = \frac{\%\Delta q}{\%\Delta p} \Rightarrow \%\Delta q \approx \varepsilon \%\Delta p$$

      - The relationship is not exact since the elasticity can change over the discrete range of the price change (as it does on a linear demand function)
  - For linear demand curves, an exact relationship exists for a price change Δp :

$$\varepsilon = \frac{\frac{\Delta q}{q}}{\frac{\Delta p}{p}} = \frac{\Delta q}{\Delta p}\frac{p}{q} \Rightarrow \Delta q = \varepsilon \frac{q}{p}\Delta p$$

    - Or, if you know the slope b of the demand curve

$$b = \frac{\Delta q}{\Delta p} \Rightarrow \Delta q = b\Delta p$$

These relationships can be important when determining a quantity change associated with a price increase in the hypothetical monopolist test for market definition

Elasticities

- The *Lerner condition* for profit-maximizing firms
  - *Proposition*: When a firm *i* maximizes its profits, at the profit-maximum levels of price and output the firm's own elasticity ε_i is equal to $1/m_i$:

$$|\varepsilon_i| = \frac{1}{m_i},$$

where *m* is the *gross margin*:

$$m_i \equiv \frac{p_i - c}{p_i}$$

Proof (optional): The firm's first order condition for a profit-maximum:

Marginal revenue = Marginal cost

Mathematically $$p_i + \frac{dp}{dq} q_i = c_i$$

Rearranging and dividing by *p*: $$\frac{p_i - c_i}{p} = -\frac{dp}{dq}\frac{q_i}{p_i}$$

$$m_i = \frac{1}{|\varepsilon_i|}, \text{ so } |\varepsilon_i| = \frac{1}{m_i} \qquad Q.E.D.$$

Cross-elasticities

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

$$\varepsilon_{ij} \equiv \frac{\%\Delta q_i}{\%\Delta p_j}$$

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

Percentage change p_j in the price of product *j*

  - With a little algebra (as before):

$$\varepsilon_{ij} = \frac{\Delta q_i}{\Delta p_j}\frac{p_j}{q_i}$$

Positive for substitutes
Negative for complements

- Mathematical note (optional)
  - In calculus terms:

$$\varepsilon_{ij} \equiv \frac{dq_i}{dp_j}\frac{p_j}{q_i}$$

Cross-elasticities

- Cross-elasticities—More definitions
  - *High cross-elasticity of demand*:
    - A small change in the price of product *i* will cause a large change of demand to product *j*
    - As a result, product *j* brings a lot of competitive pressure on product *i*

Make sure you understand why!

    - *Think of it this way:*
      - In a two-firm market, a high cross-elasticity implies a large number of *marginal customers* who will abandon product *i* when its price increases and will divert to product *j*
      - It also means a correspondingly smaller number of *inframarginal customers* who will stay with product *i* in the wake of a price increase
  - *Low cross-elasticity of demand*:
    - A large change in the price of product *i* will cause only a small change of demand to product *j*
    - As a result, product *j* brings little competitive pressure on product *i*

Make sure you understand why!

This is why antitrust lawyers talk so much about cross-elasticities!

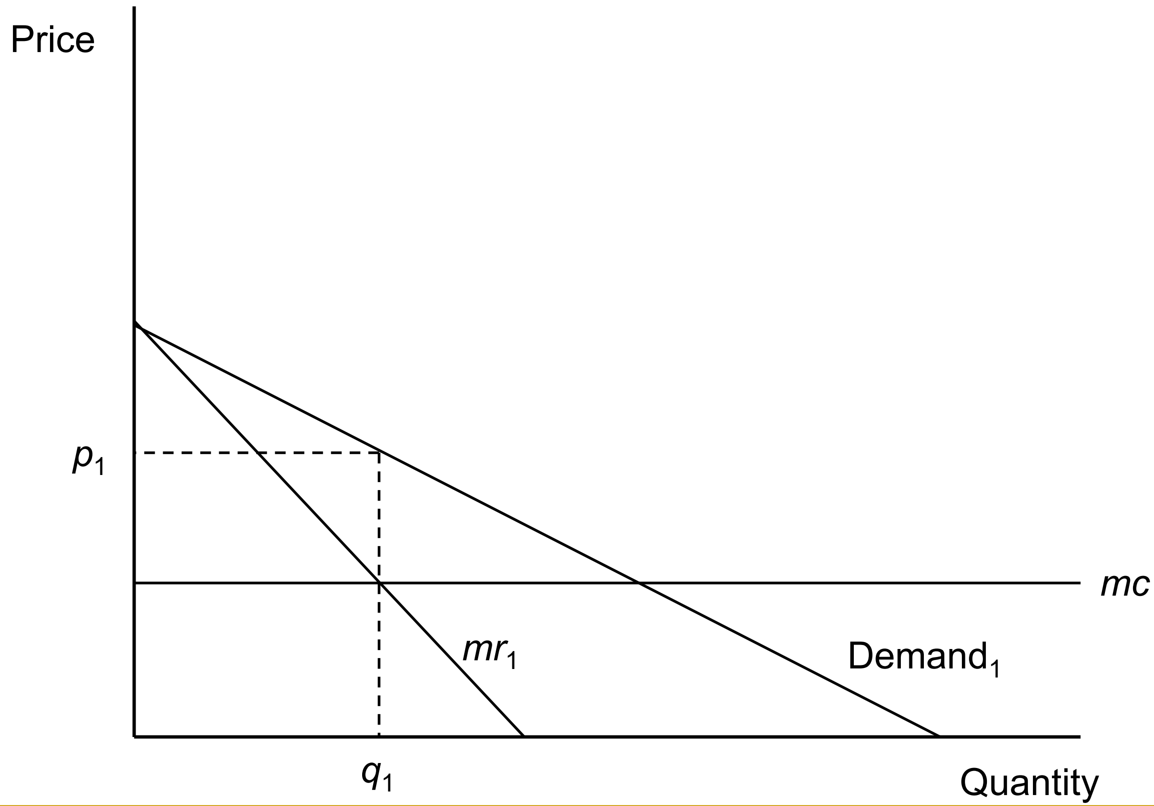
An important relationship

- Relationship of own-elasticities to cross-elasticities
  - Intuitively, the higher the cross-elasticities of product A with the other products, the more elastic is product A's own-elasticity
  - Consequently, if a merger has the effect of decreasing the cross-elasticities of product A (say an overlap product of one of the merging firms) with one or more substitute products, then product A's own-elasticity also decreases
  - *Key result*: All other things being equal, decreasing the cross-elasticity of demand of substitute products shifts the intersection of the marginal revenue curve and the marginal cost curve to the left, leading the firm to decrease output and increase prices

Let's look at the next three graphs to see why

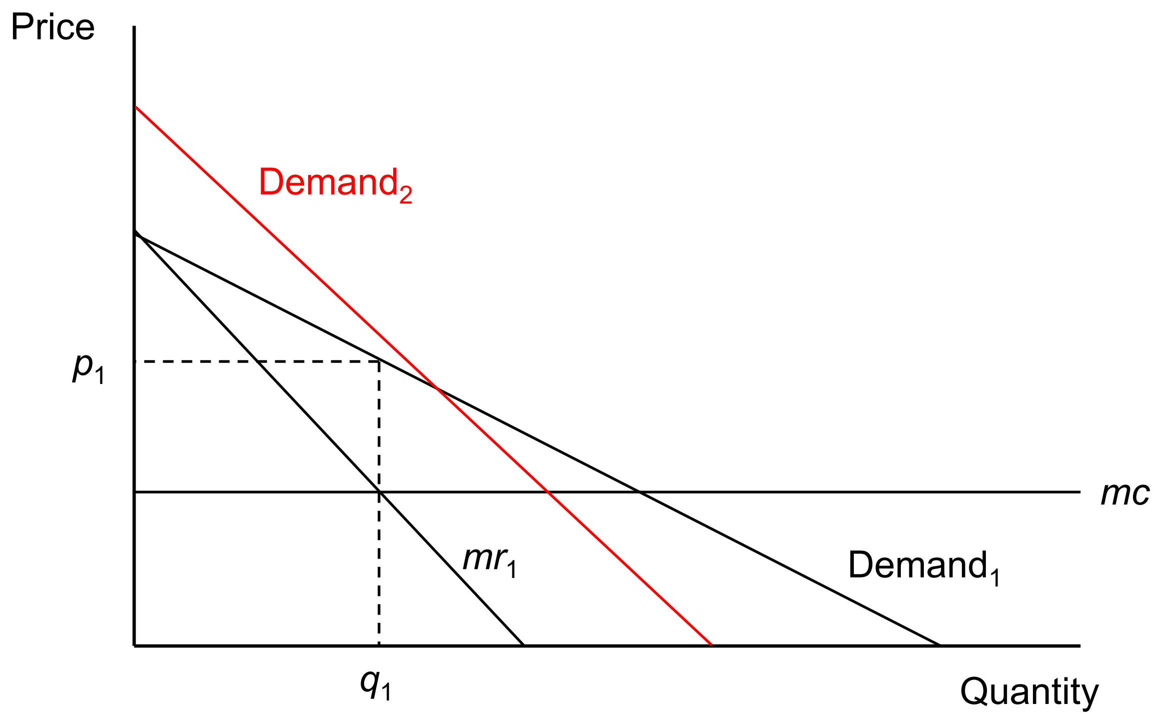
An important relationship

- Relationship of own-elasticities to cross-elasticities
  - Premerger profit-maximizing price-quantity equilibrium for the acquiring firm



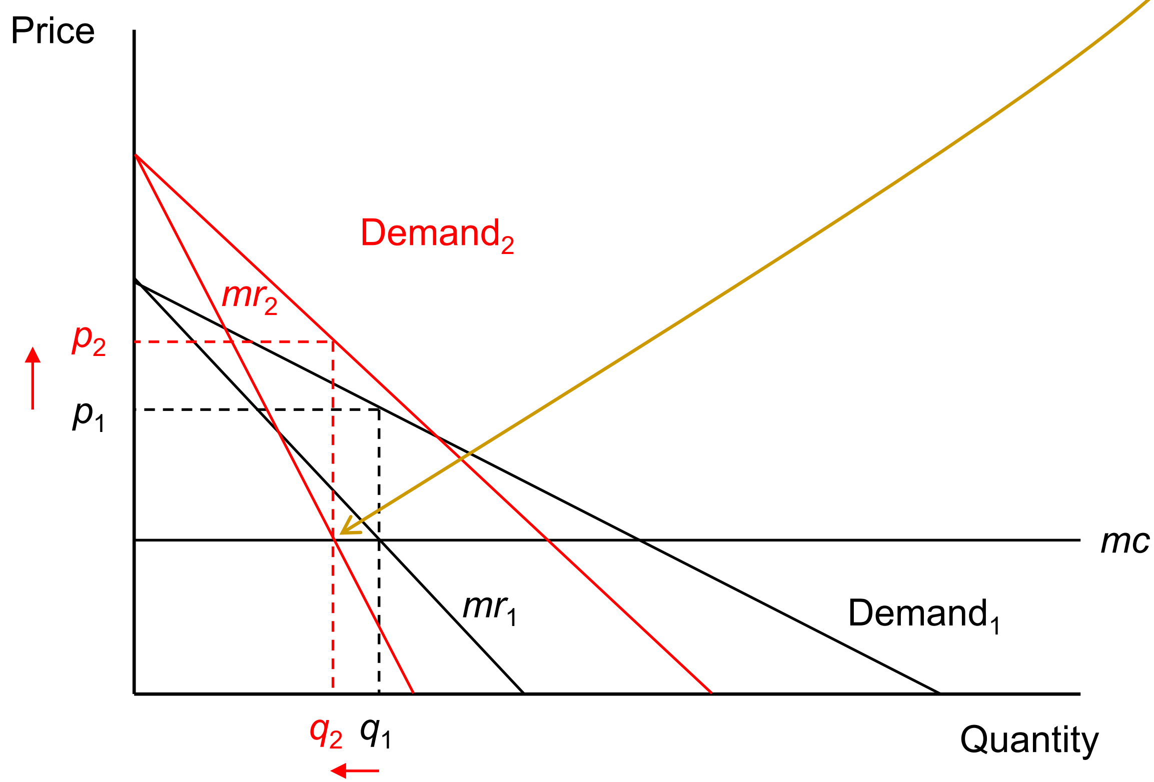
An important relationship

- Relationship of own-elasticities to cross-elasticities
  - Postmerger, the acquiring firm increases the acquired firm's price, making the acquired firm's substitute product less attractive and so decreasing the cross-elasticity of demand with the acquiring firm's product
    - The acquiring firm's residual demand curve then becomes more inelastic (steeper) around the premerger equilibrium point (q_1, p_1)



An important relationship

- Relationship of own-elasticities to cross-elasticities
  - Postmerger, the marginal revenue curve also becomes steeper, moving the postmerger equilibrium to a higher price and lower quantity (q_2, p_2)



An important relationship

- Relationship of own-elasticities to cross-elasticities—
  Equivalent statements:
  - Reducing the attractiveness of substitutes
  - Reducing the cross-elasticities of residual demand of substitute products
  - Making the residual demand curve more inelastic
  - Making the residual demand curve steeper
  - Reducing the residual own-elasticity of demand

Around the premerger
price-quantity equilibrium

All result in higher prices and lower quantities

- NB: At this point in the analysis, these relationships are only directional
  - They tell us the *direction* equilibrium price and quantity move
  - But so far, they do not tell us the *magnitude* of the changes
  - So we cannot yet determine whether the change in the cross-elasticities yields a substantial lessening of competition

An important relationship

- Relationship of own-elasticities to cross-elasticities
  - Technically:

$$|\varepsilon_{11}| = 1 + \frac{1}{s_1}\sum_{i=2}^{n} \varepsilon_{i1} s_i$$

$\varepsilon_{i1} > 0$ if the other products are substitutes for product 1

where ε_{11} is the own-elasticity of product 1 and ε_{i1} is the cross-elasticity of substitute product *i* with respect to the price of product 1 (evaluated at current prices and quantities)

  - Two important takeaways
    1. As the cross-elasticities on the right-hand side decrease, the demand for product 1 becomes more inelastic ($|\varepsilon|$ becomes smaller)
       - This allows Firm 1 to exercise market power and charge higher prices
    2. Competitors with larger market shares have more influence in constraining the price of Firm 1 for any given cross-elasticity (i.e., the cross-elasticities in the formula are weighted by market share)

You do not have to know the formula, but you should know the takeaways

Diversion ratios

- *Definition*: Diversion ratio (D)

$$D_{12} \equiv \frac{\text{Units captured by Firm 2 as a result of Firm 1's price increase}}{\text{Total units lost by Firm 1 as a result of Firm 1's price increase}} \equiv \left|\frac{\Delta q_2}{\Delta q_1}\right|$$

  - NB: By convention, diversion ratios are *positive*. Since $\Delta q_1/\Delta p_1$ is negative (the demand curve is downward sloping), we need to look at the absolute value of the fraction

- Example
  - Firm 1 increases its price by 5% and loses a total of 20 units to substitute products
  - When Firm 1 increases its price, Firm 2—which maintains its original price—gains 5 units of additional sales
  - So:

$$D_{12} = \left|\frac{\Delta q_2}{\Delta q_1}\right| = \left|\frac{5}{-20}\right| = \frac{5}{20} = 0.25 = 25\%$$

Diversion ratios

- Thinking about diversion ratios
  - Think of D_{12} as $D_{1\rightarrow2}$, that is—
    1. the number of units lost by Firm 1 that are "diverted" to Firm 2 (which produces a substitute product)
    2. as a result of Firm 1's price increase
    3. when Firm 2's price stays constant

    NB: This heuristic assumes that there is a one-to-one substitution between Firm 1's and Firm 2's products

Diversion ratios

- Relation to cross-elasticities
  - Diversion ratios are closely related to cross-elasticities: both measure the degree of substitutability between two products when the relative prices change
    - Elasticities measure substitutability in terms of the *percentage* increase in Firm 2's unit sales for a *percentage* increase in Firm 1's price
    - Diversion ratios measure substitutability in terms the increase in Firm 2's unit sales as a percentage of all units lost by Firm 1 as a result of a given increase in Firm 1's price
  - Modern antitrust economics still speaks in terms of cross-elasticities when it often means diversion ratios
    - For example, products with high diversion ratios are said to have high cross-elasticities

We will see diversion ratios again in implementations of the hypothetical monopolist test and in the unilateral effects theory of anticompetitive harm

Perfectly Competitive Markets

Perfectly competitive markets

- *Definition*: A market in which no single firm can affect price, meaning—
  1. The firm perceives its residual demand curve as horizontal
  2. The firm perceives that it can sell any amount of product without affecting the market price
  3. $\dfrac{dp}{dq_i} = 0$ (as perceived by the firm)
  4. $p = \dfrac{dc}{dq_i}$ (i.e., price = marginal cost)

These four bullets are just different ways of saying the same thing

- Some more definitions
  - *"Price taking"*: Competitive firms are called *price-takers*, that is, they take market price as given and not something that they can affect
  - *Perfectly competitive equilibrium*: A market equilibrium exists where—
    1. Aggregate supply equals aggregate demand, *and*
    2. Each firm chooses its level of production so that the market-clearing price is equal to the firm's marginal cost of production

Perfectly competitive markets

- What could cause a market to be perfectly competitive?
  - *Traditional theory*: Each individual firm's production is very small compared to aggregate demand at any price, so that individual production changes cannot move materially along the aggregate demand curve
    - This implies that there are a very large number of firms in the market
  - *Modern theory*: Competitors in the marketplace react strategically but non-collusively to price or quantity changes by a firm in ways that maintain the perfectly competitive equilibrium

Competitive firms

- Three take-aways
  1. Competitive firms do not perceive that their output decisions affect the market-clearing price
     - That is, each firm perceives that it faces a horizontal residual demand curve
     - In fact, their individual output decisions do affect the market-clearing price but because the effect is so small no individual firm perceives this
       - In the aggregate, the sum of the output of all competitive firms determines the market-clearing price
  2. Competitive firms chose their output so that *p* = *mc*
     - Competitive firms, like all other firms, choose output so that marginal revenue is equal to marginal cost (*mr* = *mc*)
     - Since a competitive firm does not perceive that its output decisions affect the market-clearing price, the firm does not perceive that there is any downward adjustment in market price when it expands its output
     - Therefore, the firm perceives—and makes its output decision—on the premise that its marginal revenue is equal to the market price
     - Hence, the firm selects an output level so that *p* = *mc*
     - Mathematically:

$$mr(q_i) = p + q_i \frac{\Delta p}{\Delta q_i} = mc(q_i)$$

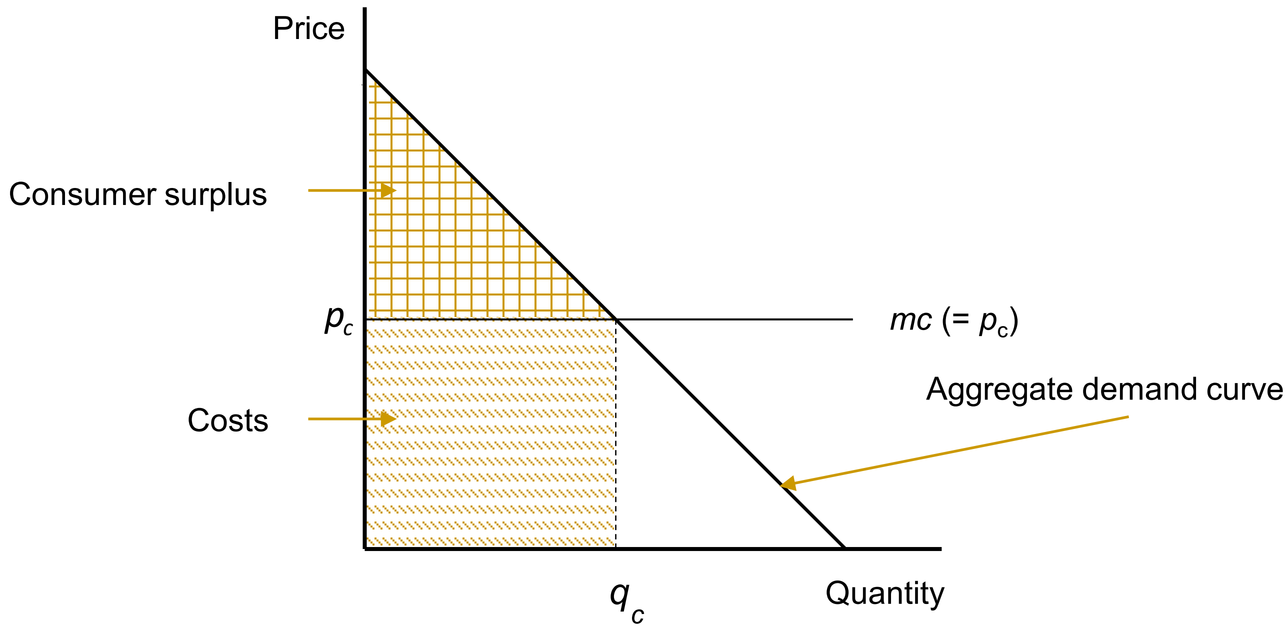
Perceived to be zero since the firm is a price-taker and does not believe that its choice of output affects market price

So:

$$p = mc$$

Competitive firms

- Three take-aways
  3. A competitive market maximizes consumer surplus[1]
     - A competitive market exhausts all gains from trade



[1] We are assuming a simple market where there is only one product that sells at a single uniform price (i.e., there is no price discrimination).

Perfectly Monopolized Markets

Perfect monopoly

- Basic concepts
  - In a perfect monopoly market, there is only one firm that supplies the product
    - This is an economic concept
    - In law, a monopolist need not control 100% of the market
  - Although there is only one firm in the market, it still faces a downward-sloping demand curve
    - There can be some substitutes for the monopolist's product—just not very good ones
  - The aggregate demand curve defines the residual demand curve facing an (economic) monopolist

In economics and in law, a firm that faces a downward-sloping residual demand curve and therefore has some power to influence the market-clearing price for its product is said to have *market power*. In antitrust law, a firm that has very significant power over the market-clearing price is said to have *monopoly power*. In economics, a monopolist is the only firm in the market.

Perfect monopoly

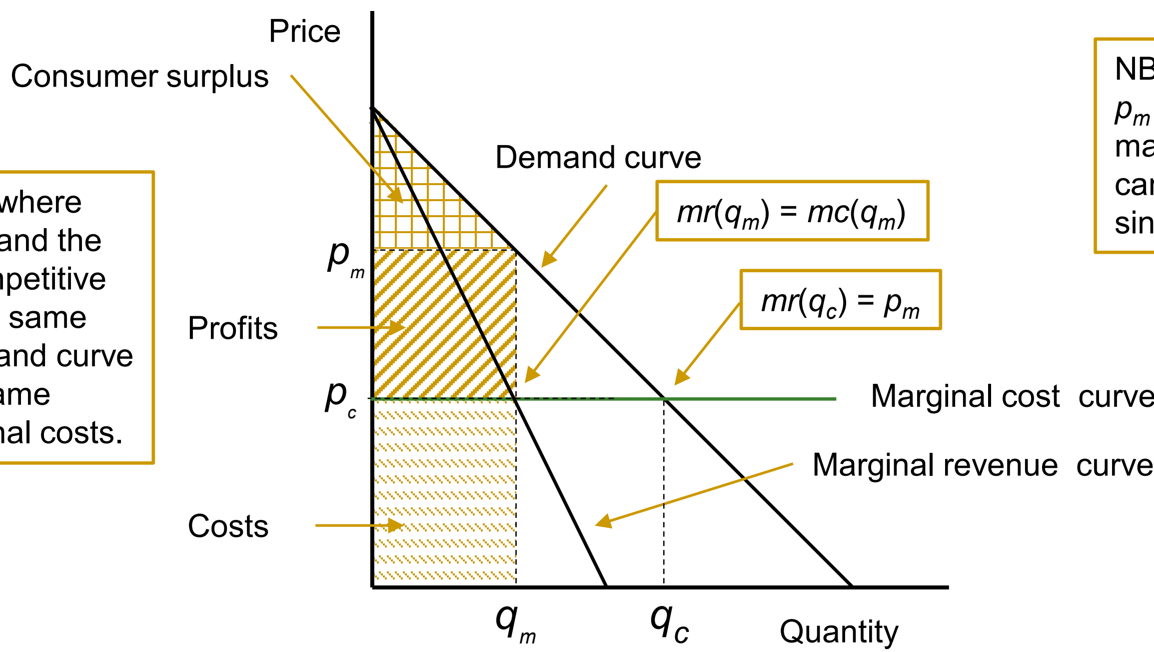
- A monopolist chooses output q_m so that $mr(q_m) = mc(q_m)$
  1. A monopolist charges a higher price than a competitive firm

$$p_m > mr\left(q_m\right) = mc\left(q_m\right) = mc\left(q_c\right) = p_c$$

where marginal costs are constant[1]

  2. A monopolist produces a lower output than would a competitive firm facing the same residual demand curve ($q_m < q_c$)

NB: $q_m = ½\, q_c$, where the monopolist and the firms in the competitive market face the same aggregate demand curve and have the same constant marginal costs.

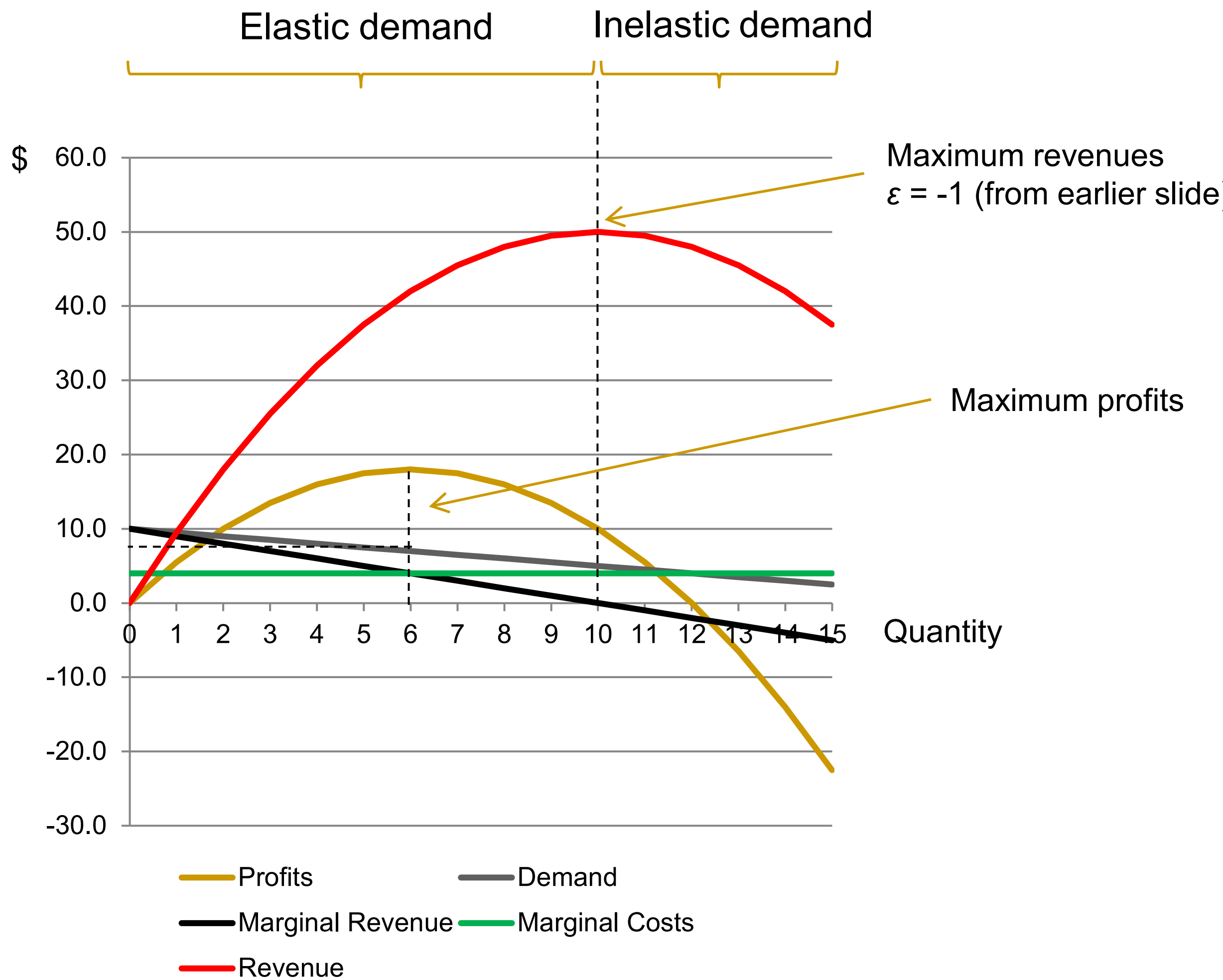


NB: The monopolist price p_m is the price at which the maximum available profits can be drawn from a single price market.

[1] But true whenever marginal costs are constant or increasing.

Monopolists and elasticities

- Proposition
  - A monopolist will not operate in the inelastic portion of its demand curve



Remember:

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

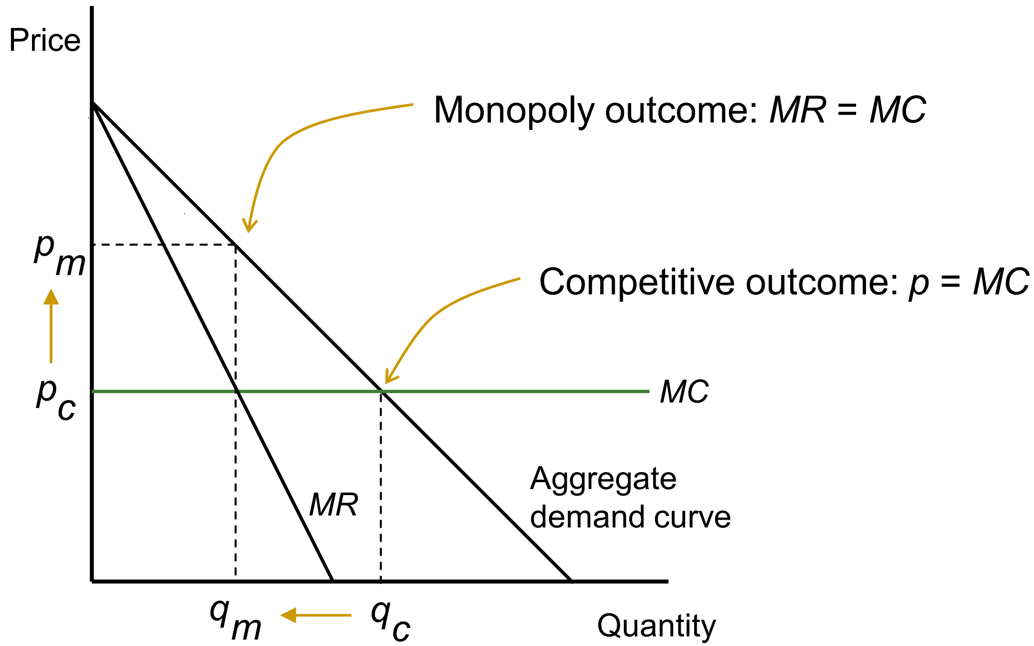
Review: Public policy on monopolies

- Modern view on why monopolies are bad:
  1. Increase price and decrease output
  2. Shift wealth from consumers to producers
  3. Create economic inefficiency ("deadweight loss")

  - May (or may not) have other socially adverse effects
    - Decrease product or service quality
    - Decrease the rate of technological innovation or product improvement
    - Decrease product choice

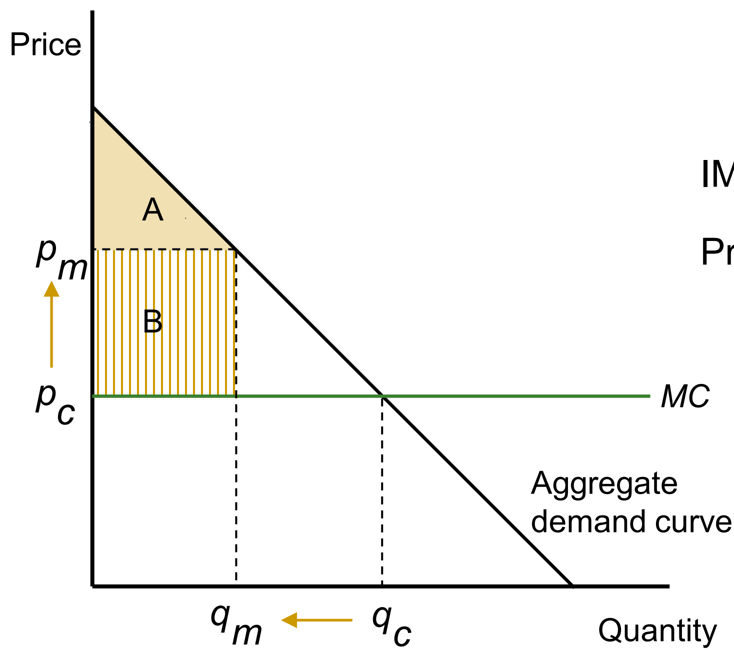
Review: Public policy on monopolies

- Output decreases: $q_c > q_m$
- Prices increase: $p_c < p_m$



Review: Public policy on monopolies

- Shifts wealth from inframarginal consumers to producers*
  - Total wealth created (“surplus”): A + B
  - Sometimes called a “rent redistribution”

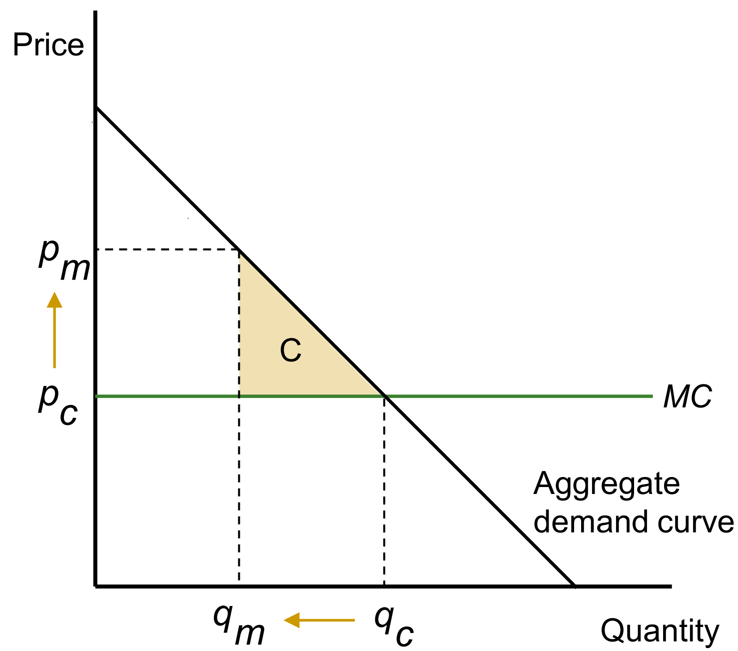


	Competitive	Monopoly
IM consumers	A + B	A
Producers	0	B

* Inframarginal customers here means customers that would purchase at both the competitive price and the monopoly price

Review: Public policy on monopolies

- "Deadweight loss" of surplus of marginal customers*
  - Surplus C just disappears from the economy
  - Creates "allocative inefficiency" because it does not exhaust all gains from trade

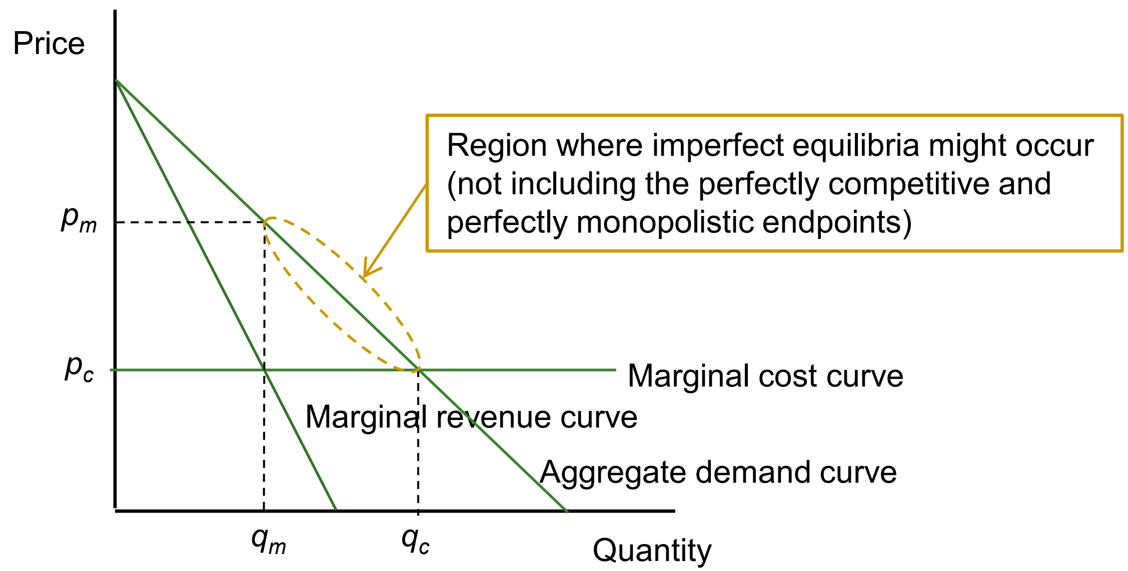


* Marginal customers here means customers that would purchase at both the competitive price and the monopoly price

Imperfectly Competitive Markets

Imperfectly Competitive Markets

- Range of imperfect equilibria
  - An imperfectly competitive equilibrium occurs when the equilibrium price and output on the demand curve falls strictly between the perfect monopoly equilibrium and the perfectly competitive equilibrium

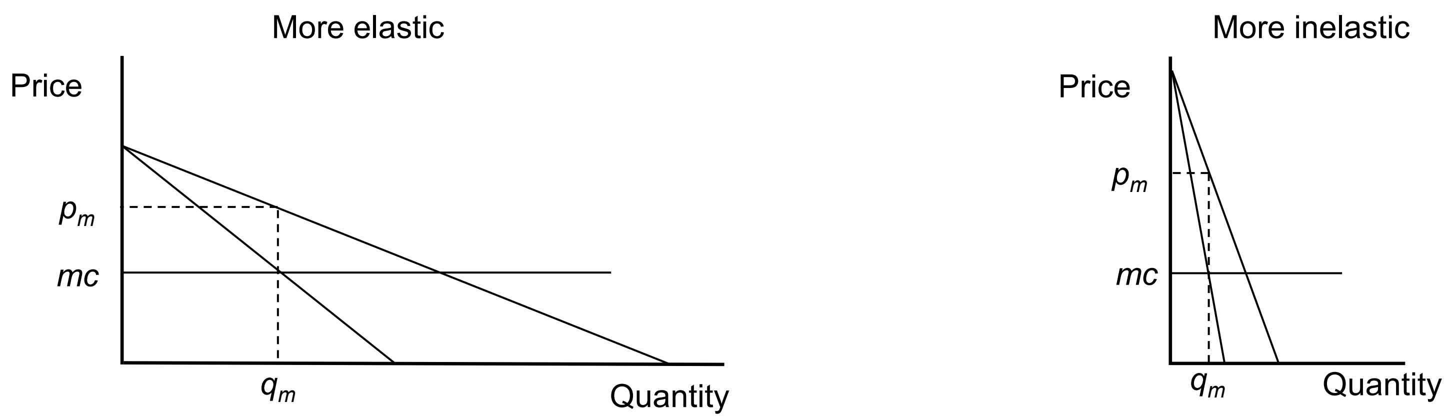


Market power

- Measuring market power
  - Economically, market power is the power of the firm to affect the market-clearing price through its choice of output level
  - The traditional economic 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 as a percentage of price:

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

    - In a competitive market, L = 0 since because $p = mc$
    - In a perfectly monopolized market, L increases as the aggregate demand curve becomes steeper (more inelastic):



Market power

- The Lerner index for an imperfectly competitive market
  - The Lerner index is usually used as a measure of the market power of a single firm
  - The market Lerner index is defined as the sum of the Lerner indices of all firms in the market weighted by their market share:

$$L \equiv \sum_{i=1}^{n} L_i s_i ,$$

where there are n firms in the market, with each firm i having a Lerner index L_i and a market share s_i:

$$L \equiv \sum_{i=1}^{n} L_i s_i = \sum_{i=1}^{n} s_i , \frac{p - c_i}{p}$$

Measures of market concentration

- The Herfindahl-Hirschman Index (HHI)
  - *Definition*: The Herfindahl-Hirschman Index (HHI) is defined as the sum of the squares of the market shares of all the firms in the market:

$$HHI \equiv s_1^2 + s_2^2 + \cdots + s_n^2 = \sum_{i=1}^{n} s_i^2$$

The HHI is the principal measure of market concentration used in antitrust law in all markets (not just Cournot markets)

    where the market has n firms and each firm i has a market share of s_i.
  - Example
    - Say the market has five firms with market shares of 50%, 20%, 15%, 10%, and 5%. The conventional way in antitrust law is to calculate the HHI using whole numbers as market shares:

$$\begin{aligned} HHI &= 50^2 + 20^2 + 15^2 + 10^2 + 5^2 \\ &= 2500 + 400 + 225 + 100 + 25 \\ &= 3250 \end{aligned}$$

In whole numbers, the HHI ranges from 0 with an infinite number of firms to 10,000 with one firm

    - In some economics applications, however, the HHI is calculated using fractional market shares:

$$\begin{aligned} HHI &= 0.50^2 + 0.20^2 + 0.15^2 + 0.10^2 + 0.05^2 \\ &= 0.25 + 0.04 + 0.0225 + 0.01 + 0.0025 \\ &= 0.3250 \end{aligned}$$

In fractional numbers, the HHI ranges from 0 with an infinite number of firms to 1 with one firm

Homogeneous product models

- Homogeneous product models
  - Characterized by products that are undifferentiated (that is, *fungible* or *homogeneous*) in the eyes of the customer
  - Common examples:
    - Ready-mix concrete
    - Winter wheat
    - West Texas Intermediate (WTI) crude oil
    - Wood pulp
  - Two properties of homogeneous products
    - Customers purchase from the lowest cost supplier → This forces all suppliers in the market to charge the same price
    - Since the goods are identical, their quantities can be added

$$Q(p) = \sum q_i(p)$$

      - Adding all individual consumer demands at price *p* gives aggregate demand
      - Adding all individual firm outputs at price *p* gives aggregate supply

Cournot oligopoly models

A control variable is the variable the firm can set (control) in its discretion

- The setup
  - The standard homogenous product model is the *Cournot model*
  - In a Cournot model, the firm's control variable is *quantity*
    - The (download-sloping) demand curve gives the relationship between the aggregate quantity produced Q and the market-clearing price p:

$$p = p(Q), \text{ where } Q = \sum_{i=1}^{n} q_i,$$

in a market with n firms

  - The profit equation for firm i is:

$$\pi_i = p(Q)q_i - T_i(q_i), \quad i = 1,2,\ldots,n$$

NB: Each firm i choses its level of output q_i, but the aggregate level of output determines the market prices

  - First order condition (FOC) for profit-maximizing firm:

$$m\pi_i(q_i) = mr_i(q_i) - mc_i(q_i) = 0$$

This generates n equations in n unknows and can be solved for each q_i

Cournot oligopoly models

- Production levels in Cournot models
  - A simple example
    - Compare the competitive, Cournot, and monopoly outcomes in this example

Demand curve: $Q = 100 - 2p$

	Price	Quantity
Perfectly competitive	5 (= mc)	90
Cournot (n = 2)	20	60
Perfect monopoly	27.5	45

    - Note that the perfect monopoly output is one-half the perfectly competitive output (with linear demand and constant marginal costs)
  - When demand is linear and there are n identical firms in a Cournot model, then:

$$Q_{Cournot} = \frac{n}{n+1} Q_{Competitive}$$

NB: As the number of firms n gets large, the ratio $n/(n+1)$ approaches 1 and the Cournot equilibrium approaches the competitive equilibrium

$q_{competitive}$	90	90	90	90	90	90	90	90	90
n	9	8	7	6	5	4	3	2	1
$q_{cournot}$	81	80	78.8	77.1	75	72	67.5	60	45

Cournot oligopoly models

- Relationship of the Lerner index to the Herfindahl-Hirschman Index
  - *Proposition*: In a Cournot oligopoly model with n firms, the Lerner index may be calculated from the HHI and the market elasticity of demand:

$$L = \frac{HHI}{|\varepsilon|},$$

    where *L* is the market Lerner index and *ε* is the market price-elasticity of demand
  - This proposition is the reason antitrust law uses the HHI as the measure of market concentration
    - *WDC*: It is not a great reason, but is it generally accepted as better than the alternative measures (especially the four-firm concentration ratios used from the 1950s through the 1970s)
    - The HHI was adopted as the measure of market concentration in the 1982 DOJ Merger Guidelines and by the end of the 1980s has been accepted by the courts

The following slides prove the proposition. The proof is (very) optional, but if you are comfortable with a little calculus, you might find it interesting

Cournot oligopoly models

- Relationship of the Lerner index to the Herfindahl-Hirschman Index
  - *Proof* (optional):
    - Firm *i*'s Lerner index L_i is:

$$L_i = \frac{p(Q) - c_i}{p(Q)},$$

      where $p(Q)$ is the single market equilibrium price (determined by aggregate production quantity Q) and c_i is firm i's marginal cost of production
    - The first order condition for firm i's profit-maximizing quantity is:

$$\frac{d\pi_i}{dq_i} = p(Q) + q_i \frac{dp(Q)}{dq_i} - c_i = 0$$

    - Now

$$\frac{dp(Q)}{dq_i} = \frac{dp(Q)}{dQ}\frac{dQ}{dq_i} = \frac{dp(Q)}{dQ}$$

Equals 1 under the Cournot assumption that all other firms do not change their behavior when firm i changes output

Cournot oligopoly models

- Relationship of the Lerner index to the Herfindahl-Hirschman Index
  - *Proof* (optional) (con't)
    - Substituting and rearranging the top equation:

$$p(Q) - c_i = q_i \frac{dp(Q)}{dQ}$$

    - Dividing both sides by $p(Q)$ and multiplying the right-hand side by Q/Q:

$$\frac{p(Q) - c_i}{p(Q)} = \frac{q_i}{Q} \frac{dp(Q)}{dQ} \frac{Q}{p(Q)} = \frac{s_i}{|\varepsilon|}$$

    - Multiply both sides by s_i:

$$\frac{p(Q) - c_i}{p(Q)} s_i = \frac{s_i^2}{|\varepsilon|}$$

Cournot oligopoly models

- Relationship of the Lerner index to the Herfindahl-Hirschman Index
  - *Proof* (optional) (con't)
    - Summing over all firms:

$$\sum_{i=1}^{n} \frac{p(Q)-c_i}{p(Q)} s_i = \sum_{i=1}^{n} \frac{s_i^2}{|\varepsilon|} = \frac{1}{n} \sum_{i=1}^{n} s_i^2$$

    - The left-hand side is the market Lerner index and the right-hand side is the HHI divided by the absolute value of the market price-elasticity:

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

Q. E.D.

Cournot oligopoly models

- Mergers and price increases in Cournot oligopoly
  - From the previous slides:

$$L = \frac{HHI}{|\varepsilon|},$$

  - Then:

$$L^{\text{Postmerger}} - L^{\text{Premerger}} = \frac{HHI^{\text{Postmerger}}}{|\varepsilon|} - \frac{HHI^{\text{Premerger}}}{|\varepsilon|} = \frac{\Delta HHI}{|\varepsilon|}$$

This probably is the justification for the emphasis in the Merger Guidelines on changes in the HHI (the "delta") resulting from a merger

In other words, the difference in the share-weighted average percentage markup resulting from the merger is $\Delta HHI/|\varepsilon|$

Cournot oligopoly models

- Some final observations on the HHI and Cournot models
  - The HHI and ΔHHI are fundamental to modern merger antitrust law
  - The rationale for using these measures is grounded in their relationship in the Cournot model to percentage price-cost margins measured by the Lerner index

Cournot oligopoly models

- Some final observations on the HHI and Cournot models (con't)
  - BUT—
    - Price-cost margins typically cannot be calculated directly
      - Prices, while seemingly observable, can be empirically difficult to measure given the existence of discounts, variations in the terms of trade, and price and quality changes over time
      - Marginal costs are even more difficult to measure
        - *Time period*: There is the conceptual issue of the time period over which to assess marginal cost. As the time period becomes longer, some fixed costs such as real estate rents or workers' salaries become marginal costs. There is nothing in the theory that tells us what is the proper time period.
        - *Complex production processes*: In the real word, production functions are often joint and are used to produce multiple products. The is a conceptual problem of how to allocate costs associated with joint production to each individual product type.
        - *Dynamic market conditions*: Marginal costs can fluctuate rapidly in dynamic markets due to changing supply and demand conditions, input price volatility, or disruptions in the production process.
    - The Cournot oligopoly model is an abstraction that may not (and probably does not) accurately characterize any real-world market

Cournot oligopoly models

- Some final observations on the HHI and Cournot models (con't)
  - HHIs to some extent allow us to infer the magnitudes of percentage price-cost margins and how these margins may change with changes in market structure
  - BUT—
    - Antitrust law tests just look at the HHI and ΔHHI—antitrust law does not modulate its HHI tests for market elasticity of demand as the Cournot model suggests it should
      - So two mergers in a Cournot model may have the same HHI and ΔHHI but have dramatically different premerger postmerger percentage price-cost margins
        - A higher aggregate elasticity of demand yields lower percentage price-costs margins than a less elastic demand even with the same HHI and ΔHHI.
      - In any event, there are no accepted "thresholds" in antitrust law when percentage price-margins become "anticompetitive"

Bertrand oligopoly models

- The setup
  - In a Bertrand model, the firm's control variable is *price*
    - Compare with the Cournot model, where the firm's control variable is *quantity*
    - The (download-sloping) residual demand curve gives the relationship between the firms choice of price and the quantity consumers will demand from the firm at that price
  - The profit equation for firm *i* is:

This is the residual demand function for firm *i*

$$\pi_i(p_i) = p_i \overbrace{q_i(p_i)} - T_i(\overbrace{q_i(p_i)}), \quad i = 1, 2, \ldots, n$$

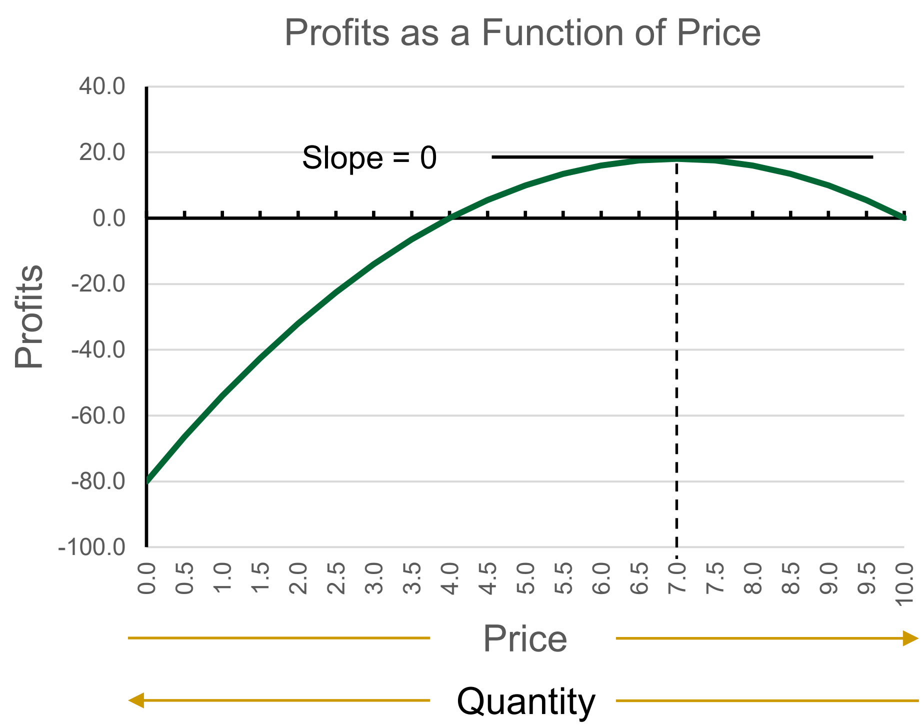
To see the first order conditions in operation, let's first look at profit-maximization for a monopolist whose control variable is price

Bertrand oligopoly models

- Profits as a function of price: Example for a monopolist

Price p	Quantity q	Revenues r	Costs T	Profits Π
0.0	20	0.0	80	-80.0
0.5	19	9.5	76	-66.5
1.0	18	18.0	72	-54.0
1.5	17	25.5	68	-42.5
2.0	16	32.0	64	-32.0
2.5	15	37.5	60	-22.5
3.0	14	42.0	56	-14.0
3.5	13	45.5	52	-6.5
4.0	12	48.0	48	0.0
4.5	11	49.5	44	5.5
5.0	10	50.0	40	10.0
5.5	9	49.5	36	13.5
6.0	8	48.0	32	16.0
6.5	7	45.5	28	17.5
7.0	6	42.0	24	18.0
7.5	5	37.5	20	17.5
8.0	4	32.0	16	16.0

Demand: $q = 20 - 2p$
Fixed costs = 0
Marginal costs = 4



Bertrand oligopoly models

- Observations
  - The profit curve as a function of price is a parabola
    - Although different in shape than the profit curve as a function of quantity
  - The profit maximum is when the slope of the profit curve is zero
  - So:

Marginal profits (as a function of price)	=	Marginal revenues (as a function of price)	-	Marginal costs (as a function of price)
	=	0 at the firm's profit maximum		

Bertrand oligopoly models

- Profit-maximization when a monopolist sets price: Example

Demand: $q = 20 - 2p$	Marginal costs ($mc(q)$) = 4 Fixed costs = 0

  - Revenues:
$$\begin{aligned} r(p) &= pq(p) \\ &= p(20-2p) \\ &= 20p - 2p^2 \end{aligned}$$

This describes the parabola on the prior slide

  - Marginal revenues:
$$mr(p) = 20 - 4p$$

Remember, if $y = ax + bx^2$ is the function, then the marginal function is $a + 2bx$

  - Cost:
$$\begin{aligned} C(q(p)) &= mc * q(p) = mc(20-2p) \\ &= 4(20-2p) \\ &= 80 - 8p \end{aligned}$$

Constant marginal cost

Note: If $y = a + bx$ is the function, then the marginal function is b

  - Marginal cost:
$$mc(p) = -8$$

NB: This is marginal cost as a function of p (not q). Why is it a negative number?

  - FOC:
$$\begin{aligned} mr(p^*) &= mc(p^*) \\ 20 - 4p^* &= -8 \end{aligned}$$

So $p^* = 7$ and $q^* = 6$

Bertrand oligopoly models

- Homogeneous products case with equal cost functions
  - Consider two firms producing homogeneous (identical) products at constant marginal cost *c* and use price p_i as their control variable
  - Consumers also purchase from the lower priced firm
    - If both firms charge the same price, they split equally consumer demand
  - Profit function for firm *i*:

$$\pi(p_i) \begin{cases} = p_i Q(p_i) - c(Q(p_i)) & \text{if } p_i < p_j \\ = \dfrac{p_i Q(p_i) - c(Q(p_i))}{2} & \text{if } p_i = p_j \\ = 0 & \text{if } p_i > p_j \end{cases}$$

    - That is, firm *i* gets 100% of market demand $Q(p_i)$ at price p_i if p_i is the lower price of the two firms; the two firms split the market demand if their prices are equal; and firm *i* gets nothing if it has the higher price
    - *Equilibrium*: $p_1 = p_2 = mc$, so that both firms price at marginal cost (i.e., the competitive price) and split equally market demand and total market profits

Bertrand oligopoly models

- Homogeneous products case with asymmetric cost functions
  - Now consider two firms producing homogeneous (identical) products but with different cost functions costs, with firm 1 have lower marginal costs than firm 2 (i.e., $mc_1(q(p) < mc_2(q(p))$
  - The profit function is the same as before:

$$\pi(p_i)\begin{cases} = p_i Q(p_i) - c\big(Q(p_i)\big) & \text{if } \mathrm{p}_i < p_j \\ = \dfrac{p_i Q(p_i) - c\big(Q(p_i)\big)}{2} & \text{if } \mathrm{p}_i = p_j \\ = 0 & \text{if } \mathrm{p}_i > p_j \end{cases}$$

  - *Equilibrium*: Firm 1 prices just below firm 2 and captures 100% of market demand
  - *Idea*: Firm 1 and Firm 2 compete the price down to firm 2's marginal cost as in the symmetric cost case. Then firm 1 just underprices firm 2 and captures 100% of the market demand

Bertrand oligopoly models

- Differentiated products case
  - When products are differentiated, a lower price charged by one firm will not necessarily move all of the market demand to that firm
    - Consider a market with only red cars and blue cars
    - Some consumers like blue cars so much that even if the price of red cars is lower than the price of blue cars, there will still be positive demand for blue cars
    - Moreover, if the price of blue cars increases, some (inframarginal) blue car customers will purchase blue cars at the higher price, while some (marginal) customers will switch to red cars
    - This means that the demand for red cars (and separately for blue cars) is a function both of the price of red cars and the price of blue cars
    - It also means that the price of blue cars may not equal the price of red cars in equilibrium

Bertrand oligopoly models

- Differentiated products case
  - Simple linear model
    - Firms 1 and 2 produce differentiated products and face the following residual demand curves:

$$q_1 = a - b_1 p_1 + b_2 p_2$$
$$q_2 = a - b_1 p_2 + b_2 p_1$$

NB: Each firm's demand decreases with increase in its own price and increases with increases in the price of the other firm

Assume that $b_1 > b_2$, so that each firm's residual demand is more sensitive to its own price than to the other firm's price

- Assume each firm has a cost function with no fixed costs and the same constant marginal costs:

$$c_i(q_i) = cq_i$$

- Firm 1's profit-maximization problem:

$$\max_{p_1} \pi_1 = (p_1 - c)(a - b_1 p_1 + b_2 p_2)$$

  - Firm 2 solves an analogous profit-maximization problem

NB: This formulation does not take into account firm 2's reaction to a change in Firm 1's price. It assumes that Firm 2's price is constant.

- Derive the FOCs for each firm and solve for the Bertrand equilibrium:

$$p_1^* = p_2^* = \frac{a + cb_1}{2b_1 - b_2}$$

You do not need to know this. What is important is how the model is set up.

Dominant firm with a competitive fringe

- The setup
  - Consider a homogeneous product market with—
    1. a *dominant firm*, with a control variable q and which sees its output decisions as affecting price and so sets output so that $mr = mc$, and
    2. a *competitive fringe* of firms that are small and act as price takers, that is, they do not see their individual choices of output levels as affecting price and therefore price as competitive firms (i.e., they set their production quantities q_i so that $p = mc(q_i)$)
  - *Decision for the dominant firm*: Pick the profit-maximizing level for its output given the production of the competitive fringe
    - The model requires some constraint on the ability of the competitive fringe to expand its output. Otherwise, the competitive fringe will take over the market.
    - The constraint usually is either limited production capacity or increasing marginal costs

Dominant firm with a competitive fringe

- The model
  - At market price p, let $Q(p)$ be the industry demand function and $q_f(p)$ be the output of the competitive fringe.
  - The dominant firm derives its residual demand function $q_d(p)$ starting with the aggregate demand function $Q(p)$ and subtracting the output supplied by the competitive fringe $q_f(p)$ at price p:

$$q_d(p) = Q(p) - q_f(p)$$

  - The dominant firm then maximizes its profit given its residual demand function by solving the following equation for the market price p^* that maximizes the firm's profits:

$$\max_p \pi_D = p \times \left[Q(p) - q_f(p) \right] - T\left(q(p)\right)$$

  - The dominant firm then produces quantity $q^* = q_D(p^*)$

You do not need to know how to solve the dominant firm maximization problem. What is important is the how the model is set up.

Dominant firm with a competitive fringe

- Dominant oligopolies
  - The model can be extended to the case where the dominant firm is replaced by a dominant oligopoly
  - The key is to specify the solution concept for the choice of output by the firms in the oligopoly (e.g., Cournot). You then create a residual demand curve for the oligopoly and apply the solution concept to that demand curve.
- Fringe firms
  - As we saw in Unit 2, the DOJ and the FTC typically ignore fringe firms. The dominant oligopoly model with a competitive fringe provides a theoretical justification.

Appendix

Mathematical notation

- pq: p times q (equivalently, $p \times q$, $p \cdot q$, and (p)(q))
- $p(q)$: p evaluated when quantity is q ("p as a function of q")
- $p(q)q$: p (evaluated at q) times q (i.e., pq)
- Δq: The change in q to the new state from the old state (i.e., $q_2 - q_1$)
- $\sum_{i=1}^{n} a_i$: The sum of the a_i's (i.e., $a_1 + a_2 + \ldots + a_n$)
- $\frac{\Delta y}{\Delta x}$: The change in y divided by the change in x
- $|a|$: The absolute value of a (i.e., a without a positive or negative sign) (e.g., $|3| = |-3| = 3$)
- $\equiv$ Like an equals sign but means a definition

Mathematical notation

Optional calculus terms

- $\dfrac{dy}{dx}$: The derivative of *y* with respect to *x* (where *y* is a function of *x*)
- $\dfrac{\partial y}{\partial x}$: The partial derivative of *y* with respect to *x* (where *y* is a function of *x*)

- Derivatives
  - If $y = a + bx + cx^2$
    then the derivative of *y* with respect to *x* is $\dfrac{dy}{dx} = b + 2cx$

Unit 9. H&R Block/TaxACT

Part 1. Market Definition

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

September 27, 2023

A Little Law

Clayton Act § 7

- Clayton Act § 7 provides the U.S. antitrust standard for mergers

> 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**. [1]

- Essential elements of a Section 7 violation
  1. Acquisitions of stock or assets that,
  2. "in any line of commerce" (product market)
  3. "in any part of the country" (geographic market)
  4. the effect of the acquisition "may substantially lessen competition or tend to create a monopoly"

Called the *relevant market*

Called the *anticompetitive effects test*

[1] 15 U.S.C. § 18 (emphasis added; remainder of section omitted).

Proving the prima facie case

- Three elements:
  1. *Product market definition*: Courts broadly look at two types of indicia in evaluating evidence on the relevant product market—
     a. The "*Brown Shoe* factors"
     b. The "hypothetical monopolist test"
  2. *Geographic market definition*: Courts broadly look at two types of indicia in evaluating evidence on the relevant geographic market—
     a. "The area of effective competition"
        i. The area where customers of the merging firms can practically turn to alternative suppliers (when customers travel to suppliers—think retail stores)
        ii. The area where alternative suppliers exist that can practically service the customers of the merging firm (when suppliers travel to customers—think plumbers)
     b. The "hypothetical monopolist test"
  3. *Anticompetitive effect*: Courts broadly look at two types of indicia in evaluating evidence on the relevant geographic market
     a. The *Philadelphia National Bank* presumption
     b. Explicit theories and supporting direct and circumstantial evidence of likely anticompetitive harm resulting from the merger

Before turning to market definition, we need to examine the Philadelphia National Bank *presumption*

The *PNB* presumption

"This intense congressional concern with the trend toward concentration warrants dispensing, in certain cases, with elaborate proof of market structure, market behavior, or probable anticompetitive effects. Specifically, we think that a merger which **produces a firm controlling an undue percentage share 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 must be enjoined in the absence of evidence clearly showing that the merger is not likely to have such anticompetitive effects."[1]

- Requires—
  - The combined firm to pass some (unspecified) threshold of *market share*, *and*
  - The transaction to result in a *significant increase in market concentration*

  NB: The opinion was careful to note that it was not setting a lower bound and that commentators had suggested 20% as a threshold of "undue" market share
- Supposed to reflect the latest in economic thinking in the then-prevailing structure-conduct-performance paradigm
  - "[T] the test is fully consonant with economic theory."[2]
  - "[C]ompetition is greatest when there are many sellers, none of which has any significant share."[3]

[1] United States v. Philadelphia National Bank, 374 U.S. 321, 363 (1963).
[2] *Id*. (citing extensively to structure-conduct-performance literature).
[3] *Id*.

The *PNB* presumption: Background

- Application in *Philadelphia National Bank*
  - Combined firm had at least a 30% share in the relevant market
    - Enough for an "undue market share"
  - The share of the two largest banks in the relevant market increased from 44% to 59%:
    - Enough for a "significant increase" in market concentration
  - Supreme Court
    - The combined firm's share and the increase in market concentration was sufficient to predicate the *PNB* presumption
    - There was nothing in the record to rebut the presumption
      - The district court misplaced reliance on testimony that competition was vigorous and would continue to be vigorous (problem too complex; witnesses failed to give "concrete reasons" for their conclusions)

The *PNB* presumption: Background

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

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

[1] Brown Shoe Co. v. United States, 370 U.S. 294 (1962).
[2] United States v. Von's Grocery Co., 384 U.S. 270 (1966).
[3] United States v. Pabst Brewing Co., 384 U.S. 546 (1966).

The *PNB* presumption: Background

- Status of the *PNB* presumption as of the late 1970s
  - *General Dynamics* (1974) had returned to a rebuttable presumption
  - BUT
    - There was no meaning test of market definition
    - The market share triggers remained very low
    - The evidence sufficient to rebut the presumption remained generally undefined
- 1982 DOJ Merger Guidelines
  - Introduced the *hypothetical monopolist test* to provide an economically rigorous and sensible means of defining markets in the context of the *PNB* presumption
  - Introduced the HHI as the measure of market concentration
  - Provided new market share thresholds to be used by the DOJ
  - Provided a catalog of defenses to rebut the presumption

This is why we need to introduce the PNB presumption before examining market definition

Baker-Hughes[1]

- Uses a three-step burden shifting approach:
  1. The plaintiff bears burden of proof in market definition and in market shares and market concentration within the relevant market sufficient to trigger the *PNB* presumption and thereby prove a prima facie Section 7 violation
     - More generally, this should be the burden of proving a prima facie case (whether or not the *PNB* presumption or other evidence is invoked to show anticompetitive effect)
     - You can think of the burden here as the *burden of production*, that is, the plaintiff must adduce sufficient evidence to allow the trier of fact to find each and every essential element of a Section 7 violation
     - Essential elements
       1. The relevant product market
       2. The relevant geographic market
       3. The requisite anticompetitive effect in the relevant market

Also need to satisfy the interstate commerce element, but this is rarely contested

  2. If the plaintiff satisfies this burden, the *burden of production* shifts to defendants to adduce evidence sufficient to rebut *PNB* presumption and create a genuine issue for the trier of fact
     a. Negate the plaintiff's market definition
     b. Rebut the predicates of the *PNB* presumption and other evidence of gross anticompetitive effect
     c. If applicable, provide evidence of one or more downward-pricing pressure defenses

[1] United States v. Baker Hughes Inc., 908 F.2d 981, 982-83 (D.C. Cir. 1990).

Baker-Hughes[1]

- Uses a three-step burden shifting approach:
    3. *The burden of persuasion* then returns to plaintiff to prove in light of all of the evidence in the record that the merger is reasonably probable to have an anticompetitive effect in the relevant market

Market Definition Generally

An essential element of the prima facie case

- Some good quotes for use in briefs:
  - "Determination of the relevant product and geographic markets is 'a necessary predicate' to deciding whether a merger contravenes the Clayton Act."[1]
  - "Determination of the relevant market is a necessary predicate to a finding of a violation of the Clayton Act because the threatened monopoly must be one which will substantially lessen competition 'within the area of effective competition.' Substantiality can be determined only in terms of the market affected."[2]
  - "Statistics reflecting the shares of the market controlled by the industry leaders and the parties to the merger are, of course, the primary index of market power; but only a further examination of the particular market—its structure, history and probable future—can provide the appropriate setting for judging the probable anticompetitive effect of the merger."[3]

[1] United States v. Marine Bancorporation, Inc., 418 U.S. 602, 618 (1974) (quoting United States v. E. I. Du Pont de Nemours & Co., 353 U.S. 586, 593 (1957).
[2] United States v. E. I. Du Pont de Nemours & Co., 353 U.S. 586, 593 (1957) (footnote omitted).
[3] Brown Shoe Co. v. United States, 370 U.S. 294, 322 n.28 (1962); *accord* United States v. General Dynamics Corp., 415 U.S. 486, 498 (1974).

Some basic points

- Question of fact
  - The determination of the boundaries of the relevant market is a question of fact
- Burden of proof on the plaintiff
  - Bears the burden of proving a *prima facie* relevant market in Step 1 of *Baker Hughes*
    - Essentially a burden of production
  - Bears the *burden of persuasion* on relevant market in Step 3 of *Baker Hughes*
- Motion to dismiss: *Twombly* applies
  - The complaint must contain sufficient factual allegations to make the alleged market definition plausible under the market definition standards in the case law
  - The plaintiff's failure in a complaint to adequately plead the factual predicates of market definition will result in the complaint's dismissal under FRCP 12(b)(6)
  - However, *Twombly* challenges are typically not brought where—
    1. The defendants are not likely to ultimately challenge the plaintiff's definition of the relevant market, *or*
    2. It is easy for the plaintiff to replead the complaint and supply the missing factual allegations to support its alleged market definition
  - More generally, motions to dismiss are rare in preclosing merger antitrust challenges
    - Merging parties want to proceed to the merits as quickly as possible

Some basic points

- Forward looking
  - Since merger antitrust law is forward-looking—that is, it makes unlawful mergers and acquisitions that are likely to lessen competition substantially in the future as compared to what competitive conditions would have been absent the transaction—market definition equally must be forward-looking
  - Product market definition, for example, should account for new products that shortly will be released or old products that will soon be obsolete
  - Likewise, geographic market definition should account for the construction of new facilities, changing transportation modes or patterns, or new methods of purchasing or distribution
- Appeal
  - As a finding of fact, district court ruling reviewed under the “clearly erroneous” rule
  - FTC findings reviewed under the “substantial evidence” rule

Market definition: A debate

- Is the proof of a relevant market really necessary?
  - Some commentators argue that direct evidence of anticompetitive harm should obviate the need to prove the relevant market
    - For example, say the challenge is to a consummated merger and that the plaintiff can prove the merger resulted in a substantial price increase
  - Opponents of this view argue that the terms of Section 7 explicitly require the showing of the product and geographic dimensions of a relevant market
  - Views of the DOJ and FTC
    - The DOJ and FTC agree that the determination of a relevant market is not necessary in order to prove the requisite anticompetitive effect in the vast majority of mergers
    - BUT they have not been willing to test whether they can dispense with the market definition elements in court
  - Courts
    - Have not had to decide a case on precisely point
    - BUT perhaps the rigor with which a relevant market needs to be defined may depend on whether market shares will play a significant role in the competitive effects analysis
  - WDC view
    - Courts will require proof of a relevant market in all Section 7 cases
    - BUT will not be too demanding on the dimensions of the market if market shares and market concentration statistics are not being using to prove anticompetitive effect

Market Definition
Part 1: The judicial tests

Introduction

- Two dimensions
  - Every relevant market has two dimensions:
    - *The product dimension*: The products within the market (the *relevant product market*)
    - *The geographic dimension*: The geographic area covered by the market (the *relevant geographic market*)
- The relevant market in H&R Block/TaxACT
  - The parties stipulated that the relevant geographic market was the United States
    - It is common for the parties to stipulate to the relevant markets
    - *Some exceptions*:
      - The relevant market is frequently a major issue in “retail” deals (where individuals travel to the business location—think retail stores, banks, hospitals)
      - It can also be an issue when products trade internationally—Is the relevant geographic market national or global?
  - The dimensions of the product market was the central issue in the case

One or both market dimensions almost always will be a major issue in any litigated case. Empirically, disproof of the plaintiff’s market definition is the major reason plaintiffs fail in merger antitrust cases.

We will focus on product market definition in this unit and geographic market definition in the next unit

Product markets generally

- What is a relevant product market?
  - A relevant product market defines the product boundaries within which competition meaningfully exists[1]
  - Although discussed in terms of products, the product market concept equally applies to services or a mixed combination of a product with accompanying services
- Modern concept of relevant markets
  - Products in the relevant market should exert significant price pressure on one another
    - That is, an increase in the price of one of the products in the market should cause customers to switch to other products in the market, and this loss of sales should result in the price increase being unprofitable.
  - Some definitions
    - *Inframarginal customers* continue to buy the product after the price increase
    - *Marginal customers* would buy the product at the original price but not at the increased price
- The showing of the relevant market(s) is an essential element of every Section 7 violation
  - The plaintiff must make a prima facie showing of a relevant market as part of its prima facie case and bears the ultimate burden of persuasion

[1] United States v. Continental Can Co., 378 U.S. 441, 449 (1964).

Two complementary tests in judicial analysis

1. The judicial approach
   - The judicial approach to product market analysis takes its point of departure from the Supreme Court's decision in *Brown Shoe Co. v. United States*,[1] which identified a variety of factors to be considered but said very little about how to consider them
   - The result was enormous confusion, bad analysis, bad decisions, and inconsistency in the courts
2. Merger Guidelines approach
   - Much of the confusion in the courts, and essentially all of the doctrinal disarray in the Antitrust Division and the FTC, has been eliminated by the new market definition approach introduced in the 1982 DOJ Merger Guidelines and continued today (with some changes) in the 2010 DOJ/FTC Horizontal Merger Guidelines[2]
   - The Guidelines' approach seeks to identify markets as product and geographical groupings that are susceptible to the exercise of market power by a hypothetical monopolist
   - Although the Guidelines' approach is not binding as a matter of law, courts have adopted the foundations of the Guidelines' hypothetical monopolist test as conceptually appealing and practically workable

[1] Brown Shoe Co. v. United States, 370 U.S. 294 (1962). [2] There does remain confusion when products have a zero price.

The *Brown Shoe* Tests

The judicial approach: *Brown Shoe*

- *Brown Shoe* provides the starting point in judicial analysis for market definition:

> The outer boundaries of a product market are determined by the **reasonable interchangeability of use** or the **cross-elasticity of demand** between the product itself and substitutes for it. However, within this broad market, well-defined **submarkets** may exist which, in themselves, constitute product markets for antitrust purposes. The boundaries of such a submarket may be determined by examining such practical indicia as industry or public recognition of the submarket as a separate economic entity, the product's peculiar characteristics and uses, unique production facilities, distinct customers, distinct prices, sensitivity to price changes, and specialized vendors. Because § 7 of the Clayton Act prohibits any merger which may substantially lessen competition "in *any* line of commerce" (emphasis supplied), it is necessary to examine the effects of a merger in each such economically significant submarket to determine if there is a reasonable probability that the merger will substantially lessen competition. If such a probability is found to exist, the merger is proscribed.[1]

[1] Brown Shoe Co. v. United States, 370 U.S. 294, 325 (1962) (internal citations and footnotes omitted; emphasis added).

Brown Shoe "outer boundaries" test

- *Brown Shoe*:

> The outer boundaries of a product market are determined by **the reasonable interchangeability of use** or the **cross-elasticity of demand** between the product itself and substitutes for it.[1]

  - This remains the prevailing definition of a relevant product market in the case law
  - Key indicia—
    1. Reasonable interchangeability of use
    2. [High] cross-elasticity of demand
  - Modern usage
    - Reasonable interchangeability of use has largely come to mean high cross-elasticity of demand and is no longer a distinct "outer boundary" factor

[1] Brown Shoe Co. v. United States, 370 U.S. 294, 325 (1962) (emphasis added).

Brown Shoe "outer boundaries" test

- General idea
  - In a horizontal merger, the relevant product market should—
    1. *Start* with the overlapping products of the merging firms
    2. *Contain* all products that exhibit a reasonable interchangeability of use and a high cross-elasticity of demand with one another
    3. *Exclude* all products that lack reasonable interchangeability of use and have a low cross-elasticity of demand with products in the relevant product market

The Brown Shoe *test is intended to isolate all and only those products that exert significant price-constraining force on the overlapping products of the merging parties*

[1] Brown Shoe Co. v. United States, 370 U.S. 294, 325 (1962) (emphasis added).

Brown Shoe "outer boundaries" test

- The core concept
  - Substitutes that are reasonably interchangeable and exhibit a high cross-elasticity with the products of the merging firms are central to market definition because these substitutes determine the extent to which customers of the merging firms can protect themselves against anticompetitive price increases, quality decreases, or declines in the rate of technological innovation or product improvement.
  - If the combined firm attempts to act anticompetitively, either alone or in concert with others, it will only lose sales and, more importantly, profits. The availability of substitutes serves to discipline the combined firm to act competitively.
  - The alternative products in the relevant market need not be the first choice of all customers; it is enough that a significant number of customers of the merging parties would turn to the other products in the market if the merged firm's prices were to increase relative to the prices of these other products.
  - In this sense, market definition, as properly conceived in the reasonable interchangeability of use and high cross-elasticity of demand criteria of *Brown Shoe*, seeks to identify substitutes for the products of the merging firms as a first step in ascertaining whether the disciplining effects of these substitutes are likely to be sufficient to maintain the competitive *status quo ex ante* in the wake of a merger or acquisition.

Brown Shoe "practical indicia" test

- Submarkets and "practical indicia" of relevant markets

> However, within this broad market [defined by reasonable interchangeability of use and high cross-elasticity of demand], well-defined **submarkets** may exist which, in themselves, constitute product markets for antitrust purposes. The boundaries of such a submarket may be determined by examining such **practical indicia** as
>
> [1] industry or public recognition of the submarket as a separate economic entity,
>
> [2] the product's peculiar characteristics and uses,
>
> [3] unique production facilities,
>
> [4] distinct customers,
>
> [5] distinct prices,
>
> [6] sensitivity to price changes, and
>
> [7] specialized vendors.[1]

[1] Brown Shoe Co. v. United States, 370 U.S. 294, 325 (1962).

Brown Shoe “practical indicia” test

- Submarkets and “practical indicia” of relevant markets
  - This list of “practical indicia” was not intended to be exhaustive
  - Some additional factors that courts typically consider—
    1. Relative prices of products in the candidate market
       - A Timex and a Rolex both tell time, but they are unlikely to exhibit a high cross-elasticity of demand with on another
    2. Different functional attributes that might appeal to different classes of buyers
       - Consider the functional difference between a Ferrari 812 (0-60 mph: 2.8 sec.; top speed: 211 mph) and a Nissan Versa S (0-60 mph: 10.2 sec.; top speed: 119 mph)
       - Differences in functionality are often accompanied by differences in price (Ferrari 812 base price: $ 401,500; Nissan Versa S base price: $15,080)
    3. Differences in reputation
       - Even without functional differences

- Problems with the *Brown Shoe* “practical indicia” test
  - The list provides some factors to consider, but does not say what weight they should be given or give any other analytical technique to apply them to determine the boundaries of submarkets
  - This created an enormous amount of confusion, bad analysis, and bad decisions

Brown Shoe submarkets: The modern view

- Submarkets (surprisingly) remain a valid concept in antitrust law
  - Courts still employ the concept, but with decreasing regularity
- But most courts view submarkets as no different than a relevant market
  - Under this view, the *Brown Shoe* "practical indicia" are simply circumstantial evidence probative of reasonable interchangeability of use and cross-elasticity of demand
    - "The requirements for establishing a relevant submarket are no different than those for establishing a relevant market."[1]
  - Courts routinely rely on the *Brown Shoe* factors to define the relevant product market in merger and other antitrust cases[2]
- Since 1982, the merger guidelines have rejected submarkets as distinct from markets

[1] Flovac, Inc. v. Airvac, Inc., 817 F.3d 849, 855 (1st Cir. 2016); *accord* PSKS, Inc. v. Leegin Creative Leather Prods., Inc., 615 F.3d 412, 418 (5th Cir. 2010); Geneva Pharm. Tech. Corp. v. Barr Labs., Inc., 386 F.3d 485, 496 (2d Cir. 2004).

[2] *See, e.g.*, United States v. Sabre Corp., 452 F. Supp. 3d 97, 141 (D. Del. 2020), *vacated*, No. 20-1767, 2020 WL 4915824 (3d Cir. July 20, 2020); FTC v. Peabody Energy Corp., 492 F. Supp. 3d 865, 892 (E.D. Mo. 2020); FTC v. Wilh. Wilhelmsen Holding ASA, 341 F. Supp. 3d 27, 46 (D.D.C. 2018); FTC v. Tronox Ltd., 332 F. Supp. 3d 187, 198 (D.D.C. 2018); United States v. AT & T Inc., 310 F. Supp. 3d 161, 195 (D.D.C. 2018), *aff'd*, 916 F.3d 1029 (D.C. Cir. 2019); FTC v. Staples, Inc., 190 F. Supp. 3d 100, 126-27 (D.D.C. 2016); United States v. H & R Block, 833 F. Supp. 2d 36, 51-60 (D.D.C. 2011); FTC v. CCC Holdings, 605 F. Supp. 2d 26, 39-44 (D.D.C. 2009); FTC v. Swedish Match, 131 F. Supp. 2d 151, 159-64 (D.D.C. 2000); FTC v. Cardinal Health, Inc., 12 F. Supp. 2d 34, 46-48 (D.D.C. 1998); FTC v. Staples, Inc., 970 F. Supp. 1066, 1075-80 (D.D.C. 1997).

Special case: Supply-side switching

- Introduction
  - In a footnote, *Brown Shoe* suggested that "cross-elasticity of production facilities" may be an important factor in defining markets[1]
    - But because the lower court made only limited findings on the feasibility of interchanging equipment in the production of different types of shoes, the Court did not explore it
    - Supply-side switching is often called supply-side substitutability
  - Supply-side switching can constrain prices by encouraging producers to shift into the production of a higher margin product and thereby compete the price of that product down
    - The usual exercise of market power is manifested in a reduction of output, which results in an increase in price.
    - However, when a price increase induces new firms to enter the market, aggregate supply increases over what it would have been otherwise, which in turn may mitigate or eliminate the original price increase.
    - Supply-side responses, therefore, can be as critical to the analysis of price-constraining forces as demand-side responses.

[1] Brown Shoe Co. v. United States, 370 U.S. 294, 325 n.42 (1962).

Special case: Supply-side switching

- Introduction
  - Many courts have used supply-side switching as a factor in market definition[1]
    - Since 1982, the Merger Guidelines have used only demand-side substitution to define markets
    - The Merger Guidelines account for supply-side switching when identifying firms and their market shares in the relevant market and *not* as part of market definition

[1] Besides Brown Shoe Co. v. United States, 370 U.S. 294, 325 n.42 (1962), see, for example, Twin City Sportservice, Inc. v. Charles O'Finley & Co., Inc., 512 F.2d 1264, 1271 (9th Cir. 1975) (""While the majority of the decided cases in which the rule of reasonable interchangeability is employed deal with the 'use' side of the market, the courts have not been unaware of the importance of substitutability on the 'production' side as well."); FTC v. Meta Platforms Inc., No. 5:22-CV-04325-EJD, 2023 WL 2346238, at*13 (N.D. Cal. Feb. 3, 2023) ("Although relevant markets are generally defined by demand-side substitutability, supply-side substitution also informs whether alternative products may be counted in the relevant market.").

Special case: Supply-side switching

- The Merger Guidelines approach[1]
  - Market definition under the Merger Guidelines is determined solely by demand-side considerations
  - *Query*: How is the analysis conducted when two products that are not demand-side substitutes are manufactured on the same production equipment (perhaps with some minor modifications or retooling) and firms can rapidly switch their mix of production from one product to the other in response to small changes in relative prices?
    - For example, multiple grades of paper can and are produced on the same paper-making machines. Customers may not regard the different grades of paper substitutable for one another, but paper mills continuously change their production mix among the different grades in response to changes in relative prices
    - Are all grades of paper made on the same machine in the same relevant product market? If not, how do the Merger Guidelines take into account the clear competitive effects created by this supply-side competition?
  - Answer
    - The Merger Guidelines do *not* include products that are not demand-side substitutes in the same relevant market even if the products exhibit a high degree of supply-side switching
    - Instead, the Merger Guidelines will consider the firm making the supply-side substitute a participant in the relevant market and will assign it a share based on the level of production the firm would make of the relevant product in the event of a SSNIP

[1] *See* 2010 DOJ/FTC Horizontal Merger Guidelines §§ 5.1-5.2.

Special case: Supply-side switching

- The Merger guidelines approach—Example[1]
  - Pencil-making firms can make both No. 2 pencils (the common type) and No. 4 pencils (used by architects in architectural drawings) on the same machine by just changing the mixture of graphite that goes into pencil's lead core. Changing the production mix on a given machine involves relatively low switching costs. No. 2 and No. 4 pencils are not demand-side substitutes.
  - Ace Pencil and Benny Pencil, currently the only two manufacturers of No. 4 pencils, have announced their merger
  - Using the demand-side considerations of the Merger Guidelines, the relevant product market in which to analyze the merger is No. 4 pencils
  - The following chart gives the premerger production levels of No. 2 and No 4 pencils:

	Current Production	
	No. 2	No. 4
Ace	3000	300
Benny	4000	200
Cavalier	7000	
Delta	6000	
Enterprise	3000	
Funny	5000	
Gabriel	5000	

[1] Thanks to Professor Salop for this example. I have modified it slightly.

Special case: Supply-side switching

- The Merger guidelines approach—Example (con't)
  - Additional facts
    - Enterprise has a 5-year contract to supply No. 2 pencils to the American Accountants Association) that will use all of its capacity.
    - Each of the other four third-party manufacturers of No. 2 would each shift 10% of their production to No. 4 pencils in the event of a 5% SSNIP in No. 4 pencils
  - Under the Merger Guidelines, what are the firms in the No. 4 pencil market and what are their respective market shares?

	Current Production		Post-SSNIP No. 4		
	No. 2	No. 4	Production	Shares	HHI
Ace	3000	300	300	10.71%	115
Benny	4000	200	200	7.14%	51
Cavalier	7000		700	25.00%	625
Delta	6000		600	21.43%	459
Enterprise	3000				
Funny	5000		500	17.86%	319
Gabriel	5000		500	17.86%	319
			2800	100.00%	1569
				Delta	153
				Post-HHI	1722

Notes: In the event of a 5% SSNIP in No. 4 pencils—

1. The merging firms are not assigned any additional production since the MG anticipate that they would contract production of No. 4 pencils and not expand it.
2. Cavalier, Delta, Funny, and Gabriel would each shift 10% of their production of No. 2 pencils into the production of No. 4 pencils (facts in the hypothetical).
3. Enterprise would not shift production into No. 4 pencils since all of its capacity is committed under contract to the production of No. 2 pencils for the next five years.

Special case: Supply-side switching

- The Merger guidelines approach—Example
  - So although current production indicates that the Ace/Benny merger is a merger to monopoly in the relevant market, under the Merger Guidelines supply-side considerations make the merger a 6-to-5 transaction in a moderately concentrated market with a relatively small delta. If we take the numbers as given, the deal is unlikely to create any antitrust problem.

Special case: Supply-side switching

- The judicial approach
  - Courts have not fully adopted the Merger Guidelines approach
  - Although the question has not arisen frequently, modern courts are split on whether to include supply-side switching as a factor in market definition
    - Some courts follow the Merger Guidelines approach
      - Or at least hold that defining the boundaries of relevant markets using demand-side considerations only and using supply-side to determine the participants in the market and their respective markets shares is an acceptable legal alternative[1]
    - Other courts allow supply-side considerations to be taken into account when defining the boundaries of the relevant market[2]
      - *Brown Shoe* suggested that supply-side switching should be considered in defining a relevant market[3]

[1] *See* United States v. Bazaarvoice, Inc., No. 13-CV-00133-WHO, 2014 WL 203966, at *31-*32, *37, *67 (N.D. Cal. Jan. 8, 2014).
[2] IFTC v. Lab. Corp. of Am., No. SACV 10-1873 AG MLGX, 2011 WL 3100372, at *17 (C.D. Cal. Feb. 22, 2011) ("Courts place products in the same product market where there is either effective demand-side substitution or effective supply-side substitution.").
[3] *See* Brown Shoe Co. v. United States, 370 U.S. 294, 325 (1962) (including "unique production facilities" as a practical indicium of market definition).

Special case: Supply-side switching

- The judicial approach
  - The economic criticism
    - When courts take supply-side considerations into account in defining the boundaries of the market, they include 100% of the production of the supply-side substitute in the relevant market. This can lead to lead to seriously incorrect inferences.
    - Example:
      - Use the same pencil hypothetical, but make the current production levels of No. 2 and No. 4 pencils somewhat less lopsided by reducing current production of No. 2 pencils

	Current Production		Merger Guidelines approach Post-SSNIP No. 4			Judicial full consideration Post-SSNIP No. 4		
	No. 2	No. 4	Production	Shares	HHI	Production	Shares	HHI
Ace	300	300	300	41.10%	1689	600	17.14%	294
Benny	400	200	200	27.40%	751	600	17.14%	294
Cavalier	700		70	9.59%	92	700	20.00%	400
Delta	600		60	8.22%	68	600	17.14%	294
Enterprise	300							
Funny	500		50	6.85%	47	500	14.29%	204
Gabriel	500		50	6.85%	47	500	14.29%	204
	3300	500	730	100.00%	2646	3500	100.00%	1690
				Delta	2252			588
				Post-HHI	4898			2278

      - Here, the Merger Guidelines approach indicates that the merger is 2-to-1 with a fringe and the HHI statistics indicate that the merger is strongly presumptive anticompetitive. When the full production of No. 2 pencils is added to that of No. 4 pencils under the judicial approach, the merger is 6-to-5 and the HHIs do not suggest a serious competitive problem.

Special case: Supply-side switching

- The judicial approach
  - The economic criticism (con't)
    - In practice, however, the problem is unlikely to arise frequently
      - First, in most cases, supply-side switching is not a factor that arises, so courts usually do not have to deal with the issue
      - Second, courts are increasingly sophisticated in the competitive analysis of mergers. Even if the production facilities of two products are identical and switching production between the two products is easy and can take place rapidly as a technical matter, the courts are likely to include the full production of the supply-side substitute in the relevant market only if the supply-side response to a SSNIP in the products of interest would "flood" the market and so defeat the profitability of the SSNIP.
        - This is what would have happened in the original pencil hypothetical. While the original production of No. 4 pencils was 500 units, a 5% SSNIP would have precipitated a supply-side response of adding 2300 units—more than four times the original level of production.
        - On the other hand, in the second version of the hypothetical, the supply-side response would have added only an additional 230 units. In this case, the court likely would have rejected the argument that the supply-side substitute should be included in the relevant market and instead examined whether entry of new firms or expansion of small incumbent firms already in the relevant market would be sufficient under an ease of entry/expansion/repositioning defense to prevent a postmerger price increase as part of the competitive effects analysis rather than market definition.

Special case: Supply-side switching

- Supply switching in practice
  - Production switching
    - Courts look to high cross-elasticity of supply between two products resulting from an easy switching in their manufacture as an indication that they should be included in the same relevant product market, even if customers do not regard them as substitutes and would never switch between them
    - The same production equipment, for example, with only a slight change in tooling, could easily be used to manufacture glass milk bottles and glass baby food jars, therefore supporting the inclusion of all glass food containers in the same relevant product market.
  - Barriers to switching
    - To the extent that supply-side switching is considered, it is important to examine not only the ease of switching production but also the ability to sell the resulting product
    - For some products, the lack of access to distribution channels, reputation, or post-sale service can be greater impediments to successful participation in the market than the need for sophisticated or capital-intensive production technology
    - Such a lack of access can significantly dampen cross-elasticity of supply even when it is technologically easy to switch existing production equipment to manufacture the product under scrutiny

Special case: Supply-side switching

- Supply switching in practice
  - Incentive to switch
    - In addition, for supply-side switching to be competitively meaningful, there must be an incentive for firms to switch their production mix in response to a price increase in the putative relevant market
    - If the manufacture and sale of products in the putative market are not profitable for firms outside the market that have the requisite production technology (taking into account any additional costs associated with distribution and sale even at the higher SSNIP-increased price), then those firms will not change their production mix in response to a price increase and should not be included in the market

The Hypothetical Monopolist Test

Hypothetical monopolist test (HMT)

- The original idea
  - The relevant market should be—
    1. the *smallest group of products* containing the products of interest (say, the products of the merging firms in a horizontal merger)
    2. in which a hypothetical monopolist of those products *could raise prices profitably* over the current level
    3. by at least "*small but significant nontransitory*" amount
  - Observations
    - Introduced in the 1982 DOJ Merger Guidelines
    - Designed to introduce some economic sense and analytical rigor into market definition
    - Continued in the subsequent merger guidelines (although with some important modifications)
    - "SSNIP" = "Small but significant nontransitory increase in price"
      - Under the Merger Guidelines, a SSNIP is usually taken to be a price increase of 5% for at least one year
  - General idea
    - If a hypothetical monopolist—effectively the merger of all firms in the candidate market—could not anticompetitively affect prices, then a fortiori a merger of only two firms in the candidate market could not affect prices
    - Accordingly, the candidate market should be accepted as a relevant market only if a hypothetical monopolist could raise prices profitably
      - Is this a *necessary condition* or a *necessary and sufficient condition* for a relevant market?

Hypothetical monopolist test (1982)

- Propositions:
  1. If a hypothetical monopolist would not have market power with respect to a group of products to be able to profitably raise prices for those products, then a fortiori a merger of firms producing products within that group could not produce in an anticompetitive price increase
  2. If a hypothetical monopolist would not raise prices by a SSNIP because it would be unprofitable, then products outside the candidate relevant market must be exerting competitive price pressure and the candidate market needs to be expanded to include the next closest substitutes (and the test run again)
  3. Find the smallest group of products for which a hypothetical monopolist would have market power to raise prices and then assess whether a merger of two firms producing products within this group would likely result in an anticompetitive price increase

Accordingly, the candidate market should be accepted as a relevant market if and only if a hypothetical monopolist could raise prices profitably

Hypothetical monopolist test

- "Hypothetical monopolist" paradigm for market definition
  - A little arithmetic
    - A price increase of Δp—which will result in a quantity decrease of Δq—is profitable if the firm's profits after the price increase are greater than the firm's profits before the price increase:

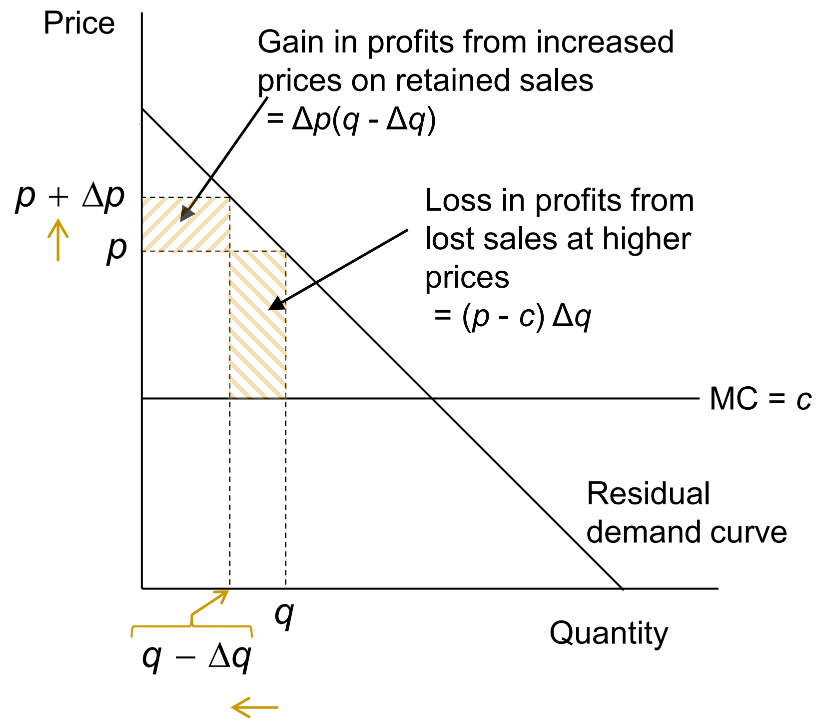
$$(p + \Delta p - c)(q - \Delta q) > (p - c)q$$

    - Rearranging, this implies

$$\Delta p(q - \Delta q) > (p - c)\Delta q$$

that is, the gain in profits on the inframarginal sales is greater than the loss of margin on the lost marginal sales

Price increase p to $(p + \Delta p)$



Hypothetical monopolist test

- Example—Uniform price increase on all products in the candidate market

Consider blue cars (a homogeneous product) as a candidate market. Say blue cars are priced at $20,000 per car, cost $17,000 per car to produce, and sell 50,000 cars per year. If the price is increased by 5% on all blue cars, blue cars will only sell 45,000 cars per year. Are blue cars a relevant market under the hypothetical monopolist test for a 5% SSNIP?

Data			**Incremental profit on inframarginal sales (area G)**		
Unit sales (q1)	50,000	From problem	Inframarginal sales	45,000	
Price (p1)	$20,000	From problem	$SSNIP	$1,000	p1 times q1
Unit cost (c)	$17,000	From problem	Incremental gross profits	$45,000,000	Difference
$Margin ($m)	$3,000	Calculated			
			Incremental loss of profit on marginal sales (area L)		
Retained sales (q2)	45,000	From problem	Marginal sales	-5,000	Δq
Lost (marginal) sales (Δq)	5,000	Calculated	$Margin	$3,000	$m
%SSNIP	5%	From problem	Incremental gross losses	-$15,000,000	$m times Δq
$SSNIP	$1,000	Calculated			
		Calculated	**Incremental net profits**	**$30,000,000**	

- Incremental net profits are positive, so blue cars are a relevant market under the hypothetical monopolist test
- This is a “brute force” accounting implementation of a uniform SSNIP test

1992 Merger Guidelines

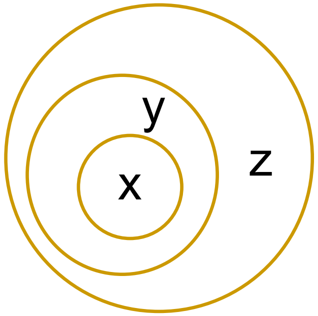
- Methodology

> [T]he Agency will begin with each product (narrowly defined) produced or sold by each merging firm and ask what would happen if a hypothetical monopolist of that product imposed at least a "small but significant and nontransitory" increase in price, but the terms of sale of all other products remained constant. If, in response to the price increase, the reduction in sales of the product would be large enough that a hypothetical monopolist would not find it profitable to impose such an increase in price, then the Agency will add to the product group the product that is the next-best substitute for the merging firm's product.
>
> . . .
>
> The price increase question is then asked for a hypothetical monopolist controlling the expanded product group. In performing successive iterations of the price increase test, the hypothetical monopolist will be assumed to pursue maximum profits in deciding whether to raise the prices of any or all of the additional products under its control. This process will continue until a group of products is identified such that a hypothetical monopolist over that group of products would profitably impose at least a "small but significant and nontransitory" increase, including the price of a product of one of the merging firms. The Agency generally will consider the relevant product market to be the smallest group of products that satisfies this test.[1]

[1] 1992 Horizontal Merger Guidelines § 1.11.

HMT: Merger Guidelines Algorithm[1]

1. Start with the product of a merging firm as the starting candidate market.
   - In practice (and in the courts), the starting market may include multiple products selected for reasons outside the HMT test (such as industry recognition)
2. Ask whether a hypothetical monopolist of the candidate market could profitably increase price by a SSNIP. If so, then that candidate market satisfies the HMT. If not, go to Step 3.
3. Expand the market to include the next closest substitute to the products in the prior candidate market and repeat Step 2.



1. Start with candidate market x. Apply HMT.
   If HMT is satisfied, this is the relevant market
   If HMT fails, expand market to y
2. Apply HMT to new candidate market
   If HMT is satisfied, this is the relevant market
   If HMT fails, expand market to z
3. Apply HMT to new candidate market
   If HMT is satisfied, this is the relevant market
   If HMT fails, expand market . . .

[1] 1992 Horizontal Merger Guidelines § 1.11.

1992 Merger Guidelines

- Methodology (con't)
  - Definitions
    - Any group of products being tested is called a *provisional* or *candidate* product market
    - The first group of products that satisfies the hypothetical monopolist test is the relevant product market (under the "smallest market" principle)[1]
  - Prices
    - In the ordinary course, the agencies will use premerger prices
    - If premerger circumstances are strongly suggestive of coordinated interaction, the agency will use prices more reflective of the noncollusive price
    - If changes in the prevailing prices can be predicted with reasonable reliability, the agency may use likely future prices (assuming no merger)
  - SSNIP
    - A "small but significant and nontransitory" increase in price (SSNIP) is usually 5%
    - There is no explanation of when a SSNIP smaller or larger than 5% is appropriate
      - NB: The larger the SSNIP, the less likely the SSNIP will be profitable, so larger SSNIPs can be viewed as conservative

[1] We will see that this requirement was eliminated in the 2010 merger guidelines.

HMT: Some questions

1. Should the test be whether the SSNIP is profitable for the hypothetical monopolist (the *profitability* or *breakeven test*) or whether the hypothetical monopolist's profit-maximizing price is equal to or greater than the SSNIP (the *profit-maximization test*)?
   - The practice under the 1982 and 1992 Merger Guidelines in the agency and the courts was to use the profitability test
     - The profitability test is sometimes called the *breakeven test*
     - Moreover, notwithstanding that change in verb from "could" to "would" in the 1992 Merger Guidelines, the agencies did not change from a profitability test to a profit-maximization test either in their investigations or in their briefs in court
   - After the 2010 Merger Guidelines were released, the DOJ and FTC chief economists began to emphasize the profitability test as the proper one in economic analysis as well as the one prescribed by the language of the Guidelines
   - Practice in the courts
     - As the courts were adopting the hypothetical monopolist test in the 1980s and early 1990s, the 1982 and 1992 guidelines were in effect
     - As a result, the agencies urged the courts to adopt, and the courts did adopt in fact, the probability version of the hypothetical monopolist test
     - Today, the profitability test remains the judicial test in most courts

Profitable v. profit-maximizing

- The Merger Guidelines
  - The difference
    - 1982 Guidelines:

> "In general, the Department seeks to identify a group of products such that a hypothetical firm that was the only present and future seller of those products *could* raise price profitably."[1]

- The 1982 Guidelines ask whether it *could* be profitable for a hypothetical monopolist to raise prices by a SSNIP
- That is, whether it would be profitable to do so, not whether it would be profit maximizing

    - 1992 Guidelines:

> A market is defined as a product or group of products and a geographic area in which it is produced or sold such that a hypothetical profit-maximizing firm, not subject to price regulation, that was the only present and future producer or seller of those products in that area likely *would* impose at least a "small but significant and nontransitory" increase in price, assuming the terms of sale of all other products are held constant.[2]

- The 1992 Guidelines ask whether it *would* be profit-maximizing for a hypothetical monopolist to raise prices by a SSNIP
- In other words, is the monopoly price higher by at least a SSNIP to the current price?

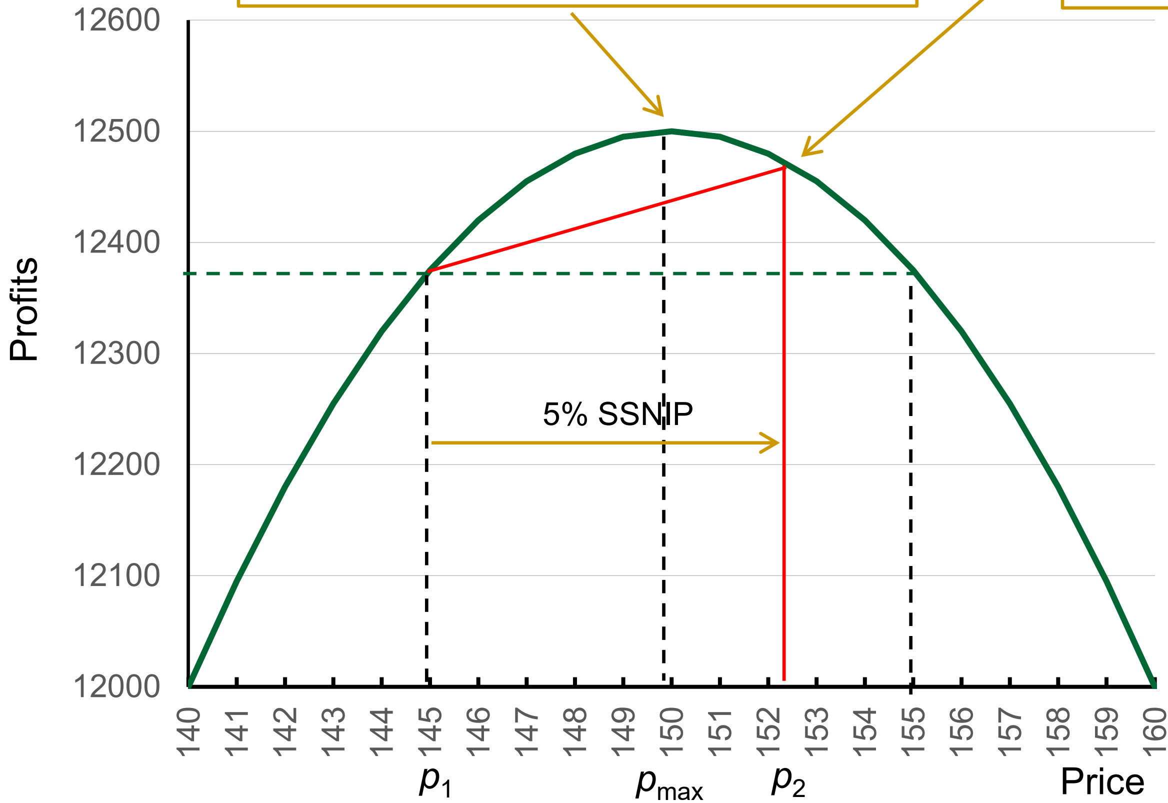
[1] U.S. Dep't of Justice, Merger Guidelines § II(A) (rev. 1982) (emphasis added).
[2] U.S. Dep't of Justice & Fed. Trade Comm'n, Horizontal Merger Guidelines § 1.0 (rev. 1992) (emphasis added).

Profitable v. profit-maximizing

- *Example*: HMT profitability and profit maximization tests in a close-to-monopolized market

The HMT profit maximization test is not satisfied—Hypothetical monopolist would not price as high as a SSNIP

The HMT probability test is satisfied—a 5% SSNIP would be profitable



Model:
$q = 1000 - 5p$
$p_1 = 145$
$q_1 = 275$
$F = 0$
$mc = 100$
$\pi_1 = 12{,}375$

$p_{max} = 150$
$q_{max} = 250$
$\pi_{\max} = 12{,}500$

SSNIP = 5%
$p_2 = 152.25$
$q_2 = 238.75$
$\pi_2 = 12{,}475$

Profitable v. profit-maximizing

- A quick sufficiency test for profit-maximization

  If a hypothetical monopolist satisfies the profitability test for some %SSNIP δ, then the hypothetical monopolist satisfies the profit-maximization test for a SSNIP of $\delta/2$

  - The idea (not a formal proof)
    - From the graph on the previous slide, we see that a hypothetical monopolist that satisfies the profitability test breaks even at a price where the downward portion of the profit curve intersects the horizontal line passing through the original profit level. Given the symmetry of the profit curve, the profit-maximizing price is at a point one-half the distance between the two breakeven prices. Hence, if the hypothetical monopolist at least breaks even for a given percentage SSNIP—that is, the post-SSNIP price is between the two breakeven prices, then a SSNIP of half the size will fall to the left of the profit-maximizing price (at the top of the "hill") and so satisfy the profit-maximization test.
      - The profit curve will be symmetrical when the aggregate demand curve is linear and marginal costs are constant
    - In subsequent case studies, we will see testifying economists use a SSNIP of 10% in a profitability test to show that the hypothetical monopolists satisfies the profit-maximization test for a SSNIP of 5%

Profitable v. profit-maximizing

- Adoption by the courts
  - As the courts were adopting the hypothetical monopolist test in the 1980s and early 1990s, the 1982 guidelines were in effect
  - Moreover, notwithstanding that change in verb from “could” to “would” in the 1992 Merger Guidelines, the agencies did not change from a profitability test to a profit-maximization test either in their investigations or in their briefs in court
    - The profitability test is sometimes called the *breakeven test*
  - As a result, the agencies urged the courts to adopt, and the courts did adopt in fact, the probability version of the hypothetical monopolist test

Profitable v. profit-maximizing

- Adoption by the courts (con't)
  - Given this precedent, the profitability test remains the judicial test in most courts notwithstanding the change in the 1992 Guidelines (which was continued in the 2010 revision)[1]

[1] *See, e.g.*, FTC v. Penn State Hershey Med. Ctr., 838 F.3d 327, 338 (3d Cir. 2016); FTC v. Hackensack Meridian Health, Inc., No. CV 20-18140, 2021 WL 4145062, at *15 (D.N.J. Aug. 4, 2021); FTC v. Thomas Jefferson Univ., 505 F. Supp. 3d 522, 540 (E.D. Pa. 2020); FTC v. Peabody Energy Corp., 492 F. Supp. 3d 865, 886 (E.D. Mo. 2020); FTC v. RAG-Stiftung, 436 F. Supp. 3d 278, 293 (D.D.C. 2020); FTC v. Tronox Ltd., 332 F. Supp. 3d 187, 204 (D.D.C. 2018); FTC v. Wilh. Wilhelmsen Holding ASA, 341 F. Supp. 3d 27, 57 (D.D.C. 2018); FTC v. Tronox Ltd., 332 F. Supp. 3d 187, 204 (D.D.C. 2018); United States v. Aetna Inc., 240 F. Supp. 3d 1, 20 (D.D.C. 2017); FTC v. Advocate Health Care, No. 15 C 11473, 2016 WL 3387163, at *4 (N.D. Ill. June 20, 2016), *rev'd on other grounds and remanded*, 841 F.3d 460 (7th Cir. 2016); United States v. Bazaarvoice, Inc., No. 13-CV-00133-WHO, 2014 WL 203966, at *30 (N.D. Cal. Jan. 8, 2014); FTC v. Arch Coal, Inc., 329 F. Supp. 2d 109, 120 n.7 (D.D.C. 2004); FTC v. Swedish Match, 131 F. Supp. 2d 151, 160 (D.D.C. 2000). Other courts employ language supporting both tests, but the default appears to be the profitability test. *See, e.g.*, Olin Corp. v. FTC, 986 F.2d 1295, 1299 (9th Cir. 1993); United States v. H & R Block, Inc., 833 F. Supp. 2d 36, 52 (D.D.C. 2011). Some courts do appear to cite the profit-maximization test, but it does not appear from the opinions that the results would have been any different under a profitability test. *See, e.g.*, FTC v. Sanford Health, No. 1:17-CV-133, 2017 WL 10810016, at *10 (D.N.D. Dec. 15, 2017), *aff'd*, 926 F.3d 959 (8th Cir. 2019); United States v. Sabre Corp., 452 F. Supp. 3d 97, 125 (D. Del. 2020), *vacated*, No. 20-1767, 2020 WL 4915824 (3d Cir. July 20, 2020); FTC v. Wilh. Wilhelmsen Holding ASA, 341 F. Supp. 3d 27, 47 (D.D.C. 2018); United States v. Sungard Data Sys., Inc., 172 F. Supp. 2d 172, 192 (D.D.C. 2001).

Profitable v. profit-maximizing

- Profitable v. profit-maximizing
  - Effect in practice
    - The change was largely ignored in practice, with the emphasis remaining on whether it would be profitable, not profit-maximizing, for the hypothetical monopolist to raise prices by a SSNIP
    - Moreover, since the current price would be close to the monopoly price only in the presumably rare situation where the market is operating close to a perfect monopoly, in most cases the profitability test and the profit-maximization test will reach the same result with respect to a candidate market
  - *Query*: Were the 2010 Guidelines correct in adopting the profit-maximization test?
    - Won't it reject markets close to being monopolized and increase the probability of a *Cellophane* fallacy?

Profitable v. profit-maximizing

- The *Cellophane* fallacy
  - *Rule*: A monopolist will not price in the inelastic portion of the demand curve
    - *Implication 1*: A monopolist will increase its price until other goods become sufficiently substitutable to make a further price increase unprofitable
    - *Implication 2*: At the profit-maximizing price, a monopolist will not be able to profitably increase its price, much less increase its price by a SSNIP
    - *Implication 3*: Using prevailing prices, the hypothetical monopolist test will reject a perfectly or close to perfectly monopolized market as a relevant market
  - The *Cellophane* case[1]
    - In 1947, the DOJ sued DuPont for monopolizing cellophane, a flexible wrapping material duPont had developed, through anticompetitively restrictive patent practices
    - The Court evaluated the relevant market using duPont's prevailing prices for cellophane
    - At these prices, other wrapping materials—including aluminum foil and Saran wrap—exhibited significant cross-elasticity with cellophane
    - *Conclusion*: In the proper relevant market of all flexible wrapping paper, cellophane's relatively small market share negated the DOJ's monopolization claim
  - Implications for the hypothetical monopolist test
    - The profit-maximization version of the hypothetical monopolist test is more susceptible to the *Cellophane* fallacy than the profitability version since it is more likely to reject close-to-monopolized markets

[1] United States v. E.I. du Pont de Nemours & Co., 351 U.S. 377 (1956) ("Cellophane").

Profitable v. profit-maximizing

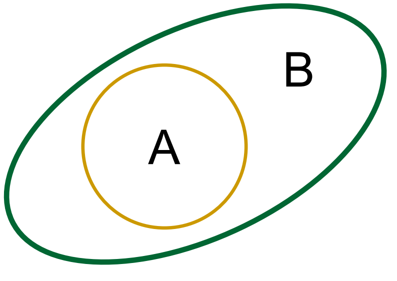
- The *Cellophane* fallacy—Important note
  - The *Cellophane* fallacy is primarily important in monopolization cases, not merger antitrust cases
    - In monopolization cases, it is important to exclude products from the market that are substitutes only because the defendant is charging a monopoly or near-monopoly price in order to show that the defendant has a market share indicative of monopoly power
    - In merger antitrust cases, however, the question is whether the merger will enable the combined firm to increase prices above the level they would have been going forward in the absence of the merger
      - We will see later in this unit that a "monopolist" within the meaning of Sherman Act § 2 charging a monopoly price in a market characterized by the *Cellophane* fallacy may still increase its price further if it combines with a firm that is a close enough substitute at the monopoly price

HMT: Some questions

2. Should the relevant market identified by the HMT be the smallest market that satisfies the test or should any (reasonable) candidate market that satisfies the test be a relevant market?
   - The 1982 and 1992 Merger Guidelines imposed a “smallest market” requirement
     - In principle, this makes the relevant market unique
   - The 2010 Merger Guidelines rejected the smallest market requirement
     - Also rejects unique relevant markets and allows multiple relevant markets for the same pair of overlapping merger products
   - The courts have never applied the HMT strictly algorithmically and have accepted larger relevant markets that also satisfied the *Brown Shoe* tests
     - We see this in H&R Block/TaxAct
     - Courts, however, do sometimes state that they do apply the smallest market principle
   - NB: When using a selective or one-product SSNIP, any superset of a relevant market will satisfy the HMT profitability test

HMT: Some questions

3. Uniform or selective SSNIP
   - Should the hypothetical monopolist increase the prices of all products in the relevant market by the same percentage SSNIP or should the monopolist be allowed to selectively increase the prices of one or more products in the relevant market?
     - *The 1982 Merger Guidelines*: Required a uniform SSNIP
     - *The 1992 Merger Guidelines*: Allowed a selective SSNIP; the practice was to use a selective SSNIP when the product in question was already selectively priced under prevailing market conditions
     - *The 2010 Merger Guidelines*: Allowed a selective SSNIP; the practice is to use a selective SSNIP when the product in question was already *or* could be selectively priced
   - *Proposition*: If a candidate market satisfies the HMT, then any superset of that market will satisfy the HMT
     - Use selective pricing and keep the added products at their original price



If A satisfies the HMT, then AB + B satisfies the HMT (just keep the B products at their original prices)

HMT: Some questions

4. Is passing the HMT a necessary or a necessary and sufficient condition for a relevant market?
    - Originally, the HMT was widely considered by the agencies and the bar as a necessary and sufficient condition
    - But courts did not accept the HMT as a sufficient test when the product grouping did not comport with the "commercial realties" of a market—typically when:
        - Close substitutes were excluded, *or*
        - The industry did not recognize the product grouping as a market
    - The 2010 Horizontal Merger Guidelines implicitly weakened the HMT to more of a necessary test when they eliminated the smallest market requirement:

> The hypothetical monopolist test ensures that markets are not defined too narrowly, but it does not lead to a single relevant market. The Agencies may evaluate a merger in any relevant market satisfying the test, guided by the overarching principle that the purpose of defining the market and measuring market shares is to illuminate the evaluation of competitive effects. Because the relative competitive significance of more distant substitutes is apt to be overstated by their share of sales, when the Agencies rely on market shares and concentration, they usually do so in the smallest relevant market satisfying the hypothetical monopolist test.[1]

[1] 1992 Horizontal Merger Guidelines § 4.11.

Applying the SSNIP: 1992 Guidelines

- Assessing buyer reactions to a SSNIP
  - Factors identified in the 1992 guidelines to consider in assessing buyer reactions to a SSNIP:[1]
    - Evidence that buyers have shifted or have considered shifting purchases between products in response to relative changes in price or other competitive variables
      - Often includes testimony from knowledgeable representatives from buyers (as in *Sanford Health*)
      - Economic or econometric evidence introduced by an economics expert
    - Evidence that sellers base business decisions on the prospect of buyer substitution between products in response to relative changes in price or other competitive variables
    - The influence of downstream competition faced by buyers in their output markets
      - This is sometimes called "derived demand"
    - The timing and costs of switching products
  - These factors are nonexclusive: Any evidence probative of buyer switching reactions may be considered

[1] 1992 Horizontal Merger Guidelines § 1.11.

Applying the SSNIP: 1992 Guidelines

- Assessing buyer reactions to a SSNIP
  - “Where the rubber meets the road”—Customer testimony
    - In practice, actual evidence of switching behavior in response to changes in relative prices is rarely available
    - In the absence of actual switching evidence, the agencies usually ask customers what they would do in the event of a SSNIP and then use the response in assessing buyer reactions
      - This is true only when the buyers are somewhat sophisticated
        - Usually intermediate product buyers (i.e., business firms that are buying products or services as an input into the production of another product)
      - The agencies do not survey average consumers in retail products mergers
        - Instead, use econometric analysis of point-of-sale scanner data for consumer products to estimate cross-elasticities for use in the hypothetical monopolist test
    - Customer interview responses have proven notoriously unreliable for three reasons:
      1. Even sophisticated customers often do not know what they would actually do if faced with a SSNIP
         - Still, often will give the agency an answer just to make them go away
      2. Customers that understand the merger antitrust game may give an answer that is designed to achieve a strategic objective (such as stopping the merger or forcing a significant divestiture)
      3. Prices are determined at the margin; hence only the responses of marginal customers should count. But there is no way for the agencies to distinguish between marginal and inframarginal customers in interviews and therefore are likely to credit all responses equally.
         - This leads to a significant bias in favor of narrower markets

Applying the SSNIP: 1992 Guidelines

- Significant head-to-head bidding competition
  - “Where the rubber meets the road”—Significant head-to-head bidding competition
    - Where firms in the provisional market (especially the merging firms) engage in significant bidding competition with each other, that competition would be eliminated by a hypothetical monopolist—along with any price decreases that resulted from the bidding competition
      - Sophisticated customers can become very expert at “playing firms off of one another” in bidding competitions in order to minimize the price they pay
    - Evidence of significant head-to-head bidding competition is probative of competitive effects as well as market definition
      - Where the merging firms compete with each other frequently, especially in the so-called “best and final” round, and customers say (with supporting reasons) that no other supplier could replace this competition after the merger, the agencies will almost certainly challenge the merger

Applying the SSNIP: 2010 Guidelines

- Adopts the 1992 Merger Guidelines methodology with three very significant changes
  1. Relegates market definition to one of several tools useful in merger antitrust analysis
     - May not be necessary or even helpful in all cases
     - Was the point of departure for all merger antitrust analysis under the 1992 guidelines
  2. *One-product SSNIP tests*. Expands the ability of the hypothetical monopolist to discriminate in raising prices of products in the candidate market:

> Specifically, the test requires that a hypothetical profit-maximizing firm, not subject to price regulation, that was the only present and future seller of those products ("hypothetical monopolist") likely would impose at least a small but significant and non-transitory increase in price ("SSNIP") *on at least one product in the market, including at least one product sold by one of the merging firms*.[1]

- Only differentiated product markets are susceptible to discrimination among products within the market
  - Product attributes
  - Channels of distribution
- The market for homogeneous products admits only a single price for all products

[1] U.S. Dep't of Justice & Fed. Trade Comm'n, Horizontal Merger Guidelines § 4.1.1 (rev. 2010) (emphasis added).

Applying the SSNIP: 2010 Guidelines

- Adopts the 1992 Merger Guidelines methodology with three very significant changes
  3. *No smallest market requirement*. Abandons the "smallest market" principle and with it unique relevant markets
     - The 1992 guidelines considered the relevant product market to be the smallest group of products that satisfied the hypothetical monopolist test
     - The 2010 guidelines accept as a relevant product market any group of products that satisfies the hypothetical monopolist test
       - This permits "cherry-picking" of products to include in the relevant product market
       - Also makes it difficult for defendants to argue in court that prosecuting agency misspecified the relevant product market
     - Coupled with the one-product SSNIP test, this means that any product grouping that contains a relevant product market satisfies the HMT
       - *Idea*: Apply the SSNIP to those products that made the smaller product grouping a relevant market and hold the prices of all other products constant
       - The simple way to express this principle is that any *superset* of a relevant market is a relevant market
     - Many courts still cite the smallest market principle
       - The precedent developed under the 1982 guidelines and continues to be cited[1]

[1] *See, e.g.*, Vasquez v. Indiana Univ. Health, Inc., 40 F.4th 582, 587 (7th Cir. 2022); FTC v. RAG-Stiftung, 436 F. Supp. 3d 278, 292 (D.D.C. 2020); FTC v. Peabody Energy Corp., 492 F. Supp. 3d 865, 886 (E.D. Mo. 2020); FTC v. Tronox Ltd., 332 F. Supp. 3d 201 (D.D.C. 2018); United States v. Aetna Inc., 240 F. Supp. 3d 1, 40 (D.D.C. 2017); FTC v. Sysco Corp., 113 F. Supp. 3d 1, 26 (D.D.C. 2015); United States v. H & R Block, Inc., 833 F. Supp. 2d 36, 59 (D.D.C. 2011) ("[T]the relevant product market should ordinarily be defined as the smallest product market that will satisfy the hypothetical monopolist test.").

Applying the SSNIP: 2010 Guidelines

- Examples of "cherry-picking" under the 2010 guidelines[1]
  - Motorcycles and cars

    Example 4: Firms A and B, sellers of two leading brands of motorcycles, propose to merge. If Brand A motorcycle prices were to rise, some buyers would substitute to Brand B, and some others would substitute to cars. However, motorcycle buyers see Brand B motorcycles as much more similar to Brand A motorcycles than are cars. Far more cars are sold than motorcycles. Evaluating shares in a market that includes cars would greatly underestimate the competitive significance of Brand B motorcycles in constraining Brand A's prices and greatly overestimate the significance of cars.

    Example 7: In Example 4, including cars in the market will lead to misleadingly small market shares for motorcycle producers. Unless motorcycles fail the hypothetical monopolist test, the Agencies would not include cars in the market in analyzing this motorcycle merger.

  - Exclusion of closer substitutes

    Example 5: 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. Therefore, Products A and B satisfy the hypothetical monopolist test using a five percent SSNIP, and indeed for any SSNIP size up to ten percent. This is true even though two-thirds of the sales lost by one product when it raises its price are diverted to products outside the relevant market.

[1] For examples, see 2010 Merger Guidelines § 4.1.1.

Product markets: Special cases

- Cluster markets
  - Courts sometimes define markets around collections of products that are almost always offered for a sale at a single location
  - The products in a cluster market can vary widely and typically exhibit little if any cross-elasticity of demand
    - *Examples*: Commercial banking services, supermarkets, office supply stores, department stores, sporting equipment, acute care inpatient hospital services, retail pharmacies
  - Courts have found a relevant product to be a subset of products within a retail store
    - Sale and distribution of consumable office supplies to large business-to-business customers[1]
    - Cluster of prescription drugs that are typically sold in brick-and-mortar retail pharmacies[2]

[1] FTC v. Staples, Inc., 190 F. Supp. 3d 100, 117, 123-26 (D.D.C. 2016).
[2] *See* Sharif Pharmacy, Inc. v. Prime Therapeutics, LLC, 950 F.3d 911, 918 (7th Cir. 2020)

Product markets: Special cases

- Cluster markets
  - Two types of cluster markets
    1. Products that share similar shares and demand characteristics
       - Not well defined in the case law
       - Accepted "for analytical convenience" when market shares are likely to be the same across products[1]
       - Typically, analytic similarity is simply asserted rather than analyzed by courts
    2. Product groups that exhibit economies of scope
       - WDC: The best justification for combining diverse products and services into a single relevant product market is where there exist substantial economies of scope in purchasing, so that sellers tend to offer for sale at a single location the entire collection of products and customers tend to select sellers more on the basis of their aggregate offerings and less on the offerings of single products (think grocery stores or hospitals)[2]
       - If customers are attracted by the totality of the products offered at the seller's location, then sellers have some flexibility in setting the prices of individual products without being constrained by competition from partial line or single product sellers, provided that the sellers remain competitive within their product offering as a whole
       - In a properly defined cluster market, specialty dealers that offer a limited selection of products should only be able to operate in narrow niches and should not be able to compete successfully for a large fraction of the total sales of their particular products

[1] *See, e.g.*, FTC v. Staples, Inc., 190 F. Supp. 3d 100, 117 (D.D.C. 2016).
[2] *See* FTC v. Advocate Health Care Network, 841 F.3d 460, 467 (7th Cir. 2016) ("But products can also be 'clustered' together if the 'cluster' is itself an object of consumer demand.") (citation and internal quotation marks omitted); *accord* Sharif Pharmacy, Inc. v. Prime Therapeutics, LLC, 950 F.3d 911, 918 (7th Cir. 2020).

Product markets: Special cases

- Cluster markets
  - Separable demand or supply conditions
    - A cluster market would not be appropriate if customers would respond to a price increase of a single product within the cluster by shifting some or all of their purchases to partial line or single product sellers
    - Example
      - In *Staples/Office Depot*, the district court sustained an FTC cluster market that included all general office supplies except toner, ink, and BOSS ("beyond office supplies") products[1]
      - The court found that the excluded products were subject to significantly different competitive conditions than the other products in the alleged cluster market and hence properly excluded

[1] *See* FTC v. Staples, Inc., 190 F. Supp. 3d 100, 122-26 (D.D.C. 2016).

Product markets: Special cases

- Price discrimination/“targeted customer” markets
  - Ordinarily, the SSNIP is applied uniformly to all products in the provisional market
  - However, if the market is or can be subject to price discrimination, the agency may apply a discriminatory price increase on sales to—
    - particular products in a differentiated products market, or
    - particular targeted buyers
  - Introduced in the 1992 Merger Guidelines

> *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.[1]

- Implications
  - Price discrimination can narrow a market considerably
  - In some years, the FTC aggressively used price discrimination to narrow markets even when there were no historical occurrences of price discrimination

[1] Janusz A. Ordover & Robert D. Willig, *Economics and the 1992 Merger Guidelines: A Brief Survey*, 8 Rev. Indus. Org. 139, 140-41 (1993).

Product markets: Special cases

- Price discrimination/"targeted customer" markets
  - Modern courts have adopted this approach to market definition[1]
    - *Example*: United States v. H & R Block, Inc.:

> An analytical method often used by courts to define a relevant market is to ask hypothetically whether it would be profitable to have a monopoly over a given set of substitutable products. If so, those products may constitute a relevant market. This approach—sometimes called the "hypothetical monopolist test"—is endorsed by the Horizontal Merger Guidelines issued by the DOJ and Federal Trade Commission. In the merger context, this inquiry boils down to whether "a hypothetical profit-maximizing firm, not subject to price regulation, that was the only present and future seller of those products . . . likely would impose at least a small but significant and non-transitory increase in price ("SSNIP") *on at least one product in the market, including at least one product sold by one of the merging firms*." The "small but significant and non-transitory increase in price," or SSNIP, is typically assumed to be five percent or more.[1]

    - For other cases noting, apparently with approval, the Merger Guidelines "one product" approach to market definition, see—
      - FTC v. Wilh. Wilhelmsen Holding AS, No. 18-cv-00414-TSC,2018 WL 4705816, at *7 (D.D.C. Oct. 1, 2018)
      - United States v. Anthem, Inc., 236 F. Supp. 3d 171, 198 (D.D.C. 2017)
      - United States v. Aetna Inc., 240 F. Supp. 3d 1, 20 (D.D.C. 2017)
      - FTC v. Staples, Inc., 190 F. Supp. 3d 100, 121 (D.D.C. 2016)
      - FTC v. Sysco Corp., 113 F. Supp. 3d 1, 33 (D.D.C. 2015)
      - *In re* Live Concert Antitrust Litig., 863 F. Supp. 2d 966, 987 (C.D. Cal. 2012)

[1] 833 F. Supp. 2d 36, 51-52 (D.D.C. 2011) (internal citations omitted; emphasis added).

Product markets: Special cases

- Price discrimination/"targeted customer" markets
  - Modern examples
    - Large business customers in the Staples/Office Depot merger[1]
      - Large B2B customers solicit multiyear contracts through "requests for proposals" (RFPs), which permits customized (and often nonlinear) pricing terms not available to retail customers
      - The volume of large B2B customers allows them to purchase office supplies at about one-half of the price paid by the average retail customer
    - Customers requiring nationwide service in Sysco/US Foods merger[2]
      - Nationwide distribution network important to these customers
      - Require national contracts and use RFPs to solicit bids
      - Require a single technology platform to interface with distributor
      - Require nationwide product consistency (especially in private label)
      - Sysco and US Foods each have broad distribution networks and a dedicated sales sole to handle national accounts
      - Cooperatives of geographically dispersed regional distributors formed to compete for these customers

[1] FTC v. Staples, Inc., 190 F. Supp. 3d 100 (D.D.C. May 17, 2016

[2] FTC v. Sysco Corp., 113 F. Supp. 3d 1 (D.D.C. 2015).

Product markets: Special cases

- Bidding markets
  - The idea
    - In some markets, large supply contracts are let out for bid
      - For example, when General Motors is developing a new car, it has to arrange for a supply of the parts necessary to manufacture the car. Many times, these parts are custom designed and not interchangeable with the parts for existing models. General Motors will issue a "request for proposal" (RFP) asking potential suppliers to bid to supply a particular part. General Motors will ultimately awarded the agreement contract to one or perhaps two bidders.
    - Where the contracts are large and extend over multiple years, the bidding can be intense and involve multiple bidders
    - Only one bidder, however, will ultimately obtain the contract and that bidder will supply 100% of the contract
    - Giving the winning bidder a 100% share and the other bidders a zero share gives an inaccurate picture of the competition for the contract
  - The solution
    - In these situations where each bidder has a realistic chance of winning the bid, each of the *n* bidders is assigned a share in the bidding market of 1/n

Product markets: Special cases

- Bidding markets (con't)
  - Assigning shares in bidding markets
    - The infrequent, large contract case
      - When—
        - Supply contracts are infrequently put up for bid,
        - Each contract constitutes a substantial share of the overall market, *and*
        - There is no arbitrage among customers,

        then
        - Each contract is its own individual "targeted customer" market, *and*
        - Shares may be assigned according to the probability of each bidding firm winning the bid
      - *Corollary*: When *n* firms are likely to bid for a contract and each firm appears to be equally capable to winning the bid, then each firm should be assigned a share of 1/*n*
      - Example
        - Say off-shore oil drilling leases are a relevant market. These are infrequent, large contracts. The federal government puts these leases out for bid and five equally capable firms regularly bid for them. Three firms currently operate drilling operations on the leases they have won. Regardless of their market shares (say, based on oil production or oil reserves), all five regular bidding firms would be deemed to be participants in the in the market and each would be assigned a share of 20% for the purpose of testing the applicability of the *PNB* presumption.

This is important!

Product markets: Special cases

- Bidding markets (con't)
  - Assigning shares in bidding markets
    - The frequent, small contract case
      - When—
        - Supply contracts are frequently put up for bid,
        - Each contract constitutes a relatively small share of the overall market,
        - The same firms regularly bid for each contract, *and*
        - There is no arbitrage among customers,

        then
        - The contracts may be aggregated into a single bidding market, *and*
        - Shares may be assigned according to the (annual) revenues earned by each firm under a contract
      - The idea:
        - While in principle each contract may be an individual "targeted customer" market, in practice the contracts are aggregated into a single market
        - Revenue shares in the single market are used as a proxy for the probability that each firm has of winning a bid—that is, most capable or efficient firms are likely to have won more bids and they should be weighted more heavily than firms that have won fewer shares when assigning bids
      - Examples
        - Sysco/US Foods
        - Staples/Office Depot

Product markets: Special cases

- Research and development markets
  - There have been occasional efforts by the enforcement agencies to define markets around the R&D activities of firms
    - The leading case is *United States v. General Motors Corp.*, where the DOJ alleged, among other things, that the proposed acquisition by ZF Friedrichshafen AG of the Allison Transmission Division of General Motors Corporation would violate Section 7 because it would eliminate actual and potential competition worldwide "in the market for technological innovation in the design, development, and production" of medium and heavy automatic transmissions for commercial and military vehicles. The DOJ alleged that this technological competition "has resulted in improved products, new products, lower costs of manufacture, and lower prices to consumers."[1]
  - The concept is both unnecessary and legally unsound
    - More sensible to define markets around the products that the R&D seeks to create or improve
      - A decrease in innovation competition would result in a decrease in the rate of technological innovation or improvement in the underlying product, which is a cognizable anticompetitive harm
      - Since Section 7 is forward looking, true even if the products do not yet exist (e.g., two pharmaceutical companies racing against each other to develop a vaccine for Ebola)
    - If companies are not selling their R&D services, then in what sense is this a "line of commerce" for Section 7 purposes?

[1] Complaint, United States v. General Motors Corp., Civ. Action No. 93-530 (D. Del. filed Nov. 11, 1993) (withdrawn upon voluntary termination of transaction).

Product markets: Special cases

- Single manufacturer products
  - The idea is that the product of a single manufacturer is by itself a relevant product market
    - Rarely arises in merger antitrust cases
    - But arises frequently in other areas of antitrust
    - *Possible example*: Kodak replacement parts for high-speed Kodak printers
  - Practice
    - No rule that single manufacturer product markets cannot exist[1]
    - Usual rules for defining markets apply
    - But courts are reluctant to find manufacturer product markets absent compelling evidence
      - The problem is that the manufacturer will always have monopoly power in a single manufacturer product market, which removes a major hurdle in proving antitrust liability. The courts are concerned that this might result in significant overinclusiveness errors in the finding of liability.

[1] Eastman Kodak Co. v. Image Tech. Servs., Inc., 504 U.S. 451 (1992).

Geographic Markets

Geographical markets generally

- Definition
  - For each relevant product market, there is one or more associated relevant geographic markets
  - A single firm may operate in a number of different geographic markets
    - E.g., a dialysis firm operating in a retail dialysis product market can operate in multiple distinct geographic markets
  - Relation to the sales area of the merging parties
    - The relevant geographic market is not necessarily, and indeed frequently is not, congruent with the sales area of one or both of the merging parties
    - The boundaries of the relevant geographic market turn not on where customers have gone to purchase the relevant product, but rather where they practically could go to protect themselves in the event the merger or acquisition was in fact anticompetitive

Relevant geographic markets

- Judicial tests: *Philadelphia National Bank*
  - Defined the relevant geographic market to be "the area of effective competition . . . in which the seller operates, and to which the purchaser can practically turn for supplies."[1]
  - The Court also observed that an element of "fuzziness would seem inherent in any attempt to delineate the relevant geographic market" and that the market need not be defined by "metes and bounds as a surveyor would lay off a plot of ground."[2]
  - Can be applied separately from the test for relevant product market definition
- Merger Guidelines test
  - Hypothetical monopolist test
    - Applied simultaneously to the candidate product market and the associated candidate geographic market
    - That is, you cannot apply the HMT to a product market without knowing also delineating the area in which the products may be obtained

[1] United States v. Philadelphia Nat'l Bank, 374 U.S. 321, 359 (1963) (emphasis removed) (quoting Tampa Elec. Co. v. Nashville Coal Co., 365 U.S. 320, 327 (1961) (Sherman Act § 2).
[2] *Id*. at 360 n.37; *see* United States v. Connecticut Nat'l Bank, 418 U.S. 656, 669 (1974) (geographic markets "need not—indeed cannot—be defined with scientific precision").

Judicial tests

- Other articulations
  - “This approach evaluates the geographic aspect of the elasticity of a specified market—that is, how far consumers will go to obtain the product or its substitute in response to a given price increase and how likely it is that a price increase for the product in a particular location will induce outside suppliers to enter that market and increase supply-side competition in that location.”[1]
  - “The relevant geographic market for antitrust purposes is some geographic area in which a firm can increase its price without 1) large numbers of its customers quickly turning to alternative supply sources outside the area; or 2) producers outside the area quickly flooding the area with substitute products.”[2]
  - The relevant geographic market “must include the sellers or producers who have the . . . ability to deprive each other of significant levels of business.”[3]
  - “[I]f customers would defeat the attempted price increase by buying from outside the region, it is not a relevant market; the test should be rerun using a larger candidate region.”[4]

[1] Heerwagen v. Clear Channel Commc'ns, 435 F.3d 219, 227 (2d Cir. 2006).
[2] *Id*. (quoting Herbert Hovenkamp, Federal Antitrust Policy: The Law of Competition and its Practice § 3.6, at 113 (2d ed. 1999).
[3] Rebel Oil Co. v. Atlantic Richfield Co., 51 F.3d 1421, 1434 (9th Cir. 1995) (internal quotation marks and citation omitted); *accord* FTC v. Advocate Health Care Network, 841 F.3d 460, 468 (7th Cir. 2016).
[4] Saint Alphonsus Medical Center-Nampa Inc. v. St. Luke's Health System, Ltd., 778 F.3d 775, 784 (9th Cir. 2015);; *accord Advocate*, 841 F.3d at 468.

Judicial tests

- General rules
  - Proponents cannot rely on political boundaries (such as towns, counties, or states) to establish the boundaries of a relevant geographic market without providing evidence of the competitive forces within these boundaries
  - Actual sales and shipment patterns are most often used by courts to determine the dimensions of the geographic market
  - In many cases, the geographic boundaries of the relevant market are well understood and are often the subject of stipulations by the parties
  - Nice summary
    - "The relevant geographic market for goods sold nationwide is often the entire United States, though it need not be if purchasers cannot practicably turn to areas outside their own area for supply of the relevant product. In certain service industries, the geographic market may be confined by the fact that it can be impractical for consumers to travel great distances to procure particular services. For example, historically, the geographic market for banking services is localized due to the local nature of the demand for such services. Start-up or transportation costs may prohibit new entrants from readily competing within an area even in response to increased prices. Accordingly, courts have held that the market for certain entertainment services—such as, for example, tickets to movie theater showings—is local or regional."[1]

[1] Heerwagen v. Clear Channel Commc'ns, 435 F.3d 219, 228 (2d Cir. 2006) (internal citations omitted).

1992 Merger Guidelines

- Methodology
  - Uses the hypothetical monopolist test to define relevant geographic markets:

> In defining the geographic market or markets affected by a merger, the Agency will begin with the location of each merging firm (or each plant of a multiplant firm) and ask what would happen if a hypothetical monopolist of the relevant product at that point imposed at least a "small but significant and nontransitory" increase in price, but the terms of sale at all other locations remained constant. If, in response to the price increase, the reduction in sales of the product at that location would be large enough that a hypothetical monopolist producing or selling the relevant product at the merging firm's location would not find it profitable to impose such an increase in price, then the Agency will add the location from which production is the next-best substitute for production at the merging firm's location.
>
> . . .
>
> The price increase question is then asked for a hypothetical monopolist controlling the expanded group of locations. In performing successive iterations of the price increase test, the hypothetical monopolist will be assumed to pursue maximum profits in deciding whether to raise the price at any or all of the additional locations under its control. This process will continue until a group of locations is identified such that a hypothetical monopolist over that group of locations would profitably impose at least a "small but significant and nontransitory" increase, including the price charged at a location of one of the merging firms.[1]

[1] 1992 Horizontal Merger Guidelines § 1.21. Note that this assumes that the products in the market have been identified.

1992 Merger Guidelines

- Methodology (con't)
  - Analogy to product market definition
    - The merger guidelines define geographic markets using the same hypothetical monopolist test and elasticity concepts as are used in product market definition
    - As in the case of product substitution, some geographic substitution may be expected in the event of a small price increase
    - Provisional geographic markets, prices, SSNIPs, and price discrimination markets are treated analogously to their treatment in product market definition
  - Factors identified in the 1992 guidelines to consider in assessing buyer reactions to a SSNIP:[1]
    - Evidence that buyers have shifted or have considered shifting purchases between different geographic locations in response to relative changes in price or other competitive variables
    - Evidence that sellers base business decisions on the prospect of buyer substitution between geographic locations in response to relative changes in price or other competitive variables
    - The influence of downstream competition faced by a buyer in their output markets
    - The timing and costs of switching suppliers
  - These factors are nonexclusive: Any evidence probative of buyer switching reactions may be considered

[1] 1992 Horizontal Merger Guidelines § 1.21.

1992 Merger Guidelines

- Methodology (con't)
  - Geographic markets are often stipulated by the parties
    - In many mergers, there is no serious dispute over geographic market definition
      - Many geographic markets are national or even worldwide
    - Notable exceptions where geographic market definition can be highly contentious:
      - Products sold in retail stores and purchased by end-user consumers
        - So that consumers have to travel to the retail stores
        - Broadly defined to include, for example, grocery stores, department stores, banks, hospitals, dialysis clinics
      - Intermediate products with high transportation costs relative to their prices
        - So that it is costly to ship products to customers (e.g., glass beer bottles shipped to breweries)

[1] 1992 Horizontal Merger Guidelines § 1.21.

2010 Merger Guidelines

- Adopts the 1992 Merger Guidelines methodology with some very significant changes
  - As with product markets
    - Relegates geographic market definition to one of several tools useful to merger antitrust analysis and which may not be necessary in all cases
    - Abandons the “smallest market” principle and unique relevant markets
  - Two cases
    - Geographic market definition has been problematic in antitrust cases
    - The principal reason is that the law attempted to define relevant geographic markets using the same approach in two entirely distinct situations:
      1. where the merging firms operate in fixed locations to which customers travel to make their purchases, and
      2. where the merging firms operate central production facilities and ship their products to the customers
    - The 2010 Guidelines properly draw the distinction

2010 Merger Guidelines

- Geographic markets based on the locations of suppliers
  - Generally
    - Here, customers travel to the supplier's location, so the relevant question is to which supplier locations is the customer willing to travel if a hypothetical monopolist of the locations in the provisional market raises price
      - This is typically the case, for example, in consumer retail markets, such as grocery stores, department stores, consumer banks, office supply stores, and hospitals
    - In other words, how much farther would a customer be willing to travel to avoid a SSNIP?
  - Guidelines test
    - The relevant geographic market is then the region encompassing the seller locations from which sales are made where a hypothetical monopolist controlling these facilities could raise prices profitably at a SSNIP from at least one or more of these facilities, including at least one location of one of the merging firms
    - Notably, when the geographic market is defined based on supplier locations, sales made by suppliers located in the geographic market are counted, regardless of the location of the customer making the purchase
      - As a result, some customers who buy from firms in the relevant market may themselves be located outside the boundaries of the geographic market
      - When the locations of the suppliers define relevant geographic markets, a single firm may operate in a number of different geographic markets, even for a single product

2010 Merger Guidelines

- Geographic markets based on the locations of suppliers (con't)
  - Guidelines considerations (not exhaustive)[1]
    - How customers have shifted purchases in the past between different geographic locations in response to relative changes in price or other terms and conditions
    - The cost and difficulty of transporting the product (or the cost and difficulty of a customer traveling to a seller's location) in relation to its price
    - Whether suppliers need a presence near customers to provide service or support
    - Evidence on whether sellers base business decisions on the prospect of customers switching between geographic locations in response to relative changes in price or other competitive variables
    - The costs and delays of switching from suppliers in the candidate geographic market to suppliers outside the candidate geographic market
    - The influence of downstream competition faced by customers in their output markets

[1] 2010 DOJ/FTC Horizontal Merger Guidelines § 4.2.1.

2010 Merger Guidelines

- Geographic markets based on the locations of customers
  - Generally
    - Here, suppliers ship to the customer's location, so the relevant question is which suppliers are willing to compete for a customer at a given location in the event that a hypothetical monopolist of the suppliers in the provisional market raises price
      - The idea is that an increase in a local price increases the margin earned by a supplier, and a more distant supplier can use the additional margin to offset its shipping costs (that is, how much farther would a supplier be willing to ship in the event if prices increased)
    - The relevant geographic market is then the region encompassing the *customer locations* to which sales are made where a hypothetical monopolist supplying that region could raise prices profitably at a SSNIP
      - This usually entails a straightforward calculation of the additional shipping distance that could be funded by a SSNIP (keeping in mind that the loading and unloading costs are already covered)

Geographic markets in practice

- Stipulated by parties
  - In many cases, the geographic boundaries of the relevant market are well understood and are often the subject of stipulations by the parties
- National markets
  - Where manufacturers produce products at a single location but ship and sell nationally at no competitive disadvantage, the relevant geographic market is are usually found to be national
- Regional markets
  - Generally
    - Where a firm and its rivals sell their product only in a limited geographic area and their customers have no ready access to an outside source of supply, the general rule is to define the geographic market as that particular area and to include only sales made within the market

Geographic markets in practice

- Notable exceptions where geographic market definition can be highly contentious:
  1. Products sold in retail stores and purchased by end-user consumers
     - So that consumers have to travel to the retail stores
     - Broadly defined to include, for example, grocery stores, department stores, banks, hospitals, dialysis clinics
  2. Intermediate products with high transportation costs relative to their prices
     - So that it is costly to ship products to customers (e.g., glass beer bottles shipped to breweries)
  3. Products that involve network competition
     - So that while products are shipped locally, buyers with geographically dispersed facilities want to purchase from one company regionally or nationally and so want sellers to have multiple facilities to serve them

Geographic markets in practice

- Local markets
  - Where sellers sell to customers only locally, the relevant geographic market is are usually found to be local
  - Consumer retail markets
    - Local geographic markets are especially common in consumer retail and similar markets, such as supermarkets, drug stores, department stores, and inpatient and outpatient medical services, since consumers typically are unwilling to travel outside of the local area to make purchases even in the wake of a small price increase
  - Local market boundaries
    - Local retail markets are often defined in terms of metropolitan statistical areas (MSAs) or county, city, or town boundaries
    - Depending on the circumstances, local markets may be very confined, such as individual airports for airline passengers seeking rental cars[1]
    - If a merging party, in the regular course of business, has prepared maps identifying the trade area for a given store and the store's competitors, the enforcement agencies are likely to give significant weight to those maps in determining the relevant geographic market

[1] Complaint ¶ 5, *In re* Hertz Global Holdings, Inc., No. C-4376 (F.T.C. Nov. 15, 2012).

Geographic markets in practice

- Markets with transportation costs
  - When the shipments and sales patterns are not conclusive, or when one of the parties argues for a market boundary apparently contrary to what these patterns suggest, courts will consider transportation costs in relation to the price of the product
    - Low transportation costs relative to the product price suggest broader geographic markets
    - Higher transportation costs relative to price indicate narrower markets[1]

- Other considerations
  - Other factors recognized by the courts as probative on the question of geographic market definition include—
    - Lack of parallel movements in price
    - Governmental barriers to trade (such as tariffs or quotas)
    - Common area-wide price advertising,
    - Customer preferences for dealing locally
    - Perception of local competitors of the extent of competition provided by distant firms
    - Industry recognition.

[1] *See, e.g.*, FTC v. Procter & Gamble Co., 386 U.S. 568, 571 (1967); *In re* Weyerhaeuser Co., 106 F.T.C. 172, 1985 WL 668940 (1985) (east coast and west coast separate markets for corrugating medium; price differential did not cover transportation costs across continent).

Geographic markets in practice

- Markets with network competition
  - Generally
    - Even when services are local, however, when firms compete for customers by providing retail networks and customers contract for regional coverage, the relevant geographic market will be regional
      - For example, in mergers of pharmacy benefit managers (PBMs)—essentially intermediaries between insurance companies and prescription pharmacies—the FTC has defined the relevant geographic market as the area in which chain stores compete for PBM and other third-party payor contracts[1]
    - When national customers insist on identical terms from their suppliers in different parts of the country, a national or large regional relevant market may be appropriate even though no single supplier services the entire area

[1] *See, e.g.*, Complaint ¶ 7, *In re* CVS Corp., No. C-3762, at ¶ 7 (filed May 29, 1997) (defining the relevant geographic markets as the state of Virginia and the Binghamton, New York MSA where the relevant product market was the retail sale of pharmacy services to third-party payors such as insurance carriers and health maintenance organizations).

Geographic markets in practice

- Downstream indirect customer substitution
  - An example
    - Consider the store location by itself to be a provisional geographic market for the wholesale sale of groceries to grocery stores
    - If a hypothetical monopolist controlled all of the wholesale grocery sales into the local grocery store location, under what conditions would this be, or not be, a relevant geographic market? If the hypothetical monopolist raises its prices to the neighborhood grocery store, the grocery store most likely will raise its prices to its retail customers. If some of these retail customers switch to other grocery stores, the grocery store will suffer a reduction in unit retail sales, which in turn will translate into a reduction in the hypothetical monopolist's wholesale sales
    - The profitability of the hypothetical monopolist's price increase will then depend on whether its profit gain on the increase in its margin on the sales that it continues to make is greater than the gross margin loss on the sales that it will lose as a result of the price increase
      - While this is the usual formula for determining the profitability of a hypothetical monopolist's price increase, the analysis is likely to turn on the switching behavior of the downstream indirect retail customers rather than on the switching of the hypothetical monopolist's direct wholesale customers
      - If the grocery store's retail customers do not have good alternatives—say because the next nearest grocery store is 30 miles away—the price increase will be profitable
      - If there is another grocery store across the street that offers a close retail substitute, then the price increase will not be profitable

Geographic markets in practice

- Implausible markets
  - Even without a rigorous analysis, courts have rejected market definitions where common sense indicates that they are implausible
  - Examples of "implausible" markets
    - Market defined by a five-block radius around a retail pharmacy store:

> Sharif's assertion that the five-block radius around its location is a relevant market is not plausible. The antitrust statutes require a "pragmatic" and "factual" approach to defining the geographic market. The market must "correspond to the commercial realities of the industry." Where geographic convenience is important to consumers, retail markets can be small, but not this small. It defies belief to suggest that a hypothetical monopolist retail pharmacy could raise its drug prices substantially without losing customers to competitors outside that tiny area.[1]

[1] Sharif Pharmacy, Inc. v. Prime Therapeutics, LLC, 950 F.3d 911, 917 (7th Cir. 2020) (internal citations omitted).

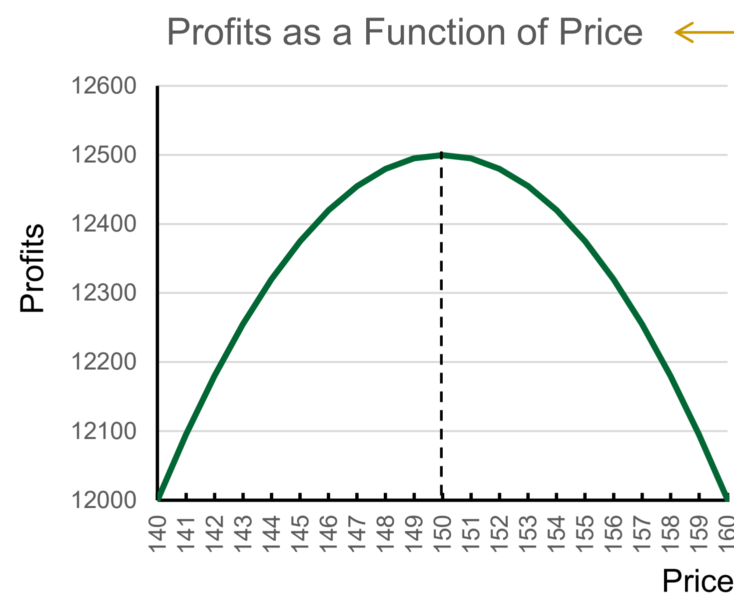
Critical Loss Analysis

Critical loss

- The basic idea
  - Consider a price increase Δp in the product of a hypothetical monopolist of homogeneous products and an accompanying loss of sales Δq when the demand curve is downward sloping
    - When the loss of sales is sufficiently small, the gross gain in profits from higher prices on retained sales will be greater than the gross loss in profits from lost sales and the price increase will be profitable
    - When the loss of sales is sufficiently large, the gross gain in profits from higher prices on retained sales will be smaller than the gross loss in profits from lost sales and the price increase will be unprofitable
  - *Definition*: The loss of sales Δq_{cl} at the tipping point when the gross gain in profits just equals the gross loss is called the *critical loss* (CL) or, more precisely, *unit critical loss* because it looks to losses in unit sales
    - Percentage critical loss (%CL) is the percentage $\Delta q_{cl}/q$, where q is the premerger level of sales. Percentage critical loss looks to losses in percentages of lost unit sales
    - NB:
      - A decrease in sales *greater* than Δq_{cl} will mean a net *loss* in profits compared to the starting quantity q
      - A decrease in sales *less* than Δq_{cl} will mean a net *gain* in profits compared to the starting quantity q
  - Dependencies
    - Critical loss (CL) is a function of the starting quantity q, the price p, the price change Δp, and the gross dollar margin $(p – mc)$ (or the percentage gross margin $(p – mc)/p$)

Critical loss

- The basic idea
  - When demand is linear, the profit curve as a function of price is a parabola



Model:
$q = 1000 - 5p$
$F = 0$
C = 100

$p_{max} = 150$
$q_{max} = 250$
$\pi_{max} = 12{,}500$

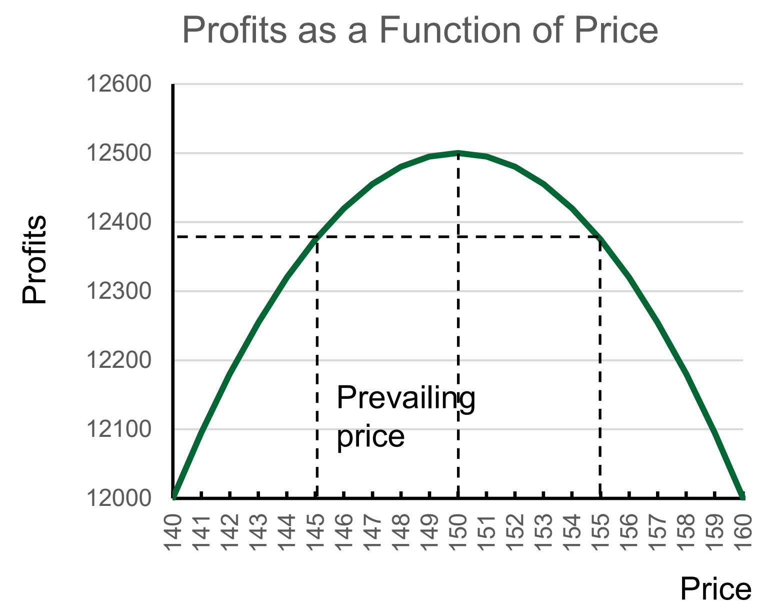
NB: We typically do this graph as a function of quantity, but this time we are doing it as a function of price because the HMT as whether a *price increase* (a SSNIP) would be profitable

Critical loss

- Say the prevailing price is 145
- Then a price of 155 would yield the same profits

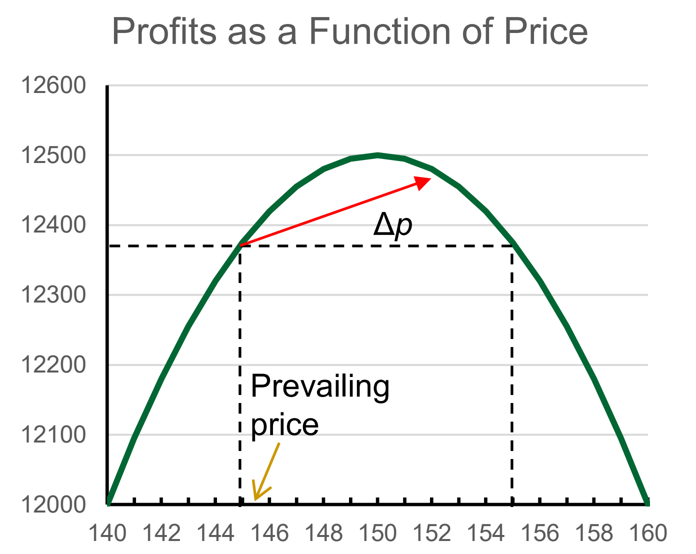
p	*q*	*π*
145	275	12,375
155	225	12,375

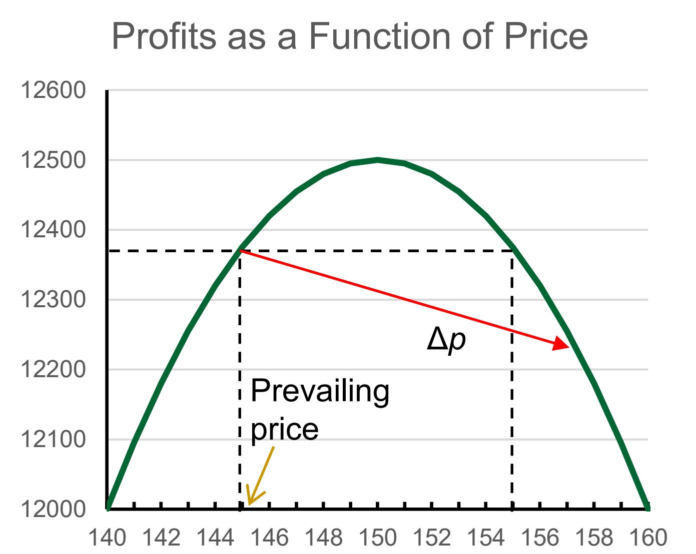
- Any price strictly between 145 and 155 would yield higher profits
- Note that 150 is the profit-maximizing price



Critical loss

- Δp is profitable in the first graph and unprofitable in the second graph

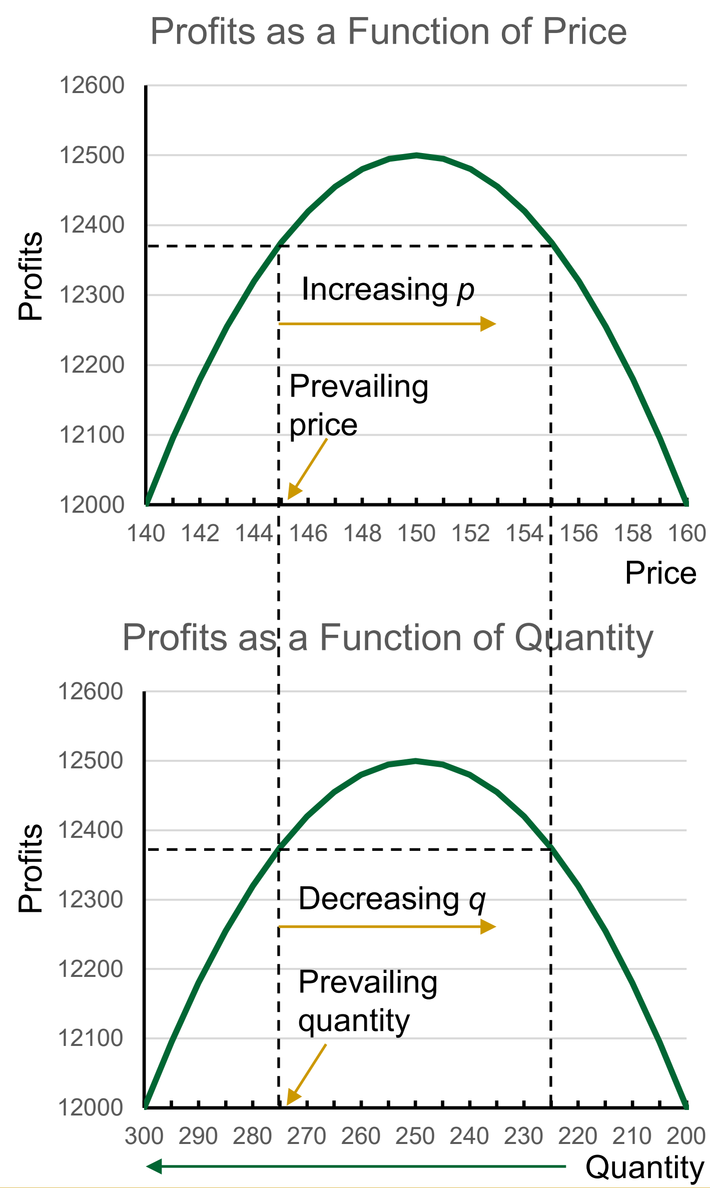




Critical loss

- The basic idea
  - Now plot the same profit curve as a function of quantity, but order the x-axis in *decreasing* quantities
    - The two curves are identical, since each price and its associated quantity are at the same place on the x-axis
  - *Query*: What is the maximum amount the firm can decrease quantity (and so increase price) so that the firm does not lose money?
  - This maximum amount is called the *critical loss* (Δq_{cl})
    - Note that any decrease in quantity *less* than the critical loss will increase profits
  - Here the critical loss is 50 units

p	q	π
145	275	12,375
155	225	12,375

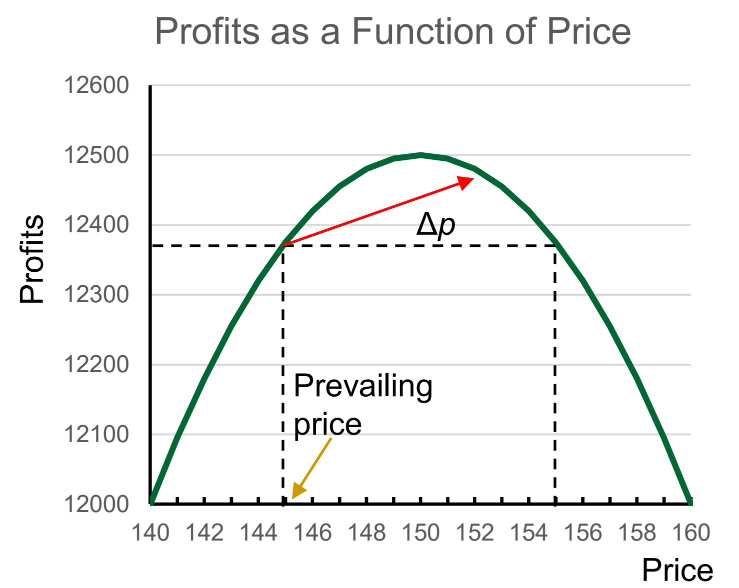


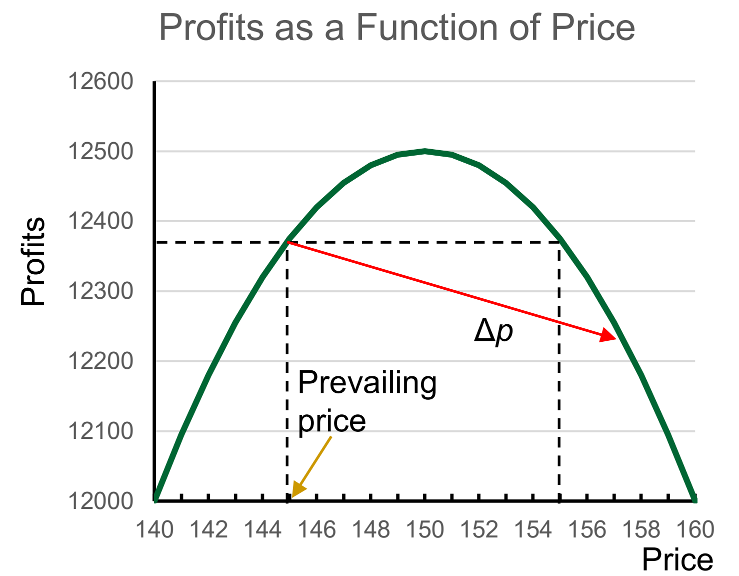
Critical loss

- Implementing the hypothetical monopolist test with critical loss
  - The critical loss for Δp will be the maximum quantity the hypothetical monopolist could loss Δq_{cl} and still make at least as much in profit as it did before the SSNIP was implemented, that is, whether—

    Post-price increase profits ≥ Pre-price increase profits

  - Δp is profitable in the first graph and unprofitable in the second graph





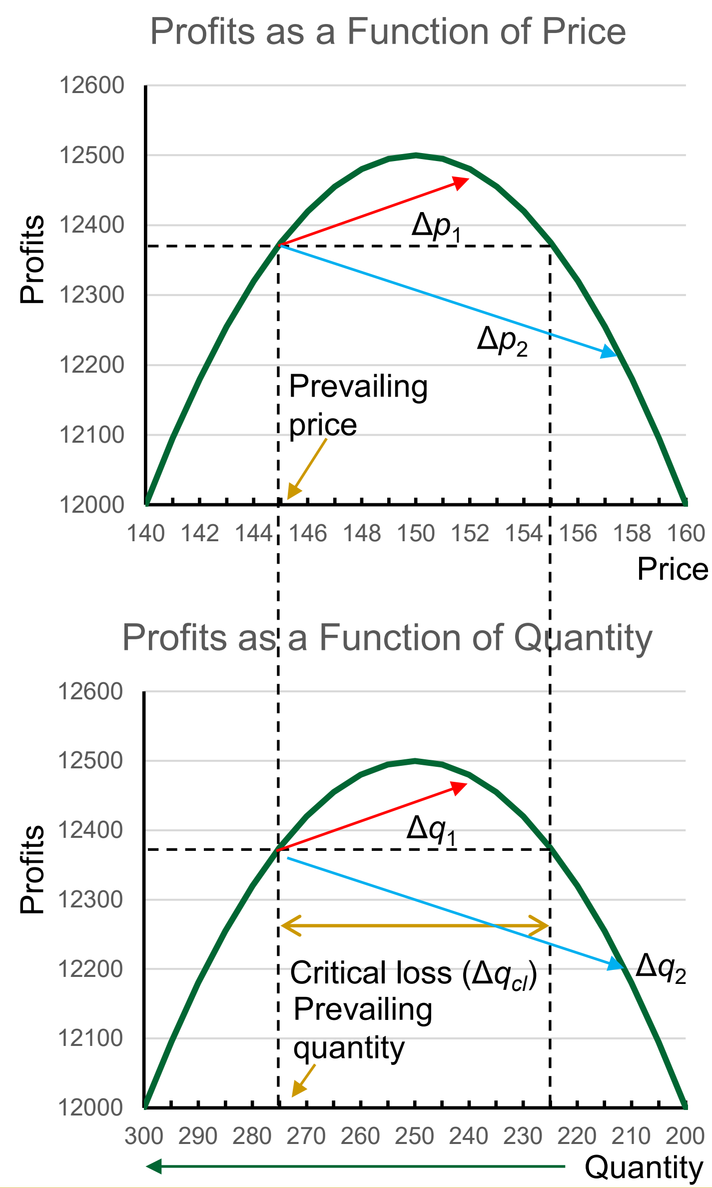
Critical loss

- Implementing the hypothetical monopolist test
  - We can associate an actual loss Δq with a price increase of Δp

Whether the price increase is profitable will depend on whether the associated quantity decrease is less than the critical loss, that is:

$$\Delta q \leq \Delta q_{cl}$$

- This is called the *critical loss test*
  - So Δp_1 is profitable because $\Delta q_1 \leq \Delta q_{cl}$
  - So Δp_2 is unprofitable because $\Delta q_2 \leq \Delta q_{cl}$



Critical loss

- The *critical loss rule*:

If actual loss is less than the critical loss,
the candidate market satisfies the HMT

- The idea
  - When actual loss is less than critical loss, this means that for a given SSNIP the hypothetical monopolist is able—
    - to capture enough incremental profits on the margin increase on its inframarginal sales
    - to offset the incremental profit decrease on the loss of the marginal sales
- A caution
  - Actual loss and critical loss are functions of the magnitude of the SSNIP
  - A hypothetical monopolist that satisfies the HMT at a 5% SSNIP may fail the HMT for a different SSNIP (e.g., 10%)

Critical loss

- The basic idea
  - The critical loss for Δp will be the maximum quantity Δq_{cl} the hypothetical monopolist could lose and still make at least as much in profit as it did before the SSNIP was implemented:

Post-price increase profits | Pre-price increase profits

$$\underbrace{\underbrace{(p+\Delta p}_{p_2}-c)}_{m_2}\underbrace{(q-\Delta q_{cl})}_{q_2} = \underbrace{(p-c)}_{m_1}q$$

$\boxed{\text{Breakeven condition with constant marginal costs}}$

  - Rearranging this equality, we can also express this condition as an equality of the gross gain in profits on retained sales and the gross loss in profits from lost sales:

Gain on retained sales | Loss of margin on lost sales

$$\Delta p\left(q-\Delta q_{cl}\right) = (p-c)\Delta q_{cl}$$

Note: Critical loss is a function of the starting point *q* as well as *p, Δp,* and *c*

Critical loss

- A little more algebra: Three formulas for critical loss
  1. Solving for Δq_{cl} provides a formula for the *critical loss in units*:

1. Unit critical unit loss formula:

$$(CL =)\,\Delta q_{cl} = \frac{q\Delta p}{(p + \Delta p) - c}$$

In a HMT, Δp is the \$SSNIP

- Requires—
  - The same price (and hence the same Δp) for all products in the candidate market
  - The same dollar margin for all products in the candidate market

Critical loss

- Formulas for critical loss
  2. Divide Equation 1 by q to obtain *percentage critical loss*:

$$\left(\%CL =\right)\frac{\Delta q_{cl}}{q} = \frac{\Delta p}{\left(p + \Delta p\right) - c} = \frac{\dfrac{\Delta p}{p}}{\dfrac{\Delta p}{p} + \dfrac{p-c}{p}}$$

2. Percentage critical loss formula:

$$= \frac{\delta}{\delta + m}$$

where

δ is the percentage price increase: $\delta = \dfrac{\Delta p}{p}$

In a HMT, δ is the %SSNIP

m is the percentage gross margin: $m = \dfrac{p-c}{p}$

- Requires a constant percentage margin m for all products in the candidate market

Critical loss

- Formulas for critical loss
  3. We can also define the *critical elasticity* ε_{cl} as the maximum elasticity that will profitably support a price increase of δ:

Definition of own-elasticity: $$|\varepsilon_{cl}| = \frac{\dfrac{\Delta q_{cl}}{q}}{\dfrac{\Delta p}{p}} = \frac{\Delta q_{cl}}{q}\frac{1}{\delta} \Rightarrow \frac{\Delta q_{cl}}{q} = \delta|\varepsilon_{cl}|$$

NB: By convention, Δq_{cl} is a *positive* number. To make the signs work, we have to use the absolute value of the elasticity. *Always watch for the sign of Δq in any equation.*

Percentage critical loss formula: $$\frac{\Delta q_{cl}}{q} = \frac{\delta}{\delta + m} \Rightarrow \delta|\varepsilon_{cl}| \cong \frac{\delta}{\delta + m},$$

Cancelling the δs: $$|\varepsilon_{cl}| \cong \frac{1}{\delta + m}$$

3. Critical elasticity formula

- Accordingly, when the actual own-elasticity of demand ε is less than the critical elasticity ε_{cl} (i.e., ε is more inelastic than ε_{cl} or equivalently $|\varepsilon| < |\varepsilon_{cl}|$), then for a small enough %SSNIP the price increase will be profitable
  - We can express this as:

$$|\varepsilon| < \frac{1}{\delta + m} \quad \text{means the HMT is satisfied}$$

Critical loss and market definition

- The application
  - Recall that under the hypothetical monopolist test, a candidate market is a relevant market if a hypothetical monopolist could profitably raise prices in the candidate market by a SSNIP (profitability test)
    - So for any candidate market with current aggregate output q and price p and a SSNIP Δp, then if the change in output Δq is less than the critical loss Δq_{cl} a hypothetical monopolist could profitably raise price by the SSNIP and the candidate market is a relevant market
  - Algorithm
    1. Start with a product of the merging firm
       - Or a product of the merging firm together with other closely related products (as in H&R Block/TaxACT)
    2. Assume a hypothetical monopolist over the group of products—the "candidate market"—and raise price by a SSNIP
    3. Compare actual loss Δq to critical loss Δq_{cl},
       - If the actual loss $\Delta q < \Delta q_{cl}$, then a hypothetical monopolist could profitably raise prices by the SSNIP and the product grouping is a relevant market
         - Whether the SSNIP is profitable will be determined by the candidate market's *own-elasticity of demand*
       - If the actual loss $\Delta q \geq \Delta q_{cl}$, then a hypothetical monopolist could not profitably raise prices the product grouping is not a relevant market → add to the product group another product with a high cross-elasticity of demand/diversion ratio and repeat Steps 2 and 3.

Critical loss and market definition: Example 1

Products A and B are being tested as a candidate market. Each has a price of $100, has an incremental cost of $60, and sells 1200 units. When the price for both products is increased by $5, each firm loses 100 units to outside the market. Do A and B constitute a relevant market under the 2010 Guidelines?

Given the actual loss, so think unit critical loss

Critical loss and market definition: Example 1

Products A and B are being tested as a candidate market. Each has a price of \$100, has an incremental cost of \$60, and sells 1200 units. When the price for both products is increased by \$5, each firm loses 100 units to outside the market. Do A and B constitute a relevant market under the 2010 Guidelines?

Given the actual loss, so think unit critical loss

Parameters			"Brute force" profit calculations			Critical loss	
Price	p	100	Gain = (Q+ΔQ)Δp			$\Delta q^* = \dfrac{q\Delta p}{(p+\Delta p)-c}$	
Cost	c	60		Q + ΔQ	2200		
Gross margin	m	40		Δp	5		
Market output	Q	2400		Gain	11000		
SSNIP	Δp	5	Loss = mΔQ				
Customer loss	ΔQ	-200		ΔQ	-200	qΔp	12000
				m	40	(p+Δp)-c	45
				Loss	-8000	CL	-266.6667
			Net		3000		

From the breakeven condition (see earlier slide)

Actual loss (200) is less than the critical loss (266.67), so A and B are a relevant market under the HMT

Brute force profit calculations confirmation: Since the gain exceeds the loss, a hypothetical monopolist of A and B could profitably raise price by 5% and so A and B are a relevant market under the HMT

Critical loss and market definition: Example 2

Premium cupcakes sell for $1.50 apiece and cost $0.90 to make. At this price, producers collectively sell 10,000 premium cupcakes. When the price for all premium cupcakes is increased by 5%, 15% of the customers switch to regular cupcakes. Do premium cupcakes constitute a relevant market under the 2010 Guidelines?

You are given the percentage loss, so think percentage critical loss

- Step 1: Summarize the variables
  - p = 1.50 — %SSNIP = 5%
  - c = 0.90 — Q = 10,000
  - $m = \dfrac{1.50 - 0.90}{1.50} = 40\%$ — $\%\Delta Q$ = 15%
- Step 2: Calculate the percentage critical loss:

$$(\%CL =)\frac{\Delta q_{cl}}{q} = \frac{\delta}{\delta + m} = \frac{5\%}{5\% + 40\%} = 11.11\%$$

- Step 3: Compare percentage actual loss to percentage critical loss
  - Percentage actual loss = 15%
  - Percentage critical loss = 11.11%
- *Answer*: Since $\%\Delta Q > \%\Delta Q_{cl}$, premium cupcakes are NOT a relevant product market

Homework problem 3

Premium ice cream sells at \$4.00/pint and has a constant marginal cost of \$2.25/pint. The own-elasticity of aggregate demand for premium ice cream is −1.9, with almost all diversion going to regular ice cream. Two premium ice cream manufacturers proposed to merge. Is premium ice cream a relevant product market under the hypothetical monopolist test under a 5% SSNIP, or should the market be expanded to include regular ice cream?

You are given an actual elasticity, so think critical elasticity

- Step 1: Summarize variables
  - $p = 4.00$ %SSNIP = 5%
  - $c = 2.25$ $\varepsilon = -1.9$
  - $\%m = \dfrac{4.00 - 2.25}{4.00} = 43.75\%$
- Step 2: Calculate the absolute value of the critical elasticity:

$$\left|\varepsilon_{cl}\right| = \frac{1}{\delta + m} = \frac{1}{0.05 + 0.4375} = 2.05$$

In calculating critical elasticity, be sure to convert the percentages into decimal numbers!

- Step 3: Compare the actual elasticity with the critical elasticity:
  - Actual elasticity (absolute value) = 1.9
  - Critical elasticity (absolute value) = 2.05
- *Answer*: Since $|\varepsilon| < |\varepsilon_{cl}|$, premium ice cream is a relevant market (inelastic enough)

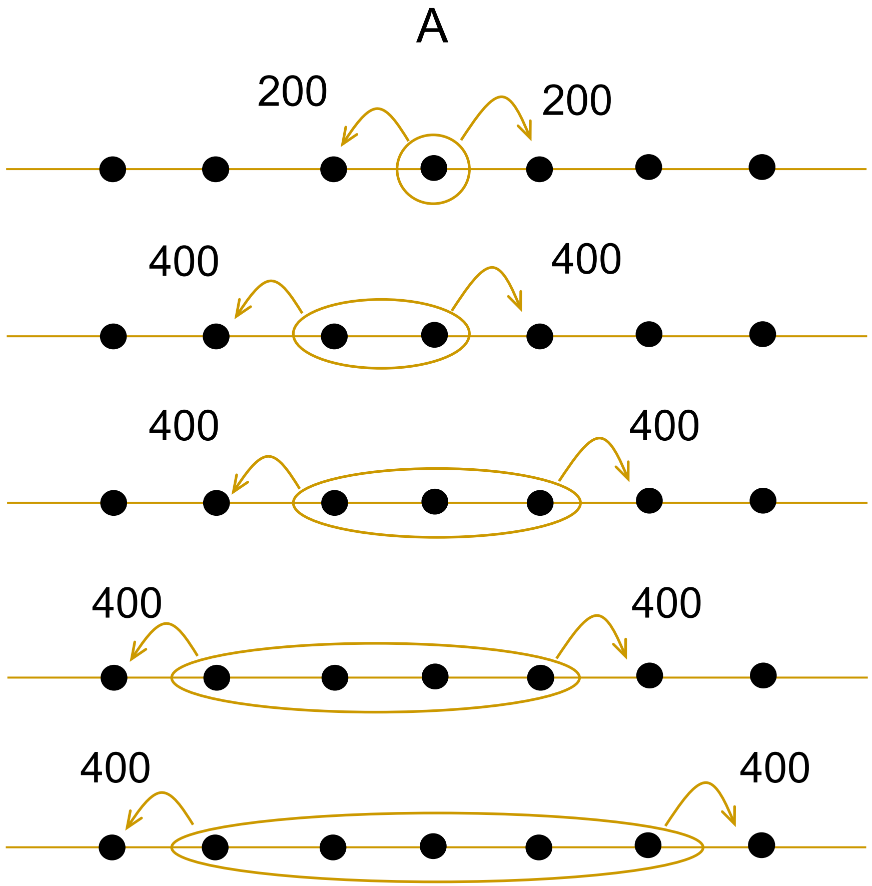
Critical loss and market definition: Example 4

Assume that there is an identical gas station every mile on a straight road. Each gas stations charges \$3.25 per gallon, has an incremental costs of \$2.50, and sells 1000 gallons. When the price at a station is increased by 5% (holding the price at all other gas stations constant), the station loses customers who in the aggregate buy 400 gallons. No customer will travel more than one mile, however, to avoid a 5% price increase. For a given station A and assuming a SSNIP of 5%, what is the relevant market?

We'll do this step by step

Critical loss and market definition: Example 4

- Example 4: Gas stations on a road
  - Step 0: Make sure you understand the switching behavior!



Critical loss and market definition: Example 4

Assume that there is an identical gas station every mile on a straight road. Each gas stations charges $3.25 per gallon, has an incremental costs of $2.50, and sells 1000 gallons. When the price at a station is increased by 5% (holding the price at all other gas stations constant), the station loses customers who in the aggregate buy 400 gallons. No customer will travel more than one mile, however, to avoid a 5% price increase. For a given station A and assuming a SSNIP of 5%, what is the relevant market?

This is complicated, so think brute force

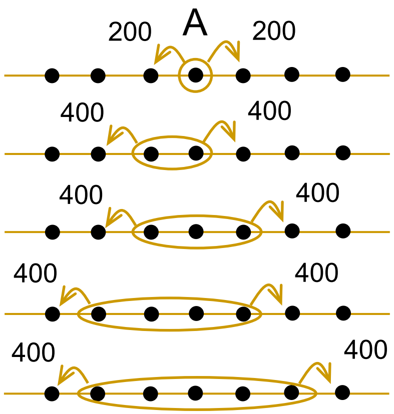
- Step 1: Summarize the variables
  - $p = 3.25$
  - $c = 2.50$
  - $\$m = \frac{3.25 - 2.50}{3.25} = 40\%$
  - Customers/station = 1000
  - Customer loss per station = 400

%SSNIP = 5%

$\$SSNIP = 0.05 * 3.25$
$= 0.1625$

- Step 2: Calculate net profit gain as the market expands

Stations in the market	Q	ΔQ	Gain	Loss	Net
1	1000	400	97.50	300.00	-202.50
2	2000	800	195.00	600.00	-405.00
3	3000	800	357.50	600.00	-242.50
4	4000	800	520.00	600.00	-80.00
5	5000	800	682.50	600.00	82.50



Five stations, with Station A in the middle, is the relevant geographic market

Critical loss and market definition

- Estimating actual loss (Δq)
  - We can estimate the percentage critical loss if we know the aggregate own-elasticity of demand for the candidate market when:
    - Premerger profit-maximizing pricing satisfies the Lerner Condition ($\varepsilon = 1/m$)
  - First-order approximation of the percentage actual loss:

$$\frac{\frac{\Delta q}{q}}{\frac{\Delta p}{p}} \equiv \varepsilon \Rightarrow \frac{\Delta q}{q} \approx \frac{\Delta p}{p}\varepsilon = \delta\varepsilon,$$

"≈" means approximately

where ε is the residual own-elasticity of demand for the candidate market (i.e., of the hypothetical monopolist)

that is, the percentage actual loss is approximately equal to the percentage price change times the own-elasticity of demand

  - First-order approximation of the actual loss for an arbitrary downward-sloping demand curve:

4. Percentage actual loss formula

$$\frac{\Delta q}{q} \approx \delta\varepsilon$$

NB: This is exact in the case of linear demand

  - Calculating exact actual loss for a linear demand curve from own-elasticity:

5. Unit actual loss formula

$$\varepsilon = \frac{\Delta q}{\Delta p}\frac{p}{q} \Rightarrow \Delta q = \varepsilon \frac{q}{p}\Delta p = \varepsilon\delta q$$

Critical loss: Summary of formulas

- *Unit critical unit loss*:

$$(CL =)\Delta q_{cl} = \frac{q\Delta p}{(p+\Delta p)-c}$$

- *Percentage critical loss*:

$$(\%CL =)\frac{\Delta q_{cl}}{q} = \frac{\delta}{\delta + m}$$

where δ is the percentage price increase: $\delta = \frac{\Delta p}{p}$

m is the percentage gross margin: $m = \frac{p-c}{p}$

- *Critical elasticity*: $|\varepsilon_{cl}| \cong \frac{1}{\delta + m}$

where ε is the own-elasticity of demand of the monopolist (i.e., the aggregate demand curve)

- *Percentage actual loss (linear demand)*: $\frac{\Delta q}{q} = \%\Delta q = \delta\varepsilon$

- *Unit actual loss* (linear demand): $\Delta q = \varepsilon\delta q$

Critical Loss Tests with Differentiated Margins in Homogeneous Product Markets

Critical loss: Differentiated margins

- Multiple margins in homogeneous product markets
  - In the percentage critical loss formulas in the earlier slides, the percentage margins of the various products in the candidate markets were all assumed to be equal
  - In many homogeneous candidate markets, however, the percentage margins will differ among firms
    - Production technologies may differ among firms resulting in different marginal costs and hence different margins even when all products are homogeneous and sell at the same price
  - Since the products are homogeneous, the market is single-priced and the hypothetical monopolist must increase the prices of all firms in the candidate market by a SSNIP
- There are three ways to handle homogeneous product markets with differentiated margins
  - Brute force accounting
  - Using diversion ratio-weighted average margins
  - Using sufficiency tests

Critical loss: Differentiated margins

- Setting up the problem
  - Without loss of generality, assume that there are three firms in the candidate homogeneous product market:

Firm	Sales (q_i)	Share (s_i)	%Margin (m_i)	Diversion (Δq_i)
1	500	0.5	0.4	60
2	300	0.3	0.6	30
3	200	0.2	0.2	10

    - The market price p is \$10
    - The diversion Δq_i for firm i is the quantity that diverts outside the candidate market for a uniform 5% SSNIP (presumably there is no intramarket diversion with a uniform price increase)
    - Total division from the market for a uniform 5% SSNIP is $\sum_{i=1}^{3} \Delta q_i = 100$
  - HMT: Is a uniform 5% SSNIP profitable? YES
    - As in all cases, the answer depends on whether the gain to the monopolist on the increased margin on the inframarginal sales is greater than the loss of margin on the marginal sales

Brute force calculation

Gain on Inframarginal Sales				Loss on Marginal Sales			
Firm	$q_i - \Delta q_i$	\$SSNIP	Gain	Δq_i	%Margin	\$Margin	Loss
1	440	0.5	220	60	0.4	4	240
2	270	0.5	135	30	0.6	6	180
3	190	0.5	95	10	0.2	2	20
			450	100			440

Critical loss: Differentiated margins

- Percentage critical loss test
  - Recall that when the percentage margin m is the same for all products in the candidate market, a uniform SSNIP δ across all products is profitable for a hypothetical monopolist if:

$$\left(\%CL =\right)\frac{\Delta q_{cl}}{q} = \frac{\delta}{\delta + m} > \frac{\Delta q}{q} \quad (= \%\text{actual loss})$$

  - When margins are differentiated, a similar test applies:

$$\left(\%CL =\right)\frac{\Delta q_{cl}}{q} = \frac{\delta}{\delta + m_{Ave}} > \frac{\Delta q}{q} \quad (= \%\text{actual loss}),$$

    where m_{Ave} is the *diversion share-weighted average* of the margins of the products in the market:

$$m_{Ave} = \sum_{i=1}^{n} \frac{\Delta q_i}{\Delta q} m_i.$$

  - In essence, we have created a single *composite product* out of the three products in the candidate market and assigned that product a percentage margin of m_{Ave}
  - *Note:* When losses Δq_i are proportional to market share in the candidate market (that is, $\Delta q_i / \Delta q = s_i$)—the common assumption by antitrust economists in the absence of other information on diversion—then:

$$m_{Ave} = \sum_{i=1}^{n} s_i m_i.$$

When used, this assumption is frequently not challenged. This is probably because the lawyers do not understand it.

Critical loss: Differentiated margins

- Percentage critical loss test: Applied to previous problem

Firm	Sales (q_i)	Share (s_i)	%Margin (m_i)	Diversion (Δq_i)	Diversion share ($\Delta q_i/\Delta q$)	m_{Ave} contribution ($\Delta q_i/\Delta q$) (m_i)
1	500	0.5	0.4	60	0.6	0.24
2	300	0.3	0.6	30	0.3	0.18
3	200	0.2	0.2	10	0.1	0.02
	1000		Δq =	100	m_{Ave} =	0.44

$$\delta = .05$$

$$m_{Ave} = \sum_{i=1}^{3} \frac{\Delta q_i}{\Delta q} m_i = \left(\frac{60}{100}\right)(0.4) + \left(\frac{30}{100}\right)(0.6) + \left(\frac{10}{100}\right)(0.2) = 0.44$$

%Critical loss:

$$\frac{\Delta q_{cl}}{q} = \frac{\delta}{\delta + m_{Ave}}$$

$$= \frac{0.05}{0.05 + 0.44} = 0.1020$$

%Actual loss:

$$\%\Delta q = \frac{\Delta q}{q}$$

$$= \frac{100}{1000} = 0.1000$$

The percentage critical loss (0.1020) is greater than the percentage actual loss (0.1000), so a 5% uniform SSNIP would be profitable for a hypothetical monopolist. The candidate market is a relevant market under the HMT.

Critical loss: Differentiated margins

- A simple sufficiency test
  - Let m_{Max} be the maximum margin of any product in the candidate market. Then if—

$$\frac{\delta}{\delta + m_{Max}} > \frac{\Delta q}{q} \quad (= \%\text{actual loss}),$$

a hypothetical monopolist can profitably increase prices by a uniform SSNIP

  - Proof

    Since m_{Max} is greater than m_{Ave},

$$\frac{\delta}{\delta + m_{Ave}} > \frac{\delta}{\delta + m_{Max}}.$$

    Therefore,

$$(\%CL =)\frac{\Delta q_{cl}}{q} = \frac{\delta}{\delta + m_{Ave}} > \frac{\delta}{\delta + m_{Max}} > \frac{\Delta q}{q} \quad (= \%\text{actual loss}).$$

Q.E.D

  - The idea is simple: This test essentially assumes the worst case—all unit losses by the hypothetical monopolist as a result of a unform SSNIP all come from the product with the highest margin and hence yields the maximum profit loss on the marginal sales
    - NB: This is a *sufficiency test*—the failure of the test does not necessarily mean that the candidate market is not a relevant market
      - The previous example fails the sufficiency test, yet the candidate market satisfies the HMT

Critical loss and market definition: Example 5

In a homogeneous product market, firms have different technologies and hence different marginal costs and percentage margins. The candidate market contains three firms with different margins given in the table below. For a 5% SSNIP, the hypothetical monopolist would lose 8% of its sales. Is the candidate market a relevant market?

Product	Share	Margin
A	0.5	0.4
B	0.3	0.7
C	0.2	0.3

- Solution
  - The problem gives the actual percentage loss, so use the percentage critical loss formula
  - Since the margins differ, use the diversion share-weighted percentage margin m_{Ave}
    - Also, since we do not know anything about the actual losses or diversion ratios for individual products, use market share (unit shares and revenue shares are the same) as a proxy:

$$m_{Ave} = s_1 m_1 + s_2 m_2 + s_3 m_3 = (0.5)(0.4) + (0.3)(0.7) + (0.2)(0.3) = 0.47$$

    - Solving for percentage critical loss:

$$\%CL = \frac{\delta}{\delta + m} = \frac{0.05}{0.05 + 0.47} = 9.6\%$$

Since the actual loss of 8% is less than the critical loss of 9.6%, the candidate market is a relevant market under a uniform SSNIP test

Critical loss and market definition: Example 6

2. Maximum margin approach (sufficient condition)
   - Replace m_{Ave} in the above formulas with the maximum margin m_{Max} earned by any firm in the candidate market
   - Example: Same problem as on prior slide

In a homogeneous product market, firms have different technologies and hence different marginal costs and percentage margins. The candidate market contains three firms with different margins given in the table below. For a 5% SSNIP, the hypothetical monopolist would lose 8% of its sales. Is the candidate market a relevant market?

Product	Share	Margin	
A	0.5	0.4	
B	0.3	0.7	← Maximum margin (m_{Max})
C	0.2	0.3	

- Calculate the percentage "critical loss" using the largest margin:

$$\frac{\delta}{\delta + m_{\max}} = \frac{0.05}{0.05 + 0.7} = 6.67\%$$

- Since the actual percentage loss (8%) is greater than the critical loss calculated using the maximum margin, the candidate market fails this test
- BUT this does NOT mean that the candidate market fails the HMT since it assumes the worst possible losses for the hypothetical monopolist. Using a diversion share-weighted margin (prior slide), we saw that the candidate market *does* satisfy the HMT.

Critical loss and market definition

OPTIONAL

- Profit-maximization
  - As noted earlier, the guidelines ask whether the hypothetical monopolist for the candidate market profit-maximizing price increase would be above a SSNIP
  - The monopolist's profit-maximizing critical elasticity ε^{pm}—that is, the elasticity at which the hypothetical monopolist's profit-maximizing price increase will be at least as great as the SSNIP δ—is given by:

$$\left|\varepsilon^{pm}\right| = \frac{1}{2\delta + m}$$

  - With a little algebra, we can rearrange the above equation to solve for δ:

$$\delta^{pm} = \frac{-m\left|\varepsilon\right| + 1}{2\left|\varepsilon\right|}$$

  - This equation gives the profit-maximizing percentage price change δ^{pm} for a given group of products with an elasticity ε
  - It is helpful to remember what is going on here. A profit-maximizing monopolist prices so that the Lerner equation is satisfied ($\varepsilon = 1/m$). Competition within the product grouping, however, may decrease the margin m, so that the Lerner equation if no longer satisfied. The profit-maximizing δ^{pm} gives the percentage price change that the monopolist would implement if it gained control of the product grouping. (Note that when $\varepsilon = 1/m$, $\delta^{pm} = 0$, as it should be.)

One-Product SSNIPs and Aggregate Diversion Analysis

Aggregate diversion analysis

- Basic idea
  - When firms supply *differentiated products*, prices as well as margins can differ among products in a candidate market
  - Is there any reason to require the hypothetical monopolist to increase price uniformly in applying the hypothetical monopolist test?
- Evolution in the guidelines
  - 1982 Merger Guidelines
    - Required that the prices of all products in the provisional market be increased by the same percentage SSNIP
  - 1992 Merger Guidelines
    - Technically allowed the hypothetical monopolist to increase the prices of some but not all products in a candidate market (i.e., allowing discrimination in the SSNIP)
    - But not applied in practice except in cases where the premerger market exhibited some discrimination (and sometimes when the postmerger market arguably would exhibit discrimination even if the premerger market did not)
  - 2010 Merger Guidelines
    - After the 2010 Merger Guidelines, some economists—including agency economists in court proceedings—used product-specific SSNIPs in any differentiated products markets
    - A *one-product SSNIP* often (but not always) creates the narrowest relevant markets since it internalizes the maximum amount of diversion

Diversion ratios

- The idea
  - Definition: The percentage of total sales lost by Firm A (Δq_A) that divert (switch) to Firm B (Δq_B) when Firm A increases its price by some given amount (Δp_A) and all other firms hold their prices constant
  - Mathematically:

$$D_{A \to B} \equiv D_{AB} = \left. \frac{\Delta q_B}{\Delta q_A} \right|_{\text{for some } \Delta p_A}$$

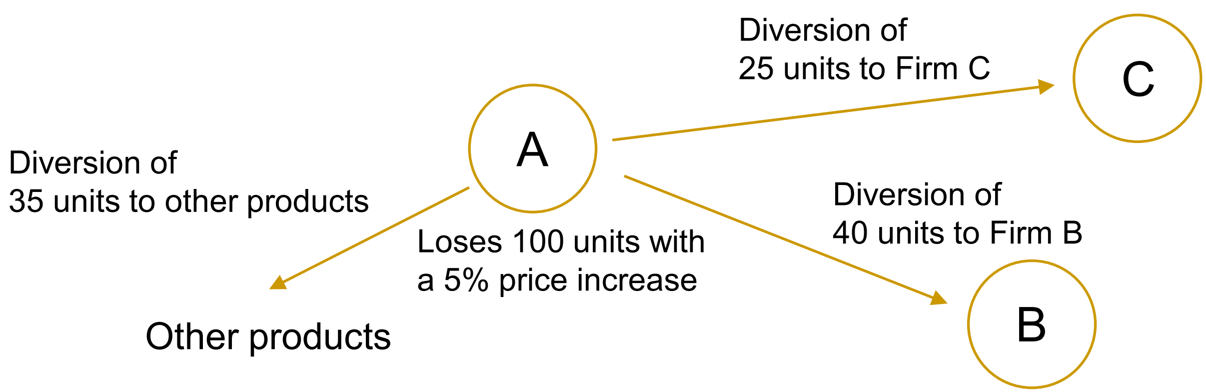
  - *Keep in mind*: The definition of diversion ratios is motivated by Firm A's price *increasing* and a corresponding loss of A's sales, some of which divert to Firm B
    - More formally:

$$D_{AB} = \frac{\dfrac{\Delta q_B}{\Delta p_A}}{\dfrac{\Delta q_A}{\Delta p_A}} = \left. \frac{\Delta q_B}{\Delta q_A} \right|_{\text{for some } \Delta p_A}$$

NB: The subscript notation for diversion ratios is not standardized in the literature. I write it so that the first subscript (A) is the firm increasing its price and the second subscript (B) is the firm to which the sales of interest divert.

Diversion ratios

- Example
  - Firm A raises its price by 5% and loses 100 units (all other firms hold their price constant):
    - 40 units divert to Firm B
    - 25 units divert to Firm C
    - 35 units divert to other products



  - Then:

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

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

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

Diversion ratios

- How are diversion ratios estimated? (Usually not very accurately)
  1. Data collected during the regular course of business (including win-loss data)
  2. Indications in the company documents
  3. Consumer surveys
     - But very sensitive to survey design and customer ability to accurately predict product choice in the presence of a price increase
  4. Market shares as proxies: Relative market share method
     - Commonly used method when other data is not available
     - Assumes that customers divert in proportion to the market shares of the competitor firms (after adjusting for any out-of-market diversion)
       - So that the largest competitors (by market share) get the highest diversions
  5. Demand system estimation/econometrics
     - Econometric estimation of all own- and cross-elasticities of all interacting firms
     - Very demanding data requirements—Usually possible only in retail deals where point-of-purchase scanner data is available
  6. Switching shares as proxies
     - Where switching behavior is not limited to reactions to changes in relative price
     - Use only when better estimates are not available
     - *Example*: H&R Block/TaxACT (where the court accepted a diversion analysis based on IRS switching data only as corroborating other evidence)

Diversion ratios

- How are diversion ratios estimated?
  - Relative market share method: Application
    - When all diversion is to products within the candidate market:

$$D_{A\to B} = \frac{s_B}{s_B + s_C + \cdots + s_N} = \frac{s_B}{1 - s_A},$$

That is, $D_{A\to B}$ is the share of firm B divided by the sum of the shares of the firms other than A in the candidate market

where s_A and s_B are the market shares of firms A and B, respectively

- Example: Candidate market—
  - Firm A 40%
  - Firm B 30%
  - Firm C 24%
  - Firm D 6%
  - No diversion outside the candidate market

60% points to be allocated to three firms pro rata by their market shares

Then:

$$D_{A\to B} = \frac{0.30}{1-0.40} = 50.0\%$$

$$D_{A\to C} = \frac{0.24}{1-0.40} = 40.0\%$$

$$D_{A\to D} = \frac{0.06}{1-0.40} = 10.0\%$$

Adds to 100%, to account for 100% of the diverted sales

Diversion ratios

- How are diversion ratios estimated?
  - Relative market share method: Application (con't)
    - When there is some diversion to products outside the candidate market:

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

where $\frac{\Delta q_{outside}}{\Delta q_A}$ is the percentage of Firm A's lost sales that are diverted to firms outside of the market

- Example: Candidate market—
  - Firm A 50%
  - Firm B 25%
  - Firm C 15%
  - Firm D 10%
  - Outside diversion: 15%

Shares in the candidate market (= 100%)

→ 85% points to be allocated to the firms in the candidate market

Then:

$$D_{A\to B} = (1-0.15)\frac{0.25}{1-0.50} = 42.5\%$$

$$D_{A\to c} = (1-0.15)\frac{0.15}{1-0.50} = 25.5\%$$

$$D_{A\to D} = (1-0.15)\frac{0.10}{1-0.50} = 17.0\%$$

$$D_{A\to O} = 15\%$$

The outside diversion is data (say, from empirical analysis) and not to be estimated

Total 85% to firms B, C, and D
With outside diversion: 100%

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

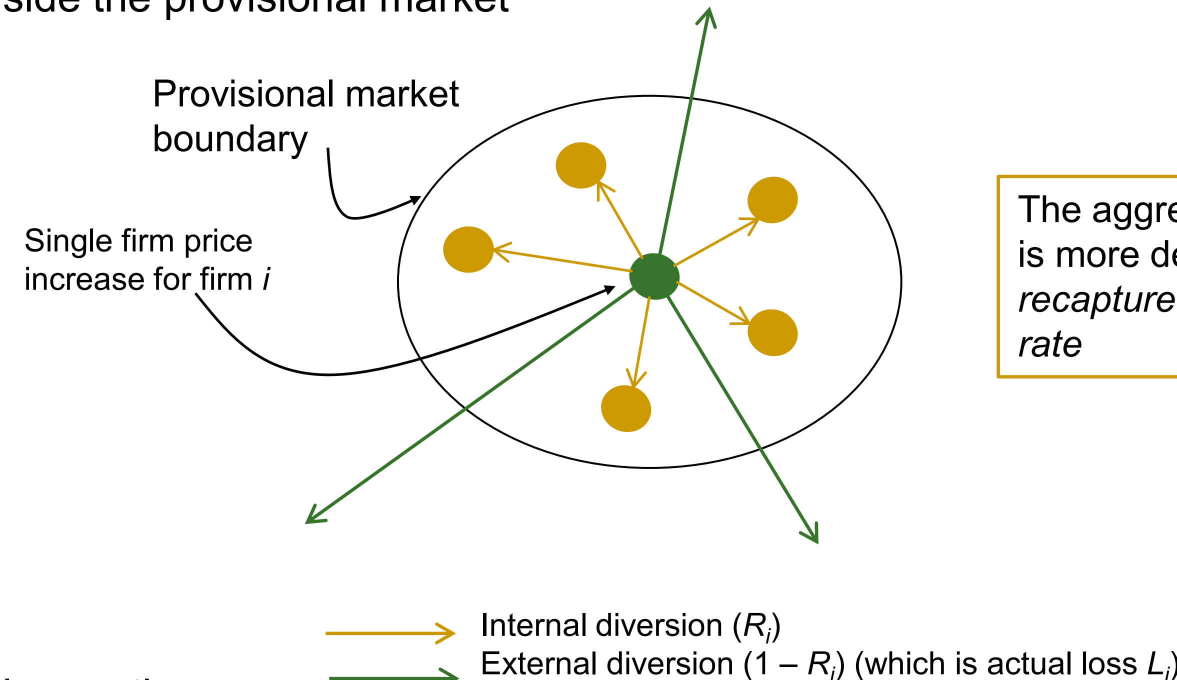
$$D_{HRB \to TaxACT} = \frac{12.8\%}{1 - 15.6\%} = 15.2\%$$

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

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

One-product SSNIP recapture test

- Definition: Aggregate diversion ratio
  - The percentage R_i of total sales lost by a given product in the wake of a SSNIP applied only to product *i* that is captured by the aggregate of the other products inside the provisional market



The aggregate diversion ratio is more descriptively call the *recapture ratio* or the *recapture rate*

  - Observation
    - 100% of the total loss of sales by firm *i* is equal to the recapture percentage R_i that are diverted to firms in the candidate market plus the percentage loss of sales L_i to all firms outside the market (that is, $R_i + L_i$ = 100% for all firms in the market)

One-product SSNIP recapture test

- The 2010 Merger Guidelines and the one-product SSNIP

> The hypothetical monopolist test requires that a product market contain enough substitute products so that it could be subject to post-merger exercise of market power significantly exceeding that existing absent the merger. Specifically, the test requires that a hypothetical profit-maximizing firm, not subject to price regulation, that was the only present and future seller of those products ("hypothetical monopolist") likely would impose at least a small but significant and non-transitory increase in price ("SSNIP") on **at least one product in the market, including at least one product sold by one of the merging firms**. For the purpose of analyzing this issue, the terms of sale of products outside the candidate market are held constant.[1]

This is an important requirement

- This creates the *one-product SSNIP test*:

  A provisional market is a relevant market under the Merger Guidelines if a hypothetical monopolist could profitably increase the price of one of the merging firm's products by a SSNIP holding the prices of all other product constant

  - This is the *profitability* version of the test (as opposed to the profit-maximization version)
  - NB: Just because one product in the candidate market fails the one-product SSNIP test does not preclude another product from passing it

[1] U.S. Dep't of Justice & Fed. Trade Comm'n, Horizontal Merger Guidelines § 4.1.1 (rev. 2010) (emphasis added).

The one-product SSNIP recapture test

- The idea
  - When the hypothetical monopolist increases the price of only one product in the candidate market, its lost sales divert both to—
    - Products outside of the market ("external diversion"), *and*
    - Other products inside the market ("internal diversion)
  - As always, the profitability of a one-product SSNIP will depend on whether the hypothetical monopolist profit gains from the price increase outweigh its losses
  - But in the case of a one-product SSNIP, the gains will be—
    - The increase in margin on the inframarginal sales of the product subject to the SSNIP
    - PLUS the profits earned by all other products in the candidate market on recaptured sales from internal diversion
  - *The test*: Assume that there are *n* products in the candidate market. A one-product SSNIP in the price of product 1 is profitable for the hypothetical monopolist if and only if:

Gains on the inframarginal sales of product 1	+	Profits on the lost product 1 sales recaptured by products 2, . . ., *n*	>	Loss of profits the lost marginal sales of product 1

The one-product SSNIP test

- The easy way to think about a one-product SSNIP test:
  - Let A be one of the merging firms. Looking only at A's accounting records:

Profit gains on inframarginal sales	+	Profit losses on marginal sales	=	Net loss	Because A was profit-maximizing as a standalone firm

  - Now look at the books of the other firms in the candidate market:

Profit gains on recaptured sales	These profits are earned at the original dollar margins because the SSNIP was imposed only on firm A

  - In considering the profitability of a price increase on A's product, the hypothetical monopolist considers the accounting results of all firms in the candidate market
  - Test: *Are the profits gains on the recaptured sales sufficient to offset firm A's standalone net loss?*
    - If so, then the candidate market is a relevant market under the HMT
    - If not, look at the profitability of a SSNIP on the other merging product

Recapture analysis for single-product SSNIP

- "Brute force" method for single product price increase—Example 1
  - Example 1: (Differentiated) Gourmet pizzas
    - Assume that for a single product price increase of 5%, the hypothetical monopolist would retain 90 out of every 100 customers. Of the 10 lost customers, 7 would divert to another gourmet pizza and 3 would go to a standard pizza. Assume that the price of gourmet pizzas is $3.00 and that the dollar margin is $1.50 per pie for all producers.
    - *Query*: Under the single-product 5% SSNIP test, are gourmet pizzas a relevant product market?

Data	Out of every units sold:	100	Price	$3.00
			Margin	$1.50
	Units retained	90	SSNIP (%)	5.00%
	Total units lost	10	SSNIP ($)	$0.15
	Units recaptured	7		

Analysis	Gain on inframarginal	$13.50	Units retained (90) times $SSNIP ($0.15)
	Loss on marginal sales	-$15.00	Total units lost (10) times $margin ($1.50)
	Gain on recapture	$10.50	Recaptured units (7) times $margin ($1.50)
	Net gain	$9.00	

- Since the 5% price increase results in a net profit gain, gourmet pizzas are a relevant market

Relation to critical loss: When the dollar margins on the recapture sales are the same as the lost sales, those recaptured sales wash out the associated loss. Hence, you might think that you can look only at the sales not recaptured within the market (i.e., those that go to the "outside option") and do a critical loss analysis.

BUT this is not quite right. The inframarginal sales of Product 1 post-SSNIP earn an additional margin, but the recaptured sales earn the original margin. So you cannot use a critical loss test to test a one-product SSNIP.

Recapture analysis for single-product SSNIP

- "Brute force" method for single product price increase—Example 2
  - We can use the brute force method for a single product price when *dollar margins* differ among products within the candidate market (here, $\$m_2 = 1.75$; $\$m_3 = 1.35$)
    - Of firm G1's 10 marginal customers, 4 divert to firm G2 and 3 divert to firm G3
    - A "brute force" accounting calculation is almost always the best way to analyze the profitability of a single-product SSNIP when dollar margins differ in the candidate market

Gourmet pizza--Single product price increase

(brute force method--different margins for candidate market of three firms)

Out of every 100 units sold by Firm G1 (the firm experiencing the price increase):

	For Firm G1:		**For Firm G2:**		**For Firm G3:**	
Data	Total units retained	90				
Data	Total unit diverted	10	Total units recaptured	4	Total units recaptured	3
Data	G1 price	$3.00				
Data	G1 margin	$1.50	G2 $margin	$1.75	G2 $margin	$1.35
Data	SSNIP (%)	5.00%				
Data	SSNIP ($)	$0.15				
	Gain on retained units	$13.50	Gain on recaptured units	$7.00	Gain on recaptured units	$4.05
	Loss on diverted units	-$15.00				
	Total gross gain to HM	$24.55	= $13.50 + $7.00 + $4.05			
	Total gross loss to HM	-$15.00				
	NET GAIN	**$9.55**				

Since the net gain to the hypothetical monopolist is positive, the candidate market is a relevant market

One-product SSNIP recapture test

- The test
  - The setup
    - Assume *n* firms in the candidate market
    - Let p_i and m_i be the price and percentage margin of Product *i*, respectively
    - Without loss of generality, impose a percentage SSNIP of δ on Product 1 holding the prices of Products 2, …, *n* constant
    - Let Δq_i be the change in the sales of Product *i* resulting from the SSNIP in Product 1
      - Δq_1 is the loss of product 1 sales because of Product *i*'s downward-sloping demand curve
      - Δq_i is the gain of product *i* sales, *i* = 2, …, *n,* where other products in the candidate market are substitutes or unrelated to Product 1)
    - Let Δq_R be the total quantity recaptured within the candidate market: $\Delta q_R = \sum_{i=2}^{n} \Delta q_i$
    - Let D_{1i} be the diversion ratio from Product 1 to Product *i*: $D_{1i} = \dfrac{\Delta q_i}{\Delta q_1}$
    - Let R_1 be the *recapture ratio* I.e., the percentage of lost units Δq_1 recaptured by all other products in the candidate market):
    $$R_1 = \frac{\Delta q_R}{\Delta q_1}$$
    - Let k_{1i} be the recapture share of Product *i* when the price of Product 1 is increased: $k_{1i} = \dfrac{\Delta q_i}{\Delta q_R}$
    - Let $\$m_{RAve}$ be the recapture share-weighted dollar gross margin of the recaptured products:
    $$\$m_{RAve} = \sum_{i=2}^{n} k_{1i} m_i p_i$$

One-product SSNIP recapture test formulas

- The test
  - *Proposition*: A candidate market is a relevant market under a one-product SSNIP recapture test for Product 1 if:

$$R_1 > R^1_{Critical} = \frac{\delta p_1}{\$m_{RAve}} \quad \left(= \frac{\$SSNIP_1}{\$m_{RAve}} \right).$$

That is, if this condition is satisfied, a hypothetical monopolist could profitably increase the price of Product 1 by δ

where $\$m_{RAve}$ is the recapture share-weighted average of the products in the candidate market that are not subject to the SSNIP and may recapture lost marginal sales from the products subject to the SSNIP

  - *Observations*:
    1. NB: Any product in the candidate market can be Product 1
       - I assume that the SSNIP would apply to Product 1 to simplify the notation
    2. Under the Merger Guidelines, as long a one product satisfies the one-product SSNIP recapture test, the candidate market is a relevant market
       - This is true even if all of the other products in the candidate market fail the test

One-product SSNIP recapture test

Optional

- The test
  - Proof:[1]

    Strategy: A hypothetical monopolist of a candidate market could profitably increase the price of product 1 by a SSNIP if the profit loss in product 1 is less than the profit gain from recapture to any sales diverted into other products in the candidate market

    1. Determine the net loss in the sales of product 1 resulting from the SSNIP
       Note: There will be a net loss since pre-SSNIP product 1 was priced at its standalone profit-maximizing price. The net profit loss in product 1 has two parts:
       1. The gross dollar loss from the loss Δq_1 of marginal sales: $\Delta q_1 \$m_1$
       2. The gross dollar gain from the increased margin in the inframarginal sales: $(q_1 - \Delta q_1)\delta p_1$

       So the net dollar loss in product 1 from imposing the SSNIP: $\Delta q_1 m_1 p_1 - (q_1 - \Delta q_1)\delta p_1$
    2. Determine the dollar profit gain from diversion of product 1 lost sales to other products in the candidate market:

$$\begin{aligned} D_{12}\Delta q_1 \$m_2 + D_{13}\Delta q_1 \$m_3 &= \Delta q_1 \left[D_{12}\$m_2 + D_{13}\$m_3\right] \\ &= R_1 \Delta q_1 \left[\frac{D_{12}}{R_1}\$m_2 + \frac{D_{13}}{R_1}\$m_3\right] \\ &= R_1 \Delta q_1 \left[k_{12}\$m_2 + k_{13}Sm_3\right] \\ &= R_1 \Delta q_1 \$m_{RAve}, \end{aligned}$$

where $\$m_{RAve}$ is the term in brackets on the right-hand side, that is, the diversion share-weighted average of the dollar profit gains from recapture by the other products in the candidate market (i.e., all the products except for product 1)

[1] The proof here is for a three-product candidate market. It is easily extended to an *n*-product candidate market.

One-product SSNIP recapture test

Optional

- Aggregate diversion ratios and the one-product SSNIP test
  - Proof (con't):

3. The hypothetical monopolist can profitably increase product 1's price by a SSNIP if the profits from the recaptured sales are greater than the net loss in the sales of product 1, that is, if:

$$R_1 \Delta q_1 \$m_{RAve} > \Delta q_1 \$m_1 - (q_1 - \Delta q_1)\delta p_1$$

Rearranging terms:

$$R_1 > \frac{\Delta q_1 \$m_1}{\Delta q_1 \$m_{RAve}} - \frac{(q_1 - \Delta q_1)\delta p_1}{\Delta q_1 \$m_{RAve}} = \frac{p_1}{\$m_{RAve}}\left[\%m_1 - \frac{q_1}{\Delta q_1}\delta + \frac{\Delta q_1}{\Delta q_1}\delta\right]$$

But a profit-maximizing firm satisfies the Lerner condition, that is, $|\varepsilon_{11}| = \frac{1}{m_1}$. Pre-SSNIP, Firm 1 maximized its profits given its residual demand curve, implying:

$$|\varepsilon_{11}| = \frac{\frac{\Delta q_1}{q_1}}{\frac{\Delta p_1}{p_1}} = \frac{\frac{\Delta q_1}{q_1}}{\delta} = \frac{1}{\%m_1} \Rightarrow \%m_1 - \frac{q_1}{\Delta q_1}\delta = 0$$

So the first two terms in the brackets sum to zero and the fraction in the third term equals 1:

$$R_1 > \frac{p_1}{\$m_{RAve}}\left[\%m_1 - \frac{q_1}{\Delta q_1}\delta + \cancel{\frac{\Delta q_1}{\Delta q_1}}\delta\right]$$

Simplifying:

$$R_1 > \frac{\delta p_1}{\$m_{RAve}}.$$

Q.E.D.

One-product SSNIP recapture test

Optional

- Observations
  - The test is not intuitive (at least to me)—But it does make sense:
    - Consider the fraction δp_1
    - δp_1 is the \$SSNIP, that is, the incremental profit earned on each inframarginal sale after the price increase
      - But consider again the Lerner condition for a profit maximum:

$$|\varepsilon_{11}| = \frac{\frac{\Delta q_1}{q_1}}{\frac{\Delta p_1}{p_1}} = \frac{\frac{\Delta q_1}{q_1}}{\delta} = \frac{1}{\%m_1}$$

      - Solving this time for δ:

$$\delta = \frac{\Delta q_1}{q_1} m_1 = \frac{\Delta q_1}{q_1} \frac{(p_1 - c_1)}{p_1}$$

      - So

$$\$SSNIP = \delta p_1 = \frac{\Delta q_1}{q_1} \frac{(p_1 - c_1)}{\cancel{p_1}} \cancel{p_1} = \frac{\Delta q_1}{q_1} \$m_1,$$

or the marginal sales profit loss per unit of original Product 1 sales

    - $\$m_{RAve}$ is the diversion-weighted average dollar margin of one recaptured sale
    - Consequently (with a little rearrangement):

$$R_1 > \frac{\delta p_1}{\$m_{RAve}} \Rightarrow R_1 \$m_{RAve} > \delta p_1 \Rightarrow \frac{(\text{Total units recaptured})}{\Delta q_1} (\$m_{RAve}) > \frac{\Delta q_1}{q_1} \$m_1$$

This says that the recaptured profit gain per lost sale of Product 1 must be greater than the average marginal sales profit loss per unit of original Product 1 sales

The one-product SSNIP test

Optional

- Corollaries
  - *Corollary 1*: When the *percentage margins %m_o* of the other products are the same (m_o), the test becomes:

$$R_1 > \frac{\delta}{\%m_o}\frac{p_1}{p_{RAve}},$$

That is, if this condition is satisfied, a hypothetical monopolist could profitably increase the price of Product 1 by δ

where p_{RAve} is the recapture share-weighted average of the prices of the other products in the candidate market (i.e., all the products except for product 1)

  - *Corollary 2*: When the prices of the other products are the same (p_o), the test becomes:

$$R_1 > \frac{\delta}{m_{RAve}}\frac{p_1}{p_o},$$

where m_{RAve} is the recapture share-weighted average of the percentage gross margins of the other products in the candidate market (i.e., all the products except for product 1)

  - *Corollary 3:* When the prices of all products in the candidate market are the same but the margins differ, the test becomes:

$$R_1 > \frac{\delta}{m_{RAve}}.$$

Exam hint: You will not have to apply any of the formulas on this slide. If the exam question calls for the use of a one-product SSNIP test, you will be able to apply it using brute force.

The one-product SSNIP test

- Corollaries
  - *Corollary 4 (symmetric products)*: When all products in the candidate market have the same prices p and margins m_o, the test becomes:

You should know this

$$R_1 > \frac{\delta}{m_o}.$$

- NB: Even when the prices and margins of all products are identical in the premerger market equilibrium, if the products can be differentiated by other attributes such as quality or reputation, prices and margins may divert postmerger
  - In such markets, a one-product SSNIP test can be used even when all prices and margins in the candidate market are identical because the hypothetical monopolist could increase the price of only one product and still retain some sales from that product (so that there will be some gross gain on that product's inframarginal sales)

The one-product SSNIP test

- Corollaries
  - *Corollary 4 (symmetric products)*: When all products in the candidate market have the same prices p and margins m_o, the test becomes:

You should know this

$$R_1 > \frac{\delta}{m_o}.$$

- NB: Even when the prices and margins of all products are identical in the premerger market equilibrium, if the products can be differentiated by other attributes such as quality or reputation, prices and margins may divert postmerger
  - In such markets, a one-product SSNIP test can be used even when all prices and margins in the candidate market are identical because the hypothetical monopolist could increase the price of only one product and still retain some sales from that product (so that there will be some gross gain on that product's inframarginal sales)

One-product SSNIP recapture test formulas

- Calculating recapture share-weighted averages   Optional
  - The idea
    - The general one-product SSNIP recapture test uses a *recapture share-weighted average* of the dollar margins of all "other" products in the candidate market ($\$m_{RAve}$)
  - Example
    - There are five products A,B,C,D, and E. Are products A,B,C, and D a relevant market? Test using a one-product SSNIP recapture test for product A for a 5% SSNIP.
      1. Data

Product	Diversion Ratio	Price	$margin
A	–	$10.00	$5.00
B	0.1	$6.00	$3.00
C	0.4	$12.00	$6.00
D	0.3	$9.00	$4.50
E	0.2	$8.00	$4.00

      2. Determine the aggregate recapture rate for products B, C, and D

	Diversion Ratio
Product B	0.1
C	0.4
D	0.3
Aggregate recapture	0.8

This is the aggregate recapture rate for product A (R_A)

One-product SSNIP recapture test formulas

- Calculating weighted averages

Optional

  - Example (con't)
    3. Determine the recapture share for reach product (= $D_{A \rightarrow i}$/Aggregate recapture rate)

	Recapture Share	
	Calculation	Percentage
Product B	0.1/0.8	12.50%
C	0.4/0.8	50.00%
D	0.3/0.8	37.50%
		100.00%

NB: Recapture share is the firm *j*'s percentage share of the total number of units recaptured in the candidate market. The sum of all recapture shares total 199%. The recapture share is *not* the diversion ratio if there is diversion outside of the market.

    4. Calculate the recapture share-weighted dollar margin contributions by multiplying the product's recapture share by its dollar margin

	Weighted \$*m* contributions	
	Calculation	Contribution
Product B	0.125*\$3.00	\$0.3750
C	0.500*\$6.00	\$3.0000
D	0.375*\$4.50	\$1.6875
	$\$m_{RAve}$ =	\$5.0625

    5. Sum the contributions to obtain the recapture share-weighted dollar margin

One-product SSNIP recapture test formulas

- Calculating weighted averages

Optional

  - Example (con't)

6. Calculate the dollar SSNIP for product A ($\$SSNIP_A$)

δ	0.05
A's price	$10.00
$\$SSNIP_A$	$0.50

7. Calculate the critical recapture rate for product A

$$R^A_{Critical} = \frac{\delta p_A}{\$m_{RAve}} \left(= \frac{\$SSNIP_A}{\$m_{RAve}} \right).$$
$$= \frac{\$0.50}{\$5.06}$$
$$= 9.9\%$$

8. Compare actual recapture rate (R_1) to the critical recapture rate

From Step 2

$$R_A = 0.80 > R^A_{Critical} = 0.099$$

Products A, B,C, and D satisfy the one-product critical recapture test for product A and so those products are a relevant market under the hypothetical monopolist test

One-product SSNIP recapture test formulas

- Calculating weighted averages

Optional

  - Example (con't)
    - Steps 1-5 illustrate the calculation of the recapture share-weighted average dollar margin for the "other" products ($\$m_{RAve}$)
    - Without going though all of the steps, the formula is:

$$\$m_{RAve} = \overbrace{\frac{D_{A\to B}}{D_{A\to B}+D_{A\to C}+D_{A\to D}}}^{\text{Diversion weight}} \overset{\text{Dollar margin}}{\downarrow \atop \$m_B} + \frac{D_{A\to C}}{D_{A\to B}+D_{A\to C}+D_{A\to D}}\$m_C + \frac{D_{A\to D}}{D_{A\to B}+D_{A\to C}+D_{A\to D}}\$m_D$$

$$= \left(\frac{0.1}{0.1+0.4+0.3}\right)(3.00) + \left(\frac{0.4}{0.1+0.4+0.3}\right)(6.00) + \left(\frac{0.3}{0.1+0.4+0.3}\right)(4.50)$$

$$= (0.125)(3.00) + (0.500)(6.00) + (0.375)(4.50)$$

$$= 0.675 + 3.00 + 0.16875$$

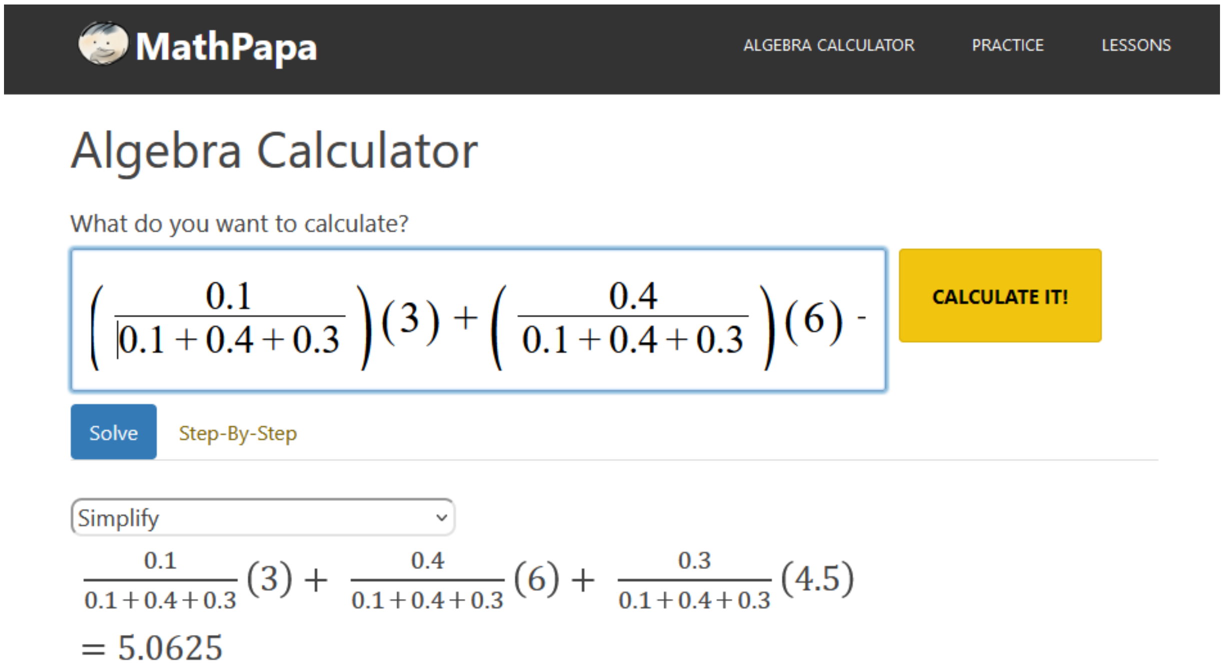
$$= 5.0625$$

Set up the problem and use Mathpapa to calculate!

One-product SSNIP recapture test formulas

- Using Mathpapa to calculate the recapture share-weighted average dollar margin of the “other” products

Optional



Recapture analysis for single-product SSNIP

- Example 1A: Single-product SSNIP test (symmetric products)
  - Gourmet pizzas
    - Assume that for a single product price increase of 5%, the hypothetical monopolist would retain 10 out of every 100 customers. Of the 10 lost customers, 7 would divert to another gourmet pizza and 3 would go to a standard pizza. Assume that the price of gourmet pizzas is $3.00 and that the dollar margin is $1.50 per pie for all producers.
    - *Query*: Under the single-product 5% SSNIP test, are gourmet pizzas a relevant product market?
    - *Answer*:

The products are symmetrical (identical prices and margins), so use the one-product SSNIP test for symmetric products: The one-product SSNIP is profitable if $R_1 > \delta/m$.

$\delta = 0.05$
$m = 0.5\%$
So $\delta/m = 10\%$

$R_1 = 70\%$

$R_1 > \delta/m$, so the one-product SSNIP test is satisfied, the hypothetical monopolist can profitably increase the price of product 1 by 5%, and gourmet pizzas are a relevant market (The same result as we obtained earlier).

Generally, as long as $R_1 > 10\%$ in this problem, the one-product SSNIP test will be satisfied.

Recapture analysis for single-product SSNIP

- Example 2A: Single-product SSNIP test (same price, different margins)
  - We can use Corollary 3 when the prices of the products in the candidate market are the same but the margins differ
    - Product 2 recaptures 2 units at $\$m_2 = 1.75$
      Product 3 recaptures 5 units at $\$m_3 = 1.05$
  - *Answer*:

Optional

The products different dollar margins, so one-product SSNIP for Product 1 is profitable for a hypothetical monopolist if:

$$R_1 > \frac{\delta}{m_{RAve}}.$$

where m_{RAve} is the recapture share-weighted average of the percentage margins of the other products in the candidate market (i.e., all the products except for product 1)

	Gourmet pizzas				
	1	2	3		
Price	3	3	3		From problem
\$margin	1.5	1.75	1.05		From problem
Loss	10				From problem
#Recapture (units)		2	5		From problem
%Recapture		28.57%	71.43%	100.00%	Recapture shares
$\$m_{RAve}$ contribution		0.5000	0.4500		%Recapture times \$margin
Average $\$m_{RAve}$				1.2500	Sum of $\$m_{RAve}$ contributions
$\%m_{RAve}$				0.44166	Average $\$m_{RAve}$/price
δ	5%				From problem
δ/m_{RAve}	12.00%				Calculated
R_1	70.00%				From problem

$R_1 > \delta/m_{RAve}$, so the one-product SSNIP test is satisfied, the hypothetical monopolist can profitably increase the price of product 1 by 5%, and gourmet pizzas are a relevant market (The same result as we obtained earlier).

One-product SSNIP recapture test

- Technical caution
  - $R^1_{Critical}$ is specific to product 1 and is a function of the quantity of marginal sales lost by product 1 in the wake of a SSNIP
  - This is because $\$m$ for any firm depends on $\%m$, which in turn depends on the elasticity of demand to satisfy the Lerner condition for a profit-maximizing firm
  - Changing the quantity of lost marginal sales changes the elasticity and implies a different profit-maximizing margin and hence a different critical recapture ratio

One-product SSNIP recapture test

- A caution
  - In a well-known paper, Katz and Shapiro derived a different condition for a one-product SSNIP recapture test:

$$R_1 > \frac{\delta}{\cancel{\delta} + m_{RAve}},$$

where the prevailing prices for all products are equal.[1]

This condition is INCORRECT for a one-product SSNIP test!

  - The problem is that the Katz-Shapiro proof assumed that the recaptured sales would be sold at the original price of the recapturing product *increased* by the SSNIP, but in a one-product SSNIP recapture test the recaptured sales would be sold at the original prices charged by the other firms in the market
    - I note this only because this incorrect condition is still in circulation
    - However, it is the correct test when all the products in the candidate market are increased by the same SSNIP

[1] *See* Michael Katz & Carl Shapiro, *Critical Loss: Let's Tell the Whole Story*, Antitrust, Spring 2003, at 53 & n.25.

Uniform SSNIPs and the Aggregate Diversion Ratio Test

Uniform SSNIP recapture test

- Extension to a uniform SSNIP
  - Some economists have attempted to create a recapture test for hypothetical monopolist imposing a *uniform* SSNIP in a differentiated candidate market
  - *Remember*: With recapture, the net profits of the hypothetical monopolist from a price increase in each product *i* taken individually comprise—
    - The net gain on the inframarginal sales of product *i* resulting from the price increase
    - MINUS the net loss on the sales of product *i* resulting from the price increase
    - PLUS all incremental profits earned by other firms in the candidate market from the capture of sales diverted from product *i*
  - When the hypothetical monopolist increases all prices in the candidate market by a SSNIP, its overall profit is the sum of the net profits from each of the individual products

Uniform SSNIP recapture test

- Extension to a uniform SSNIP
  - Observations:
    1. In a single-product SSNIP test, the price of only one product in the candidate market is increased and the diversion and recapture ratios are determined holding the prices of all other firms in the candidate market constant
    2. In a uniform SSNIP test, the price of all products in the candidate market are increased and the diversion and recapture ratios are determined using these higher prices for all products in the candidate market
    3. The diversion ratios are likely to be different in the two situations
       - With the one-product SSNIP, the diversion ratios are from the higher priced SSNIP product to the originally priced other products
       - With a uniform SSNIP, the diversion ratios are from one higher-priced SSNIP product to (now less attractive) other higher-priced SSNIP products

       In general, we can expect the diversion ratios with a one-product SSNIP to be higher than the diversion ratios for a uniform SSNIP

    4. Whether you use a one-product SSNIP recapture test or a uniform SSNIP recapture test will depend on whether you have data on one-product SSNIP recapture rates or on uniform SSNIP recapture rates

Uniform SSNIP recapture test

- Extension to a uniform SSNIP
  - Some notation
    - Suppose a candidate market contains *n* differentiated products, each with a price p_i and a percentage gross margin m_i
    - Let Δq_i be the actual gross unit loss in the sales of Product *i* as a result of the SSNIP but before counting any recapture of diverted sales
    - Let D_{ij} be the diversion ratio from Product *i* to Project *j* when all products are subject to the SSNIP
    - Let R_i^U be the gross unit recapture of Product *i* sales collectively by other firms in the candidate market, so

$$R_i^U = \sum_{i \neq j} D_{ij} \Delta q_i .$$

The "*U*" in the superscript is to remind us that it is a uniform SSNIP

NB: R_i^U may be estimated from empirical evidence rather than derived from individual diversion ratios. They may also be estimated by relative share method.

- Let $\$m_{RAve}$ be the recapture share-weighted dollar gross margin of the recaptured products:

$$\$m_{RAve} = \sum_{i=2}^{n} k_{1i} m_i p_i$$

- Let $\$SSNIP_{RAve}$ be the recapture share-weighted dollar gross margin of the recaptured products

$$\$SSNIP_{RAve} = \sum_{i=2}^{n} k_{1i} \delta p_i$$

Uniform SSNIP recapture test

- The aggregate diversion ratio test for a uniform SSNIP:
  - *Proposition 1*. A hypothetical monopolist earns positive profits on product *i* from a uniform SSNIP in the candidate market if:

$$R_i^U > \frac{p_1\delta}{\$SSNIP_{RAve} + \$m_{RAve}} \equiv R_{Critical}^U$$

Call the right-hand side the *critical recapture rate* for a uniform SSNIP.

  - *Corollary (identical margins):* When all products in the candidate market have the same percentage margin *m*:

$$R_i^U > R_{Critical}^U = \frac{p_1\delta}{\$SSNIP_{RAve} + \$m_{RAve}} = \frac{p_1\delta}{p_{RAve}\%SSNIP_{RAve} + p_{RAve}\%m_{RAve}} = \frac{\delta}{\delta + m}\frac{p_1}{p_{RAve}}$$

  - *Corollary (symmetric products)*: When all products in the candidate market are symmetric (same prices *p* and percentage margins *m*):

$$R_i^U > R_{Critical}^U == \frac{p\delta}{p\delta + pm} = \frac{\delta}{m + \delta}$$

The critical recapture rate in the symmetric case is the same as the percentage critical loss

    - In the literature and some cases, the symmetric case is the variation most discussed

Uniform SSNIP recapture test

- A sufficiency test
  - *Proposition 2 (sufficiency)*: If:

$$R_i^U \geq R_{Critical}^U \qquad \text{for all firms } i \text{ in the candidate market}$$
$$R_j^U > R_{Critical}^U \qquad \text{for some firm } j \text{ in the candidate market}$$

    then the uniform SSNIP will be profitable for the hypothetical monopolist and the candidate market will be a relevant market
  - Proposition 2 simply says that if, in the wake of a uniform SSNIP, the hypothetical monopolist at least breaks even on every product in the candidate market and makes strictly positive profits on at least one product, the uniform SSNIP is profitable
  - Proposition 2 only states a *sufficient* condition
    - Failure to satisfy the test does not mean that the candidate market is not a relevant market
    - It is possible for a hypothetical monopolist to make positive profits from a uniform SSNIP even if it losses money in some products as long as it offsets those losses from positive profits in other products

This test is often called the "aggregate diversion ratio test" in the literature and in cases

Uniform SSNIP recapture test

- Example: Aggregate diversion ratio test
  - Differentiated three-product candidate market
    - Parameters (symmetric products)
      - Each product has the same price of $100
      - Each product has a margin of 60%
      - Assume a uniform SSNIP of 5% across all products
    - Then use the symmetric version of the aggregate diversion ratio test:

$$R^U_{Critical} = \frac{\delta}{\delta + m} = \frac{0.05}{0.05 + 0.60} = 0.0769 \text{ or } 7.69\%$$

    - Suppose that the uniform SSNIP generates the following actual recapture rates:

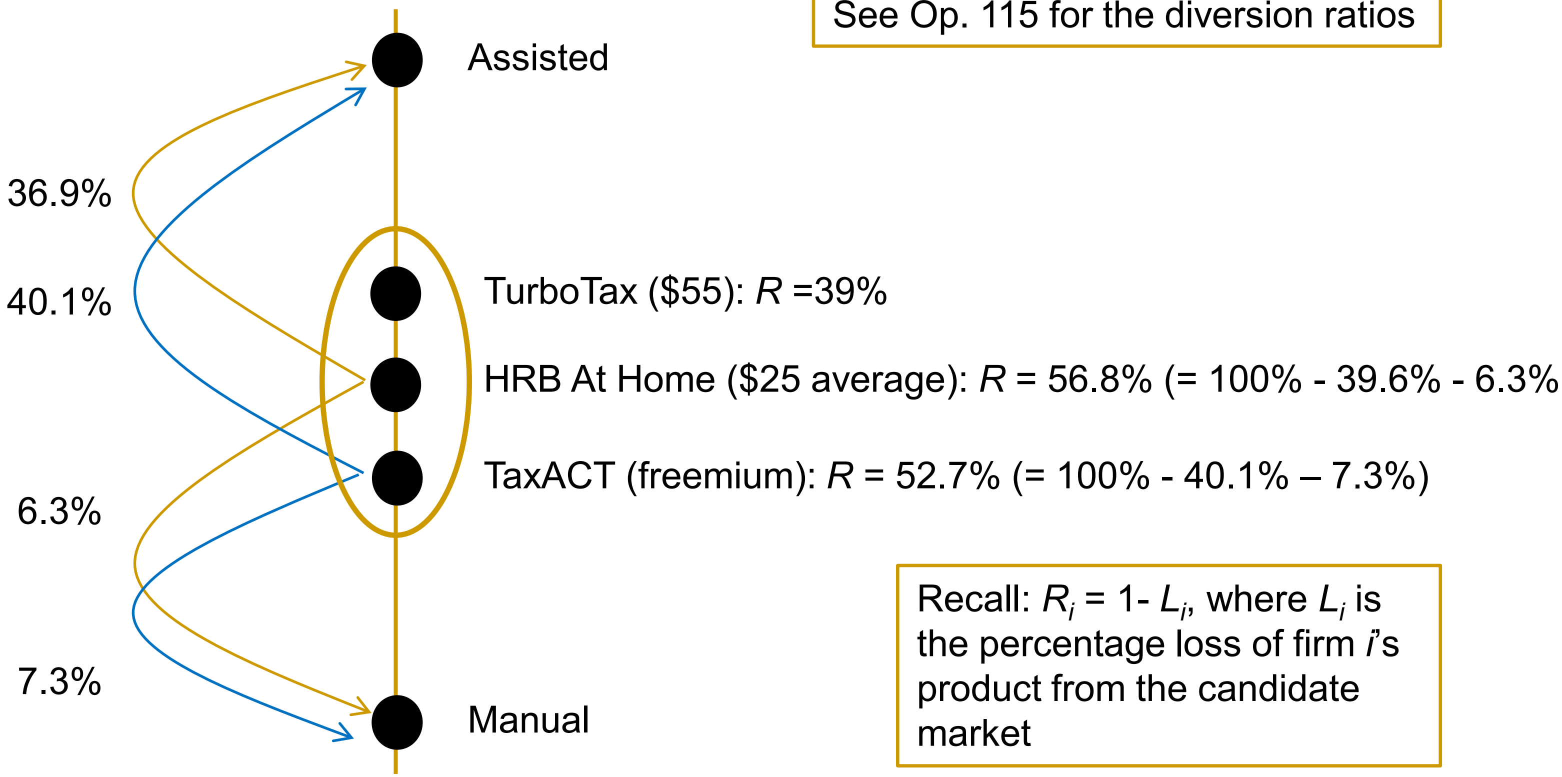
			Recapture	
Product	q	Δq	Units	Rate (R_i^U)
A	1200	100	30	30.00%
B	900	75	12	16.00%
C	600	50	10	20.00%

    - *Result*: Since the smallest R_i^U (16.00%) is greater than $R^U_{Critical}$ (7.69%), a hypothetical monopolist can profitably sustain a 5% uniform price and so the three products is a relevant market

Uniform SSNIP recapture test

- Warren-Bolton analysis in H&R Block/TaxACT
  - Recall that Warren-Boulton relied on IRS switching data to estimate aggregate recapture ratios

See Op. 115 for the diversion ratios



Recall: R_i = 1- L_i, where L_i is the percentage loss of firm *i*'s product from the candidate market

  - *Query*: Does the use of switching data indicated that the estimated R_i's are for a single-product SSNIP or a uniform SSNIP?

"Aggregate diversion ratio"

- Warren-Bolton analysis in H&R Block/TaxACT
  1. *Question*: Is DDIY a relevant market under a uniform SSNIP test?
  2. *Critical aggregate diversion ratio ($R^U_{Critical}$)*
     - Starting point: Start with DDIY products (HRB, TaxACT, and TurboTax)
     - SSNIP (δ): 10%
     - Gross margin (m): 50% on each product (Warren-Bouton assumption)
     - Then:

$$R^U_{Critical} = \frac{\delta}{\delta + m} = \frac{10\%}{10\% + 50\%} = 16.7\%$$

  3. *Actual loss*: Determine aggregate diversion ratios (recapture rates R^U_i) for each product
     - *Test*: If each $R^U_i \geq R^U_{Critical}$ for all products in the candidate market and $R^U_i > R^U_{Critical}$ for at least one product *i*, then product grouping is a market
     - Using IRS switching data as a proxy for *R*, Warren-Bolton found:
       - HRB: R_{HRB} = 57%
       - TaxACT: R_{TaxACT} = 53%
       - TurboTax: $R_{TurboTax}$ = 39%
  4. Conclusion (Warren-Boulton)
     - Since each $R^U_i > R^U_{Critical}$, a hypothetical monopolist of the DDIY product could profitably raise price by a uniform SSNIP and therefore DDIY is a relevant product market

Aggregate diversion ratio test

- A "presumptive" test
  - Some commentators suggest that in a uniform SSNIP test, the single-product SSNIP diversion and recapture rates can be used in Proposition 2 to create a *presumption* that the condition is satisfied and the candidate market is a relevant market[1]
  - But the recapture ratios across products in the candidate market will be at least as high and likely higher using a single-product SSNIP than a uniform SSNIP because of the prices of substitute products will be lower in the former situation. Therefore, we should expect:

$$R_i^S \geq R_i^U.$$

    - As one analyst noted:

> Unless the different products within a candidate antitrust market increase prices by different amounts, it is likely there will be little substitution among the products within the candidate market. Consequently, when there is a price increase across all products in the candidate market the value of the Aggregate Diversion Ratio is likely to be close to zero.[2]

    - Consequently, the presumptive test must be used with great care, if used at all

[1] Michael Katz & Carl Shapiro, *Critical Loss: Let's Tell the Whole Story*, Antitrust, Spring 2003, at 54 (footnote omitted).
[2] Barry Harris, *Recent Observations About Critical Loss Analysis* (undated), https://www.justice.gov/atr/recent-observations-about-critical-loss-analysis

Implementations of the Hypothetical Monopolist Test: SUMMARY

Summary

1. Prevailing (premerger) conditions
   - Competitive interactions established premerger equilibrium in prices and production quantities
   - Also establishes other competitive variable such as product attributes, but we do not have good models for this
2. Hypothetical monopolist test
   - Seeks to identify a product grouping (relevant market) that contains the product of one or both of the merging firms in which market power could be exercised
   - *Test*: Whether a hypothetical monopolist of the product grouping could profitably implement “small but significant nontransitory increase in price” (SSNIP) above the prevailing prices in one or more products in the grouping, including at least one of the products of the merging firms
   - The test is satisfied when the profits gained from the increase in margin in the inframarginal sales outweigh the profits lost from the loss of the marginal sales

Summary

3. Critical loss in homogeneous product markets
   - A homogeneous product market supports only one price
     - All producers sell an identical product and purchasers buy from the seller that offers the lowest price—this forces all sellers to sell at the same price
     - There is no recapture in this market of lost marginal sales
   - In the standard models, the hypothetical monopolist increases price by reducing output, which creates a scarcity in the product. Inframarginal customers then bid up the price in order to clear the market.
   - While small reductions in output may increase profits, sufficiently large reductions will reduce profits below the prevailing level
   - The output reduction beyond which any further reduction is unprofitable is called the *critical loss*
     - The critical loss is the output reduction where the profits gained from the increase in margin in the inframarginal sales just equal the profits lost from the loss of the marginal sales
   - *Test*: If the actual loss of sales due to a SSNIP is less than the critical loss, the SSNIP will be profitable and the candidate market will be a relevant market

Summary

4. One-product SSNIP tests in differentiated products markets
   - In differentiated products market, different products can have different prices and margins
   - The Merger Guidelines recognize as relevant markets products grouping where the hypothetical monopolist can profitably increase the price of one product, provided it is a product of one of the merging firms
   - The same basic critical loss analysis applies with one significant modification: When the product with the SSNIP loses marginal sales, some of those lost sales are "recaptured" by other products in the candidate market
   - The hypothetical monopolist earns profits on the recaptured sales that can be used to offset profit losses from lost marginal sales due to the SSNIP
     - The profit for each unit recaptured by any "other" product is the other product's original dollar margin (since the price of the recapturing product is not increased by the SSNIP)
   - The recapture rate on the lost marginal units that is just necessary for the hypothetical monopolist to break even with a SSNIP on one product is called the (one-product) *critical recapture rate*
     - The critical recapture rate is specific to the product on which the SSNIP is imposed, the diversion ratios from that product to other products in the market, and the dollar margins of all products
   - *Test*: For the product on which the SSNIP is imposed, if the actual recapture rate exceeds the critical recapture rate, the SSNIP will be profitable and the candidate market will be a relevant market

Summary

5. Uniform SSNIP tests in differentiated products markets
   - In some differentiated products markets, we may not have information on *one-product SSNIP recapture ratios*
     - A one-product SSNIP recapture ratio is the recapture ratio for the product with the SSNIP holding the prices of all other products in the candidate market constant
   - Instead, we may only have data on *uniform SSNIP recapture ratios*
     - A uniform SSNIP recapture ratio is the recapture ratio for a given product when all the products in the candidate market are subject to the SSNIP
     - Switching data usually provides information on uniform SSNIP recapture ratios, not one-product recapture ratios
   - *Rule*:
     - Use a one-product SSNIP recapture test when you have one-product SSNIP recapture ratios
     - Use a uniform SSNIP recapture test when you only have uniform SSNIP recapture ratio
   - *The test*:
     - The analysis and the test is the same for a uniform SSNIP recapture test as it is for the one-product SSNIP recapture test *except* that the margins of the recapturing products in the candidate market are increased by the SSNIP

Merger Simulation

Merger simulation

- Warren-Boulton
  - In addition to critical loss analysis, used "merger simulation" to predict price increases resulting from the merger to test whether a hypothetical monopolist would increase prices postmerger more than a SSNIP
- Warren–Boulton results
  - Used Bertrand pricing model
  - Predicted price increases as a result of the merger—
    - TaxACT 83%
    - HRB 37%
    - TurboTax 11%
- Court
  - Confirms DDIY as a relevant market
    - But discusses in competitive effects analysis

> As did the Court, we will defer an examination of the Warren-Boulton simulation model until the anticompetitive effects analysis

Unit 9b class slides

Unit 9: H&R Block/TaxACT

Part 2. Anticompetitive Effect in Horizontal Mergers

a. *PNB* presumption
b. Coordinated effects
c. The elimination of a “maverick”
d. Unilateral effects

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

October 19, 2023

H&R BLOCK®

TaxAct®

Section 7 of the Clayton Act

- Section 7 supplies the antitrust standard to test acquisitions:

> 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.*[1]

- Test of anticompetitive effect under Section 7
  - Whether "the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly" in any relevant market
  - *Incipiency standard*: The Supreme Court has interpreted the "may be" and "tend to" language in the anticompetitive effects test to—
    - Require proof only of a *reasonable probability* that the proscribed anticompetitive effect will occur as a result of the challenged acquisition
    - *Not* require proof that an actual anticompetitive effect will occur

[1] 15 U.S.C. § 18.

“May be to substantially lessen competition”

- No operational content in the statutory language itself
  - What does it mean to “substantially lessen competition”?
  - Judicial interpretation has varied enormously over the years
- *Modern view*:[1] Transaction threatens—with a reasonable probability—to hurt some identifiable set of customers through:
  - Increased prices
  - Reduced market output
  - Reduced product or service quality
  - Reduced rate of technological innovation or product improvement
  - (Maybe) reduced product diversity[2]

These are called *anticompetitive effects*

A firm that has the power to produce or strengthen an anticompetitive effect is said to have *market power*

- Forward-looking analysis
  - Compare the postmerger outcomes with and without the deal
  - Can view potential competitors today as future competitors tomorrow

[1] The modern view dates from the late 1980s or early 1990s, after the agencies and the courts had assimilated the 1982 DOJ Merger Guidelines.

[2] The idea that reduced product diversity may be a cognizable customer harm was formally introduced in the 2010 DOJ/FTC Horizontal Merger Guidelines.

The Prima Facie Case:
The *PNB* Presumption

Introduction

- Likely competitive effect
  - Having established the dimensions of the relevant market in which to assess the merger, the next step in the proof of the prima facie case is to assess the merger's likely competitive effect in this market
- *Baker Hughes*
  - Recognizes that a prima facie showing of the requisite anticompetitive effect may made be made through the *Philadelphia National Bank* presumption
- The *PNB* presumption

> Specifically, we think that a merger which **produces a firm controlling an undue percentage share 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 must be enjoined in the absence of evidence clearly showing that the merger is not likely to have such anticompetitive effects.[1]

[1] United States v. Philadelphia National Bank, 374 U.S. 321, 363 (1963).

The *PNB* presumption

- The *H&R Block* court uses the Merger Guidelines thresholds as triggers for the *PNB* presumption

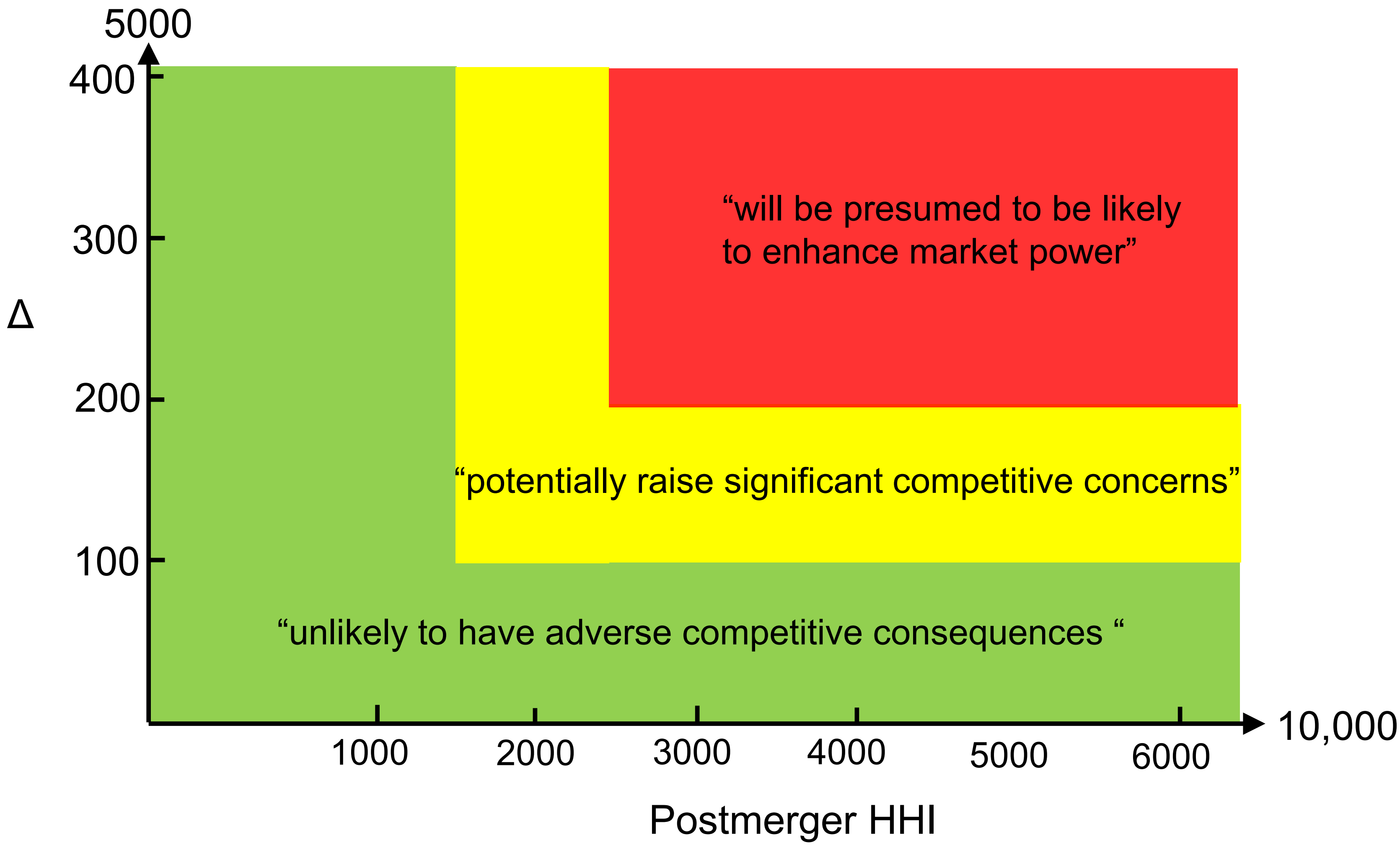
	Premerger Shares	HHI Contribution	
Intuit	62.2%	3869	The square of the firm's market share
HRB	15.6%	243	
TaxACT	12.8%	164	
Others (6)	9.4%	15	Residual share (9.4%) divided by 6 firms and added six times
	100.0%	4291	The sum of the squared shares of all of the firms in the market
Combined share	28.4%		
Premerger HHI		4291	
Delta (Δ)		400	2 × HRB share × TaxACT share
Postmerger HHI		4691	Sum of the premerger HHI + Δ

"Violates" the 2010 Guidelines:
Postmerger HHI exceeds 2500 and delta exceeds 200

Note: Court appears to have assumed that six equal-sized firms are in the "other" category

The *PNB* presumption

- The current thresholds: 2010 Merger Guidelines



HHIs in Successful DOJ/FTC Challenges

- The DOJ and FTC have not brought "close" cases in alleged markets

Agency	Complaint	Defendant	Combined share[1]	PreHHI	PostHHI	Delta	Deal Status
DOJ	2021	Bertelsmann	49	2220	3111	891	Preclosing
FTC	2020	Hackensack	≈50	1994	2835	841	Preclosing
FTC	2020	Peabody Energy	68	2707	4965	2258	Preclosing
FTC	2018	Wilhelmsen	84.7	3651	7214	3563	Preclosing
FTC	2017	Sanford Health	98.6[2]	5333	9726	4393	Preclosing
DOJ	2017	Energy Solutions	100	6040	10000	3960	Preclosing
DOJ	2016	Anthem	47	2463	3000	537	Preclosing
DOJ	2016	Aetna			>5000[3]		Preclosing
FTC	2016	Penn State Hershey	64	3402	5984	2582	Preclosing
FTC	2015	Advocate Heath	55	2094	3517	1423	Preclosing
FTC	2015	Staples	75[4]	3036	5836	2800	Preclosing
FTC	2015	Sysco	71[5]	3153	5519	1966	Preclosing

[1] When the complaint alleged multiple markets, the market with the most problematic highest HHIs is reported.
[2] Pediatricians market. The FTC alleged three other physician markets. The lowest problematic delta was in OB/GYN with a premerger HHI of 6211, a postmerger HHI of 7363, and a delta of 1152.
[3] The DOJ challenged Aetna's proposed acquisition of Humana in 17 geographic markets. The complaint did not provide HHI statistics for each market, although it noted that in 75% of the markets, the post-HHI would be greater than 5000.
[4] The FTC also challenged the transaction in 32 alleged relevant local geographic markets, with the smallest combined share being 51% and the largest being 100%.
[4] The complaint alleged multiple markets in food distribution. The numbers given are for national broadline distribution.

HHIs in Successful DOJ/FTC Challenges

- The DOJ and FTC have not brought "close" cases in alleged markets

Agency	Complaint	Defendant	Combined Share[1]	PreHHI	PostHHI	Delta	Deal Status
DOJ	2015	Electrolux		3350[2]	5100	1750	Preclosing
DOJ	2013	Bazaarvoice	68	2674	3915	1241	Consummated
FTC	2013	Saint Alphonsus	57	4612	6129	1607	Consummated
DOJ	2013	US Airways	100[3]	5258	10000	4752	Preclosing
DOJ	2013	ABInbev	100	5114	10000	4886	Preclosing
FTC	2011	OSF Healthcare	59	3422	5179	1767	Preclosing
FTC	2011	ProMedica	58	3313	4391	1078	Preclosing
DOJ	2011	H&R Block	28	4291	4691	400	Preclosing
FTC	2009	CCC	65	4900	5460	545	Preclosing
FTC	2008	Polypore	100	8367	10000	1633	Consummated
FTC	2007	Whole Foods	100[4]		10000		Preclosing
FTC	2004	Evanston	35	2355	2739	384	Consummated
DOJ	2003	UPM-Kemmene	20	2800	2990	190	Preclosing

[1] When the complaint alleged multiple markets, the market with the most problematic highest HHIs is reported.
[2] The complaint alleged three markets. The numbers given are for ranges. Cooktops and wall ovens were similar
[3] The complaint alleged 1043 markets.
[4] In some local geographic markets, this was a merger to monopoly in the FTC's alleged product market of premium, natural, and organic supermarkets.

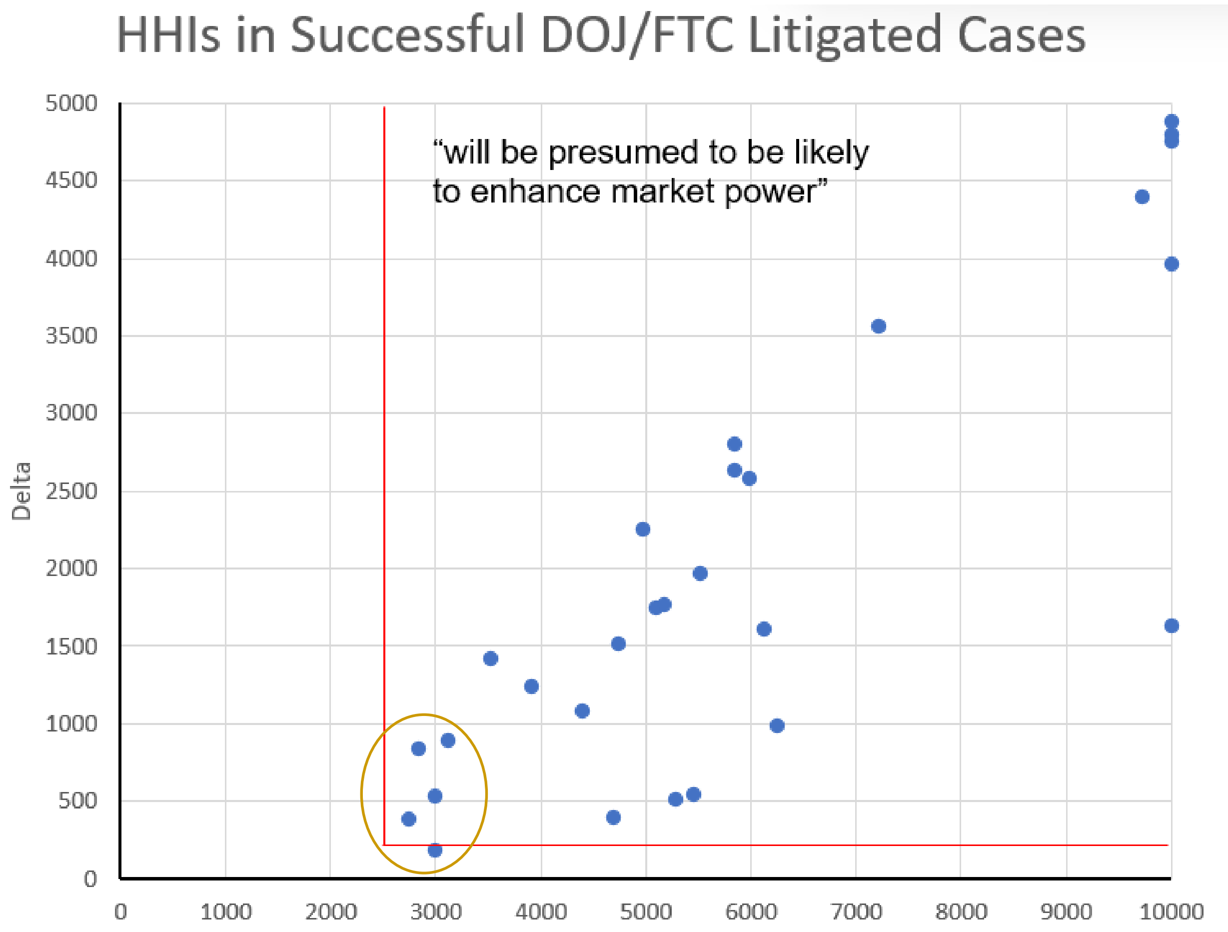
HHIs in Successful DOJ/FTC Challenges

- The DOJ and FTC have not brought "close" cases in alleged markets

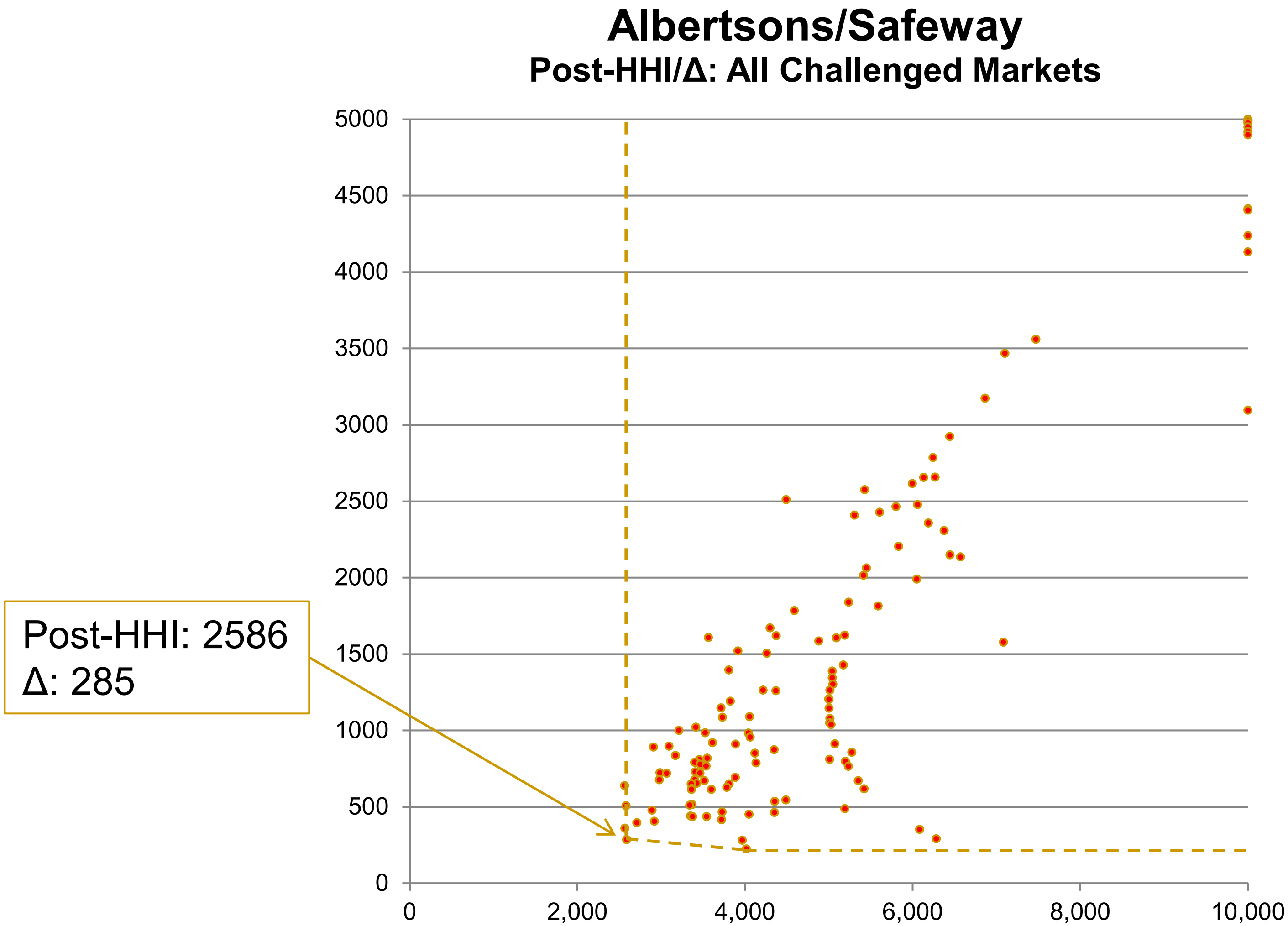
Agency	Complaint	Defendant	Combined Share[1]	PreHHI	PostHHI	Delta	Deal Status
FTC	2002	Libbey	79	5251	6241	990	Preclosing
FTC	2001	Chicago Bridge	73	3210	5845	2635	Consummated
FTC	2000	Heinz	33	4775	5285	510	Preclosing
FTC	2000	Swedish Match	60	3219	4733	1514	Preclosing
DOJ	2000	Franklin Electric	100	5200	10000	4800	Preclosing

[1] When the complaint alleged multiple markets, the market with the most problematic highest HHIs is reported.

HHIs in Successful DOJ/FTC Challenges

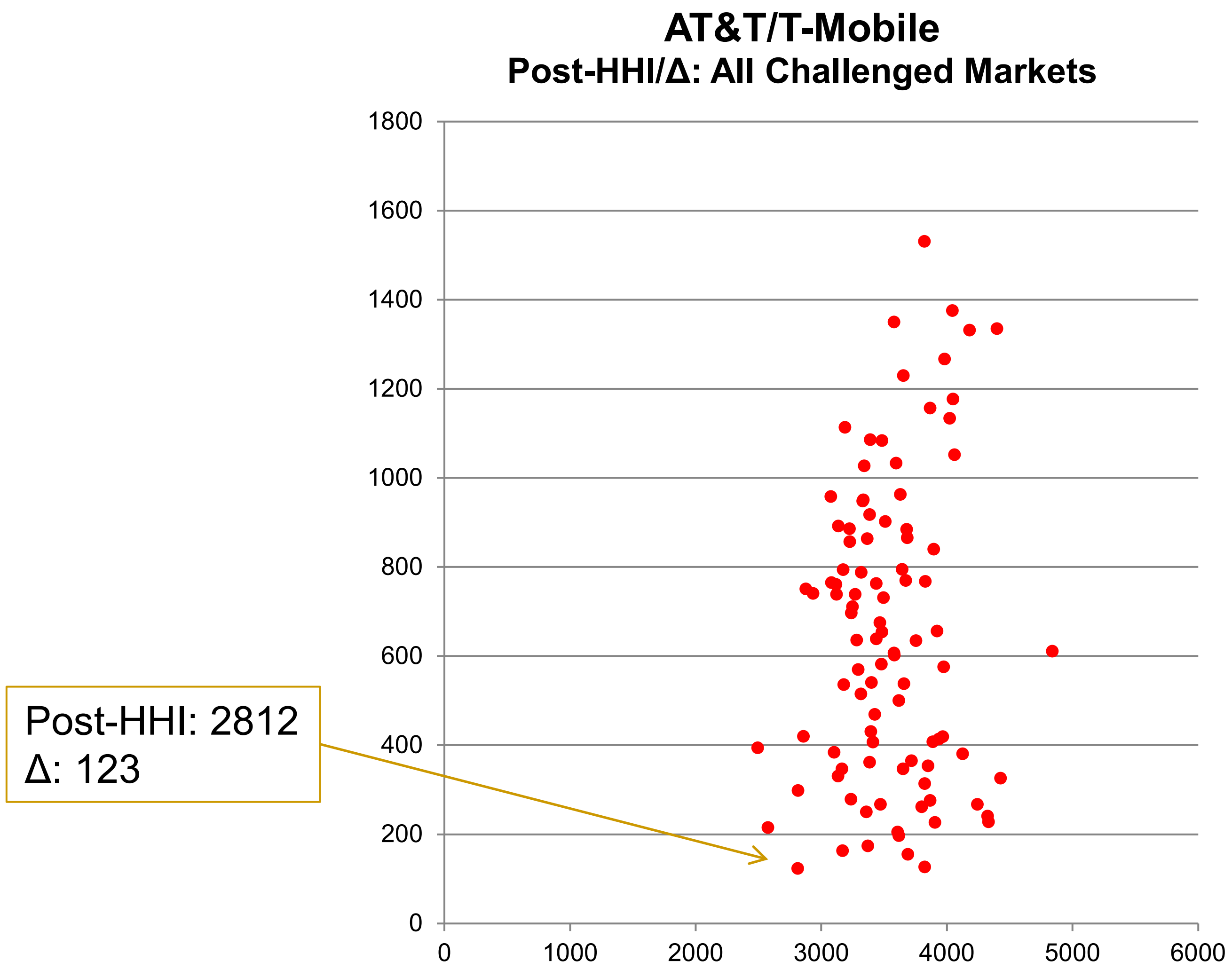


Example: Albertsons/Safeway



6 to 5	5
5 to 4	27
4 to 3	43
3 to 2	42
2 to 1	13
	130

Example: AT&T/T-Mobile



Draft 2023 Merger Guidelines

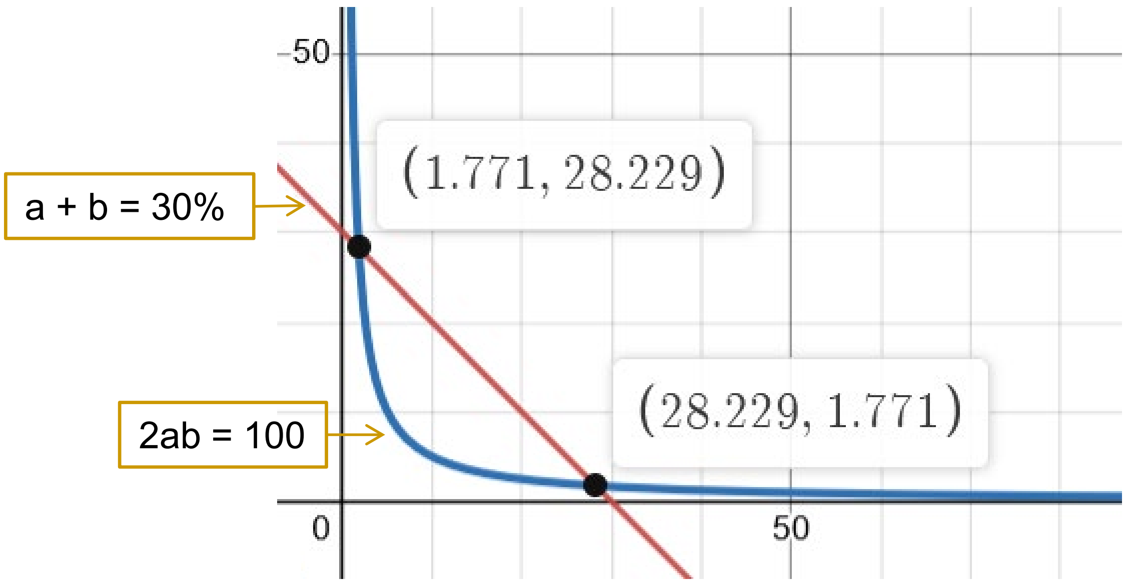
- Two significant changes in the HHI thresholds
  - Significantly lowers the HHI thresholds
  - Creates a new 30% threshold for the merging firm with the ΔHHI > 100

	2010 Horizontal Merger Guidelines	**Proposed Guidelines**
Post-merger HHI and ΔHHI levels to trigger structural presumption	2,500 and change in HHI greater than 200	Greater than 1,800 and change in HHI greater than 100[1]
Merged company's market share trigger	No stated market share presumption. Market share is "useful to the extent it illuminates the merger's likely competitive effects."	Share greater than 30%, and change in HHI greater than 100[2]

[1] U.S. Dep't of Justice & Fed. Trade Comm'n, Draft Merger Guidelines § II(1) (July 19, 2023). In the 2010 guidelines, this is the threshold for finding the merger may "potentially raise significant competitive concerns." 2010 Horizontal Merger Guidelines § 5.3.
[2] 2023 Draft Merger Guidelines § ii(1) (citing United States v. Philadelphia National Bank, 374 U.S. 321, 364-65 (1963)).

Draft 2023 Merger Guidelines

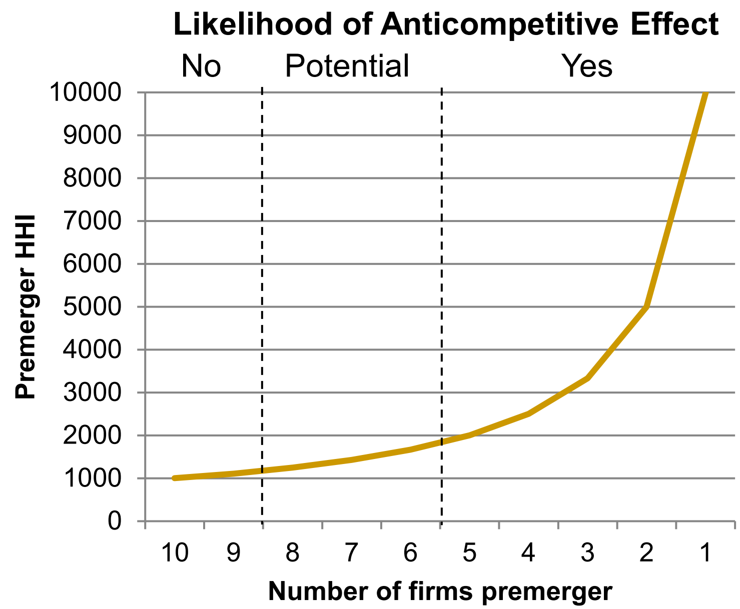
- The 30% trigger essentially triggers the *PNB* presumption whenever the two firms have a combined market share of 30%
  - That is, the ΔHHI > 100 requirement is irrelevant unless one of the merging firms has a market share of less than 2%



The 2010 Merger Guidelines

- Shares and HHIs in symmetrical markets with *n* identical firms premerger:

	Premerger			Postmerger	Exceeds
n	***S*** $_i$	**HHI**	**Delta**	**HHI**	**2010 Guidelines**
10	10.0	1000	200	1200	No
9	11.1	1111	247	1358	No
8	12.5	1250	313	1563	Potential
7	14.3	1429	408	1837	Potential
6	16.7	1667	556	2222	Potential
5	20.0	2000	800	2800	Yes
4	25.0	2500	1250	3750	Yes
3	33.3	3333	2222	5556	Yes
2	50.0	5000	5000	10000	Yes
1	100.0	10000			



Draft 2023 Merger Guidelines

- *Query*: If the Draft Merger Guidelines thresholds are adopted in the final version, will they have much traction with the courts?

Probably not

1. The merger guidelines are not binding on the courts
2. The judicial precedent has repeatedly referenced the higher thresholds of the 2010 Horizontal Merger Guidelines as the trigger for the *PNB* presumption
3. No modern litigated case has tested the 2010 guidelines thresholds, much less the lower thresholds of the Draft Merger Guidelines
4. The DOJ and FTC do not cite any economic studies to support the lower thresholds
   - But, then again, they did not have any studies to support the 2010 thresholds either
5. *WDC*: I am unaware of an any academic economic studies that support the lower thresholds

Market participants[1]

- The idea
  - Under the Merger Guidelines, only demand-side substitutability counts in market definition
  - BUT who participates in the market—and their associated market shares—does take supply-side substitutability into account

Note: Historical precedent allows courts to take supply-side substitutability into account when defining markets

[1] *See* 2010 Merger Guidelines § 5.1.

Identifying market participants

- Two types of market participants under the Merger Guidelines
  1. Current sellers: All firms that currently earn revenues in the relevant market
  2. Nonsellers ("rapid entrants"):
     a. Vertically integrated firms to the extent that they would direct production from captive use to merchant sales or employ excess capacity in response to a SSNIP
     b. Firms not currently earning revenues in the relevant market but will enter the market with near certainty in the very near future
     c. Firms that are not current producers in a relevant market but would very likely provide a rapid supply response to a SSNIP

Identifying market participants

- Nonseller "rapid entrants"
  - The 2010 Merger Guidelines limit "rapid entrants" to those firms whose entry do not require significant sunk costs
    - The 1992 Guidelines called these firms "uncommitted entrants"[1]
  - *Example*:

> Farm A grows tomatoes halfway between Cities X and Y. Currently, it ships its tomatoes to City X because prices there are two percent higher. Previously it has varied the destination of its shipments in response to small price variations. Farm A would likely be a rapid entrant participant in a market for tomatoes in City Y.[2]

  - NB: Entry that would take place more slowly in response to adverse competitive effects, or that requires firms to incur significant sunk costs, is considered in the entry defense analysis, not as market participation

[1] *See* 1992 Merger Guidelines § 1.32.

[2] 2010 Merger Guidelines § 5.1 (example 16).

Market share attribution[1]

1. Current sellers
   - Normally based on recent historical level of sales
     - Homogeneous products are usually measured in units
       - Reflects Cournot competition, where production levels are the firm's control variable
     - Differentiated products are usually measured in revenues
       - Reflects Bertrand competition, where price is the firm's control variable
   - Adjustments
     - The Merger Guidelines envision adjustments to historical measures based on changing conditions when these adjustments can be reliably made
       - *Example*:
         - Firm A, which operates close to full capacity, has just developed a new technology, which will enable it to increase production by 20%.
         - For HHI analysis, increase Firm A's production by 20% and recalculate the market shares of all firms in the relevant market
       - *Example*:
         - One of Firm B's plants was recently destroyed by a fire, which will reduce the firm's production levels in the future
         - For the HHI analysis, reduce Firm B's production by the amount produced by the destroyed plant (and not shifted to another of B's plants with excess capacity) and recalculate the market shares of all firms in the relevant market

[1] *See* 2010 Merger Guidelines § 5.2.

Market share attribution[1]

2. Nonsellers

- The competitive significance of nonsellers depends on the extent to which they would rapidly enter the relevant market in response to a SSNIP
- Consequently, their market share attribution is the quantity they would likely sell in the relevant market in response to a SSNIP
  - The 1992 Merger Guidelines are explicit on this[1]
  - The 2010 Merger Guidelines are silent on the mechanism to attribute market shares
- Example
  - If Firm X currently produces 1 million units of an input and consumes 100% of this production internally, but would divert 20% of its production to merchant sales in the event of a 5% SSNIP, then the integrated firm is a participant in the relevant market and would be credited with 200,000 units in the relevant market (even though the firm in fact makes no sales in the relevant market).

	Current Producers			MG Participants	
	Units	Share		Units	Share
Firm A	600	37.5%	Firm A	600	33.3%
Firm B	450	28.1%	Firm B	450	25.0%
Firm C	400	25.0%	Firm C	400	22.2%
Firm D	150	9.4%	Firm D	150	8.3%
			Firm X	200	11.1%
	1600	100.0%		1800	100.0%

[1] 1992 Merger Guidelines § 1.41.

Defendants' Rebuttal Arguments

Defendants' rebuttal arguments

- *Baker Hughes*

> The basic outline of a section 7 horizontal acquisition case is familiar. [1] By showing that a transaction will lead to undue concentration in the market for a particular product in a particular geographic area, the government establishes a presumption that the transaction will substantially lessen competition. **[2] The burden of producing evidence to rebut this presumption then shifts to the defendant.** [3] If the defendant successfully rebuts the presumption, the burden of producing additional evidence of anticompetitive effect shifts to the government, and merges with the ultimate burden of persuasion, which remains with the government at all times.[1]

- In Step 2 of *Baker Hughes* three-step burden shifting, the defendant bears the burden of production to rebut the plaintiff's prima facie case
  - The burden of production requires the defendant to adduce sufficient evidence to put the prima facie case in issue and create a question of fact for the trier of fact
  - *Sliding scale*: The quantum of evidence required depends on the strength of the plaintiff's prima facie case: "The more compelling the prima facie case, the more evidence the defendant must present to rebut it successfully."[2]

[1] United States v. Baker Hughes Inc., 908 F.2d 981, 982-83 (D.C. Cir. 1990) (footnote and internal citations omitted).
[2] *Id.* at 991.

Typical structure of a formal merger analysis

- Step 1: The prima facie case
  - Relevant market
    - *Brown Shoe* "outer boundaries" and "practical indicia" tests for product markets
    - "Commercial realities" test for geographic market
    - Merger Guidelines hypothetical monopolist test
  - *PNB* presumption
    - Market participants and market shares
    - Application of the *PNB* presumption
  - Other evidence of anticompetitive effect
    - Unilateral effects
    - Coordinated effects
    - Elimination of a maverick

H&R Block

- Step 2: Defendants' rebuttal
  - Challenges to the prima facie case (failure of proof on upward pressing pressure)[1]
  - Traditional defenses (offsetting downward pricing pressure)
    - Entry/expansion/repositioning
    - Efficiencies
    - Countervailing buyer power ("power buyers")
    - Failing company/division
- Step 3: Determining the net effect on competition

[1] Often addressed in Step 1.

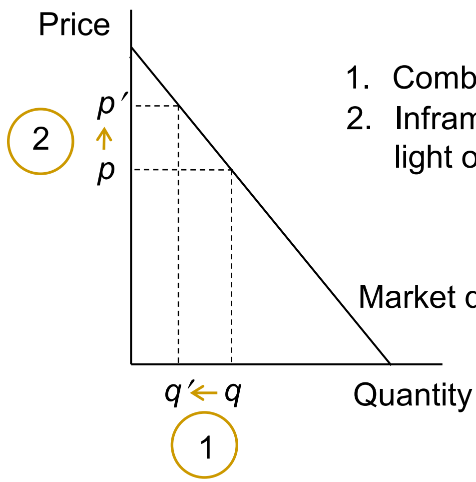
Defendants' rebuttal arguments

- Four arguments
  1. The likelihood of expansion by existing DDIY firms besides Intuit, HRB, and TaxACT will offset any anticompetitive effects
  2. The relevant market is not susceptible to coordination and the merger will not increase the probability of effective coordinated interaction
  3. The merger will not result in anticompetitive unilateral effects
  4. The efficiencies resulting from the merger will offset any anticompetitive effects

Defendants' Rebuttal Arguments
Part 1. Entry/Expansion/Repositioning

Entry/Expansion/Repositioning

- The story
  - General idea
    - Think of a merger's anticompetitive effect being achieved by a reduction in market output



1. Combined firm reduces production and creates a "hole" in output
2. Inframarginal customers bid up the price to clear the market in light of the new scarcity at premerger prices

- The defense depends on showing that the "hole" in output will be filled by—
  1. New firms entering the market and adding new output ("entry")
  2. Incumbent firms expanding their output over premerger levels ("expansion"), *or*
  3. Incumbent firms extending or repositioning their production in product or geographic space to replace output loses resulting from unilateral effects ("repositioning")

A problem for the merging parties with this defense is that the evidence of the likelihood of entry/expansion/repositioning is in the hands of third parties

Entry/Expansion/Repositioning

- A twist on the "story"
  - The mere *threat* of entry/expansion/repositioning may be enough to deter the combined firm from reducing output (or otherwise acting less competitively) for fear of inducing new competition
    - The "story"
      - Say that there are four firms in the market of equal size (each selling 100 units = 25% shares)
      - Two firms merge: Proforma market share = 50%
      - Combined firm decreases output by 40 units to raise prices (anticompetitive effect)
      - Suppose a new firm quickly enters selling 40 units (fills the "hole")
      - Market returns to premerger prices
        - New entrant remains in the market with some positive market share of, say, 30%
        - Combined firm only recovers to a 20% share
      - → Merged firm has lost 5% points of share with no gain in price
  - The advantage to this theory is that the proof is in the hands of the merging parties
    - What is important is that the merged firm is deterred from reducing output in the first instance, so there is no "hole" in quantity to be filled
    - Moreover, the entry anticipated by the merged firm does not have to be simultaneous with the merger—the story works so long as the merged firm is deterred from reducing output even in the short run
  - *WDC*: While this defense has worked in investigations in close cases, I am not aware of a court addressing it

Entry/Expansion/Repositioning

- The Merger Guidelines: The formalities
  - 1982 and 1992: Depended largely on actual entry offsetting the merger's anticompetitive effect within two years of the merger
    - This allowed for a short-run anticompetitive effect
  - 2010: Requires entry to "deter or counteract" any anticompetitive effects "so the merger will not substantially harm customers"
    - Does not allow any grace period

Entry/Expansion/Repositioning

- Guidelines requirements—Entry must be:[1]
  - Timely

    > [E]ntry must be rapid enough to make unprofitable overall the actions causing those effects and thus leading to entry, even though those actions would be profitable until entry takes effect.

  - Likely

    > Entry is likely if it would be profitable, accounting for the assets, capabilities, and capital needed and the risks involved, including the need for the entrant to incur costs that would not be recovered if the entrant later exits.

  - Sufficient

    > Entry by a single firm that will replicate at least the scale and strength of one of the merging firms is sufficient. Entry by one or more firms operating at a smaller scale may be sufficient if such firms are not at a significant competitive disadvantage.

    As we have seen, this is too strong a condition

- Courts have adopted these requirements

[1] References to entry in this section also include expansion and repositioning.

Entry/Expansion/Repositioning

- Defendants' argument
  - 18 companies offering DDIY products
  - Argued that the two largest—TaxHawk and TaxSlayer—were poised to replicate the scale and strength of TaxACT

Entry/Expansion/Repositioning

- TaxHawk—
  - Had infrastructure to expand by 5-7 times current size
  - BUT had been in business for 10 years and never grew beyond 3.2%
  - Functionally more limited than the Big Three
    - Does not service all federal tax forms
    - Excludes two states' forms in their entirety
    - Does not service major cities with income taxes (e.g., NYC)
  - Co-founder testified that it would take another decade for the TaxHawk to support all forms
    - Reason: "Lifestyle" company—don't like to work too hard
    - Runs TaxACT to "deliver a sufficient income stream to sustain its owners' comfortable lifestyle, without requiring maximal effort on their part."
  - Court: Compare with TaxACT—very entrepreneurial and impressive rate of growth

Illustrates the problem that the most compelling evidence is not under the control of the merging firms. Testimony by the alleged new entrant that it will not enter/expand/reposition sufficient to offset the anticompetitive effect is the kiss of death for the defense

Entry/Expansion/Repositioning

- TaxSlayer—
  - Established in 2003
  - Family business
  - Relies heavily on sponsorship of sporting events (e.g., the Gator Bowl and NASCAR races)
  - 2.7 market share
  - No meaningful growth in market share (had 2.5 share in 2006)

Entry/Expansion/Repositioning

- DOJ evidence: Significant barriers to entry and expansion
  1. Successful entry/expansion beyond a few percentage points of markets share requires a brand name reputation
     - Customers need trust in their tax service provider
     - Costly to build needed reputation
       - HRB testimony: takes millions of dollars and lots of time to develop a brand
       - Big Three (really Big Two) spend over $100 million/year in advertising to build and maintain their brands
       - Dwarf expenditures by smaller companies
     - TaxACT CIM identifies reputation as a barrier to entry
     - TaxHawk and TaxSlayer lack the reputation and the incentive and funds to build one
  2. High new customer acquisition costs
     - Market has matured considerably and there is not the "low hanging fruit" of manual customers who are natural customers of DDIY products
     - Instead, TaxHawk or TaxSlayer would have to acquire customers from Intuit or HRB
     - Very high customer acquisition costs → entrenched market shares → low growth for other firms
  3. High switching costs
     - Data cannot be imported across products of different companies
- Court: Defense rejected

Entry/Expansion/Repositioning

- Concluding comments
  - Almost impossible to make out the defense in an agency investigation
    - The agency starts by insisting that the potential entrants be identified by name
    - It then calls each of the identified firms and asks: “Would you enter this market if prices increased by 5% to 10%?”
    - The company almost always answers “no”
      - Can be a kneejerk reaction
      - Can be a “go away staff” reaction
      - Can be an informed “no”
  - Some business realities
    - As a general rule of business behavior, firms do not enter existing markets just for margin
    - They almost always require some nonprice competitive advantage against incumbent firms to cause them to entry
    - The problem is that entry can too easily precipitate a price war and destroy the pre-entry margin that made entry attractive in the first instance

Defendants' Rebuttal Arguments
Part 2A. Coordinated Effects

Introduction

- Definition
  - Coordinated effects (or coordinated interaction) is a theory of anticompetitive harm that depends on the merger making oligopolistic interdependence more effective:

> Merger law "rests upon the theory that, where rivals are few, firms will be able to coordinate their behavior, either by overt collusion or implicit understanding in order to restrict output and achieve profits above competitive levels."[1]

  - *Terminology*: May use "accommodate" rather than "coordinate" or "cooperate"

- What can firms do if the merged firm seeks to increase price?
  1. "Do nothing"—Just continue doing what they were doing
  2. Compete more aggressively/expand production/maybe even lower price to gain market share
  3. "Accommodate" the price increase: Need not match it

Not necessary for all firms in the market to coordinate. All that is required is that the "collusive group" control enough share in the market to be able to affect market price.

[1] FTC v. CCC Holdings Inc., 605 F. Supp. 2d 26, 60 (D.D.C. 2009); *accord* United States v. H&R Block, Inc., 833 F. Supp. 2d 36, 77 (D.D.C. 2011).

Merger Guidelines history

- 1982 Guidelines
  - Accepted an unspecified theory of oligopoly as the underpinning of the *PNB* presumption
  - Did not require more for a prima facie case

Merger Guidelines history

- 1992 Guidelines
  - *Problem*: There exist highly competitive markets with only a few firms
    - E.g., Coke and Pepsi
  - *Solution*: Require proof that the "Stigler conditions" for (tacit) coordination were satisfied in the relevant market:

Stigler conditions

    1. *Tacit agreement*: Market conditions must be conducive to firms (tacitly) reaching terms of coordination that are individually profitable to the firms involved
    2. *Detection*: Market conditions must be conducive to firms detecting deviations from the tacit terms of coordination
    3. *Punishment*: Market conditions must be conducive to firms punishing deviations from the tacit terms of coordination
  - *In practice*:
    - The courts—and, indeed, many within the agencies—did not understand the punishment requirement
    - Many thought that it require participating firms to tacitly reach an agreement on a particular punishment and then tacitly coordinate to implement it
    - Prosecutors had a difficult time convincing courts to accept proof that market conditions were conducive to punishing deviations and the theory grew out of favor

Merger Guidelines history

- 2010 Merger Guidelines
  - The 2010 Merger Guidelines sought to revitalize the coordinated effects theory
  - *Solution*: Eliminate the language of the Stigler conditions and focus more generally and less prescriptively on—

2010 MG requirements

    1. The premerger *susceptibility* of coordinated interaction, and
    2. The *effectiveness* of the merger in increasing the probability of effective coordinated interaction among some or all of the firms in the market
       - Requires a causal relationship between the merger and the increased probability of effectiveness of coordination
  - Relation to the Stigler conditions
    - The 2010 susceptibility requirement subsumed the structural market, information, and incentive compatibility considerations inherent in the first two Stigler conditions
    - The Stigler punishment element disappeared altogether as a factor in the analysis and was replaced by the effectiveness condition
    - Effectiveness only requires a showing of an increased likelihood of successful coordination interaction, not proof that coordination interaction would in fact occur postmerger

Merger Guidelines history

- 2010 Merger Guidelines
  - Adoption of the 2010 Merger Guidelines test by the courts has been mixed
    - Some courts have adopted the 2010 Merger Guidelines two-element test[1]
    - Other courts continue to use the H&R Block approach of:
      - Presuming coordinating effects when postmerger concentration is sufficient high to trigger the *PNB* presumption, *and*
      - Shifting the burden (presumably of production) to the merging parties to rebut the presumption[2]

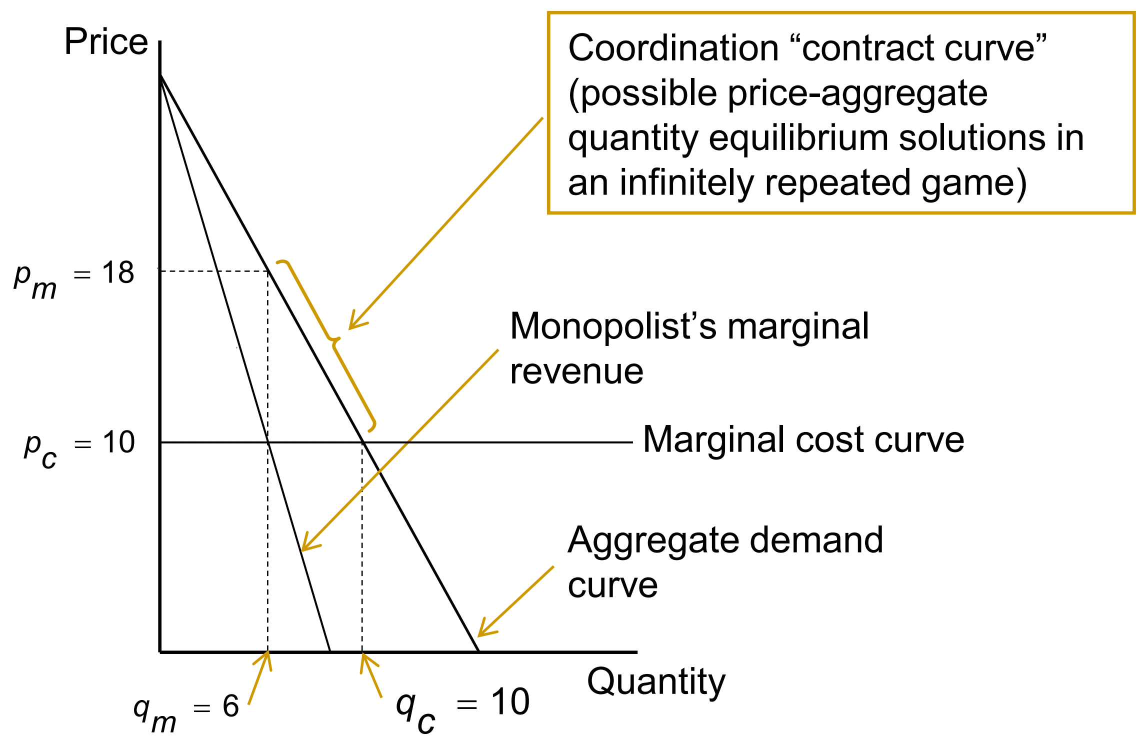
[1] *See* New York v. Deutsche Telekom AG, 439 F. Supp. 3d 179, 234 (S.D.N.Y. 2020); New York v. Deutsche Telekom AG, 439 F. Supp. 3d 179, 234 (S.D.N.Y. 2020); FTC v. RAG-Stiftung, 436 F. Supp. 3d 278, 317 (D.D.C. 2020).
[2] *See* United States v. Bertelsmann SE & Co. KGaA, 646 F. Supp. 3d 1, 44-45 (D.D.C. 2022) ("[W]hen the government has shown that a merger will substantially increase concentration in an already concentrated market, . . . 'the burden is on the defendants to produce evidence of "structural market barriers to collusion" specific to this industry that would defeat the "ordinary presumption of collusion" that attaches to a merger in a highly concentrated market.'") (quoting *H&R Block*, 833 F. Supp. 2d at 77); FTC v. OSF Healthcare Sys., 852 F. Supp. 2d 1069, 1087 (N.D. Ill. 2012).

Susceptibility

- Oligopolistic coordination is impeded by three problems:
  1. Selection problem
     - Will the firms be able to “agree’ to the price or other terms on which they will tacitly coordinate?
  2. Internal stability problem
     - Will the (short-run) incentive to pursue a more competitively aggressive strategy, which all profit-maximizing firms have, undermine any tacit coordination within the collusive group?
  3. External interference problem
     - Apart from the firms in the collusive group, will other entities disrupt any tacit coordination?
       - Will firms in the market but outside of the collusive group expand or threaten to expand production?
       - Will firms outside the market enter or threaten to enter the market?
       - Will buyers with sufficient negotiating power (if any) induce defections and disrupt the terms of coordination

1. Susceptibility: Selection problem

- The idea
  - There are an infinite number of possible price-quantity points on the demand curve on which the firms could tacitly "select" to achieve
  - Ineffectiveness or instability occurs if they cannot coordinate on the same point



1. Susceptibility: Selection problem

- Factors to consider (not exhaustive)
  a. The ability of the firms to signal one another about their individually preferred outcomes
     - The more information about the competitive variables on which coordination may take place (e.g., prices and/or production levels of individual firms), the better firms will be able signal one another about preferred outcomes
     - Goes to the transparency of the market on the terms of coordination
  b. The degree of firm homogeneity
     - The more similar the firms, the more likely they will have similar objectives and so be aligned in their incentives to coordinate
  c. The degree of product homogeneity
     - The more similar the products, the easier it is to coordinate
     - That is, the terms of coordination are likely to be less complicated than with highly differentiated products

1. Susceptibility: Internal stability

- Incentive compatibility problem
  - Inherent in oligopolistic coordination since each profit-maximizing firm has a incentive to compete more aggressively and steal market share rather than to cooperate

- *Illustration*: Duopoly "prisoner's dilemma" in single period game
  - Two symmetrical firms

Firm 1 \ Firm 2	"Cooperate"	Compete
"Cooperate"	45, 45	0, 50
Compete	50, 0	25, 25

Firms split monopoly profits of 90

Competitive firm takes total competitive profits of 50 against firm charging monopoly price

Firms split competitive profits of 50

Key result: Charging the competitive price is the *dominant strategy* for each firm, regardless of what strategy the other firm chooses. But mutual monopoly strategies earn each firm higher profits.

1. Susceptibility: Internal stability

- Two questions
  a. What is the probability that at least one firm in the market will defect?
  b. For any given firm, what factors influence its individual probability of defection?

1. Susceptibility: Internal stability

a. Probability of at least one defection
   - *Key factor*: The number of competitors
     - The more competitors, the more likely one or more firms will defect given any individual firm's probability of defection
     - This factor underpins the emphasis on the number of realistic suppliers remaining in the market postmerger

1. Susceptibility: Internal stability

b. Factors affecting an individual firm's incentive (probability) to defect (not exhaustive)
   1. The size of the reward relative to the market
      - The larger the size of the reward relative to the size of the market, the larger the incentive to defect
      - Differences among firms in the market may affect the size of their expected reward
         - *Example*: Firms with large excess capacity can increase their production to service more demand at more competitive (defection) prices
         - *Example*: Firms operating at capacity have no incentive to defect
   2. The probability of detection (for a given size of reward)
      - The greater the probability of detection, the lower the incentive to defect
         - That is, the defecting firm will not be able to make as many sales before other companies respond
   - Lags in detection make
      - Significant lags make cheating more profitable (can successfully cheat for a longer period of time) and increase the incentive to defect
   - Prior actual or attempted collusion or coordination/willingness to coordinate
      - Indicates that firms in the market believe that coordination is possible
      - Premerger industry efforts to coordinate is highly probative of an incentive to coordinate
         - Whether or not successful
         - Whether or not lawful (*Query*: Should historical lawful coordination be considered probative?)

1. Susceptibility: External interference

c. Threat of "external" interference that may undermine coordinated interaction within a relevant market
   1. Mechanisms of external interference
      i. Producers outside of the market that enter the market
      ii. Customers that switch to products outside of the collusive group
      iii. Customers with sufficient bargaining power disrupt coordinated interaction
   2. External factors to consider (not exhaustive)
      - That is, factors external to the collusive group that may undermine the collusive group's stability
      - These factors affect the elasticity of demand for the collusive group

      i. Ability and willingness of customers to switch to suppliers outside of the collusive group
      ii. Ease with which new competitors may enter
      iii. Ease with which incumbent competitors outside the collusive group may efficiently expand production
      iv. Capacity utilization outside the collusive group
          - Significant excess capacity allows outside firms to substantially increase their production levels to service demand diverting from the collusive group
      v. Existence of disruptive "power buyers"

2. Merger effectiveness

- Rule
  - It is not enough that premerger the market is conducive to coordinated interaction—the merger *must reasonably increase the likelihood* that anticompetitive tacit coordination will be more likely or more successful postmerger
- Implications
  - This means that the merger must materially improve the incentives or ability of a group of firms sufficient to affect market price (the "collusive group") to—
    1. Solve the section problem
    2. Solve the incentive incompatibility problem, *or*
    3. Resist external interference

2. Merger effectiveness

- Some factors to consider when thinking about merger effectiveness
  1. Mitigating the selection problem
     + The merger reduces firm or product heterogeneity in the market and better aligns the incentives of the various firms tacitly to achieve coordinated interaction
  2. Mitigating the incentive incompatibility problem
     +++ The merger reduces the number of independent competitors in a way that materially reduces the probability of defection
     – The merger decreases excess capacity inside the collusive group
     – The merger results in significant efficiencies in the combined firm that increase the rewards of defection
     – The merger results in vertical integration that could improve the merged firm's ability to cheat without detection
  3. Mitigating the external interference problem
     +++ The acquisition of a disruptive "maverick" (considered as a separate theory below)
     + The merger eliminates a likely potential entrant
     + The merger increases the barriers to entry/expansion/repositioning

Key:
+ The merger increases the probability of effective coordinated interaction postmerger
– The merger decreases the probability of effective coordinated interaction postmerger

Coordinated effects in *H&R Block*

- Coordinated effects in *H&R Block*
  - Court:

> Since the government has established its prima facie case, the burden is on the defendants to produce evidence of "structural market barriers to collusion" specific to this industry that would defeat the "ordinary presumption of collusion" that attaches to a merger in a highly concentrated market.[1]

- This is consistent with a strict reading of *Baker Hughes* only if the plaintiffs have established a prima facie case of coordinated effects
  - BUT *H&R Block* in effect rebuttably presumes a price facie case of coordinated effects when the *PNB* presumption is triggered
  - Courts taking the *H&R Block* approach typically cite to *Heinz*, a D.C. Circuit case decided in 2001[2]
    - This illustrates that precedent can trump the Merger Guidelines
  - The *H&R Block* approach is contrary to the approach of the 2010 Horizontal Merger Guidelines
- Other courts follow the 2010 Merger Guidelines and require the plaintiff to prove a prima facie case of coordinated effects through a showing that—
  - The relevant market is susceptible to coordinated effects, *and*
  - The merger will increase the likelihood or effectiveness of coordinated effects

[1] United States v. H & R Block, Inc., 833 F. Supp. 2d 36, 77 (D.D.C. 2011) (quoting FTC v. H.J. Heinz Co., 246 F.3d 708, 725 (D.C. Cir. 2001)).
[2] *Id*.

Coordinated effects in *H&R Block*

- Merging parties' arguments
  1. Intuit has no incentive to compete any less vigorously postmerger
  2. In particular, Intuit has no incentive to reduce competitiveness of its free product, since free products are a principal driver of paid new customers to Intuit
  3. Therefore, HRB must compete vigorously postmerger or else lose customers to Intuit

Coordinated effects in *H&R Block*

- Evidence: Premerger susceptibility
  1. Historical coordination
     - After TaxACT introduced its free offering, Intuit proposed that firms lobby the IRS to impose limits on their free offerings (HRB and others joined, but not TaxACT)
     - *Court*: “Highly persuasive historical act of cooperation”
     - *WDC*: Shows that evidence does not have to be of historical illegal coordination
  2. Other factors
     - Market is transparent (consumer offerings—prices and features available on the Internet)
     - Product differentiation not that relevant
     - Companies can observe and coordinate on attributes of “free” products
     - Transactions are small, numerous, and spread among a mass of consumers
     - Consumers have low bargaining power
     - Significant barriers to switching due to “stickiness” of DDIY products (learning curve)

Coordinated effects in *H&R Block*

- Evidence: Increase in postmerger effectiveness
  1. *Contra*: Intuit engaged in "war games" designed to anticipate and defuse new competitive threats that might emerge from HRB postmerger
  2. BUT Intuit's documents also indicated that it anticipated that the combined firm would likely "pull some of its punches" if Intuit is willing to go along and not compete aggressively against it
     - Anticipates that combined firm will "not escalate fee war"
     - *WDC*: This could have been just a random observation by an Intuit employee and not Intuit's considered strategy
  3. AND past cooperation as to lobbying the IRS for eligibility restrictions for free tax products probative of postmerger merger cooperation to further restrict eligibility
  4. AND merger would result in the elimination of a "particularly aggressive competitor" (TaxACT) in a highly concentrated market

Coordinated effects in *H&R Block*

- Court
  - Acknowledges that Intuit and the merged company will have strong incentives to compete for customers
  - BUT coordination does not have to be on all dimensions of competition
    - One aspect is enough
      - For example, lower the quality of “free” products, causing marginal customers to switch to paid software → making them worse off
    - Here, DOJ alleges “coordination would likely take the form of mutual recognition that neither firm has an interest in an overall “race to free” in which high-quality tax preparation software is provided for free or very low prices.” (p. 77)
    - That is, not eliminate free products (useful as marketing devices)
    - Rather, reduce their quality in order to drive more customers into paid products
  - Conclusion:
    - Defendants failed to rebut presumption that anticompetitive coordinated effects would result from the merger
    - To the contrary, the preponderance of the evidence indicated that coordinated effects likely would result

The practice today

- Last choice as a theory
  - Even after the 2010 revisions to the Merger Guidelines, coordinated effects is the last choice as an independent theory of competitive harm in horizontal merger investigations
  - Given the narrow market definitions usually found under the hypothetical monopolist test:
    - In problematic mergers, the merging firms tend to have high market shares and be close competitors with one another
    - Typically yields an easily understood unilateral effects theory
  - *Result*: Coordinated effects is rarely used in investigations or litigations as the primary theory of anticompetitive harm
    - Usually more of an add-on theory in the complaint
    - Or when the agency is forced into it (*CCC/Mitchell*)

The practice today

- When coordinated effects is used in litigation
  - A common approach is for the plaintiffs to invoke the *PNB* presumption and then make the argument that—
    1. The high concentration and other characteristics of the relevant market make it susceptible to coordinated interaction, *and*
    2. the reduction in the number of competitors and increase in concentration resulting from the merger is sufficient to increase the probability of coordinated interaction
       - This is essentially a return to the structure-conduct-performance argument
  - In some cases, however, the evidence may be more substantial
    - The agencies, for example, are looking more closely at significant reductions in excess capacity, especially in heavy industries where capacity expansions are costly and time-consuming, as making the market more conducive to coordinated interaction
      - NB: Consolidations of plants to reduce excess capacity is usually one of the common efficiencies cited by the parties in support of a deal

A final note

- A largely unrecognized asymmetry—The “price ratchet”
  - It is relatively hard for firms to tacitly coordinate to *increase* prices
    - *Problem*: Some firm has to lead the price increase, and if other firms do not follow, the putative price leader will suffer a profit loss → A risky gamble for the putative price leader
    - Some exceptions
      - An established price leader already exists
      - Where price increases can be announced in advance and retracted if insufficient firms follow
  - It is much easier for firms to tacitly coordinate *not to decrease* prices
    - Say there is a common cost increase to suppliers in the market (e.g., fuel prices increase)
    - All firms increase their prices to cover this increased cost
    - Then there is a common cost decrease (e.g., fuel prices decrease)
    - WHAT DO THE FIRMS DO?
      - If one decreases price, other firms will decrease their prices → Market shares stay the same, but profits decline given the price decrease
      - So the usual strategy is for each firm to maintain price and wait for another firm to trigger a price decrease
      - But if all firms follow this strategy, market prices will not decrease in the wake of a cost decrease

WDC: The antitrust risk of coordinated interaction comes primarily from firms tacitly coordinating not to decrease prices rather than coordinating to increase them

Anticompetitive Effects
Part 2B. Mavericks

Mavericks

- General idea
  - A “maverick” is a competitor that disrupts coordinated interaction among the other, more accommodating competitors that would occur in the absence of the maverick
  - When an accommodating competitor acquires a maverick, the maverick’s disruptive conduct is suppressed and the market performs less competitively to the harm of consumers
  - As a result, the acquisition of a maverick by an accommodating competitor is a special case of coordination interaction
    - Typically used to challenge deals where the target has a sufficiently small market share that the transaction would not otherwise raise major concerns
- *Example*: Grupo Modelo in ABI/Grupo Modelo
    - Unwilling to follow ABI’s price leadership
    - Has caused ABI to price lower that it would have otherwise

Why are "mavericks" mavericks?

1. The most likely reason is idiosyncratic:
   - The particular management of the firm simply believes that the firm will maximize its profits by being disruptive
   - This may be the case when the management—
     - Refuses to pursue a more industry price-accommodating strategy[1]
     - Pursues a long-run strategy of disruptive new product development or new marketing innovations[2]
   - *Query*: Should a merger be prohibited simply because the current management—perhaps even just the current CEO—believes in being disruptive?

[1] *See, e.g.*, Complaint, United States v. Anheuser-Busch InBev SA/NV, No. 1:13-cv-00127 (D.D.C. filed Jan. 31, 2013) (settled by consent decree).
[2] *See, e.g.*, Complaint, United States v. AT&T Inc., No. 1:11-cv-1560 (D.D.C. filed Aug. 31, 2011) (challenging AT&T's pending acquisition of T-Mobile; complaint voluntarily dismissed when transaction was terminated).

Why are "mavericks" mavericks?

2. Another possible reason is that something inherent in the firm's structure that makes it objectively in the profit-maximizing interest of the firm to be disruptive regardless of the predilections of its management
   - This may be the case if the firm is a small but materially lower-cost producer than the larger, more established firms
     - In this case, the firm may wish to take advantage of its lower-cost structure to discount prices and gain market share[1]
   - More generally, smaller firms may have more of an incentive to be a maverick than larger firms, since they have—
     - proportionally less incumbent business at stake in the event that a maverick strategy does not work, *and*
     - proportionally more to gain in market share in the event that the strategy works

[1] *See, e.g.*, United States v. H&R Block, Inc., 833 F. Supp. 2d 36 (D.D.C. 2011) (noting government argument that TaxACT was a "maverick" because, among other things, it was a low-cost competitor that pursued an aggressive pricing policy).

Mavericks in *H&R Block*

- Plaintiff's argument:
  - TaxACT is a "maverick" that has disrupted tacit coordination that otherwise would have occurred in the DDIY market
    - Freemium business model
    - Bucked prevailing pricing norms by introducing free-for-all offer, which others matched
    - Remains the only competitor with significant market share that relies on free and low-cost high-quality products
    - TaxACT CEO appears dedicated to freemium strategy
      - NB: Note role of idiosyncratic management preferences
    - Had the effect in pushing industry toward lower pricing, even when the two major players were not anxious to follow
  - The merger will eliminate TaxACT as a disruptive force, which high result in a higher level of coordinated interaction in the relevant market postmerger

Mavericks in *H&R Block*

- Court:
  - DOJ failed to provide clear standards for identifying a maverick
  - But key question remains:

    "Does TaxACT consistently play a role within the competitive structure of this market that constrains prices?"

  - *Conclusion 1*: TaxACT play a special role in keeping the market competitive

> The Court finds that TaxACT's competition does play a special role in this market that constrains prices. Not only did TaxACT buck prevailing pricing norms by introducing the free-for-all offer, which others later matched, it has remained the only competitor with significant market share to embrace a business strategy that relies primarily on offering high-quality, full-featured products for free with associated products at low prices.[1]

[1] United States v. H & R Block, Inc., 833 F. Supp. 2d 36, 80 (D.D.C. 2011).

Mavericks in *H&R Block*

- Court
  - *Conclusion 2*: The incentives of the merged firm to be disruptive will differ from those of TaxACT premerger

> [T]he pricing incentives of the merged firm will differ from those of TaxACT pre-merger because the merged firm's opportunity cost for offering free or very low-priced products will increase as compared to TaxACT now. In other words, the merged firm will have a greater incentive to migrate customers into its higher-priced offerings—for example, by limiting the breadth of features available in the free or low-priced offerings or only offering innovative new features in the higher-priced products.[1]

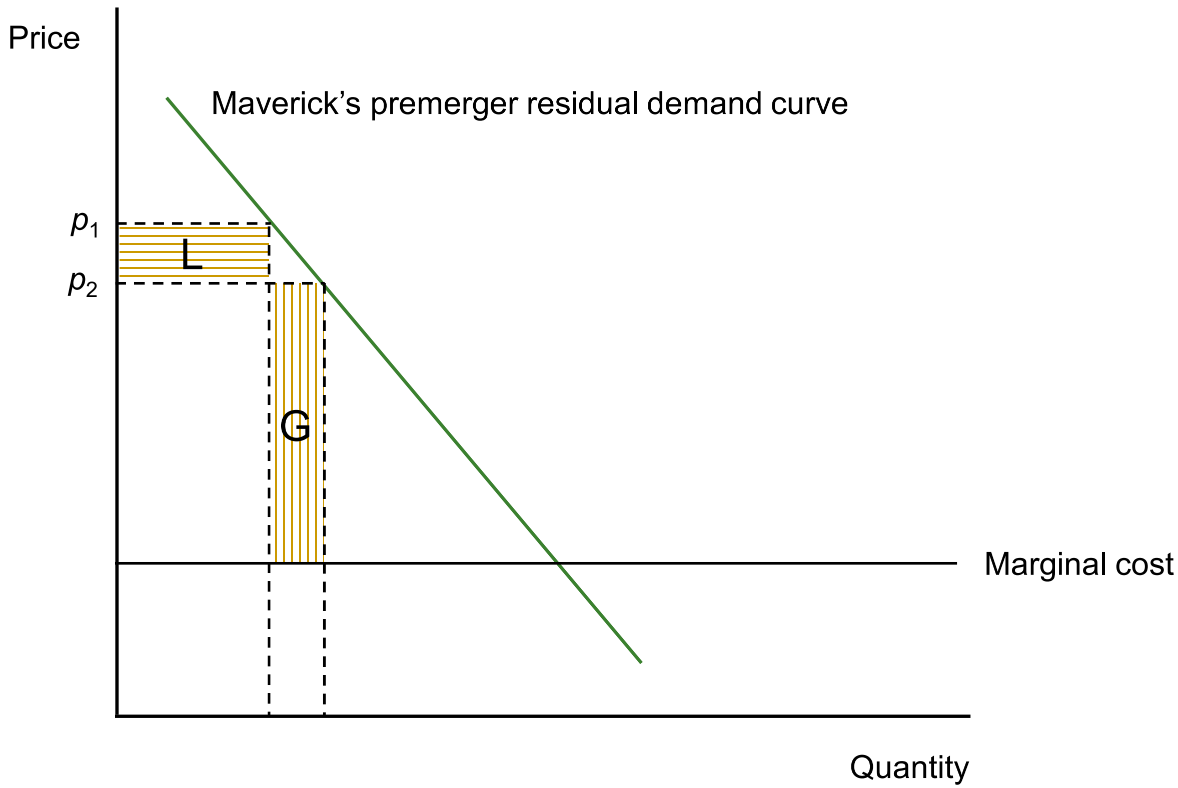
- Generally, a firm is less likely to be aggressive in pricing to increase its market share when as inframarginal sales become larger relative to marginal sales
  - In a single-price market, a price cut to increase sales requires the firm to reduce prices on all inframarginal sales
- So a merger between an established firm with a large share and a smaller "maverick" with a low market share is likely to decrease the incentive for the combined firm to be a maverick, even if the maverick's management runs the combined firm

This change in incentives is illustrated on the next two slides

[1] United States v. H & R Block, Inc., 833 F. Supp. 2d 36, 80 (D.D.C. 2011) (record citation omitted).

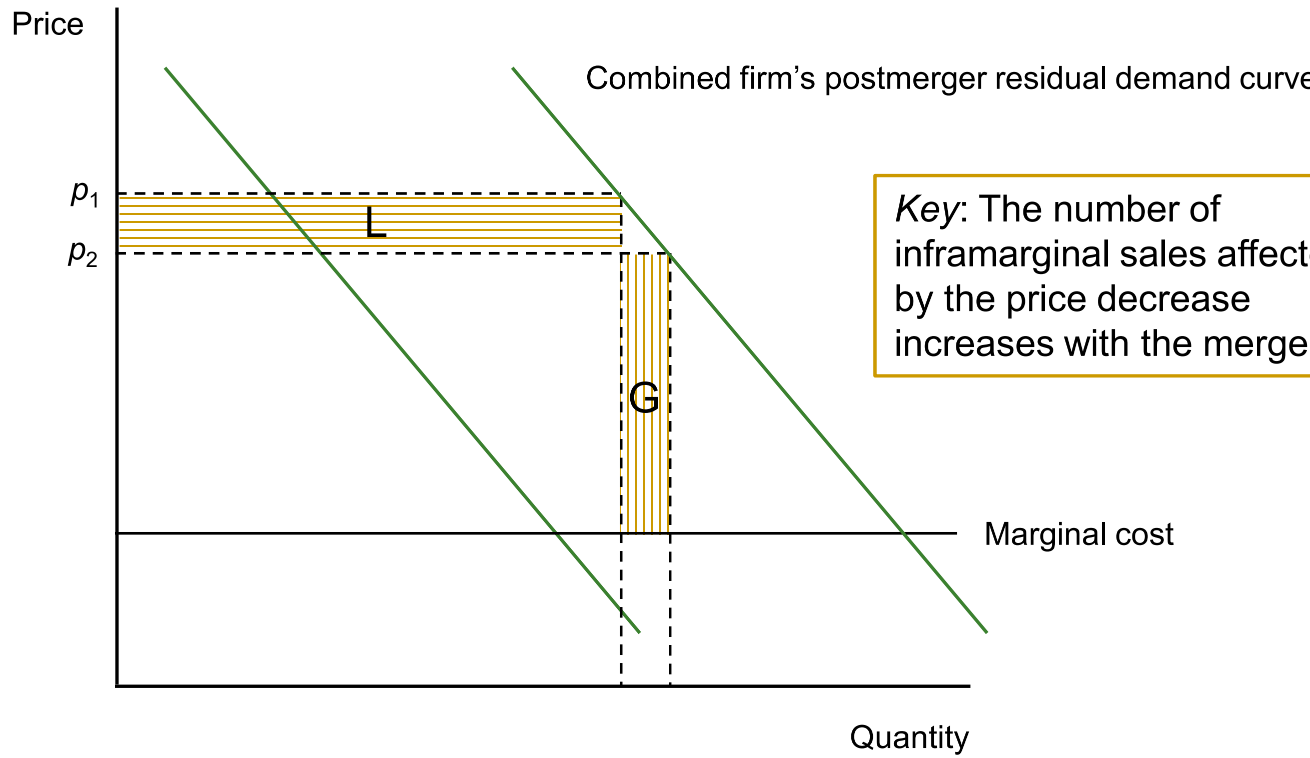
Mavericks–Postmerger incentives

- Premerger incentives to act aggressively
  - As illustrated in the diagram below, the "maverick" standing alone has an increase to lower price because the profit gains outweigh the losses



Mavericks–Postmerger incentives

- Postmerger disincentives to act aggressively
  - Postmerger, the combined firm has a greater sales volume and hence incurs greater losses than the maverick for a given price decrease
  - In the case illustrated in the diagram below, the combined firm does not have an incentive to lower price



Key: The number of inframarginal sales affected by the price decrease increases with the merger

Mavericks

- Bottom line: Requirements of a “maverick” theory
  - As *H&R Block/TaxACT* suggests, the following requirements should be imposed on a theory of anticompetitive harm based on eliminating a maverick:
    1. The market is conducive to a materially higher degree of coordinated interaction than it exhibits premerger;
    2. The disruptive conduct of the merger target is a material contributor to the inability of the market to achieve this higher degree of coordinated interaction;
    3. The acquisition of the merger target is likely to result in the discontinuance of the disruptive conduct; *and*
    4. The discontinuance of the merger target’s disruptive activity is likely to result in a materially higher degree of coordinated interaction in the market to the harm of consumers
        - This requires that the target be unique or especially effective in its disruptive conduct

Mavericks

- One final note: Buyer mavericks
  - Although in most applications of the theory the target is the maverick, in some cases the buyer may be the maverick
  - Conversely, sometimes the target management will become the management of the combined company, which raises the question of whether the disruptive activity will be discontinued
  - The incentives argument is harder for the plaintiff in these situations since the disruptive management will run the combined company
  - But the combined firm still faces an incentive to be less of a maverick because of the effect on a larger number of inframarginal sales

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.[1]

  - The idea
    - A cognizable anticompetitive effect results if the merging firm increases the price of one of its products as a result of the merger even if no other firm in the market increases its price
    - 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

The underlying economics is similar to that of the one-SSNIP recapture test: Is a price increase for merging product A profitable postmerger because of the recapture of some lost sales by merging product B?

[1] United States v. H&R Block, Inc., 833 F. Supp. 2d 36, 81 (D.D.C. 2011).

Unilateral effects

- Example: Firm A increases prices (and decrease production)

Initial conditions

	p	*c*	*$m*	*q*	Profits
Firm A	300	100	200	100	20000
Firm B	350	90	260	120	31200

Post-Price Increase

Firm A increases prices by:	30
Firm A marginal (lost) sales:	-15
Diversion: A to B	60%
Unit sales Firm A loses to Firm B:	9

	p	*c*	*$m*	*q*	Profits	Profit change
Firm A	330	100	230	85	19550	-450
Firm B	350	90	260	129	33540	2340

When A is independent, the price increase is unprofitable

When A and B merge, the price increase is jointly profitable

Unilateral effects

- Example 2: Firm A *increases* production (and *decreases* price)
  - Say for firm A:
    - Inverse demand: $p = 300 - q$
    - Fixed costs: $f = 0$
    - Marginal costs: $mc = 20$
    - Marginal revenue: $mr = 300 - 2q$

FOC: $mr = mc$
$300 - 2q = 20$
So: $q^* = 140$
$p^* = 160$
$\$m_A = 140$

  - 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 ($D_{BA} = 0.3$)
  - If firm B's margin is also 140 at its initial price level, then firm A's one-unit increase in production causes firm B to lose \$42 ($\Delta\pi_B = D_{BA} \times \$m_B$ = = (0.3)(140) = \$42).
    - That is, Firm A's conduct creates a *negative externality* for Firm B
  - 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:

$$mr_A^{postmerger} = mr_A^{premerger} - D_{BA}\$m_B$$
$$= 300 - 2q - 42$$

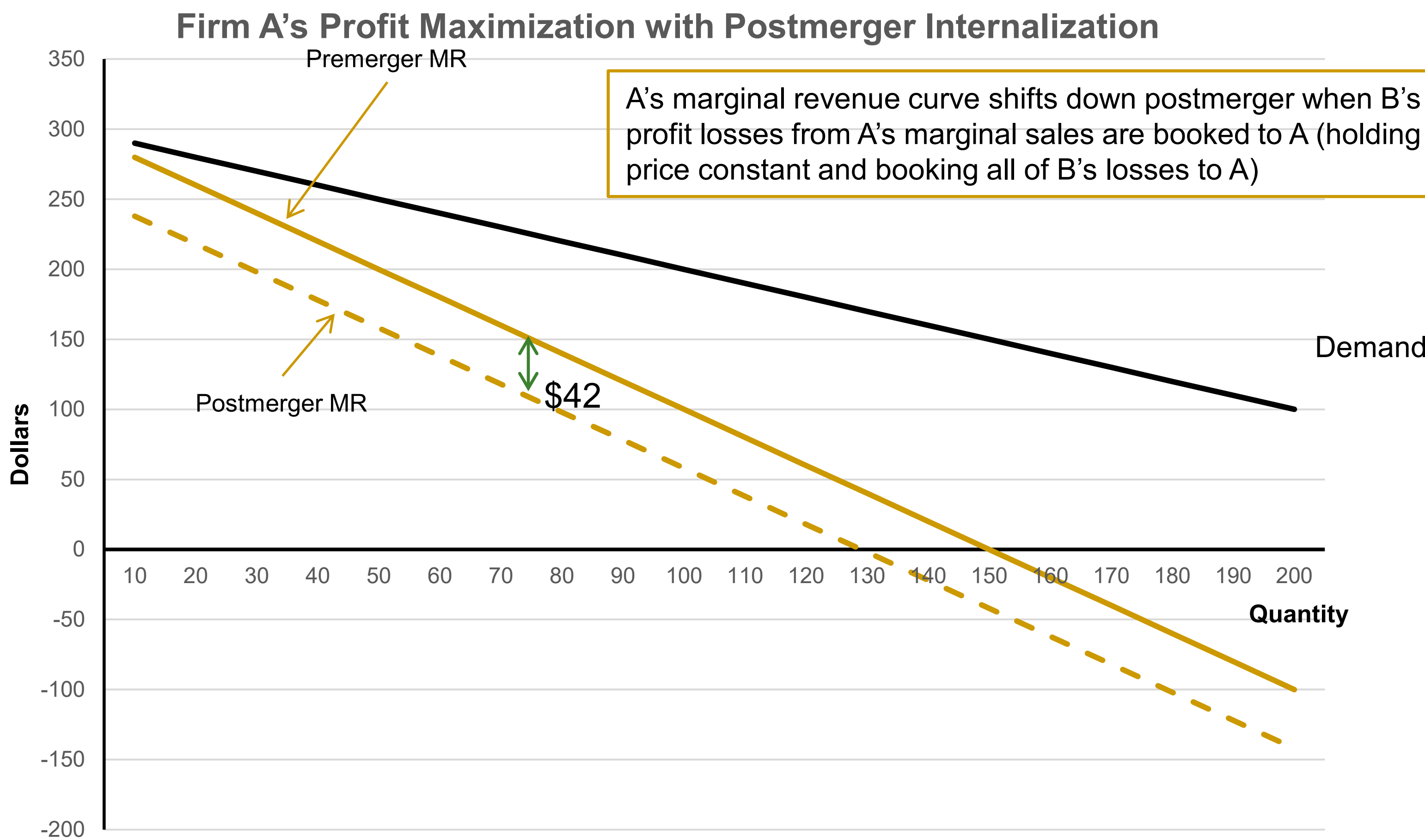
A's marginal negative externality imposed on B

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:* $q_{postmerger}$ = 119; $p_{postmerger}$ = 181

Unilateral effects

An easy way to visualize unilateral effects is to hold firm B's profits constant postmerger and book all of B's gains and losses from A's price changes to A.

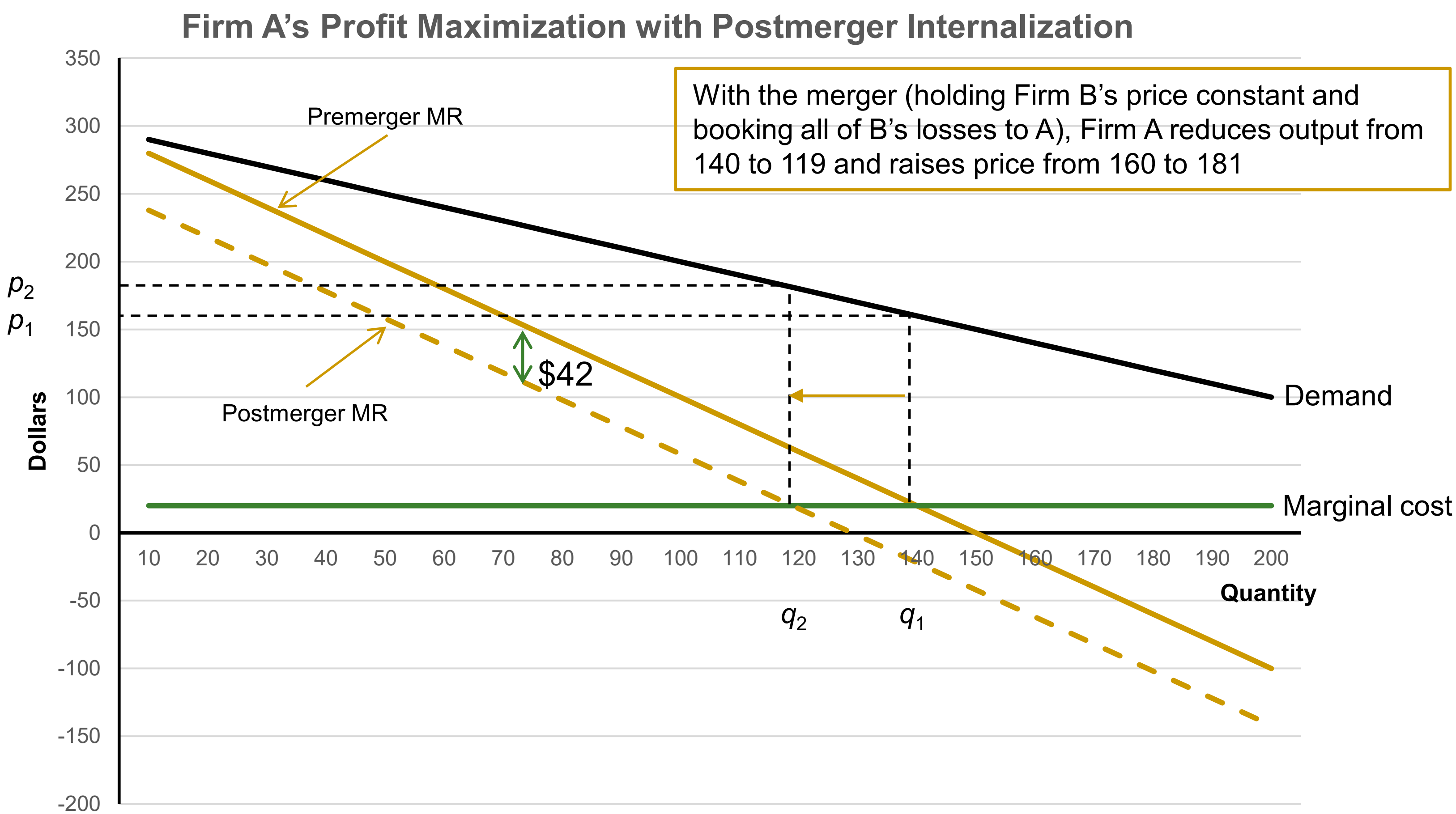
- Example 2 (con't)



A's marginal revenue curve shifts down postmerger when B's profit losses from A's marginal sales are booked to A (holding B's price constant and booking all of B's losses to A)

Unilateral effects

- Example 2 (con't)



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
Nestlé	$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
	$4,331.4	100.0%	776
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/ diversion ratios between Dreyer's and Nestlé's are:

1. High between the merging parties
2. Low with everyone else

Key: Unilateral effects create upward pricing pressure regardless of the market definition or the HHIs

[1] 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 avoided the use of unilateral effects by narrowly defining the market super-premium ice cream

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
	$4,331.4	100.0%	776
Combined share		22.8%	
Premerger HHI			776
Delta			162
Post-merger			938

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

Another important principle: *If the one-product unilateral effects profit-maximizing price increase is greater than 5%, the merging firms satisfy the HMT*

[1] 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.
[2] Complaint, *In re* Nestlé Holdings, Inc., 136 F.T.C. 791 (2003) (settled by consent decree).

Unilateral effects: Requirements

Corrected Nov. 7, 2023

- General requirements of the theory
  1. The products of the merging firms must be differentiated and have different dollar margins (premerger, postmerger, or both)
  2. The products of the merging parties must be close substitutes for one another
  3. The products of (most) other firms must be sufficiently more distant substitutes to permit the merged firm to profitably increase price for at least one of its products
  4. Entry, expansion or repositioning into the products of the merging firms must be sufficiently difficult so as not to defeat the profitability of the merged firm increasing its prices postmerger

- 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 would apply 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

- The profit-maximizing economics
  - Suppose the merged firm increases its production of product A by one unit:
    - Premerger, firm A was maximizing its profits, so its first-order condition must be satisfied:

$$mr_A^{\text{Premerger}} = mc_A$$

    - Postmerger, the merged firm has to take into account the profits on any diverted sales from firm B (the other merging party) when the A's price is decreased to clear the market
    - Firm B's lost profits (holding its price constant) is the diverted quantity times firm B's margin:

$$\Delta\pi_B = D_{B\to A}\$m_B$$

The quantity firm B recapture is $D_{A\to B}$ because firm A only decreased sales by one unit

    - Accounting for firm B's lost profits on firm A's book gives firm A marginal revenue for a price increase as:

$$mr_A^{Postmerger} = mr_A - D_{B\to A}\$m_B$$

    - But since $D_{A\to B}\$m_B > 0$, then:

$$mr_A^{\text{Postmerger}} < mr_A^{\text{Premerger}} = mc_A.$$

    - That is, A's postmerger marginal revenue evaluated at A's premerger level of production is less than A's marginal cost. So A needs to reduce production and increase price postmerger to satisfy its FOC postmerger

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:

$$mr_A^{postmerger} = mr_A^{premerger} - D_{BA}\$m_B = mc_A$$

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

$$mr_A^{postmerger} = mr_A^{premerger} - D_{BA}\$m_B = (1-e)mc_A$$

      - Rearranging and cancelling equal terms:

$$mr_A^{postmerger} = \cancel{mr_A^{premerger}} - D_{BA}\$m_B = \cancel{mc_A} - e \times mc_A$$

Remember:
$mr_A^{premerger} = mc_A$

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

$$D_{BA}\$m_B = e \times mc_A$$

    - That is, the downward pricing pressure from the marginal cost reduction must offset the upward pricing pressure

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 of showing that unilateral effects were unlikely
  - Findings with respect to market definition make out a prima facie showing of unilateral effects:
    1. H&R Block and TaxACT products were differentiated in price
    2. H&R Block and TaxACT products were close substitutes to each other
       - Although not each other's closest substitutes
    3. (Most) other products were distant substitutes
       - But Intuit was a close—indeed, the closet—substitute to both H&R Block and TaxACT
    4. High barriers to entry, expansion, and repositioning was difficult

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
       - Argument: no price changes → no diversion → no anticompetitive unilateral effect
     - *Court*: Not a defense even assuming truthfulness
       - Can create diversion in other ways
         - Could manipulate other variables (e.g., reduce functionality of free products) to make paid, more functional products more attractive)
         - Could market free products 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 MG)

Merger simulation in *H&R Block*

- *Court*: Merger simulation also shows likely unilateral price increase
  - Merger simulations supposedly predict quantitatively the level of the combined firm's profit-maximizing price increase postmerger
  - Warren-Boulton did a merger simulation showing a likely substantial unilateral price increases in all three DDIY products following the merger
  - Predicted price increases postmerger—
    - TaxACT 83%
    - HRB 37%
    - TurboTax 11%

This results from an accommodating price increase within the Bertrand model

The quantification of a price effect resulting from a merger is called a merger simulation

Merger simulation

- Problems with merger simulation
  - Only as good as the model, the data, and the parameter estimates that go into the simulation
  - Often predict “hard to believe” price increases
  - Small changes in the model specification or the parameter estimation methods can result in big changes to the predicted postmerger 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

Overall, courts have been very reluctant to give much weight to merger simulations

Merger simulation in *H&R Block*

- Warren-Boulton model: Used a very simple model—
  - 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 a “gross upward pricing pressure index” (GUPPI) simulation model

GUPPIs

- Gross Upward Pricing Pressure Index (GUPPI)
  - Definition (unmotivated):

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

  - Let $m_B = \dfrac{p_B - c_B}{p_B}$ 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 yields:

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

Remember, m is the percentage margin, so $m_B p_B$ is the \$$m_B$

    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 ($D_{AB} = D_{BA} = D$)
    - Equal marginal costs, equal prices, equal margins, 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 A leaving the price of product B at its premerger level:

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

since $p_A = p_B$ and so $p_A/p_B = 1$

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

$$\frac{\Delta p_A{}^*}{p_{B1}} = \frac{\Delta p_B{}^*}{p_B} = \frac{GUPPI}{2(1-D)} = \frac{Dm}{2(1-D)}$$

Why look at so special a case?
Because the Merger Guidelines uses this model in Example 5!

GUPPIs

- Merger simulation with GUPPIs in the Merger Guidelines
  - 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

$$p = \$100 \qquad c = \$60$$

$$D = \frac{10}{10+20} = 1/3 \qquad m = \frac{p-c}{p} = \frac{100-60}{100} = 0.4$$

  - The market exhibits linear demand and complete symmetry, so we can use the simple GUPPI model:

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

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

GUPPIs

- 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:

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

> 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.

Class 16 slides

Unit 10: U.S. Sugar/Imperial Sugar

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

October 24, 2023

U.S. SUGAR

SINCE 1843

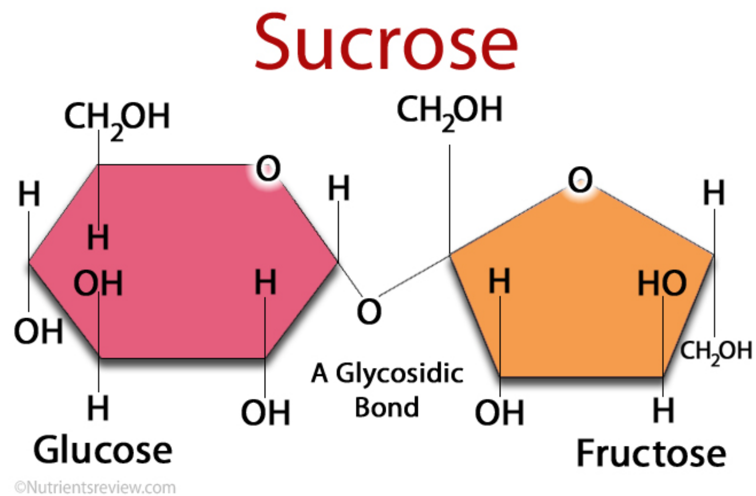
Imperial Sugar

The Sugar Industry

The sugar industry

- Refined sugar
  - Food-grade sugar that is produced by refining sugar cane or processing sugar beets into sucrose (a combination of glucose and fructose)
  - Refined sugar produced from sugar beets is chemically identical to that produced from sugar cane
  - Types:
    - Granulated (99.5% sucrose—white in color)
    - Brown
    - Powdered
    - Liquid

Produced from additional processing of granulated sugar



Sugar production from sugar cane

Sugar cane

- Perennial grass containing about 14% sucrose
- Grown in Florida (51.9%), Louisiana (44.6%), and Texas (3.5%)
- Not imported—Value-to-weight ratio too high

↓

Raw sugar

- Partially refined sugar processed from sugar cane
- Sugar mills close to the sugar cane plantations crush the cane and extract/partially refine sugar
- Primarily sucrose (96-99%) with some natural molasses
- Light brown in color
- Relatively inexpensive to transport
- Significant imports
- Can be consumed

↓

Refined sugar

- Fully refined sugar processed from raw sugar
- Types:
  - Granulated (99.5% sucrose -- white in color)
  - Brown, powdered, liquid—produced from granulated
- Significant imports

Sugar production from sugar beets

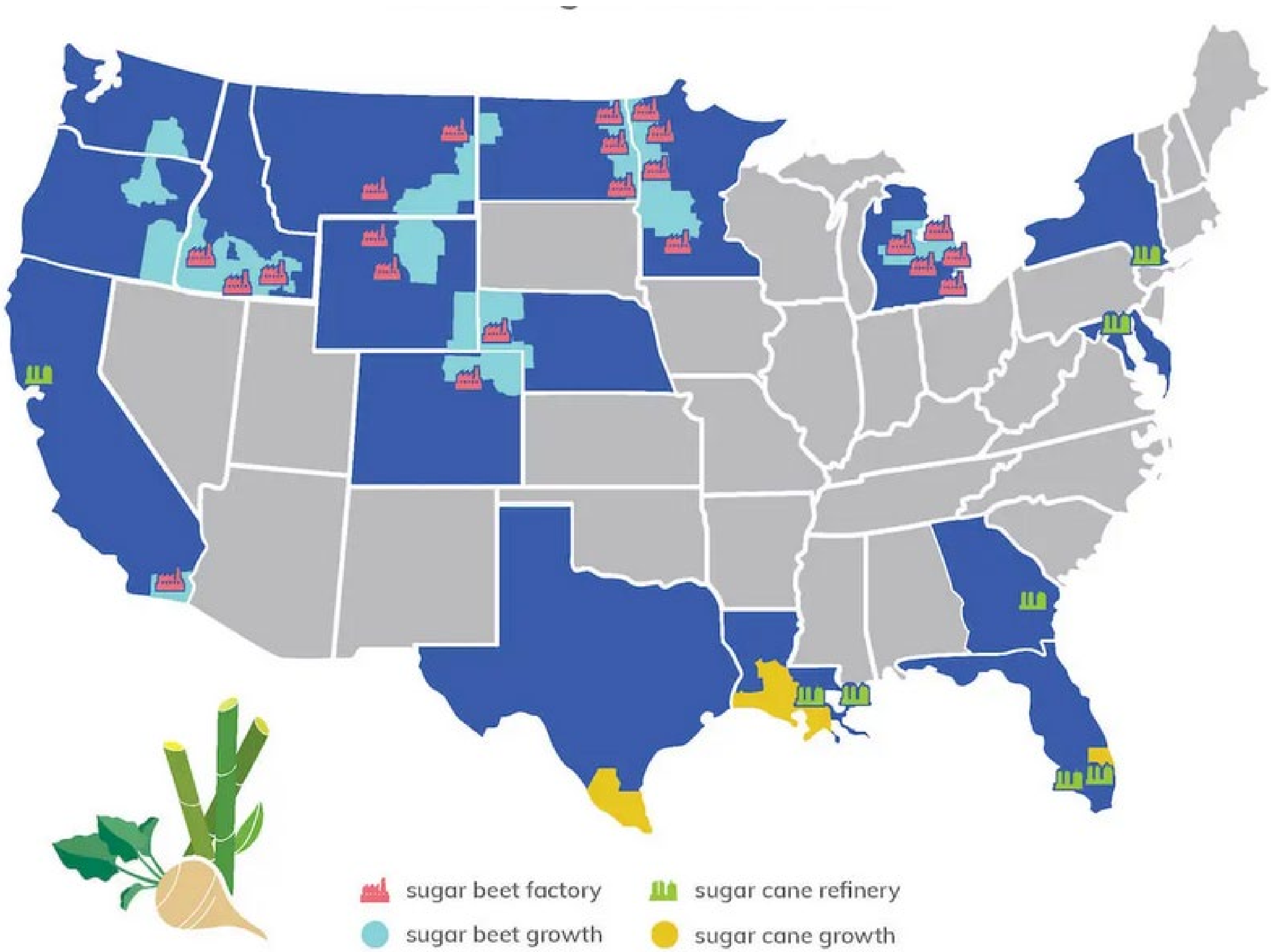
Sugar beets

- Root crop containing about 16% sucrose
- Grown in eleven states: California, Colorado, Idaho, Michigan, Minnesota, Montana, Nebraska, North Dakota, Oregon, Washington, and Wyoming

Refined sugar

- Fully refined sugar directly from sugar beets
- Chemically identical to sugar produced from sugar cane
- 99.5% sucrose (0.5% water)
- Seven U.S. sugar refiners
- White in color (without additives)
- Significant imports

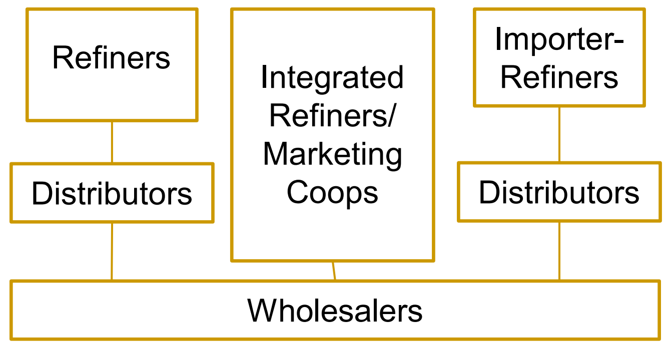
U.S. sugar production



Source: The Sugar Ass'n, U.S. Sugar Industry

Industry organization

- Production, distribution, and sale



- Distributors (including marketing coops)
  - Purchase refined sugar from refiners or importers
  - May repackage it or further process it into liquid, invert, brown, or powdered sugar
  - May offer nationwide shipping using rail transfer stations and their own trucking fleets
- Wholesaler purchasers
  - Most purchases done through a "Request for Proposal" (RFP)
    - Most RFPs are for delivered prices
  - Essentially, suppliers bid for wholesaler business through their responses to the RFPs

USDA Federal Sugar Program

- Sugar supply is largely regulated by the USDA

> The Federal Sugar Program, as run by the USDA, purports to balance somewhat competing government policies that impact the price of sugar - i.e., the Government's support of American sugar cane and sugar beet farmers by ensuring that there is a guaranteed floor price to be able to stay in business and the Government's interest in ensuring that sugar prices do not get too high for the many businesses (known as sugar "users") that buy sugar to use in their products.[1]

- The USDA controls the supply of sugar in the United States through—
  1. Marketing allotments for domestic sugar processors
     - Individually set for each processor
     - Caps the amount of sugar the processor is allowed to sell
  2. A system of tariff rate quotas (TRQs) on sugar imports and free trade agreements
     - Imports under the quota are charged a discounted duty rate
     - Imports over the quota are charged the full duty rate—essentially makes these imports unviable
     - → TRQ imports effectively constrain domestic prices
  3. Control over Mexican imports under the U.S. Mexico Suspension Agreements
  4. Since 2007, USDA has taken at least 30 actions to increase foreign sugar imports into the U.S. when it believed that additional supply was necessary

[1] Op. at 16.

The Deal

The deal

- U.S. Sugar to buy Imperial Sugar
  - Merger Agreement signed March 24, 2021
  - Purchase price: $315 million
    - Later reduced to $297 million
  - Asset purchase—Buying only assets, not stock
    - Imperial's Port Wentworth facility
    - Imperial's leasehold interest in a sugar transfer and liquification facility in Ludlow, KY
    - Four retail sugar brands:
      - Imperial Sugar
      - Dixie Crystals
      - White gold
      - Holly Sugar
  - Drop-dead date: September 24, 2022

The parties

- U.S. Sugar
  - Privately held Delaware corporation headquartered in Clewiston, FL
  - Owns and operates a cane mill and cane refinery in Clewiston
    - Refinery capacity: 850,000 tons annually—operates at maximum capacity
    - Produces only granulated and liquid sugar
      - Not brown or powdered sugar
    - Less than 7% nationwide refined sugar capacity
  - Vertically integrated in sugar cane growing
    - Plantations in South-Central Florida (200,000 acres)
    - Grows more sugar than U.S. Sugar can process
    - So sells sugar cane to third-party mills in Florida
  - Vertically integrated into distribution
    - USG owns United Sugars Corporation ("United") with three other sugar producers
      - United States Sugar (cane sugar)
      - American Crystal Sugar Company (beet sugar)
      - Minn-Dak Farmers Cooperative (beet sugar)
      - Wyoming Sugar Company, LLC (beet sugar)
    - United is a marketing cooperative that controls the pricing, marketing, and sale of all the sugar of its four members[1]
      - Sells sugar in 45 states

[1] Presumably, United is immune from the antitrust laws as an agricultural cooperative under the Capper-Volstead Act, 7 U.S.C. § 291.

The parties

- Imperial Sugar
  - Headquartered in Sugar Land, TX
    - Wholly-owned by Louis Dreyfus, a leading worldwide merchant and processor of agricultural goods headquartered in the Netherlands
  - Owns and operates cane sugar refinery in Port Wentworth, GA
    - Imperial Sugar's principal asset
      - Experienced a major explosion in 2008 that destroyed the plant—damaged part rebuilt in 2009
    - Capacity: _______
    - Produces granulated, brown, powdered, and liquid sugar
    - Sells refined sugar into more than 40 states, including Texas, Indiana, Pennsylvania, and Ohio out of Port Wentworth
  - Does not own any cane farming or milling assets—imports > 90% of raw sugar

Imperial's Port Wentworth sugar refinery

After 2008 explosion

Today

Deal benefits[1]

- Imperial's Port Wentworth current operations
  - Input supply limitations
    - Import-based refiner—imports > 90% of its raw sugar
    - Still, can only run at about 75% of capacity due to lack of supply (sometimes only 60-65%)
    - Accounts for about 7% of nationwide sugar refining capacity
  - Input cost limitations
    - Raw sugar comprises about 70-80% of the delivered price of Imperial's refined sugar
    - Has higher input costs than refineries vertically integrated into sugar cane or sugar beets
  - Investment limitations
    - High-cost producer dependent on imports subject to tariffs
    - Some equipment from the 1940s
    - Uncertain financial future
    - Louis Dreyfus has limited investment to maintenance and safety/health/environmental
  - Market position
    - Declining over the last several years
    - Principally a residual or back-up supplier
  - Prospects of sale
    - Louis Dreyfus has been trying to sell Imperial for the last five years

[1] Taken from findings of fact in the opinion. Op. at 22-23.

Deal benefits

- Benefits of acquisition
  - Mitigation of input supply limitations
    - U.S. Sugar grows more sugar cane than it can process and refine
    - U.S. Sugar will be able to provide between 84,000-168,000 short tons annually to Port Wentworth
  - Production expansion
    - U.S. Sugar plans to expand Port Wentworth's annual production from 805,000 short tons to 875,000 short tons, an increase of 70,000 short tons or 8.7%[1]
    - U.S. Sugar will use "targeted expenditures" to increase the capacity utilization at Port Wentworth
  - Transportation cost savings
    - Adding Port Wentworth to the United distribution network expected to save $8-12 million (annually?)
  - Reliability of supply
    - Adding Port Wentworth to the United distribution network will increase reliability of supply to
      - Premerger Port Wentworth customers,
      - U.S. Sugar/United customers in the event of an adverse weather event in the Red River Valley or in Florida
  - Port Wentworth's future absent the acquisition
    - "If the U.S. Sugar acquisition does not proceed, Imperial's CEO is 'quite worried' about Imperial's future prospects."

[1] The opinion gives the difference as 140 million pounds. Op. at 22. Some conversions are necessary. The opinion gives the before and after numbers in cwt (hundredweight, short, US), which equals 0.5 short tons. Converting cwt to short tons, the before and after production levels are 805,000 and 875,000, respectively (as given in the text), for a difference of 70,000 short tons. But each short ton equals 2000 pounds, so 70,000 short tons equals 140 million pounds.

DOJ complaint

- *Filed*: November 23, 2021
  - Seven months after the signing of the merger agreement
- *Claim*:
  - Acquisition would substantially lessen competition—
    - in the production and sale of refined sugar
    - to wholesale customers
    - In—
      1. the Southeastern United States, *and*
      2. Georgia
- *Prayer*: Permanent injunctive relief blocking the transaction

Relevant product market

Targeted customers

Relevant geographic markets

DOJ complaint

- A note on the DOJ's prima facie case of anticompetitive effect
  - The *PNB* presumption: Transaction treated largely as a 3-to-2 merger with a fringe[1]
    - Southeastern United States
      - Combined share: 46%
      - Delta: 800
      - Postmerger HHI: 2800
      - Postmerger 2FCR: 75%

      From DOJ Post-Trial Brief
    - Georgia
      - Combined share: 54%
      - Delta: 1100
      - Postmerger HHI: 3100
      - Postmerger 2FCR: 75%

      From DOJ Post-Trial Brief

[1] The third major player in the alleged markets was American Sugar Refining Company (ASR), also known as Domino Sugar. ASR has two cane sugar refineries: Chalmette, Louisiana, which sells in 44 states, and Okeelanta, Florida, which sales in ___ states [redacted in opinion].

DOJ complaint

- A note on the DOJ's prima facie case of anticompetitive effect
  - A trick in deconstructing market share
    - In many opinions, the market shares of the merging parties are redacted
    - However, the opinion may report the combined market share and the associated HHI
    - Let *a* and *b* be the market shares of the merging companies
    - Then:

$$a + b = \text{combined share}$$
$$2ab = \text{delta}$$

    - These are two simultaneous equations in two unknowns, so you can solve for *a* and *b*
    - If you like, use a simultaneous equations calculator like Symbolab
  - Here:
    - Southeastern United States

			Solving:
Combined share:	46%	$a + b = 46\%$	$a = 37.7\%$
Delta	800	$2ab = 800$	$b = 11.4\%$

    - Georgia

Combined share:	54%	$a + b = 54$	$a = 40.7\%$
Delta:	1100	$2ab = 1100$	$b = 13.4\%$

DOJ complaint

- A note on the DOJ's prima facie case of anticompetitive effect
  - Dimensions of anticompetitive harm
    - Price
    - (Throwaway:) Reliability of supply
  - Auction unilateral effects
    - "The proposed transaction would eliminate head-to-head competition between United and Imperial in both relevant markets."
    - The idea
      - United and Imperial are the two lowest cost suppliers for some customers and the acquisition will eliminate their independence
      - Competition for these customers will be between the combined firm and the third-lowest-cost supplier, resulting in an anticompetitively higher winning bid price[1]

[1] We will develop this bidding theory of unilateral effects in the next class when we study Sysco/U.S. Foods.

DOJ complaint

- A note on the DOJ's prima facie case of anticompetitive effect
  - Coordinated effects

> "The proposed transaction would increase the incentive and ability of industry giants United and Domino to coordinate to raise prices and reduce quality."

- Premerger susceptibility
  - Refined sugar is a relatively homogeneous product
  - Sugars prices "relatively transparent" (from customers)/Competitors monitor each other's prices
  - Competitors can readily identify incumbent suppliers for each customer—makes it easy for coordinating firms from "poaching" each other's customers
  - Only three significant competitors in the two markets: USS/United, Domino, and Imperial
  - High barriers to entry/expansion
- Increased likelihood or effectiveness
  - Only two significant competitors would remain postmerger: USS/United and Domino
  - Transaction mores closely aligns the incentives of USS/United and Domino by increasing homogeneity across firms
    - Factors:
      - Domino is a large vertically integrated firm that imports some raw sugar
      - USS is somewhat smaller and imports no sugar/Imperial purchases some imported raw sugar
    - Creates more similarly sized firms
    - Creates a similar level of vertical integration [WDC: ???]

DOJ complaint

- A note on DOJ's response to anticipated downward pricing pressure defenses
  - Entry/expansion defense

    "Entry and expansion will not prevent the substantial harm threatened by this deal"

    - High barriers to building or expanding a refinery
    - High transportation costs limit the ability of outside refiners to increase shipments into the relevant markets
  - Efficiencies defense

    "There are no merger-specific efficiencies that outweigh the substantial harm threatened by this deal"

[1] Complaint ¶ 57.

DOJ complaint

- A note on the USDA Federal Sugar Program

> "USDA's sugar policy will not prevent the substantial harm threatened by this deal"

  - USDA does not run its programs to ensure competition in the sale of refined sugar to wholesalers
  - USDA programs permits "significant regional variations in the prices charged to customers due to differences in competitive conditions in each area"[1]

[1] Complaint ¶ 57.

DOJ complaint

- Request for relief
  1. Declaration that the acquisition would violate Section 7
  2. Permanently enjoining defendants from consummating the acquisition
  3. Award the United States the costs of its action
  4. Grant the United States such other relief as the Court deems just and proper

The trial

- Venue
  - Filed November 23, 2021
  - In the District of Delaware
- Judge Maryellen Noreika
  - Nominated by President Donald Trump
  - Sworn in: August 9, 2018
  - Reportedly considered by President Biden for the Federal Circuit
- Trial
  - Parties stipulated to a TRO—proceeded to trial on the merits
    - Court consolidated proceedings under Rule 65(a)(2)
  - Trial began on April 18, 2022 (four days)—5 months after the complaint was filed
    - 30 fact witnesses/2 expert witnesses
    - Exhibits: 24 (joint), 74 (plaintiffs), 31 (defendants)
  - Decision: Permanent injunction denied on Sept. 23, 2022
    - 9 months after complaint filed
  - Affirmed by the Third Circuit

Experts

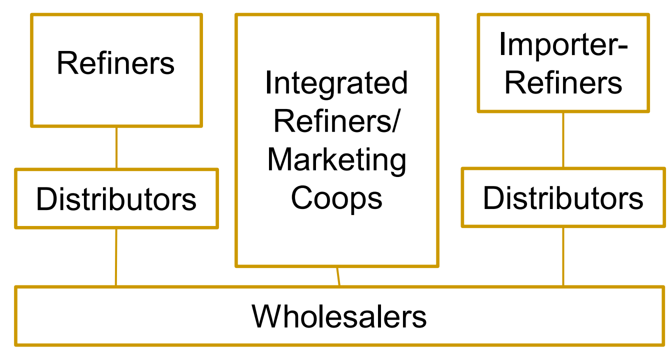
- DOJ: Dr. Dov Rothman
  - Managing principal at Analysis Group
  - Ph.D in business administration from the Haas School of Business, University of California, Berkeley
  - Joined Analysis Group in 2006
  - 2004-2006: Assistant Professor,
    Mailman School of Public Health, Columbia University
  - Testified in multiple antitrust cases
    - Including four merger cases for the government

- Merging parties: Dr. Nicholas Hill
  - Partner at Bates-White
  - Ph.D in economics, Johns Hopkins University
  - Joined Bates-white in 2017
  - Prior 12 years as a government antitrust economist
    - 2014-2017: ATD Assistant section chief
    - 2013-2014: FTC staff economist
    - 2006-2013: ATD staff economist
  - Testified in several antitrust cases

Relevant product market

- DOJ case-in-chief:
  - *Product type*: Refined sugar
    - Not distinguishing from sugar produced from cane or beets
    - Not contested by the merging parties
  - Market participants:
    - Includes refiners, marketing coops with refiner members, and importers

      DOJ post-trial brief and court opinion could be clearer here
      - *Query*: How to assign market shares when a marketing cooperative has multiple refiner members?
    - Excludes independent distributors
      - "The proper focus for this case is competitors that produce and sell refined sugar, and not distributors that resell sugar that they have purchased from refiners."[1]
      - *Argument*: Independent distributors must obtain their refined sugar from refiners, and the refiners can tacitly coordinate to limit the ability of these independent distributors to compete through decision on pricing and supply
    - Basic idea
      - Complaints focuses on the control of refiners of wholesale prices
      - Looks to an anticompetitive effect on sales to grocery stores, distributors, food and beverage manufacturers and other wholesale customers



[1] Plaintiff United States of America's Post-Trial Brief 15 (May 6, 2022).

Relevant product market

- DOJ allegations:
  - Market participants:
    - Excludes independent distributors—From DOJ's Post-Trial Brief:

> Distributors depend on refiners to obtain refined sugar and need to add a margin on top of the price that they pay for that refined sugar to stay profitable. As a result, distributors do not constrain refiners, but instead serve smaller customers (e.g., customers who need less than a truckload of sugar), fill gaps in larger customers' annual sugar purchases, or provide additional products or services not offered by the refiners. Defendants' own ordinary-course documents characterize distributors as customers and do not assign them market shares. Refiners partner with distributors when it suits them, and they disintermediate distributors and sell directly to end-use customers when it does not. Tellingly, even Defendants do not argue that distributors should be assigned market shares for all of their refined sugar sales in the relevant markets. In their closing argument, Defendants "admit[ted] there are certainly instances where distributors are not acting as a competitive constraint." Similarly, Dr. Hill conceded that at least some sales by distributors should be attributed back to the refiners who produced the sugar.[1]

    - There is judicial support for the proposition that distributors who simply resell products purchased from primary suppliers should be excluded from the relevant market containing the primary suppliers
      - Excluding distributors should depend on the distributors obtaining all (or close to all) of their products from primary suppliers in the putative "collusive group"
      - It needs to modified if distributors are obtaining a significant portion of their products from firms outside the collusive group

[1] Plaintiff United States of America's Post-Trial Brief 18-19 (May 6, 2022) (record citations omitted)

Relevant product market—Problem 1

- *Court*: The DOJ failed to make out a prima facie case that independent distributors should be excluded from the relevant market
  - *Fundamental conceptual issue*: Consider two scenarios—
    1. A sugar beet processor that does not sell into the DOJ's market sells to an independent distributor that does sell into the DOJ's market. Neither company is a participant in the DOJ's market
    2. Same sugar beet processor and distributor, but they are in an agricultural coop. The processor/coop are now a participant in the market.

    Court:
    - Makes no economic sense to exclude the distributor in the first scenario but include it in the second scenario
    - Ignores the "market realities" of the competition the distributor brings to the relevant market in the first scenario
  - Evidence shows that distributors compete against refiners
    - Customers do not care if they purchase from a refiner, a coop, or an independent distributor
    - Distributors sell large volumes of sugar into the southeastern United States
    - Numerous examples of distributors taking significant business away from refiners or refiner/coops
    - Distributors are not "controlled" by refiners from whom they purchase
      - Purchase from many sources (including imports of refined sugar)
      - Successfully compete against refiners that supply them
      - Refiners view distributors as competitors

Relevant product market—Problem 1

- *Court*: The DOJ failed to make out a prima facie case that distributors should be excluded from the relevant market
  - Conclusion:

> Because a division of the refined sugar market into "refiner or cooperative sold" refined sugar and "distributor sold" refined sugar would be inconsistent with the commercial realities of the industry, the Court must reject the Government's proposed product market. **And as the Government admits that it does not have evidence to prove its case if distributors are included in the product market, and there is no alternative product market offered, the Government cannot prevail in this case.**[1]

  - WDC:
    - Did defendants show that if distributors were included in the DOJ's alleged markets, the *PNB* presumption would not be triggered?
    - Or did the DOJ simply did not do the analysis to show that it would be triggered?

[1] Op. at 47.

Relevant product market—Problem 2

- *Court*: The DOJ failed to make out a prima facie case that industrial and retail wholesale customers should be included in the same market
  - The DOJ included both types of customers in its alleged markets
  - BUT—
    - Suppliers have separate sales teams for industrial and retail customers
    - Different suppliers can sell significantly different percentage sales to industrial and retail customers
    - Failure of proof in making out the prima facie case

> "At trial, the Government offered no testimony or documentary evidence from or about non-industrial customers to show that they are similarly situated to industrial customers such that all should be grouped together as 'wholesale customers' in the relevant product market."[1]

  - WDC:
    - Presumably, the defendants put this question into issue by introducing evidence of significant differences between industrial and retail wholesale customers
    - But it is strange that the court did not continue its analysis to show that separating the two customer types mattered to the conclusion of the competitive analysis
    - It is unlikely that the court would reject the DOJ's market definition on this ground alone, but it undoubtedly increased the court's confidence that the DOJ's product market definition was wrong

[1] Op. at 33.

Relevant geographic market

- DOJ allegations:
  - Two relevant geographic markets—
    1. The Southeastern United States
       - Alabama, Delaware, District of Columbia, Florida, Georgia, Kentucky, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia
       - Defined by the U.S. Census Bureau as the East South Central and South Atlantic
    2. "Georgia Plus": Georgia plus five bordering states
       - Alabama, Georgia, Florida, South Carolina, North Carolina, and Tennessee
  - Defined by wholesale customer location
    - Wholesale customers purchase through RFPs for delivered price supply contracts
    - Wholesale customers do not engage in arbitrage—they use what they purchase
    - This allows suppliers to charge customers different prices based on their location depending on:
      - The cost of transportation from the refinery to the customer, *and*
      - The number and significance of other suppliers that can reasonably supply the customer
  - Economic support
    - Rothman's application of the HMT

Relevant geographic market

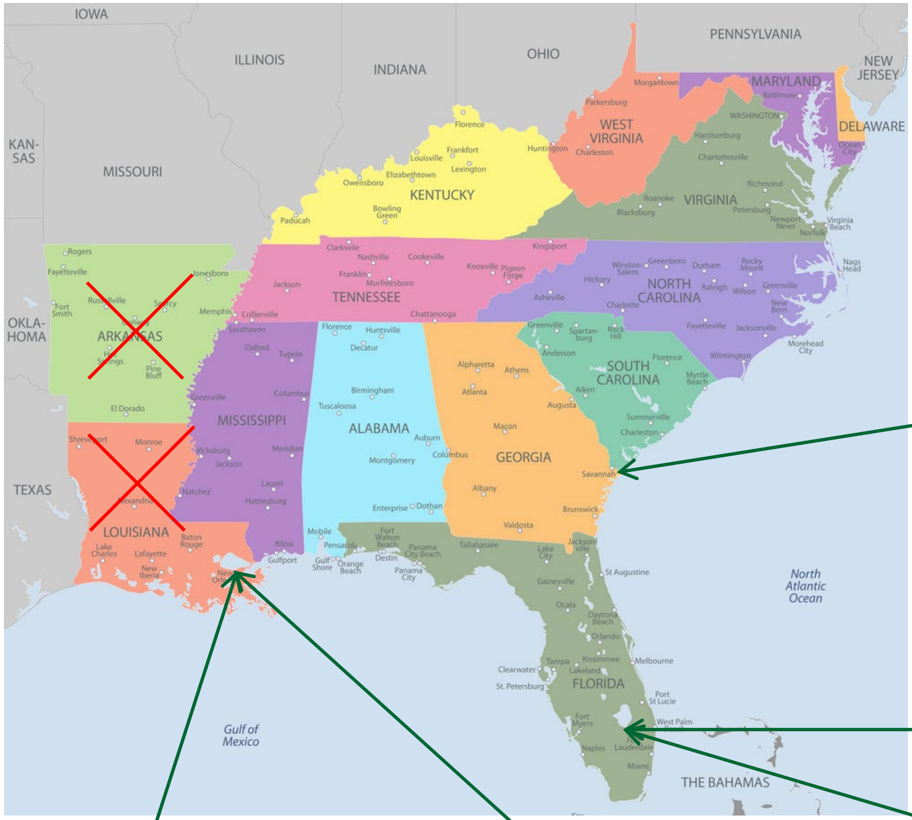
- DOJ allegations:
  - Boundaries determined by high transportation costs of refined sugar:

> Transportation costs can add thousands of dollars to the total cost of a delivery, and the need to ship refined sugar even a few hundred additional miles can yield a substantially higher total price for the customer. **Based on data from United, shipping refined sugar an additional 500 miles by truck would increase the price of delivered sugar by over 10 percent. Making the same shipment entirely via rail, which is often impossible, would increase the price of delivered sugar by more than five percent.** Because of these transportation costs, wholesale customers in the Southeast rely heavily on producers that have large refineries located nearby. United has an advantage in this region through its ability to sell sugar from U.S. Sugar's refinery in Florida, as well as from other United members' refineries. Imperial is also well positioned to serve customers in the Southeast from its refinery in Savannah, Georgia.
>
> . . .
>
> [T]he cost to transport refined sugar limits the geographic reach from which a customer can cost-effectively buy refined sugar.[1]

[1] Complaint ¶¶ 4, 30.

Relevant geographic market

- Southeastern geographic market



Imperial refinery
(Port Wentworth, GA)

Florida Crystals (Domino) refinery
(Okeelanta, FL)

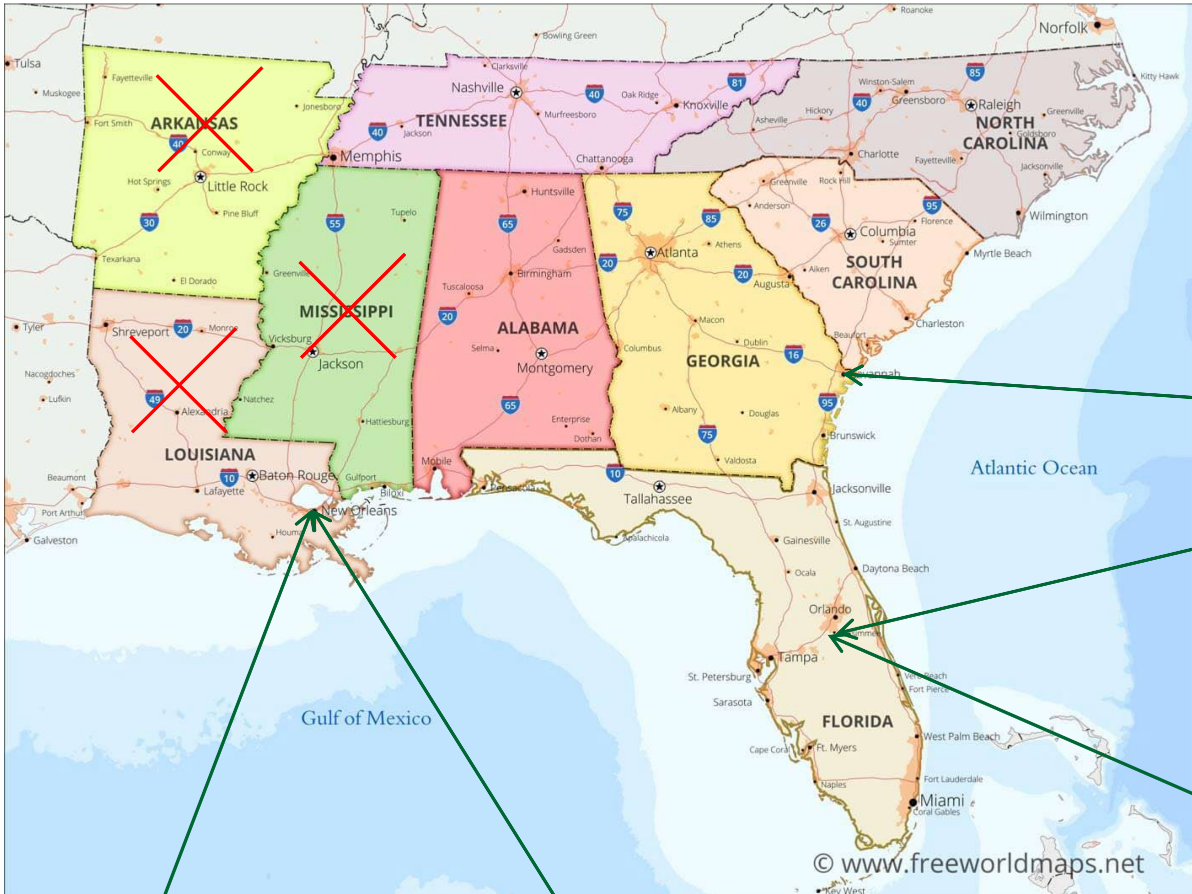
USS refinery
(Clewiston, FL)

LSR refinery
(Gramercy, LA)

Domino refinery
(Chalmette, LA)

Relevant geographic market

- Georgia plus five bordering states



Imperial refinery
(Port Wentworth, GA)

Florida Crystals (Domino) refinery
(Okeelanta, FL)

USS refinery
(Clewiston, FL)

LSR refinery
(Gramercy, LA)

Domino refinery
(Chalmette, LA)

Relevant geographic market

- *Court*: DOJ failed to make out a prima facie case that either of the alleged relevant geographic markets were proper markets in which to analyze the acquisition
  - Rothman did no independent analysis to determine whether these were proper candidate markets in which to begin the market definition analysis
    - The staff apparently defined the markets; Rothman just applied the HMT
    - Rothman cites no documents or the USDA that groups the states together in the alleged "Southeast" market and only one document for the "Georgia Plus" market
  - Shipments across alleged market boundaries
    - Customers in the alleged markets purchase and receive refined sugar—in large quantities—from many locations and suppliers outside of each market (citing numerous examples)
      - Many of these out-of-market suppliers have additional supply that could be sent into the market
    - Customers within the alleged markets also have the ability to pick up sugar at locations outside of the alleged markets
      - 30-35% of customers pick up sugar at their supplier
      - 3% of customers pick up sugar at a supplier location outside of the alleged geographic markets and transport the sugar into the market
    - Some suppliers outside of the alleged markets are expanding capacity and targeting sales in the alleged "Southeast" market
      - Especially true of suppliers located in Louisiana (e.g., LSR/Cargill)

Relevant geographic market

Source: The Sugar Ass'n, U.S. Sugar Industry

Relevant geographic market

- *Court*: The DOJ failed to make out a prima facie case that distributors should be excluded from the relevant market
  - WDC: More fundamentally, the DOJ improperly applied the HMT
    - The DOJ defined its markets by reference to customer locations
      - That is appropriate provided that the market participants are properly identified and their market shares properly assessed
    - The principal—if not only—economic support for the DOJ's alleged markets was the hypothetical monopolist test: Rothman apparently testified that—
      - Any product grouping that satisfies the HMT is a relevant market in which to analyze the transaction
      - A competitive problem in any one HMT-market is sufficient for the transaction to be anticompetitive in an economic sense
        - As an expert economist, Rothman could not testify whether the transaction would violate Section 7
    - In applying the hypothetical monopolist test, the DOJ apparently fixed the market shares at current sales and failed to take into account supply responses of firms outside of the market in assigning market shares to a price increase only within the relevant market[1]
      - Almost surely, the out-of-market supply-side responses would have eliminated the profitability of the price increase in both relevant markets

[1] For background, see the Market Definition class notes at slides 27-36.

PNB presumption

- Not addressed in opinion since DOJ failed to make out its prima facie case on market definition
  - However, the court almost surely was influenced by the failure of the DOJ's market shares to make economic sense
    - Failed to account to distributors as market participants and assign them shares
    - Failed to account for out-of-market suppliers who would increase shipments into the alleged market in response to an in-market SSNIP
    - Failed to account for out-of-market suppliers that did not ship refined sugar into the alleged markets today but would ship tomorrow in the event of an in-market SSNIP
    - Failed to account for planned capacity expansions and increased shipments into the alleged markets
  - All these factors would influence the state of competition in the alleged markets but are not captured by the market shares the DOJ sought to use to predicate the *PNB* presumption

The USDA as a competitive constraint

- DOJ:
  - USDA programs not designed or used to protect sugar markets from an anticompetitive effect arising from a merger
    - Appears to be an unsupported assertion
    - USDA did not testify at the trial—has no official position on the competitive effect of the acquisition
    - Does not appear to be any supporting testimony from anyone else

The USDA as a competitive constraint

- The merging parties:
  - The USDA has tools to ensure continued competition in the market postmerger in the event the transaction could affect sugar prices
    - Presented testimony by Dr. Barbara Fecso
      - Ph.D economist who worked at USDA for almost 30 years
      - Worked with the Federal Sugar Program for almost 20 years
      - Spoken with parties and learned of their postmerger plans
    - Fecso testimony:
      - Transaction unlikely to lead to higher prices
      - Instead, if claimed efficiencies are achieved, prices are likely to go down
      - Even if prices increased, supply would flow in from outside the market to bring prices back down
      - Failing that, USDA could "respond appropriately" (with support in the record)

> For example, in December 2021, the USDA increased the overall domestic allotment quantity and reassigned allotments to increase supply, doing so specifically to address "high sugar prices."[1]

- *Query*: Was Fecso qualified as an expert witness under Rule 702?
  - Court did not say, but since offered opinions she should have been
  - UNLESS she somehow qualified as an "lay" expert under Rule 701

[1] Op. at 18.

The USDA as a competitive constraint

- Court:
  - Agreed with merging parties that the USDA has the tools to protect against any anticompetitive effect arising from the transaction
    - Found Dr. Fecso's testimony persuasive even though testifying in her personal capacity

> There is no one else at USDA that has a longer tenure working on the Federal Sugar Program or in making recommendations to the undersecretaries for the Federal Sugar Program. **The Court found Dr. Fecso to be an exceptionally knowledgeable and particularly credible witness.**[1]

    - Influence by the DOJ's decision not to offer USDA documents or testimony or even have Dr. Rothman talk to USDA officials:

> It is noteworthy that the Government did not offer any documentary or testimonial evidence from USDA as to its view of the anticipated effects of U.S. Sugar's acquisition of Imperial. In essence, the Government decided to shield USDA officials from having to answer questions about the interplay between free market competition and the Federal Sugar Program.[2]

[1] Op. at 56. [2] *Id*. at 55.

Lessons

- Why the DOJ lost
  1. Picked the wrong economist
     - Interestingly, the analytical portion of the opinion starts by slamming the DOJ's economist:
       - "Dr. Rothman's analysis in this case as flawed and largely unpersuasive."[1]
       - "Although the Court is not wholesale excluding Dr. Rothman from offering an economics opinion, his credentials and experience appear to be lacking, especially when compared to Dr. Nicholas Hill, Defendants' economic expert, who the Court found to be particularly credible."[2]
         - *Query*: Why didn't the court exclude Rothman's expert testimony as unreliable under Rule 702?
     - Do not use an economist whose testimony has been soundly rejected by multiple courts
       - Or even one court (if good alternatives exist—which they almost surely will)
       - Once an economist has been found flawed and unpersuasive by one court, subsequent courts will find it easier to find the expert unpersuasive

[1] Op. at 24.
[2] *Id*.

Lessons

- Why the DOJ lost
  2. The DOJ's alleged markets did not comport with the "commercial realities"
     - Make the case for the market definition first using documents and testimony from business participants that support the alleged markets
       - Use the HMT as confirmation, not as the primary evidence
       - Especially important if the merging firms will present documents and testimony from business participants that contradict the alleged market as contrary to the commercial realities
     - Use your economist properly
       - The economist should develop an independent analysis of the relevant markets
         - Should not take the markets proposed by the staff as a starting point
       - Should start with an economic analysis of documents and deposition testimony
       - Support with a separate economic analysis of customer substitutability and supply-side switching
         - Find powerful anecdotes to illustrate conclusions
       - Finally, confirm with the HMT
  3. The market participants did not comport with the "commercial realities"
     - Make sure that all firms that exert pricing pressure are identified as market participants
     - If there is substantial business evidence is that a firm is a competitor in the market, then need compelling contrary evidence to reject that firm as a market participant

Lessons

- Why the DOJ lost (con't)
  4. The DOJ's proffered market shares did not make economic sense
     - Not in the opinion, but probably an important factor in the outcome
     - The DOJ's market shares did not account for likely significant out-of-market supply-side responses to a in-market price increase, undermining confidence that the shares could be used to predicate the *PNB* presumption
  5. Failed to disprove the merging parties' claimed efficiencies
     - The opinion did not address the DOJ's challenge to the parties' claimed efficiencies, but the findings of fact make equally clear that efficiencies were accepted by and important to the judge
     - If the merging parties have a compelling efficiencies story to tell and persuasive witnesses to tell it, need equally compelling evidence to show that the claimed efficiencies are suspect and should not be considered
       - In this situation, a challenge only on verifiability or merger-specificity is increasing unlikely to work
       - Need a business witness or expert to disprove efficiencies
     - If the efficiencies cannot be disproved altogether, then some analysis is necessary to show that the transaction will be anticompetitive even in the presence of the efficiencies

Lessons

- Why the DOJ lost (con't)
  6. Failed to rebut Dr. Fesco
     - Needed some expert to testify that the tools the USDA has operate nationally and not regionally
     - Needed some expert to testify that the USDA—
       - does not monitor or care about regional price differences, *and*
       - would not take action to lower prices by increasing TRQs or reallocating processor allotments

Lessons

- Why the merging parties won
  1. The merging parties had a compelling story to tell and persuasive witnesses to tell it
     - A compelling efficiencies is critical to capturing the “heart” of the judge—a critical step in prevailing in the case
       - A compelling efficiencies story means that there is a consumer welfare loss if the court erroneously blocks a merger that is in fact not anticompetitive
       - Makes the court much more cautious in ruling for the plaintiffs
     - Focus on “easily” proved efficiencies—
       - Output expansion
         - Here, investment to expand plant capacity and new sources of raw sugar to fill plant to capacity
       - Input cost reduction
         - Here, shifting to low-cost internal supply of raw sugar and away from high-cost imports
  2. Successfully rebutted the DOJ’s alleged geographic market definition
     - Substantial evidence in documents and business testimony of a significant out-of-market supplier response to a price increase
       - Evidence that out-of-market suppliers ship significant quantities into—and even across—the alleged markets today at prevailing prices
       - Evidence that out-of-market suppliers have significant (uncommitted) quantities available to ship into the alleged markets if reallocating shipments would increase profits
       - Evidence that out-of-market suppliers would respond to a SSNIP in the alleged market by shipping additional quantities into the market
       - Strong economic testimony of arbitrage that caused in-market and out-of-market prices to highly correlated (does not appear in opinion)

Lessons

- Why the merging parties won
  3. Successfully rebutted the DOJ's exclusion of distributors as market participants
     - Substantial evidence in documents and business testimony that distributors competed with—and were not controlled by—their refined sugar suppliers
       - Multiple examples of winning significant bids against suppliers
       - Evidence that suppliers considered distributors as competitors
       - Story as to why distributors could compete against suppliers
       - Strong supporting expert economic testimony
  4. Used the right economist
     - Experienced, with a great track record
     - Reputation for independence and thoroughness
     - Helpful that Hill had significant government experienced in merger analysis
  5. Had a very experienced and credible industry "expert" testifying in support of transaction
     - Transaction likely to lower prices if claimed efficiencies are achieved
     - Even if the combined firm could increase prices, USDA has the tools to control price levels

Class 17 slides

Unit 11: Sysco/US Foods

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

October 26, 2023

Good things come from Sysco

US. FOODS™
KEEPING KITCHENS COOKING.™

Five new concepts

1. *Cluster markets* in product market definition
2. *Targeted customer markets* in product market definition
3. Use of *overlapping draw areas* to define geographic markets
4. *Auction* theory of unilateral effects
5. “Litigating the fix”

The Background

The deal

- Sysco Corporation to acquire US Foods
  - Announced December 8, 2013
  - $3 billion of Sysco common stock (13% of combined company)
  - +$500 million of cash
  - Assumption of $4.7 billion of USF debt
  - Total transaction value: $8.2 billion
  - Agreement expires September 8, 2015 (21 months)

The parties

- Sysco
  - Publicly traded "broadline" distributor
  - Sales = $44 billion in food distribution sales 2013
  - #1 with about 17% of total food distribution sales nationally
  - 72 distribution facilities nationwide
- US Foods
  - Privately owned broadline distributor (Clayton, Dubilier & Rice and KKR)
  - Sales = $22 billion in food distribution sales in 2013
  - #2 with about 8.6% of total food distribution sales nationally
  - 61 distribution facilities nationwide

Deal rationale

- Creates a company with $65 billion in sales
  - Sysco (#1 w/17%) + USF (#2 w/8.6%) = Combined (#1 w/25.6% of total food distribution sales nationally)
    - Number 3: Performance Group (2.4%)
  - Would employ over 14,000 sales reps
    - No other company employs more than 1600
  - Would operate over 13,000 trucks
    - No other company operates more than 1600 trucks
- Immediately accretive to earnings
- Annual recurring synergies > $600 million (after 3-4 years)
  - Eliminate duplicative overhead
  - More leverage to lower costs of goods (COGS)
  - Optimize distribution facilities and logistics
  - Integrate sales force
  - Bigger platform for enhanced innovation and development of exclusive products

Industry background

- Food service distribution
  - Total industry sales nationwide = $231 billion (2015)
  - Supply a broad range of fresh, frozen, canned and dry food and non-food products to away-from-home food service operations
  - Customers include—
    - Independently owned single location restaurants, regional and national chain restaurants (majority of sales)
    - Hotels, motels, and resorts
    - Hospitals
    - Schools
    - Government and military facilities
    - Retail locations

Industry background

- Types of food distributors: Product range/channel
  1. Broadline
     - “One-stop” shop—carry everything
  2. Specialized
     - Meat
     - Seafood
     - Produce
     - Baked goods
  3. Systems distributors
     - “Customized” distributors for fast food, casual chain restaurants (e.g., Burger King, Wendy’s, Applebees)
     - Small number of SKUs
     - Often proprietary to chain
     - Very small sales forces
  4. Cash-and-carry and club stores
     - E.g., Restaurant Depot, Costco, Sam’s Club
     - Do not deliver
     - No sales force dedicated to individual customers
     - Typical customer: independent restaurant

Industry background

- Types of food distributors: Geographical distribution footprint
  - National
  - Regional
  - Local

Industry background

- Largest food distributors in the United States

Distributor	Distribution Footprint	Distribution Centers
Sysco	Nationwide	72
US Foods	Nationwide	61
Performance Food Group	Eastern/Southern U.S.	24
Gordon Food Service	Midwest, Florida, TX	10
Reinhart Foodservice	East, Mideast	24
Ben E. Keith Co.	Texas and bordering states	7
Food Services of Am.	Northwest	10
Shamrock Foods	Southwest, Southern Calif.	4
Local distributors	Local	1-5 each

Industry background

- Distribution centers
  - Key for broadline distribution

- 28-foot clear-height ceilings
- “Super-flat” insulated floor systems to meet strict temperature control standards
- Zoned to accommodate the storage of both perishable and dry goods

Distribution centers

- US Food distribution centers in 2017
  - Only three more centers than in 2013

The FTC investigation and litigation

- FTC investigated for one year
  - Second request issued on February 18, 2014 (a little over two months after signing)
  - Investigation ended February 20, 2015
- Fix-it-first solution:
  - On February 16, 2015, Sysco signed a deal to sell 11 of 61 USF distribution centers to #3 Performance Food Group
    - Announced Feb. 16, 2015
    - Conditioned on closing main deal
  - The centers to be divested largely located in the western U.S.
    - PFG had only one center in the West
    - PFG had 24 centers in East/South
  - Accounted for $4.5 billion in sales
    - About 20% of USF premerger sales
    - Would give PFG a total of $10.5 billion in sales
    - Compare to $60.5 billion for the combined firm post-divestiture
- FTC rejected the fix and brought suit
  - Joined by 11 states seeking relief under Clayton Act § 16 in their sovereign capacity
  - Parties “litigated the fix”

DOJ complaint

- Plaintiffs:
  - Federal Trade Commission
  - 10 states plus the District of Columbia
- *Filed*: February 20, 2015
  - 14 months after signing
- *Claim*: Acquisition, if consummated, would violate Section 7 in—
  - Nationwide foodservice distribution to "national" customers
    - Combined first and second largest broadline foodservice distributions
    - Results in a combined share of 59%-71% share and HHI deltas of 1500-1966 (depending on metric)
    - Auction unilateral effects
  - 32 local markets
    - With combined shares as high as 90.3% and deltas as high as 4123
    - Auction unilateral effects
- Prayer:
  - Preliminary injunction blocking the deal pending a final adjudication of the merits
  - *Query*: Should the states also have sought a permanent injunction?

The District Court

- Tried in the District Court of the District of Columbia
  - Judge Amit P. Mehta
    - Appointed by President Obama
    - Assumed office: December 19, 2014
    - Assigned case: February 20, 2015

  - Case was tried with the understanding that the parties would terminate their merger agreement if the PI was entered

Testifying experts

- FTC: Dr. Mark A. Israel
  - Senior Managing Director, Compass-Lexecon
  - Ph.D in Economics, Stanford University (2001)
  - Extensive testifying experience in antitrust cases (especially merger antitrust cases)

- Parties: Dr. Jerry Hausman
  - Professor of Economics, MIT
  - D.Phil, Oxford (1972)
  - Leading academic econometrician
  - Extensive testifying experience in antitrust cases (including merger antitrust cases)

The District Court

- Entered the preliminary injunction blocking the deal
  - Relevant markets
    - Nationwide broadline foodservice distribution to national customers
    - Local broadline foodservice distribution to local customers
  - Anticompetitive effects (upward pricing pressure)
    - *PNB* presumption
    - Unilateral effects in the national broadline customer market
    - Unilateral effects in local broadline markets
  - Defenses insufficient to put the prima facie case into dispute
    - The PFG "fix"
    - Dealing regionally by national customers
    - Entry/expansion
    - Efficiencies
  - Equities favored the entry of a preliminary injunction

PI entered: June 23, 2015
Deal terminated: June 29, 2015

Parties abandon the merger

- Costs to Sysco
  - $300 million breakup fee to US Foods
  - $25 million breakup fee to divestiture buyer Performance Food Group
  - $265 million to redeem financing
  - $258 million on integration planning and advisers
  - $100 million in historical financing costs, and
  - $53 million in computer systems integration

Total cost to Sysco: $1 billion

The District Court's Analysis

Organization of opinion

- Background
- Legal standard
  - Clayton Act § 7
  - FTC Act § 13(b)
  - *Baker-Hughes* three-step burden-shifting framework
- Relevant markets
  - The relevant product market
    - Broadline distribution as a relevant product market
      - Legal principles
      - Application of *Brown Shoe* “practical indicia”
      - Expert testimony
      - Conclusion
    - Broadline distribution to “national customers” as a relevant product market
      - Legal basis
      - Evidence
  - The relevant geographic market
    - National market
    - Local markets

Organization of opinion

- Probable effects on competition
  - *PNB* presumption
    - *PNB* presumption in the national customers broadline distribution market
    - *PNB* presumption in the local broadline distribution markets
  - Additional evidence of competitive harm
    - Unilateral effects in the national customers broadline distribution market
    - Merger simulation in the national customers broadline distribution market
    - Unilateral effects in local broadline markets
    - Event studies ("natural experiments") in local broadline markets
- Defendants' other rebuttal arguments
    - PFG divestiture
    - Existing competition
    - Entry/expansion
    - Efficiencies
- The equities
- Conclusion

The District Court Opinion
1. The Prima Facie Case
A. Relevant Product Markets

Product markets: Allegations

- FTC position: Two product markets
  1. Broadline foodservice distribution (as opposed to all food distribution) to all customers
  2. Broadline distribution to “national” customers

- Merging parties’ position
  - All foodservice distribution (including specialty distributors)
  - Rejects a product market limited to national customers

Two new concepts here:
1. *Cluster market of nonsubstitutable products*
2. *“Targeted customer” market*

Broadline Foodservice Distribution Cluster Market

Cluster markets: Principles

- Both the FTC and the merging parties alleged *cluster markets* consisting of largely nonsubstitutable products
  - Widely accepted in the case law
  - Some examples
    - Commercial banking services, grocery stores, drug stores, department stores, consumable office supplies, acute care inpatient hospital services
- Courts have generally accepted cluster markets as relevant product markets when:
  1. The products are traditionally offered by the same seller at the same point of sale
  2. The products appeal to the same type of customer
  3. The products exhibit economies of scope in purchasing
- Price flexibility within stores
  - NB: Generally, sellers have some flexibility in setting the prices of individual products without being constrained by competition from partial line or single product sellers, provided that the sellers remain competitive within their product offering as a whole
  - We will see a case where there is single product line competition later in Staples/Office Depot

Cluster markets: Principles

- Observations
  - Not well defined in the case law, but frequently adopted by courts
  - Has a "know it when you see it" quality
  - Accepted "for analytical convenience" when market shares are likely to be the same across products
  - Typically, analytical similarity is simply asserted rather than analyzed by courts

Cluster markets: Application in *Sysco*

- In *Sysco*, the dispute was not over whether the court should find a cluster market, but rather *what* cluster market it should find
  - *FTC*: Broadline foodservice distribution
  - *Merging parties*: All foodservice distribution, including—
    - Specialized wholesalers of meat, seafood, produce, and baked goods
    - Systems distributors for retail food chains (e.g., Burger King, Wendy's, Applebees)
    - Cash-and-carry and club stores (e.g., Restaurant Depot, Costco, Sam's Club)

Cluster markets: Application in *Sysco*

- *Court*: Broadline distribution as a product market
  - *Brown Shoe* "practical indicia" supports FTC's definition
    1. Product breadth and diversity
       - "One-stop shop" for almost any type of customer
       - Number of SKUs carried by other types of distributors pale in comparison
       - Offer private label products
       - Customers may buy from other types of distributors on a limited basis
    2. Distinct facilities and operations
       - Massive distribution centers
       - Large sales forces
       - Run channel as a separate business
    3. Delivery
       - Timely and reliable delivery critical
       - Broadline has sufficient fleet of service vehicles to offer frequent and flexible delivery schedules to meet customer needs
       - Including next-day delivery

Cluster markets: Application in *Sysco*

- *Court*: Broadline distribution as a product market
  - *Brown Shoe* "practical indicia" supports FTC's definition
    4. Customer service and value-added services
       - For example, offer menu and nutrition-meal planning services
       - Food safety training for customers at distribution centers
    5. Distinct customers
       - Serve a wide range of customers that other channels cannot reach
    6. Distinct pricing
       - Typically price only against other broadline distributors
       - Not against higher-priced specialty or lower priced cash-and-carry
    7. Industry or public recognition
       - Recognizes broadline as a distinct channel

NB: The Court did not strictly look at the specific indicia listed in Brown Shoe*, but considered any qualitative evidence probative of cross-elasticity*

Cluster markets: Application in *Sysco*

- *Court*: Broadline distribution as a product market
  - Hypothetical monopolist test supports FTC's definition
    - Israel used an aggregate diversion ratio implementation for a uniform SSNIP[1]
      - Margin > 10% (using 10% as a lower bound is conservative since it gives a higher critical recapture rate than would the actual margins—making the HMT harder to satisfy)
      - SSNIP = 10% (Why?)
      - Critical recapture formula for a uniform SSNIP:

$$R_{Critical} = \frac{\delta}{\delta + m} = \frac{10}{10+10} = 0.50 = 50\%$$

Indicates that the recapturing products have a SSNIP

    - Data for actual recapture rates
      - For each company, built tracking database that showed, for each bidding opportunity, the incumbent distributor, the winning distributor, and the competing bidders
      - *Sysco*: Lost 70% of the bids to another broadline distributor as opposed to another type of food distributor
      - *USF*: Over 70% to another broadline distributor
    - Since R_i > 70% for both Sysco and US Foods → $R_i > R_{critical}$ and so broadline distribution is a product market
    - Rejected defendants' challenges to data and application
    - BUT agreed that the flaws in the data reduced the probative value of the test but still corroborative of result from other evidence

[1] Review the slides on one-product SSNIPs and aggregate diversion analysis in the Market Definition class notes (slides 120-39).

Cluster markets: Application in *Sysco*

- Accepted: Broadline distribution as a product market
  - Hypothetical monopolist test supports FTC's definition
    - WDC: Some questions you should be asking:
      1. The FTC's expert used the formula for uniform SSNIP recapture test. Is this the correct formula to use?
      2. Does the data used to estimate recapture rates suggest a one-product SSNIP or a uniform SSNIP?
  - The FTC used the same test that Warren–Bolton used earlier in H&R Block/ TaxACT:

If	$R_i^s \geq R_{Criticai}^U$	for all firms *i* in the candidate market
	$R_i^s > R_{Critical}^U$	for some firm *j* in the candidate market

Then the candidate market is [presumptively] a relevant market

    - Warren-Bolton—and apparently Israel as well—used this as a definitive test
      - But there is no proof of the proposition as a theorem
      - There is good reason to believe that it does not work
      - At best, the test is presumptive
  - What would have been the result of the analysis if the FTC's expert assumed that the data estimated one-product SSNIP diversions and used a one-product SSNIP critical recapture formula?
    - Would have failed for a 10% SSNIP: $R_{Critical} = \dfrac{\delta}{m} = \dfrac{10\%}{10\%} = 1 = 100\%,$ but actual recapture ratios between 70%-80%

Targeted Broadline Foodservice Distribution Market to National Customers

Target customer market: Allegations

- The allegations
  - *FTC*: Alleged that within the broader broadline foodservice distribution market, there existed a relevant market of "national customers"
  - *Merging parties*: Argued that there was no separate market of "national" customers
    - Can purchase more regionally or locally
    - Consortia will form to protect these customers if the combined firm seeks to act anticompetitively

Target customer market: Application in *Sysco*

- *Court*: Broadline distribution for national customers
  - *Rule*: A relevant market can be defined by a group of customers if they can be targeted for a price increase (citing the HMG § 4.1.4)
    - Here, national customers can be readily identified
    - Given the nature of the product, there is no arbitrage among purchasers
  - Notes
    - The targeted customers as a group may be charged discriminatorily *lower* prices than other customers
    - Nonetheless, the Merger Guidelines and the courts recognize that an actionable anticompetitive effect occurs when, as a result of a merger, the prices to the targeted customer group is likely to be higher that they were premerger, even if they remain below the prices charged to other customers

Target customer market: Application in *Sysco*

- *Court*: Broadline distribution for national customers
  - Market supported by *Brown Shoe* “practical indicia”
    - Industry and public recognition of distinct customer needs
      - Regional broadliners have formed cooperatives to bid for national customers (formed specifically to compete again Sysco and US Foods)
      - McKinsey report (done for Sysco) and other industry research studies support national customers as a distinct customer group with distinct requirements
      - Industry trade group (International food Distributors Association) recognizes the distinction
      - Defendants’ ordinary course of business documents support distinction
      - PROBABLY KEY: National customers testified that they would not switch to other channels to substitute for a broadline supplier
  - Aggregate diversion analysis corroborates the market
    - Analysis identical as in broadline generally
    - EXCEPT look to recapture only by broadline companies with a national footprint

Target customer market: Application in *Sysco*

- *Court*: Broadline distribution for national customers
  - Rejects defendants' arguments
    - The distinction between national and local is not arbitrary: reflects a preference by national customers for which they are willing to pay
    - National customers are identifiable—contracts are individually negotiated
      - No arbitration of products, so national customers can be charged different prices
    - Sysco and US Foods earn higher margins on sales to local customers than from sales to national customers, indicating that national customers can constrain the prices
      - *Court*: Customer testimony indicates that the lower margins more likely result from national customers playing Sysco and US Foods off each other

The District Court Opinion

1. The Prima Facie Case

B. The Geographic Markets

Geographic markets

- FTC allegations:
  1. National for broadline distribution to national customers
  2. Local for broadline generally
- Court: Legal standard
  - "[T]he area in which the goods or services at issue are marketed to a significant degree by the acquired firm" (*Marine Bancorp.*)
  - "[W]here, within the area of competitive overlap, the effect of the merger on competition will be direct and immediate" (*PNB*)
  - The Supreme Court has recognized that an "element of 'fuzziness would seem inherent in any attempt to delineate the relevant geographical market,' " and therefore "such markets need not—indeed cannot—be defined with scientific precision." (*Connecticut National Bank*)
  - *WDC*: Could have added that the Merger Guidelines give a more precise standard using the hypothetical monopolist test

Geographic markets: Application in *Sysco*

- *Court*: Accepts national broadline market for national customers:
  - Defendants plan on a national level and have “national account” teams dedicated to national customers
  - Their contractual pricing and service terms with national customers apply across regions
  - Their competition for national customers is largely other broadliners with nationwide coverage
  - “Although the physical act of delivering food products occurs locally, for national customers the relevant geographic area for competitive alternatives is nationwide”—given how they are:
    - Marketed
    - Sold
    - Priced
    - Serviced
  - These are essentially the same factors that established the national customer product market—No further analysis
    - Only here the Court is addressing the relevant geographic market, not the relevant product market

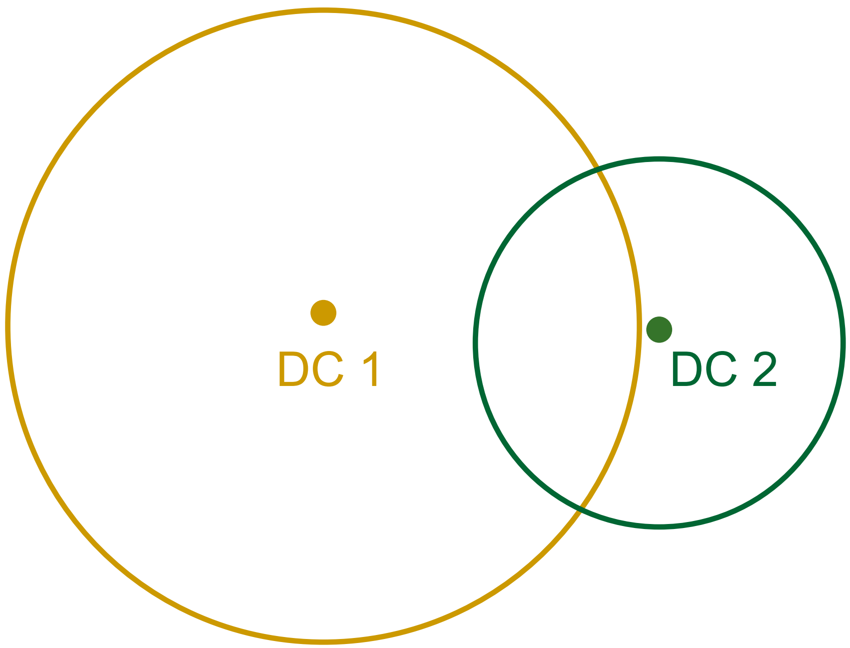
Geographic markets: Application in *Sysco*

- *Court*: Accepts FTC's local markets for all broadline foodservice distribution
- FTC methodology (overlapping draw areas)
  - *Step 1*: For each distribution center, determine the radius in which the center draws 75% of its revenues ("draw areas")
  - *Step 2*: Determine the "overlap areas"—these customers will have one less alternative supplier as a result of the merger
  - *Step 3*: Identify the broadline distributors who could compete for the overlap customers (using the distributor's 75% draw radius)
  - The relevant geographic market is defined by the area encompassing the competitive distributors

While there may be substantial data problems in applying this approach and some of the parameters can be debated, the "overlapping draw areas" approach is accepted as a valid geographic market definition technique

Local broadline markets

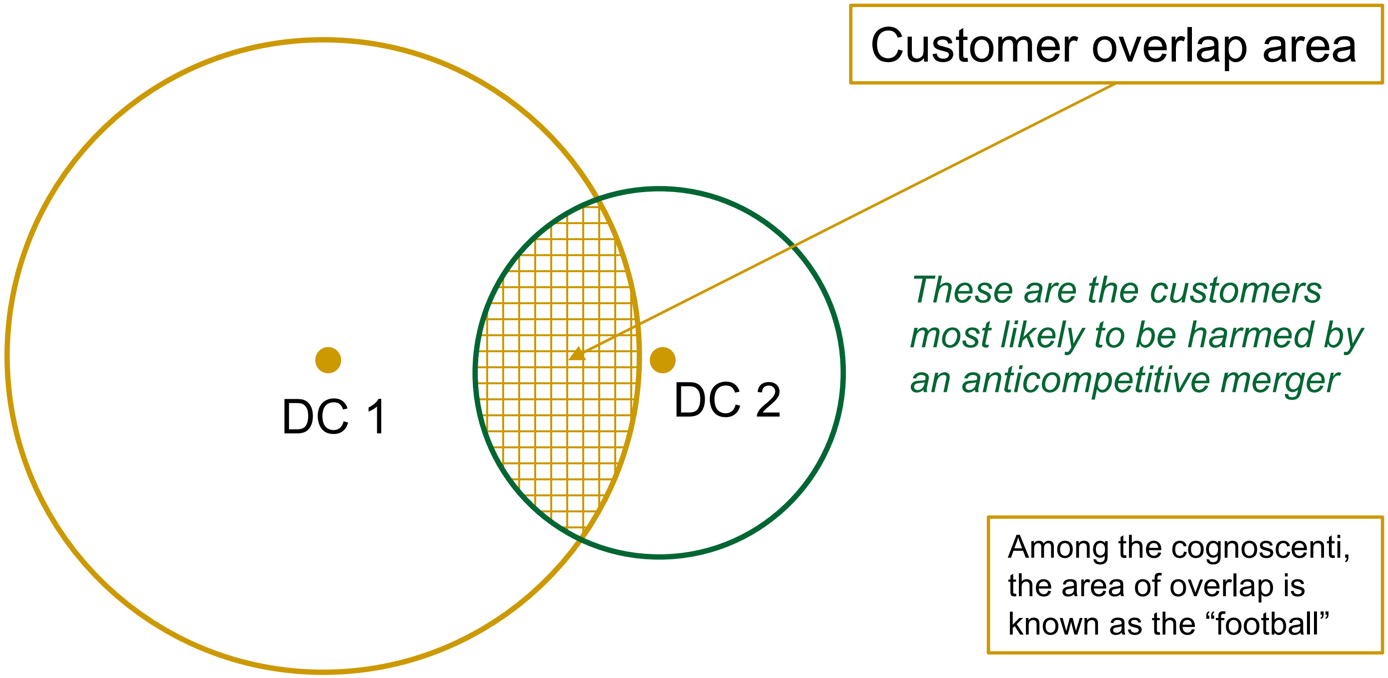
- FTC "draw area" methodology
  - *Step 1*: For each distribution center, determine the radius in which the center draws 75% of its revenues ("draw areas")



The percentage of revenues that determines the draw area can be a subject of dispute. But courts and agencies commonly accept 75%-80%. Careful practitioners and economists will perform a sensitivity analysis to see if the result change significantly with different percentages

Local broadline markets

- FTC "draw area" methodology
  - *Step 2*: Determine the "overlap areas"—these customers will have one less alternative supplier as a result of the merger



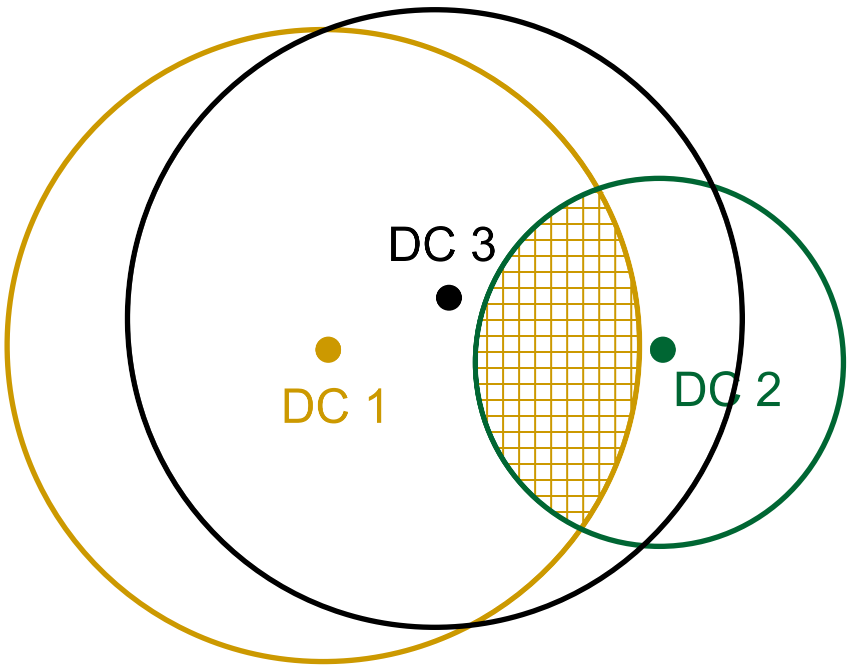
Among the cognoscenti, the area of overlap is known as the "football"

NB: The price discrimination condition is critical in this model. It allows a firm to charge higher prices in the overlap area than in the remainder of the firm's service area. If the firm could not price discriminate—as might be the case if customers travel to the supplier's location (e.g., the typical retail situation)—then to increase prices to customers in the overlap area, the firm would have to increase prices to all its customers.

Local broadline markets

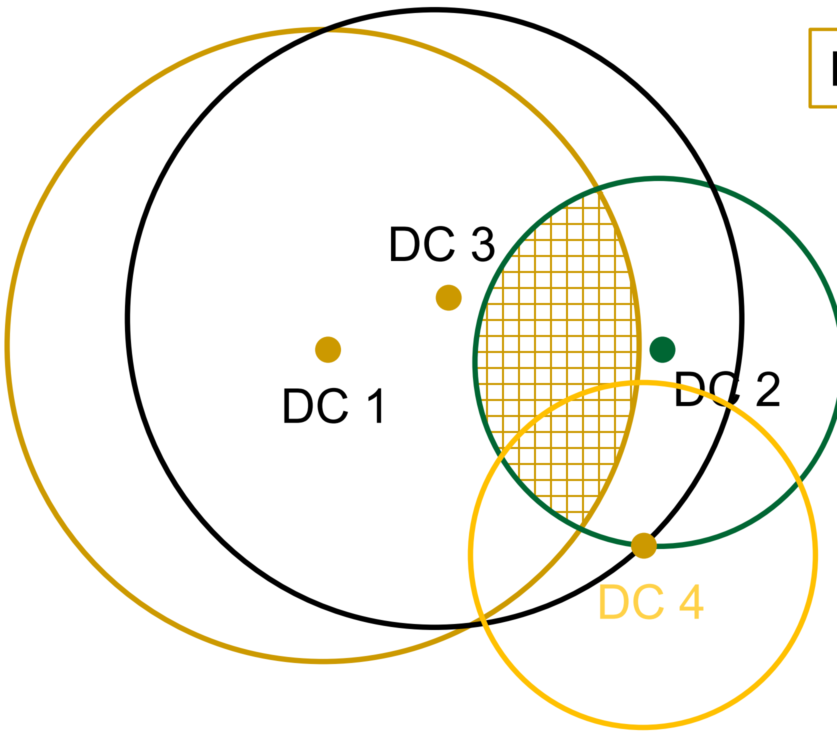
- FTC “draw area” methodology
  - *Step 3*: Identify the broadline distributors who could compete for the overlap customers (using the distributor’s 75% draw radius)

DC 3 is in the market



Local broadline markets

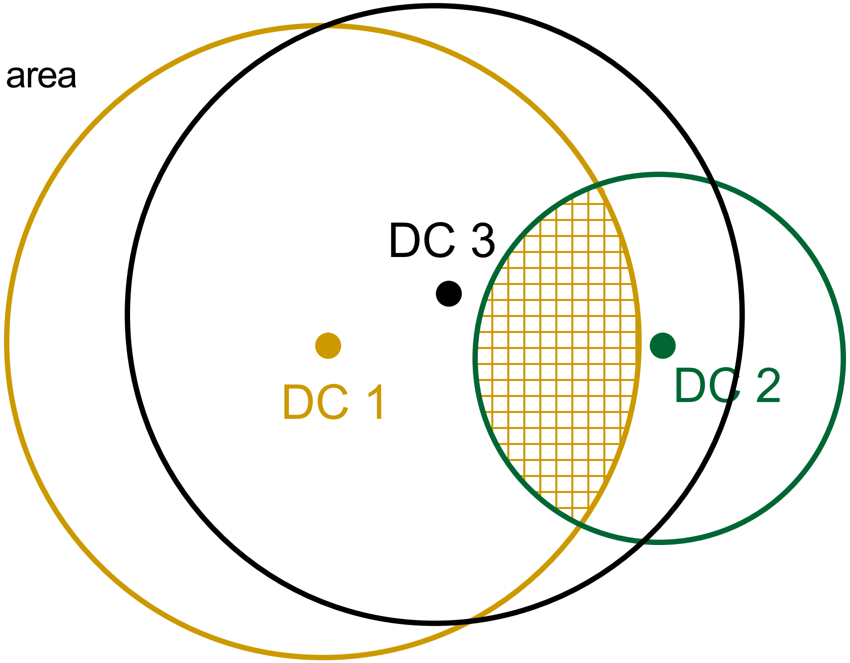
- FTC "draw area" methodology
  - *Step 3*: Identify the broadline distributors who could compete for the overlap customers (using the distributor's 75% draw radius)



DC 4 is not in the market

Local broadline markets

- FTC “draw area” methodology—So what is the relevant geographic market?
  - In principle, it should be defined by overlap area (the “football”)—these are the customers that are most likely to be harmed by an anticompetitive merger
  - The market participants are suppliers who could serve customers throughout the overlap area (here, firms 1, 2, and 3)
  - The market share of these participants should include:
    - Sales the distributor make in the overlap area
    - PLUS any diversion of sales into the area if prices were to increase by 5%
  - If the data does not permit this isolation, the market can be defined as the union of the three draw areas
    - Should still yield good results if suppliers will rapidly shift sales in response to a price increase in part of their sales area



Local broadline markets

- A quick aside
  - The prior analysis assumed that the firms could price discriminate based on customer locations
    - Requires that the customers use what products they purchase and do not resell them to other customers (that is, they do not engage in arbitrage)
    - This is often—but not always—the case when suppliers go to their customers' locations
  - *Query*: What is the analysis when firms cannot price discriminate among their customers?
    - This is the typical retail situation: Customers travel to the retail store and buy products on the shelves at listed prices
      - All customers are charged the same price for a given product regardless of the customer's location

Local broadline markets

- Defendants' response
  - Markets too small
    - Some suppliers will ship into the overlap area even though it is outside their defined draw area
    - By construction, 25% of a supplier's shipments will be outside its defined draw area
- Court
  - True, but the FTC's approach is a practical one that identifies areas that are likely to be competitively affected
  - KEY: Also, no indication in the opinion that expanding markets to meet defendants' criticism would have materially changed the results

Note: This is typical of courts' reactions. If the merging parties are going to argue that the FTC's market definition is wrong, to be persuasive they should prove an alternative market and show that within that market the merger will not have the requisite anticompetitive effect.

Class 17 slides

Unit 11: Sysco/US Foods

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

October 31, 2023

Good things come from Sysco

US. FOODS™

KEEPING KITCHENS COOKING.™

Five new concepts

1. *Cluster markets* in product market definition
2. *Targeted customer markets* in product market definition
3. Use of *overlapping draw areas* to define geographic markets
4. *Auction* theory of unilateral effects
5. “Litigating the fix”

The Background

The deal

- Sysco Corporation to acquire US Foods
  - Announced December 8, 2013
  - $3 billion of Sysco common stock (13% of combined company)
  - +$500 million of cash
  - Assumption of $4.7 billion of USF debt
  - Total transaction value: $8.2 billion
  - Agreement expires September 8, 2015 (21 months)

The parties

- Sysco
  - Publicly traded “broadline” distributor
  - Sales = $44 billion in food distribution sales 2013
  - #1 with about 17% of total food distribution sales nationally
  - 72 distribution facilities nationwide

- US Foods
  - Privately owned broadline distributor (Clayton, Dubilier & Rice and KKR)
  - Sales = $22 billion in food distribution sales in 2013
  - #2 with about 8.6% of total food distribution sales nationally
  - 61 distribution facilities nationwide

Deal rationale

- Creates a company with $65 billion in sales
  - Sysco (#1 w/17%) + USF (#2 w/8.6%) = Combined (#1 w/25.6% of total food distribution sales nationally)
    - Number 3: Performance Group (2.4%)
  - Would employ over 14,000 sales reps
    - No other company employs more than 1600
  - Would operate over 13,000 trucks
    - No other company operates more than 1600 trucks
- Immediately accretive to earnings
- Annual recurring synergies > $600 million (after 3-4 years)
  - Eliminate duplicative overhead
  - More leverage to lower costs of goods (COGS)
  - Optimize distribution facilities and logistics
  - Integrate sales force
  - Bigger platform for enhanced innovation and development of exclusive products

Industry background

- Food service distribution
  - Total industry sales nationwide = $231 billion (2015)
  - Supply a broad range of fresh, frozen, canned and dry food and non-food products to away-from-home food service operations
  - Customers include—
    - Independently owned single location restaurants, regional and national chain restaurants (majority of sales)
    - Hotels, motels, and resorts
    - Hospitals
    - Schools
    - Government and military facilities
    - Retail locations

Industry background

- Types of food distributors: Product range/channel
  1. Broadline
     - "One-stop" shop—carry everything
  2. Specialized
     - Meat
     - Seafood
     - Produce
     - Baked goods
  3. Systems distributors
     - "Customized" distributors for fast food, casual chain restaurants (e.g., Burger King, Wendy's, Applebees)
     - Small number of SKUs
     - Often proprietary to chain
     - Very small sales forces
  4. Cash-and-carry and club stores
     - E.g., Restaurant Depot, Costco, Sam's Club
     - Do not deliver
     - No sales force dedicated to individual customers
     - Typical customer: independent restaurant

Industry background

- Types of food distributors: Geographical distribution footprint
  - National
  - Regional
  - Local

Industry background

- Largest food distributors in the United States

Distributor	Distribution Footprint	Distribution Centers
Sysco	Nationwide	72
US Foods	Nationwide	61
Performance Food Group	Eastern/Southern U.S.	24
Gordon Food Service	Midwest, Florida, TX	10
Reinhart Foodservice	East, Mideast	24
Ben E. Keith Co.	Texas and bordering states	7
Food Services of Am.	Northwest	10
Shamrock Foods	Southwest, Southern Calif.	4
Local distributors	Local	1-5 each

Industry background

- Distribution centers
  - Key for broadline distribution

- 28-foot clear-height ceilings
- "Super-flat" insulated floor systems to meet strict temperature control standards
- Zoned to accommodate the storage of both perishable and dry goods

Distribution centers

- US Food distribution centers in 2017
  - Only three more centers than in 2013

The FTC investigation and litigation

- FTC investigated for one year
  - Second request issued on February 18, 2014 (a little over two months after signing)
  - Investigation ended February 20, 2015
- Fix-it-first solution:
  - On February 16, 2015, Sysco signed a deal to sell 11 of 61 USF distribution centers to #3 Performance Food Group
    - Announced Feb. 16, 2015
    - Conditioned on closing main deal
  - The centers to be divested largely located in the western U.S.
    - PFG had only one center in the West
    - PFG had 24 centers in East/South
  - Accounted for $4.5 billion in sales
    - About 20% of USF premerger sales
    - Would give PFG a total of $10.5 billion in sales
    - Compare to $60.5 billion for the combined firm post-divestiture
- FTC rejected the fix and brought suit
  - Joined by 11 states seeking relief under Clayton Act § 16 in their sovereign capacity
  - Parties "litigated the fix"

DOJ complaint

- Plaintiffs:
  - Federal Trade Commission
  - 10 states plus the District of Columbia
- *Filed*: February 20, 2015
  - 14 months after signing
- *Claim*: Acquisition, if consummated, would violate Section 7 in—
  - Nationwide foodservice distribution to "national" customers
    - Combined first and second largest broadline foodservice distributions
    - Results in a combined share of 59%-71% share and HHI deltas of 1500-1966 (depending on metric)
    - Auction unilateral effects
  - 32 local markets
    - With combined shares as high as 90.3% and deltas as high as 4123
    - Auction unilateral effects
- Prayer:
  - Preliminary injunction blocking the deal pending a final adjudication of the merits
  - *Query*: Should the states also have sought a permanent injunction?

The District Court

- Tried in the District Court of the District of Columbia
  - Judge Amit P. Mehta
    - Appointed by President Obama
    - Assumed office: December 19, 2014
    - Assigned case: February 20, 2015

  - Case was tried with the understanding that the parties would terminate their merger agreement if the PI was entered

Testifying experts

- FTC: Dr. Mark A. Israel
  - Senior Managing Director, Compass-Lexecon
  - Ph.D in Economics, Stanford University (2001)
  - Extensive testifying experience in antitrust cases (especially merger antitrust cases)

- Parties: Dr. Jerry Hausman
  - Professor of Economics, MIT
  - D.Phil, Oxford (1972)
  - Leading academic econometrician
  - Extensive testifying experience in antitrust cases (including merger antitrust cases)

The District Court

- Entered the preliminary injunction blocking the deal
  - Relevant markets
    - Nationwide broadline foodservice distribution to national customers
    - Local broadline foodservice distribution to local customers
  - Anticompetitive effects (upward pricing pressure)
    - *PNB* presumption
    - Unilateral effects in the national broadline customer market
    - Unilateral effects in local broadline markets
  - Defenses insufficient to put the prima facie case into dispute
    - The PFG "fix"
    - Dealing regionally by national customers
    - Entry/expansion
    - Efficiencies
  - Equities favored the entry of a preliminary injunction

PI entered: June 23, 2015
Deal terminated: June 29, 2015

Parties abandon the merger

- Costs to Sysco
  - $300 million breakup fee to US Foods
  - $25 million breakup fee to divestiture buyer Performance Food Group
  - $265 million to redeem financing
  - $258 million on integration planning and advisers
  - $100 million in historical financing costs, and
  - $53 million in computer systems integration

Total cost to Sysco: $1 billion

The District Court's Analysis

Organization of opinion

- Background
- Legal standard
  - Clayton Act § 7
  - FTC Act § 13(b)
  - *Baker-Hughes* three-step burden-shifting framework
- Relevant markets
  - The relevant product market
    - Broadline distribution as a relevant product market
      - Legal principles
      - Application of *Brown Shoe* “practical indicia”
      - Expert testimony
      - Conclusion
    - Broadline distribution to “national customers” as a relevant product market
      - Legal basis
      - Evidence
  - The relevant geographic market
    - National market
    - Local markets

Organization of opinion

- Probable effects on competition
  - *PNB* presumption
    - *PNB* presumption in the national customers broadline distribution market
    - *PNB* presumption in the local broadline distribution markets
  - Additional evidence of competitive harm
    - Unilateral effects in the national customers broadline distribution market
    - Merger simulation in the national customers broadline distribution market
    - Unilateral effects in local broadline markets
    - Event studies ("natural experiments") in local broadline markets
- Defendants' other rebuttal arguments
    - PFG divestiture
    - Existing competition
    - Entry/expansion
    - Efficiencies
- The equities
- Conclusion

The District Court Opinion

1. The Prima Facie Case

A. Relevant Product Markets

Product markets: Allegations

- FTC position: Two product markets
  1. Broadline foodservice distribution (as opposed to all food distribution) to all customers
  2. Broadline distribution to "national" customers
- Merging parties' position
  - All foodservice distribution (including specialty distributors)
  - Rejects a product market limited to national customers

Two new concepts here:
1. *Cluster market of nonsubstitutable products*
2. *"Targeted customer" market*

Broadline Foodservice Distribution Cluster Market

Cluster markets: Principles

- Both the FTC and the merging parties alleged *cluster markets* consisting of largely nonsubstitutable products
  - Widely accepted in the case law
  - Some examples
    - Commercial banking services, grocery stores, drug stores, department stores, consumable office supplies, acute care inpatient hospital services
- Courts have generally accepted cluster markets as relevant product markets when:
  1. The products are traditionally offered by the same seller at the same point of sale
  2. The products appeal to the same type of customer
  3. The products exhibit economies of scope in purchasing
- Price flexibility within stores
  - NB: Generally, sellers have some flexibility in setting the prices of individual products without being constrained by competition from partial line or single product sellers, provided that the sellers remain competitive within their product offering as a whole
  - We will see a case where there is single product line competition later in Staples/Office Depot

Cluster markets: Principles

- Observations
  - Not well defined in the case law, but frequently adopted by courts
  - Has a “know it when you see it” quality
  - Accepted “for analytical convenience” when market shares are likely to be the same across products
  - Typically, analytical similarity is simply asserted rather than analyzed by courts

Cluster markets: Application in *Sysco*

- In *Sysco*, the dispute was not over whether the court should find a cluster market, but rather *what* cluster market it should find
  - *FTC*: Broadline foodservice distribution
  - *Merging parties*: All foodservice distribution, including—
    - Specialized wholesalers of meat, seafood, produce, and baked goods
    - Systems distributors for retail food chains (e.g., Burger King, Wendy's, Applebees)
    - Cash-and-carry and club stores (e.g., Restaurant Depot, Costco, Sam's Club)

Cluster markets: Application in *Sysco*

- *Court*: Broadline distribution as a product market
  - *Brown Shoe* “practical indicia” supports FTC’s definition
    1. Product breadth and diversity
       - “One-stop shop” for almost any type of customer
       - Number of SKUs carried by other types of distributors pale in comparison
       - Offer private label products
       - Customers may buy from other types of distributors on a limited basis
    2. Distinct facilities and operations
       - Massive distribution centers
       - Large sales forces
       - Run channel as a separate business
    3. Delivery
       - Timely and reliable delivery critical
       - Broadline has sufficient fleet of service vehicles to offer frequent and flexible delivery schedules to meet customer needs
       - Including next-day delivery

Cluster markets: Application in *Sysco*

- *Court*: Broadline distribution as a product market
  - *Brown Shoe* “practical indicia” supports FTC’s definition
    4. Customer service and value-added services
       - For example, offer menu and nutrition-meal planning services
       - Food safety training for customers at distribution centers
    5. Distinct customers
       - Serve a wide range of customers that other channels cannot reach
    6. Distinct pricing
       - Typically price only against other broadline distributors
       - Not against higher-priced specialty or lower priced cash-and-carry
    7. Industry or public recognition
       - Recognizes broadline as a distinct channel

NB: The Court did not strictly look at the specific indicia listed in Brown Shoe*, but considered any qualitative evidence probative of cross-elasticity*

Cluster markets: Application in *Sysco*

- *Court*: Broadline distribution as a product market
  - Hypothetical monopolist test supports FTC's definition
    - Israel used an aggregate diversion ratio implementation for a uniform SSNIP[1]
      - Margin > 10% (using 10% as a lower bound is conservative since it gives a higher critical recapture rate than would the actual margins—making the HMT harder to satisfy)
      - SSNIP = 10% (Why?)
      - Critical recapture formula for a uniform SSNIP:

$$R_{Critical} = \frac{\delta}{\delta + m} = \frac{10}{10+10} = 0.50 = 50\%$$

Indicates that the recapturing products have a SSNIP

    - Data for actual recapture rates
      - For each company, built tracking database that showed, for each bidding opportunity, the incumbent distributor, the winning distributor, and the competing bidders
      - *Sysco*: Lost 70% of the bids to another broadline distributor as opposed to another type of food distributor
      - *USF*: Over 70% to another broadline distributor
    - Since R_i > 70% for both Sysco and US Foods → $R_i > R_{critical}$ and so broadline distribution is a product market
    - Rejected defendants' challenges to data and application
    - BUT agreed that the flaws in the data reduced the probative value of the test but still corroborative of result from other evidence

[1] Review the slides on one-product SSNIPs and aggregate diversion analysis in the Market Definition class notes (slides 120-39).

Cluster markets: Application in *Sysco*

- Accepted: Broadline distribution as a product market
  - Hypothetical monopolist test supports FTC's definition
    - WDC: Some questions you should be asking:
      1. The FTC's expert used the formula for uniform SSNIP recapture test. Is this the correct formula to use?
      2. Does the data used to estimate recapture rates suggest a one-product SSNIP or a uniform SSNIP?
  - The FTC used the same test that Warren–Bolton used earlier in H&R Block/ TaxACT:

If	$R_i^s \geq R_{Criticai}^U$	for all firms *i* in the candidate market
	$R_i^s > R_{Critical}^U$	for some firm *j* in the candidate market

Then the candidate market is [presumptively] a relevant market

- Warren-Bolton—and apparently Israel as well—used this as a definitive test
  - But there is no proof of the proposition as a theorem
  - There is good reason to believe that it does not work
  - At best, the test is presumptive
- What would have been the result of the analysis if the FTC's expert assumed that the data estimated one-product SSNIP diversions and used a one-product SSNIP critical recapture formula?
  - Would have failed for a 10% SSNIP: $R_{Critical} = \dfrac{\delta}{m} = \dfrac{10\%}{10\%} = 1 = 100\%$, but actual recapture ratios between 70%-80%

Targeted Broadline Foodservice Distribution Market to National Customers

Target customer market: Allegations

- The allegations
  - *FTC*: Alleged that within the broader broadline foodservice distribution market, there existed a relevant market of “national customers”
  - *Merging parties*: Argued that there was no separate market of “national” customers
    - Can purchase more regionally or locally
    - Consortia will form to protect these customers if the combined firm seeks to act anticompetitively

Target customer market: Application in *Sysco*

- *Court*: Broadline distribution for national customers
  - *Rule*: A relevant market can be defined by a group of customers if they can be targeted for a price increase (citing the HMG § 4.1.4)
    - Here, national customers can be readily identified
    - Given the nature of the product, there is no arbitrage among purchasers
  - Notes
    - The targeted customers as a group may be charged discriminatorily *lower* prices than other customers
    - Nonetheless, the Merger Guidelines and the courts recognize that an actionable anticompetitive effect occurs when, as a result of a merger, the prices to the targeted customer group is likely to be higher that they were premerger, even if they remain below the prices charged to other customers

Target customer market: Application in *Sysco*

- *Court*: Broadline distribution for national customers
  - Market supported by *Brown Shoe* “practical indicia”
    - Industry and public recognition of distinct customer needs
      - Regional broadliners have formed cooperatives to bid for national customers (formed specifically to compete again Sysco and US Foods)
      - McKinsey report (done for Sysco) and other industry research studies support national customers as a distinct customer group with distinct requirements
      - Industry trade group (International food Distributors Association) recognizes the distinction
      - Defendants’ ordinary course of business documents support distinction
      - PROBABLY KEY: National customers testified that they would not switch to other channels to substitute for a broadline supplier
  - Aggregate diversion analysis corroborates the market
    - Analysis identical as in broadline generally
    - EXCEPT look to recapture only by broadline companies with a national footprint

Target customer market: Application in *Sysco*

- *Court*: Broadline distribution for national customers
  - Rejects defendants' arguments
    - The distinction between national and local is not arbitrary: reflects a preference by national customers for which they are willing to pay
    - National customers are identifiable—contracts are individually negotiated
      - No arbitration of products, so national customers can be charged different prices
    - Sysco and US Foods earn higher margins on sales to local customers than from sales to national customers, indicating that national customers can constrain the prices
      - *Court*: Customer testimony indicates that the lower margins more likely result from national customers playing Sysco and US Foods off each other

The District Court Opinion

1. The Prima Facie Case

B. The Geographic Markets

Geographic markets

- FTC allegations:
    1. National for broadline distribution to national customers
    2. Local for broadline generally
- Court: Legal standard
    - “[T]he area in which the goods or services at issue are marketed to a significant degree by the acquired firm” (*Marine Bancorp.*)
    - “[W]here, within the area of competitive overlap, the effect of the merger on competition will be direct and immediate” (*PNB*)
    - The Supreme Court has recognized that an “element of ‘fuzziness would seem inherent in any attempt to delineate the relevant geographical market,’ ” and therefore “such markets need not—indeed cannot—be defined with scientific precision.” (*Connecticut National Bank*)
    - *WDC*: Could have added that the Merger Guidelines give a more precise standard using the hypothetical monopolist test

Geographic markets: Application in *Sysco*

- *Court*: Accepts national broadline market for national customers:
  - Defendants plan on a national level and have “national account” teams dedicated to national customers
  - Their contractual pricing and service terms with national customers apply across regions
  - Their competition for national customers is largely other broadliners with nationwide coverage
  - “Although the physical act of delivering food products occurs locally, for national customers the relevant geographic area for competitive alternatives is nationwide”—given how they are:
    - Marketed
    - Sold
    - Priced
    - Serviced
  - These are essentially the same factors that established the national customer product market—No further analysis
    - Only here the Court is addressing the relevant geographic market, not the relevant product market

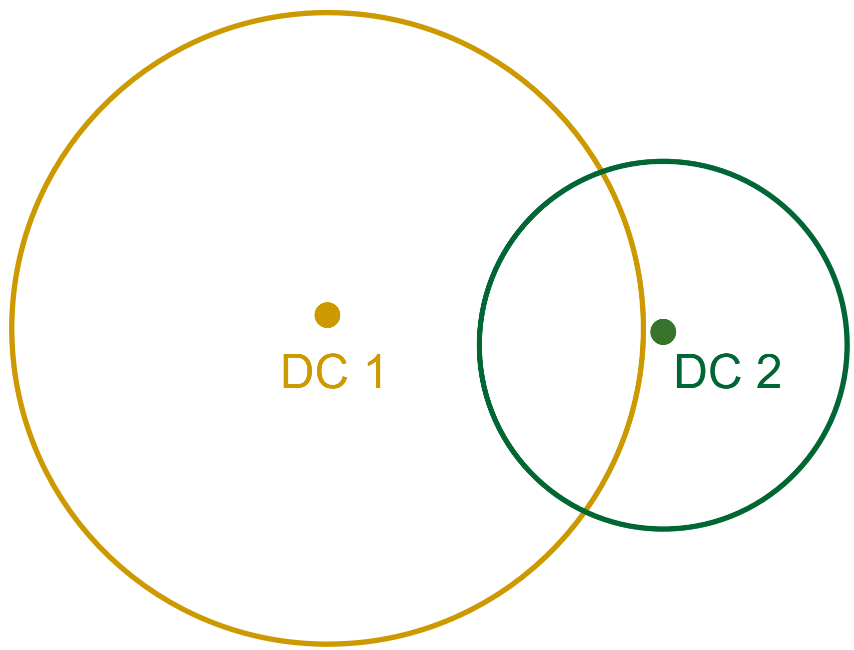
Geographic markets: Application in *Sysco*

- *Court*: Accepts FTC's local markets for all broadline foodservice distribution
- FTC methodology (overlapping draw areas)
  - *Step 1*: For each distribution center, determine the radius in which the center draws 75% of its revenues ("draw areas")
  - *Step 2*: Determine the "overlap areas"—these customers will have one less alternative supplier as a result of the merger
  - *Step 3*: Identify the broadline distributors who could compete for the overlap customers (using the distributor's 75% draw radius)
  - The relevant geographic market is defined by the area encompassing the competitive distributors

While there may be substantial data problems in applying this approach and some of the parameters can be debated, the "overlapping draw areas" approach is accepted as a valid geographic market definition technique

Local broadline markets

- FTC "draw area" methodology
  - *Step 1*: For each distribution center, determine the radius in which the center draws 75% of its revenues ("draw areas")

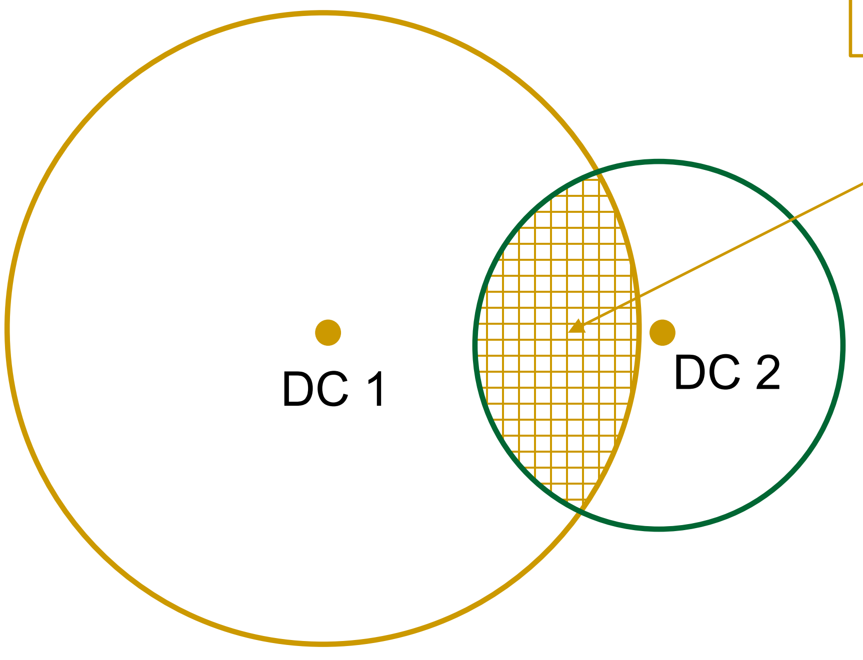


The percentage of revenues that determines the draw area can be a subject of dispute. But courts and agencies commonly accept 75%-80%. Careful practitioners and economists will perform a sensitivity analysis to see if the result change significantly with different percentages

Local broadline markets

- FTC “draw area” methodology
  - *Step 2*: Determine the “overlap areas”—these customers will have one less alternative supplier as a result of the merger

Customer overlap area



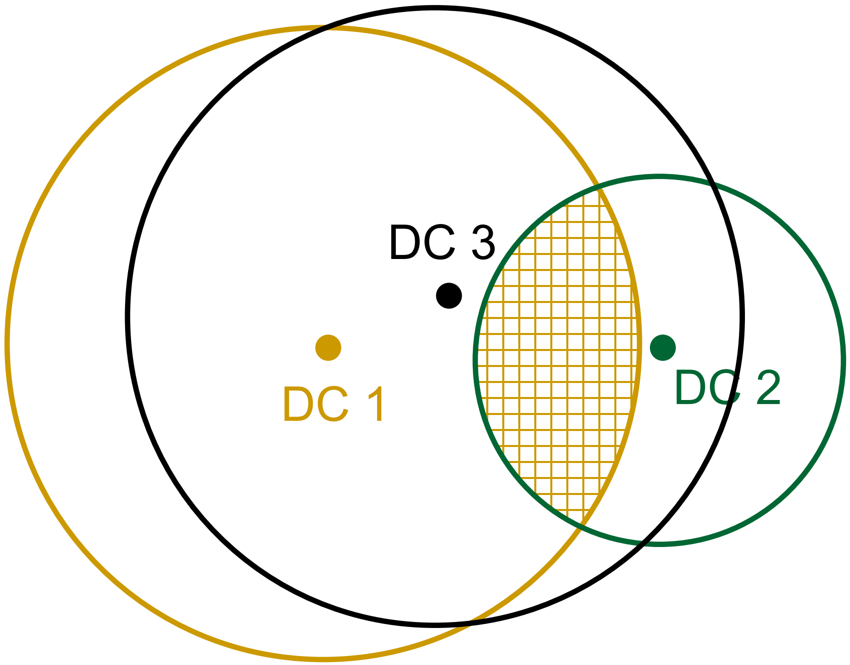
These are the customers most likely to be harmed by an anticompetitive merger

Among the cognoscenti, the area of overlap is known as the “football”

NB: The price discrimination condition is critical in this model. It allows a firm to charge higher prices in the overlap area than in the remainder of the firm’s service area. If the firm could not price discriminate—as might be the case if customers travel to the supplier’s location (e.g., the typical retail situation)—then to increase prices to customers in the overlap area, the firm would have to increase prices to all its customers.

Local broadline markets

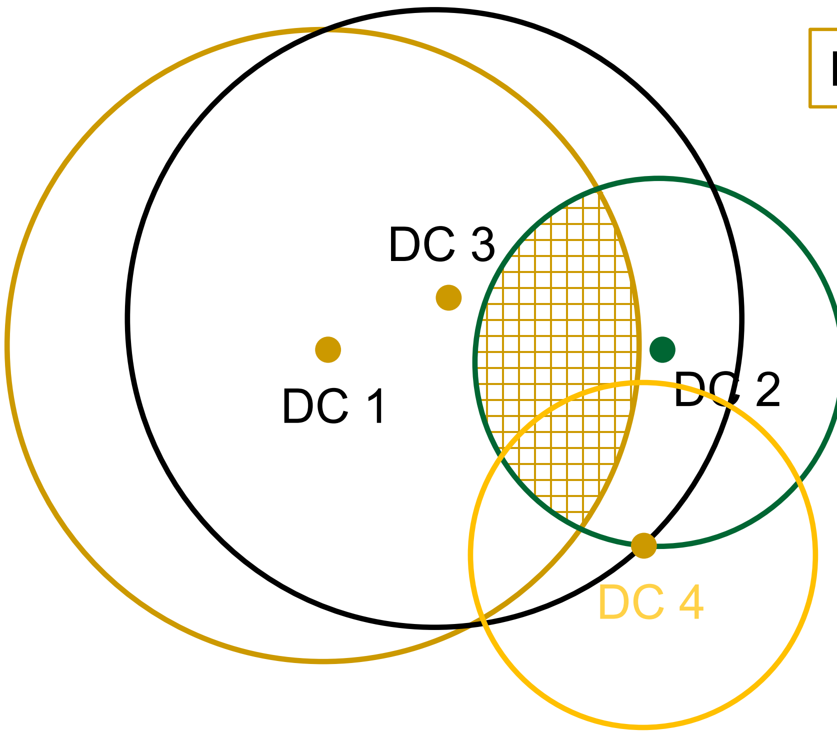
- FTC "draw area" methodology
  - *Step 3*: Identify the broadline distributors who could compete for the overlap customers (using the distributor's 75% draw radius)



DC 3 is in the market

Local broadline markets

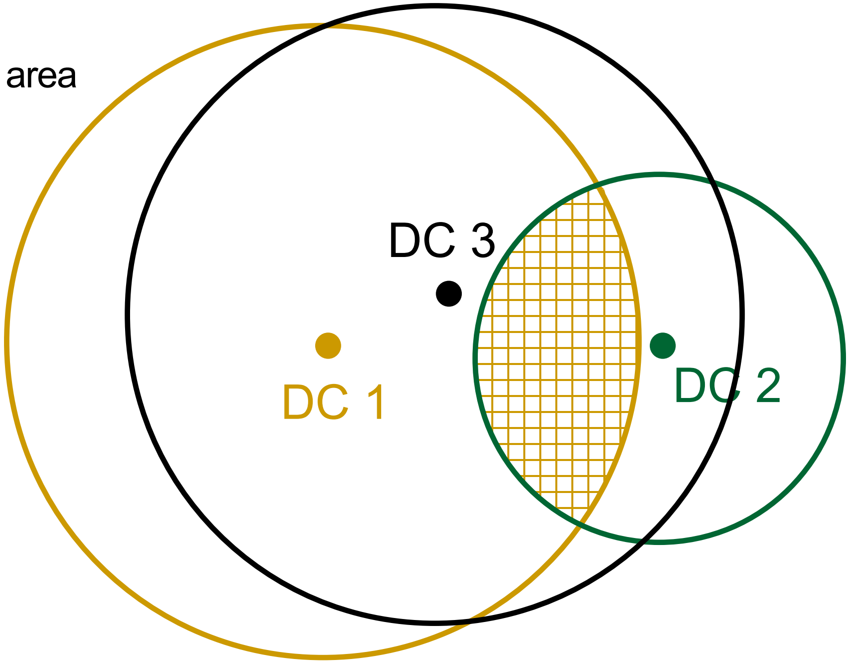
- FTC “draw area” methodology
  - *Step 3*: Identify the broadline distributors who could compete for the overlap customers (using the distributor’s 75% draw radius)



DC 4 is not in the market

Local broadline markets

- FTC "draw area" methodology—So what is the relevant geographic market?
  - In principle, it should be defined by overlap area (the "football")—these are the customers that are most likely to be harmed by an anticompetitive merger
  - The market participants are suppliers who could serve customers throughout the overlap area (here, firms 1, 2, and 3)
  - The market share of these participants should include:
    - Sales the distributor make in the overlap area
    - PLUS any diversion of sales into the area if prices were to increase by 5%
  - If the data does not permit this isolation, the market can be defined as the union of the three draw areas
    - Should still yield good results if suppliers will rapidly shift sales in response to a price increase in part of their sales area



Local broadline markets

- A quick aside
  - The prior analysis assumed that the firms could price discriminate based on customer locations
    - Requires that the customers use what products they purchase and do not resell them to other customers (that is, they do not engage in arbitrage)
    - This is often—but not always—the case when suppliers go to their customers' locations
  - *Query*: What is the analysis when firms cannot price discriminate among their customers?
    - This is the typical retail situation: Customers travel to the retail store and buy products on the shelves at listed prices
      - All customers are charged the same price for a given product regardless of the customer's location

Local broadline markets

- Defendants' response
  - Markets too small
    - Some suppliers will ship into the overlap area even though it is outside their defined draw area
    - By construction, 25% of a supplier's shipments will be outside its defined draw area
- Court
  - True, but the FTC's approach is a practical one that identifies areas that are likely to be competitively affected
  - KEY: Also, no indication in the opinion that expanding markets to meet defendants' criticism would have materially changed the results

Note: This is typical of courts' reactions. If the merging parties are going to argue that the FTC's market definition is wrong, to be persuasive they should prove an alternative market and show that within that market the merger will not have the requisite anticompetitive effect.

The District Court Opinion

1. The Prima Facie Case

C. The *PNB* Presumption

National broadline market for national accounts

- FTC's market shares

Table 18

Shares of Sales to National Broadline Customers, After Accounting for the Proposed Divestiture

	Post-Divestiture Shares	Post-Divestiture HHI's	
	Combined Share	HHI	Δ HHI
Baseline	71%	5,119	1,966
(i) National	68%	4,935	1,953
(ii) National + Imputed National	65%	4,549	1,799
(iii) National + Regional	66%	4,614	1,822
(iv) National + Systems	62%	4,217	1,643
(v) National + Regional + Systems	61%	4,087	1,590
(vi) Parties' Ratio of National	59%	3,809	1,500

- Defendants' position
  - Contested methodology and inputs
  - But offered no alternative calculations that showed that the *PNB* presumption was not triggered

National broadline market for national accounts

- Court:
  - "None of these arguments ultimately persuade the court that Dr. Israel's methodology or his market shares and HHI calculations are unreliable. The FTC need not present market shares and HHI estimates with the precision of a NASA scientist. The 'closest available approximation' often will do."

PNB presumption established in national broadline market

Local broadline markets

- Merger challenged in 32 local markets
- Israel's estimates
  - Metrics
    - Square footage of distribution centers
    - Local broadline sales
    - Number of sales representatives

NB: The calculations account for any divestitures to PFG

Table 21

Examples of Areas with Large Change in HHI despite Divestitures

CBSA	Post-Merger Combined Share	Delta HHI
Omaha-Council Bluffs, NE-IA	90.3%	1,410
Sacramento--Roseville--Arden-Arcade, CA	88.6%	2,974
Durham-Chapel Hill, NC	75.4%	2,807
Charleston-North Charleston, SC	80.2%	2,947
Birmingham-Hoover, AL	57.5%	1,542
Jackson, MS	66.0%	2,155
Memphis, TN-MS-AR	93.8%	4,123
Columbia, SC	72.8%	2,315
Raleigh, NC	71.3%	2,188
Lynchburg, VA	63.3%	1,588
Rochester, NY	63.7%	1,574

Local broadline markets

- Defendants
  - Same types of arguments as before—contesting methodology and inputs
  - But no alternative calculations showing that the *PNB* presumption is not applicable
- Court:
  - Numbers not perfect, but good enough to make a prima facie showing in the absence of opposition
  - Defendants' challenges not persuasive → FTC has established its prima facie case

The District Court Opinion

1. The Prima Facie Case

D. Additional Evidence of Anticompetitive Effect

Additional evidence of anticompetitive effect

1. Auction unilateral effects in the national customer market
2. Merger simulation for the national customer market
3. Auction unilateral effects in local markets
4. Local event studies on unilateral effects in local markets

Unilateral effects in national customer market

- Evidence
  1. Sysco and US Foods are usually the first- and second-lowest bidders in bidding for national customer accounts
     - Israel's RFP/bidding study (7 years of data—undoubtedly obtain by subpoena by the FTC)
     - Sysco lost to USF 2.5x more than to the next closest competitor
     - USF lost to Sysco 3.5x more than to the next competitor
  2. Parties' ordinary course of business documents show that they are each other's closest competitors
  3. Testimony from industry participants
  4. Independent market research reports
- *Court*: Credited Israel's analysis

At this point, Israel has provided qualitative and win-loss data to predicate a unilateral effects theory, which the Court accepted as sufficient. No further quantification.

- NB: This is a different theory of unilateral effects than we saw with recapture: It depends on "winner-take-all" bidding
  - This is called *auction unilateral effects*: It can be quantified

Start here

Merger simulation for national customer market

- Israel: Used "auction model" to estimate price increases
  - Price determined by second lowest bidder
    - The idea is that the winning bidder will just undercut the price of the second lowest bidder
    - Assumes that bidding is "descending open cry" or—more realistically in this case—that the customers negotiate with each bidder privately and in the process reveal the lowest current bid price
      - Very common in bidding situations—almost surely the prevailing practice in national food distribution
      - The customer then informs other bidders of the bid price they must beat
      - Do this iteratively until no firm beats the lowest bid—the lowest bid firm then wins
      - This is the mechanism by which customer "play off" suppliers against one another
  - If #1 and #2 merge, then #3 becomes the second bidder and the merged firm's bid price increases to just below #3's bid price
  - *Competitive harm*: Difference between bid prices of #2 and #3
- Can also use costs rather than prices in an auction model
  - In other situations, where the bidders do not have good expectations of their competitors' bid prices but know their costs, the auction model can use costs
  - The winning bidder will be the lowest cost firm to supply the customer and win at a price just below the cost of the second lowest-cost supplier to that customer

Unilateral effects in national customer market

- Auction theory: Example
  - The city of Jacksonville seeks lime for its municipal water treatment facility
  - Lime is mined and processed at a lime quarry and shipped to the customers
  - The cost of extracting and processing the lime is essentially the same for all suppliers, but shipping costs differ depending on the distance

  - Predicted results:
    - The closest lime quarry will win the contract at a price just below the cost of supply of the second-closest quarry
    - If the first and second lowest-cost supplier merge, the price will increase to just below the cost of the third lowest-cost quarry

Unilateral effects in national customer market

- *Requirements (costs version)*: The theory predicts a unilateral price increase from the merger if—
  1. The merger involves the first and second lowest-cost suppliers to one or more customers
  2. The customers can be targeted for price discrimination
  3. The third-lowest cost supplier has costs to supply the customer that are (materially) higher than the second lowest cost-supplier
  4. There are barriers to entry/expansion/repositioning that will impede a supplier postmerger from achieving the cost structure of the second lowest-cost supplier
- Application
  - Requires bidders to have accurate expectations of the costs of their competitors
    - Typically use estimated costs rather than prices if projecting future anticompetitive effects
    - But can use prices to do a retrospective study if good price information is available
  - Diverted sales unilateral effects does NOT apply since there is no postmerger merger diversion/recapture of lost marginal sales

Note: We now have two distinct theories of unilateral effect:
1. *Recapture of diverted sales ("classical unilateral effects")*
2. *Auction unilateral effects in bidding situations*

Merger simulation for national customer market

- Israel's evidence—Used prices, not costs
  - Company emails recognizing that—
    - Sysco and U.S. Foods are each other closest competitors, *and*
    - The next closest substitute is a very distant third
  - Quantification of model
    - Using market shares and price-cost margins, estimated annual harm to national customers = $1.4 billion (without divestiture)
      - $900 million w/divestiture to PFG
    - Not clear from opinion what Israel did
      - The right way to do this is to calculate, for each bidding situation where Sysco and U.S. Foods were the top two bidders, the difference between the winning bid and the third lowest bid
- Defendants' criticism—bad data
- *Court*: Recognizes data deficiencies, but model is robust and consistent with other evidence of anticompetitive effect here

Unilateral effects in local markets

- Ordinary course of business documents
  - Shows Sysco and US Foods are each other's closest competitors for local customers in jointly served markets
- Testimonial evidence more equivocal (each for particular markets)
  - *FTC testimony*: Uniquely strong competitors of one another
  - *Parties*: Other equally strong or stronger competitors for local customers
  - *Court*: "Because of conflicting local market assessments, the court cannot draw firm conclusions about the competitiveness of the local broadline markets from the testimonial evidence."
- Auction analysis
  - Same economic analysis as in national market
  - *Court*: Evidence is somewhat more equivocal, but still strengthens FTC's prima facie case
- Court:

  Though the court finds the evidence of unilateral effects in the local markets to be less convincing than in the national customer market, the evidence nonetheless strengthens the FTC's prima facie case of merger harm

Local event studies

- Israel:
  - Studied the effects of Sysco's opening of two distribution centers on prices paid by USF customers
    - USF operated distribution centers in the same 75% overlap area
  - Long Island, NY—July 2012
    - Regression analysis showed that entry resulted in a 1.4% decrease in USF's prices
  - Riverside, CA—June 2013
    - 0.6% decline
- The idea
  - If opening a merger partner's store in the draw area of the other merger partner's store lowers price, then the merger—which would eliminate competition between the stores—should increase price
  - BUT opening a store puts new capacity in the market, whereas the merger will not reduce market capacity unless the combined firm closes one of the two stores
  - Consequently, the quantitative price effects of opening a new store is unlikely to provide any quantitative implications of the price effects of the merger
    - *But it is directional*: If prices go up with the opening of a competitor's store, then price can be expected to go down with the merger

Local event studies

- Another problem here
  - Not "clean" studies—Sysco already had centers in these areas
  - This could have suppressed the price effect
- Israel: Interpreting the results
  - The new Riverside center was close to the existing Sysco center—so presumably price effects of Sysco's presence had already occurred
    - Trying to explain the low 0.6% price effects
  - By contrast, the new Long Island center was more distant to existing Sysco center and served more new business than the Riverside facility, resulting in larger price effects
    - Explains the larger 1.4% price effect

Local event studies

- *Court*: Not convincing evidence that merger would harm local customers
  - Even if the Long Island study is taken at face value, the price effect is much smaller than found in other cases
    - *Staples* (1997): 13% difference in markets where Staples was not competing with another superstore
    - *Whole Foods*: WF dropped prices by 5% when another organic supermarket opened
  - "[T]he absence of convincing price effects evidence is the weakest aspect of the FTC's case"
- *WDC*: Should FTC have presented these local event studies?

Anticompetitive effects: Conclusion

- *Court*: The FTC has presented a "compelling" prima facie case of anticompetitive effects

> In summary, the FTC has bolstered its prima facie case with additional proof that the merger would harm competition in both the national and local broadline markets. Although the FTC's case would have been strengthened with more convincing pricing effects evidence [the local event study], the court nevertheless finds that the FTC has presented a compelling prima facie case of anticompetitive effects. *See Baker Hughes*, 908 F.2d at 991 ("The more compelling the prima facie case, the more evidence the defendant must present to rebut it successfully."). The court now turns to Defendants' rebuttal arguments.

The District Court Opinion
2. Defendants' Rebuttal Arguments

Four lines of rebuttal

1. Post-divestiture, PFG will replace any competition potentially lost as a result of the merger (the “fix”)
2. National customers can protect themselves by dealing more regionally
3. The entry of new competition and the repositioning of existing competitors will keep the industry competitive
4. Customers will benefit from efficiencies arising from the merger

1. The PFG "fix"

- *Defense*: Sysco's divestiture of 11 distribution centers to PFG, could with PFG's existing 24 distribution centers and 7 new centers to be financed by PFG's owner, will be sufficient to ensure continued competition and negate any anticompetitive effects of the merger
  - Shortly before the FTC complaint was filed, Sysco entered into an agreement to sell 11 USF distribution centers to PFG contingent on the main deal closing
  - In addition, PFG's owner, The Blackstone Group, committed to invest $490 million to develop 7 more centers and increase capacity in 16 of PFG's 24 existing centers
  - *Bottom line*: PFG would start with 35 distribution centers and eventually have 42 distribution centers

1. The PFG "fix"

- *Court*:
  - Appears to agree that merger should be analyzed with the PFG "fix" in place
    - Determine the anticompetitive effects of the merger in the absence of the fix
    - Ask if the fix negates the anticompetitive effects
  - Does not doubt—
    - PFG management's experience or commitment
    - Blackstone financial commitment to PFG

1. The PFG "fix"

- *Court*:
  - BUT PFG will not be as nearly competitive post-fix as USF is premerger:
    - PFG 5-year business plan projects that PFG will have less than ½ of the national broadline sales that USF had at the time of the merger
    - Even assuming PFG will be able to integrate the 11 USF centers effectively into its operation, it will start with only 35 centers—compared to Sysco/USF > 100 centers
      - WDC: Premerger, Sysco and USF had 72 and 61 distribution centers, respectively
      - Prenegotiation PFG internal strategy documents indicated that 35 distribution would not be enough to compete effectively with Sysco and USF (court did not provide details)
      - PFG said the same to the FTC in the vetting process (obviously seeking help from the FTC in obtaining more distribution centers, but this failed)
    - New centers and expansions PFG is planning to build, while perhaps they could plug the gap, will not come online for several years at best
    - PFG lacks experience in offering value-added services to some important segments (e.g., healthcare) that both Sysco and USF have premerger
    - Significant reliance on merged firm for 3-5 years under Transition Services Agreement (cuts against PFG as a strong independent competitive force)

Defense rejected

2. Protection through regional dealing

- *Defense*: National customers can protect themselves by dealing more regionally
  - Dealing with a single national distributor is merely a preference
  - National customers often deal with multiple sources of supply
- *Court*: Rejected defense
  - Multiple sources for some national customers are often a "one-off" phenomenon—national customers still purchase the bulk of their products from national distributors (61% to 100%)
  - Regionalization available today, but national customers are not moving in that direction—the "clear trend" is to move toward centralization in a single supplier
  - Not merely a customer preference—driven by rational business considerations:
    - Management and supply chain costs increase
      - Multiple points of sales and logistics contact
      - Multiple, different order entry/communications/IT systems
      - Multiple billing systems
    - Consistency in products can suffer (especially private label)

Defense rejected

3. Entry/expansion

- *Defense*:
  - No technological, legal or regulatory barriers to entry or expansion
  - New firms will enter or smaller incumbent firms will expand in the event of a postmerger price increase and compete prices back down to premerger levels

3. Entry/expansion

- *Court*:
  - Rule: To be a defense, entry must be—
    1. Timely
    2. Likely, *and*
    3. Sufficient to deter or counteract the anticompetitive effect
  - *Not likely*: There exist significant barriers to entry and expansion
    - Broadline extraordinarily capital- and labor-intensive
      - New distribution center: $35 million to build
      - \+ stock
      - \+ Delivery trucks (including expensive refrigerated trucks)
      - \+ People to sell the service, maintain and stock the warehouse, deliver the products, handle the back office
    - Reputation barriers
  - *Not timely*
    - Even if barriers could be overcome, it would take years to enter (especially in national market)
  - *Not sufficient*: Individual ability and incentive:
    - Incumbent distributors testified that they have no plans to expand to serve national customers—dissuaded by time, costs, and risk
    - If incumbent distributors will not expand, de novo entry even less likely

Defense rejected

4. Efficiencies

- *Defense*:
  - Merger will result in at least $600 million and as much as $1 billion in annually recurring efficiencies
  - Rigorously derived:
    - Developed over 8 months involving over 100 employees at McKinsey and over 170 Sysco and USF employees

4. Efficiencies

- *Court*:
  - Adopted Merger Guidelines requirements:
    1. Merger specificity
    2. Verifiability
    3. Timeliness and sufficiency to negate the merger's anticompetitive effects
  - Did not question scale or rigor of analysis or accuracy of estimate
    - Not questioning verifiability
    - NOT the usual approach

4. Efficiencies

- *Court*:
  - *Question*: Have "Defendants have shown that the projected 'merger-specific' cost savings are substantial enough to overcome the presumption of harm arising from the increase in market concentration and other evidence of anticompetitive harm?"
  - *Court*: Not persuaded
    - Not merger-specific
      - McKinsey was not hired to evaluate merger-specific efficiencies
      - McKinsey witness could not say if any of the efficiencies it identified would have occurred in the absence of the merger
        - Sysco, for example, had some projects going to achieve some of the same types of synergies that McKinsey (e.g., savings from "category management")
      - Hausman (a defense expert) reduced number to $490 million, but performed no independent analysis of McKinsey results
      - → Failure of proof on which merging parties bore the burden
    - Not sufficient
      - Even crediting Hausman's estimate of $490 million, insufficient to offset anticompetitive effect
      - <1% merged company's annual revenue
      - So even assuming 100% was passed on to consumers, even a small increase in price could offset any cost savings (merged firm would have $66 billion in annual sales) [WDC: 0.7% of sales]
      - → Failure of proof on which merging parties bore the burden
  - *WDC*: Note that court did not rely on Israel's quantification of anticompetitive harm to find that efficiencies were insufficient

Defense rejected

The District Court Opinion
3. Determining the Net Anticompetitive Effect

Determining the net anticompetitive effect

- Unnecessary to proceed to step 3 of *Baker Hughes* since the defendants failed to produce sufficient evidence to put the prima facie case in dispute

The District Court Opinion
4. Balancing the Equities

The FTC's alleged equities

1. Public interest in effectively enforcing antitrust laws
2. Public interest in ensuring that the FTC can order effective relief if it succeeds at the merits trial—Would have to confront:
   - Consolidation of Sysco's and USF's distribution centers and infrastructure and possible departure of significant personnel (e.g., management, sales, logistics) would make it difficult to restore both parties to premerger condition, AND
   - Sale of 11 distribution facilities to PFG, which presumably could not be rolled back
     - *WDC*: Not a problem if the sale to PFG was contingent on the closing of the main deal
   - PLUS inevitable disruption to the food service industry caused by a postmerger divestiture of USF from Sysco

The defendants' alleged equities

- Public interest in allowing customers to have the advantage of the efficiencies of the transaction
  - *Court*: Rejected for failure of proof (in the efficiencies defense)
  - *WDC*: Could add that this factor could at most count the harm from the *delay* in the realization of the efficiencies if the defendants succeeded on the merits
- The public and private harm merger that would result if the merger terminates as a result of injunction in the case where the merger is not anticompetitive
  - *Court*: This is a "private equity" that does not outweigh the public equities in favor of the preliminary injunction
  - *WDC*: Could add that the election to terminate the transaction and not defend on the merits was made by the parties and was not compelled by the FTC or the court

The District Court Opinion
5. Conclusion

Conclusion

- Court:
  - FTC proved a prima facie case of anticompetitive effect in two markets:
    1. Broadline distribution to national customers
    2. Broadline distribution in local markets
  - Defendants failed to discharge their burden of production on any of their defenses:
    1. The PFG "fix"
    2. Protection through regional dealing (for national customers)
    3. Entry/expansion
    4. Efficiencies
  - FTC showed a likelihood of success on the merits at a full trial
  - Equities weighed in favor of entering a permanent injunction
  - Preliminary injunction entered June 23, 2015
- Aftermath
  - Parties terminated the merger agreement terminated June 29, 2015

Class 18 slides

Unit 12: Clare's/Benny's Ice Cream Merger

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

November 7, 2023

Grading philosophy

- My approach
  1. I read all answers twice and blind grade them each time with a letter grade
  2. If the grades for an answer differ significantly between the first and second reads, I read the answer for a third time and reconcile the differences
  3. I rank order the exams by letter grade in descending order and apply the prescribed curve for the course
  4. UNLESS the quality of the exams does not break significantly at a change in the grading curve, in which case I include the exam in question in the group to which it is most comparable (and fight with the Dean if required)

I grade on the logic, completeness, and persuasiveness of an answer, not whether you approached the problem the same way I did or reached the same conclusion

I do not expect anyone to spot and properly analyze all issues in the hypothetical

Suggestion: How to approach the problem

1. Ask the setup questions
2. Read the hypothetical straight through quickly to spot the major issues
3. Read the hypothetical again more slowly
   Annotate the hypothetical in the margin
4. Outline an answer—pay attention to your intuitions!
5. Start writing

Another suggestion:

DISTINGUISH BETWEEN MAJOR AND SUBSIDIARY ISSUES!!

Be sure you are able to address all the major issues. If you do not think you are going to have time to do everything, spot the subsidiary issues and leave the detailed analysis until later. Since you will type the exam in Word, it is easy to insert additional material after you finish the important topics.

1. Ask the setup questions

1. Who are you/what role are you being asked to play?
2. What is the transaction?
3. What is the form of the work product?
4. What questions are you being asked to address?
5. What statutes(s) apply?

1. Ask the setup questions

1. Who are you/what role are you being asked to play?
   - From the hypothetical:

> **You are an attorney at the FTC and your group is reviewing Clare's pending acquisition of Bennie's, two manufacturers of ice cream.** The acquisition is for all cash transaction and Clare's is paying a 40% premium for the Benny's stock. Melissa Brown, your section chief, has asked you to prepare a recommendation as to whether the FTC should seek a preliminary injunction blocking the transaction from a federal district court pending a resolution of an administrative trial. In particular, Ms. Brown is seeking your analysis of how strong the FTC's prima facie case of a Section 7 violation is likely to be and whether the FTC can defeat defenses the merging parties have said that they will advance. Ms. Brown also would like you to address how the court is likely to balance the equities and what the court is likely to decide on the FTC's petition to enter the preliminary injunction.

1. Ask the setup questions

2. What is the transaction?
   - From the hypothetical:

> You are an attorney at the FTC and your group is reviewing **Clare's pending acquisition of Bennie's, two manufacturers of ice cream. The acquisition is for all cash and Clare's is paying a 40% premium for the Benny's stock.** Melissa Brown, your section chief, has asked you to prepare a recommendation as to whether the FTC should seek a preliminary injunction blocking the transaction from a federal district court pending a resolution of an administrative trial. In particular, Ms. Brown is seeking your analysis of how strong the FTC's prima facie case of a Section 7 violation is likely to be and whether the FTC can defeat defenses the merging parties have said that they will advance. Ms. Brown also would like you to address how the court is likely to balance the equities and what the court is likely to decide on the FTC's petition to enter the preliminary injunction.

1. Ask the setup questions

3. What is the form of the work product?
   - From the hypothetical:

> You are an attorney at the FTC and your group is reviewing Clare's pending acquisition of Bennie's, two manufacturers of ice cream. The acquisition is for all cash transaction and Clare's is paying a 40% premium for the Benny's stock. **Melissa Brown, your section chief, has asked you to prepare a recommendation** as to whether the FTC should seek a preliminary injunction blocking the transaction from a federal district court pending a resolution of an administrative trial. In particular, Ms. Brown is seeking your analysis of how strong the FTC's prima facie case of a Section 7 violation is likely to be and whether the FTC can defeat defenses the merging parties have said that they will advance. Ms. Brown also would like you to address how the court is likely to balance the equities and what the court is likely to decide on the FTC's petition to enter the preliminary injunction.

You are being asked to write a **reasoned memorandum of law** with a recommendation

Every question I have asked on an exam to date calls for a reasoned memorandum of law

1. Ask the setup questions

4. What questions are you being asked to address?

- From the hypothetical:

You are an attorney at the FTC and your group is reviewing Clare's
pending acquisition of Bennie's, two manufacturers of ice cream. The
acquisition is for all cash transaction and Clare's is paying a 40%
premium for the Benny's stock. Melissa Brown, your section chief, has
asked you to prepare a recommendation as to **whether the FTC**
1 **should seek a preliminary injunction blocking the transaction**
from a federal district court pending a resolution of an administrative
2 trial. In particular, Ms. Brown is seeking your analysis of **how strong**
the FTC's prima facie case of a Section 7 violation is likely to be
3 and **whether the FTC can defeat defenses the merging parties**
have said that they will advance. Ms. Brown also would like you to
4 address **how the court is likely to balance the equities** and **what**
5 **the court is likely to decide** on the FTC's petition to enter the
preliminary injunction.

- Five questions are presented

BE SURE THAT YOU ADDRESS EACH QUESTION!!

1. Ask the setup questions

5. What law(s) apply?
   - From the hypothetical:

You are an attorney at the FTC and your group is reviewing Clare's
pending acquisition of Bennie's, two manufacturers of ice cream. The
acquisition is for all cash transaction and Clare's is paying a 40%
premium for the Benny's stock. Melissa Brown, your section chief, has
asked you to prepare a recommendation as to whether the FTC
should seek a **preliminary injunction blocking the transaction**
1 **from a federal district court pending a resolution of an**
administrative trial. In particular, Ms. Brown is seeking your analysis
2 of how strong the FTC's prima facie case of a **Section 7 violation** is
likely to be and whether the FTC can defeat defenses the merging
parties have said that they will advance. Ms. Brown also would like
you to address how the court is likely to balance the equities and what
the court is likely to decide on the FTC's petition to enter the
preliminary injunction.

   - *For 1*: FTC Act 13(b) for the standards for entering a preliminary injunction
   - *For 2*: Clayton Act § 7 for the elements of the substantive violation

2. Quick read to spot the issues

- The problem will have multiple issues
- Some issues will be substantively more important than others
- DO NOT get hung up spending too much time on the small issues at the cost of not adequately addressing the major issues

So what do I need to spot?

Typical structure of a formal merger analysis

- Part 1: The prima facie case
  - Relevant product market
    - *Brown Shoe* “outer boundaries” and “practical indicia” for the product market
    - Merger Guidelines hypothetical monopolist test
      - *Homogeneous products*: Critical loss implementations
      - *Differentiated products*: One-product/uniform SSNIP recapture implementations
  - Relevant geographic market
    - “Commercial realities” test
    - Merger Guidelines hypothetical monopolist test
  - *PNB* presumption
    - Market participants and market shares
    - Applicability of the *PNB* presumption
      - Judicial precedent support
      - Merger Guidelines support[1]
  - Other evidence of anticompetitive effect
    - Unilateral effects
    - Coordinated effects
    - Elimination of a maverick
    - [Foreclosure/raising rivals’ costs for vertical transactions]

Effectively to show gross upward pricing pressure or other anticompetitive effect

[1] Some courts are also citing *PNB* itself when the challenged merger’s market share and concentration statistics are larger than those in *PNB*.

Typical structure of a formal merger analysis

- Part 2: Defendants' rebuttal
  - Direct challenges to prima facie case (no upward pressing pressure)[1]
  - Traditional defenses (offsetting downward pricing pressure)
    - Entry/expansion/repositioning
    - Efficiencies
    - Countervailing buyer power ("power buyers")
    - Failing company/division

Effectively to show sufficient gross downward pricing pressure to create a genuine issue of fact on the merger's net competitive effect

- Part 3: Balancing (if necessary)

- *Also*, in this problem you will need to address the standards for the entry of a Section 13(b) preliminary injunction
  - Likelihood of success on the merits
  - Weighing the equities/public interest

Do not forget this!

[1] Often addressed in Step 1.

3. Annotate/Outline

- Some facts to note:
  - Clare's is acquiring Benny's
  - There are two types of ice cream: premium and regular
  - Although prices within each segment have converged, they have varied in the past → *differentiated products* → think one-product SSNIP tests/unilateral effects
  - The merger is horizontal in premium ice cream; no overlap in regular ice cream
  - Premium ice cream is dominated by two firms: Al's and Benny's
  - Two dimensions of competition: Price and innovation
  - Al's has been a price leader in premium ice cream
    - Clare's has been a maverick in prices and innovation
    - All other premium ice cream producers have been followers
  - Postmerger, Clare's will consolidate its premium brand into Benny's → eliminates differentiation
  - AND become tied with Al's as the No. 1 premium ice cream manufacturer (45% share each)
  - High cross-elasticity of demand within each of premium and regular
  - Significant product and price differentiation between premium and regular
  - Significant technological supply-side substitutability between premium and regular
    - BUT no (recent) entry into premium by regular ice cream producers → indicates high reputational barriers
    - AND little growth in market shares by small premium companies (including Dino's) → same
  - Uniform nationwide shipments and pricing → suggests a national geographic relevant market
    - Insignificant amount of store brands (which may be local) → further indicates national market
  - All cost savings are in fixed costs → No cognizable efficiencies

3. Annotate/Outline

- Note some numbers and important facts:

The industry recognizes two types of ice cream: premium ice cream and regular ice cream. Premium ice cream has more butterfat content, less overrun (that is, less air, which makes it more creamy), and more calories than regular ice cream. Premium and regular ice cream are made on the same machines. Switching is gallon-for-gallon and involves negligible switching costs. The marginal costs of producing premium and regular ice cream, however, differ becaus of the difference in the cost of ingredients. The marginal cost of producing premium ice cream $2.80 per gallon, while the cost of producing regular ice cream is $2.40 per gallon. Marginal costs, which are constant, have not changed in recent years and are not expected to change in th future.

$MC_P = \$2.80$

$MC_R = \$2.40$

While prices can and have varied among brands with in both premium and regular ice cream, actual prices charged by manufacturers during the investigation have converged—with no sign collusion—throughout the country to $4.00 per gallon for premium ice cream and $3.00 per gallon for regular ice cream. The following chart give sales for ice cream manufacturers:

$P_P = \$4.00$

$P_R = \$3.00$

$\$M_P = \$1.20$

$\$M_R = \$0.60$

$\%M_P = \frac{1.20}{4.00} = 30\%$

$\%M_R = \frac{0.60}{3.00} = 20\%$

2

3. Annotate/Outline

- Note some numbers and important facts:

There are high cross-elasticities of demand between brands within each of the two ice cream segments and low cross-elasticities between individual products in different segments. So, for example, if a premium ice cream manufacturer were to increase its price while the other premium ice cream manufacturers held their prices constant, the higher-priced manufacturer would lose a significant amount of volume to its premium brand rivals and little, if any volume to regular ice cream. The same is true for regular ice cream brands.

$R_i = 100\%$

For a 5% uniform increase in the price across all brands of premium ice cream, however, each premium brand would lose 16% of its unit sales to regular ice cream and none to other brands of premium ice cream or non-ice cream products. For a 5% uniform increase in the price of all brands of regular ice cream, each regular brand would lose 7.5% of its unit sales to premium ice cream and none to other brands of regular ice cream or non-ice cream products. When the price of all brands of ice cream (premium and regular) is increased by 5%, there would be no switching between premium and regular brands of ice cream, but each brand of premium ice cream would lose 3% of its unit sales to non-ice cream alternatives, while each brand of regular ice cream would lose 5% of its unit sales to non-ice cream alternatives.

CRITICAL LOSS

$L_P = 16\%$ TO REG

$L_R = 7.5\%$ TO PREM.

L_{ALL}:

$L_P = 3\%$

$L_R = 5\%$

Clare's (the buyer) is the largest manufacturer of regular ice cream and the third largest manufacturer of premium ice cream. Benny's (the target) is the second largest manufacturer of premium ice cream but manufactures no regular ice cream. In its meeting the staff, Clare's made the following arguments in defense of the transaction:

4. Write

- Be organized:

> *Exam instructions*:
>
> Present your analysis in a well-organized, linear, and concise manner. Think about your answers before writing. *Remember Pascal's apology*: "I am sorry that this was such a long letter, but I did not have the time to write you a short one." Clarity of thinking and exposition are much more important than throwing in the kitchen sink. Penalties will be levied for excessive length, verbosity, or lack of organization.

- Prepare in advance

> *Exam instructions*:
>
> As we discussed in class, you may copy and paste short passages from ***"cheat sheet" you have created*** to introduce a rule of law, a legal principle, or an economic proposition or formula. You may include quotes from cases in the materials you create for this purpose, but if you do so prepare the quote and cite the case as you would in a brief. Do NOT copy and paste from any other materials.

4. Write: Introduction

- Opening paragraph to a memorandum: "You have asked me . . . ."

To: Melissa Brown

From: Dale Collins

Clare's/Benny's Ice Cream Merger

You have asked me to assess whether the FTC should be able to obtain a preliminary injunction blocking the pending acquisition by Clare's of Benny's, two manufacturers of ice cream, from a federal district court pending a resolution of an FTC challenge in an administrative trial. In particular, you have asked me to assess how strong the FTC's prima facie case of a Section 7 violation is likely to be and whether the FTC can defeat defenses the merging parties have said that they will advance. You have also asked me to address how the court is likely balance the balance the equities and what the court is likely to decide on the petition to enter the FTC's preliminary injunction.

You should be able to copy most of this from the exam pdf[1]

[1] For copying text from a PDF file using Adobe Acrobat Reader, see Copy text and images from PDFs. If you have not done this is the past, you should practice before the exam.

4. Write: Introduction

- Short conclusion
  - ANSWER EACH QUESTION ASKED
  - Be succinct
  - You can write the short conclusion last—but if you did a good outline, you can do a first draft now of the introduction
  - Helpful to you and to me
    - Ensures that you answer all the questions asked
    - Gives me a roadmap as to where your analysis is going

4. Write: Introduction

- Short conclusion—Instructor's answer

1 **For the reasons explained below, the Commission should prevail in its petition for a preliminary injunction under Section 13(b) of the FTC Act blocking Clare's acquisition of Benny's pending the conclusion of the administrative adjudication of the merits of the Commission's Section 7 claim against the transaction.** On the facts found in the investigation, the Commission has a strong likelihood of being able to prove to the district court that Clare's proposed acquisition of Benny's would violate Section 7 in the nationwide manufacture and sale of premium ice cream and separately in the nationwide manufacture and sale of all ice cream. The *PNB* presumption is easily satisfied in premium ice cream, and although more borderline in all ice cream, there is additional evidence of consumer harm resulting from both anticompetitive unilateral and coordinated effects. Consumers are likely to be harmed by both an increase in prices and a reduction in the rate of product innovation as a result of the merger. The various defenses advanced by the parties are either speculative (not verifiable), contradicted by the facts, or fail to show they are sufficient to negate the upward pricing pressures and the reduced incentives to innovate that the merger is likely to create. The equities, especially the public's interest in effective antitrust enforcement and effective relief, weigh heavily in favor of entering a preliminary injunction. The equities weighing against the entry of the injunction are at most only the delay in the receipt of the private monetary benefits of the merger to the merging parties and their shareholders and these benefits will never materialize if the merger is found to be unlawful on the merits. The court should find that the entry of a preliminary injunction is in the public interest.

4. Write: Introduction

- Short conclusion—Instructor's answer

2 For the reasons explained below, the Commission should prevail in its petition for a preliminary injunction under Section 13(b) of the FTC Act blocking Clare's acquisition of Benny's pending the conclusion of the administrative adjudication of the merits of the Commission's Section 7 claim against the transaction. **On the facts found in the investigation, the Commission has a strong likelihood of being able to prove to the district court that Clare's proposed acquisition of Benny's would violate Section 7 in the nationwide manufacture and sale of premium ice cream and separately in the nationwide manufacture and sale of all ice cream.** The *PNB* presumption is easily satisfied in premium ice cream, and although more borderline in all ice cream, there is additional evidence of consumer harm resulting from both anticompetitive unilateral and coordinated effects. Consumers are likely to be harmed by both an increase in prices and a reduction in the rate of product innovation as a result of the merger. The various defenses advanced by the parties are either speculative (not verifiable), contradicted by the facts, or fail to show they are sufficient to negate the upward pricing pressures and the reduced incentives to innovate that the merger is likely to create. The equities, especially the public's interest in effective antitrust enforcement and effective relief, weigh heavily in favor of entering a preliminary injunction. The equities weighing against the entry of the injunction are at most only the delay in the receipt of the private monetary benefits of the merger to the merging parties and their shareholders and these benefits will never materialize if the merger is found to be unlawful on the merits. The court should find that the entry of a preliminary injunction is in the public interest.

4. Write: Introduction

- Short conclusion—Instructor's answer

3 For the reasons explained below, the Commission should prevail in its petition for a preliminary injunction under Section 13(b) of the FTC Act blocking Clare's acquisition of Benny's pending the conclusion of the administrative adjudication of the merits of the Commission's Section 7 claim against the transaction. On the facts found in the investigation, the Commission has a strong likelihood of being able to prove to the district court that Clare's proposed acquisition of Benny's would violate Section 7 in the nationwide manufacture and sale of premium ice cream and separately in the nationwide manufacture and sale of all ice cream. **The *PNB* presumption is easily satisfied in premium ice cream, and although more borderline in all ice cream, there is additional evidence of consumer harm resulting from both anticompetitive unilateral and coordinated effects. Consumers are likely to be harmed by both an increase in prices and a reduction in the rate of product innovation as a result of the merger in both markets.** The various defenses advanced by the parties are either speculative (not verifiable), contradicted by the facts, or fail to show they are sufficient to negate the upward pricing pressures and the reduced incentives to innovate that the merger is likely to create. The equities, especially the public's interest in effective antitrust enforcement and effective relief, weigh heavily in favor of entering a preliminary injunction. The equities weighing against the entry of the injunction are at most only the delay in the receipt of the private monetary benefits of the merger to the merging parties and their shareholders and these benefits will never materialize if the merger is found to be unlawful on the merits. The court should find that the entry of a preliminary injunction is in the public interest.

4. Write: Introduction

- Short conclusion—Instructor's answer

For the reasons explained below, the Commission should prevail in its petition for a preliminary injunction under Section 13(b) of the FTC Act blocking Clare's acquisition of Benny's pending the conclusion of the administrative adjudication of the merits of the Commission's Section 7 claim against the transaction. On the facts found in the investigation, the Commission has a strong likelihood of being able to prove to the district court that Clare's proposed acquisition of Benny's would violate Section 7 in the nationwide manufacture and sale of premium ice cream and separately in the nationwide manufacture and sale of all ice cream. The *PNB* presumption is easily satisfied in premium ice cream, and although more borderline in all ice cream, there is additional evidence of consumer harm resulting from both anticompetitive unilateral and coordinated effects. Consumers are likely to be harmed by both an increase in prices and a reduction in the rate of product innovation as a result of the merger. **The various defenses advanced by the parties are either speculative (not verifiable), contradicted by the facts,**
4 **or fail to show they are sufficient to negate the upward pricing pressures and the reduced incentives to innovate that the merger is likely to create.** The equities, especially the public's interest in effective antitrust enforcement and effective relief, weigh heavily in favor of entering a preliminary injunction. The equities weighing against the entry of the injunction are at most only the delay in the receipt of the private monetary benefits of the merger to the merging parties and their shareholders and these benefits will never materialize if the merger is found to be unlawful on the merits. The court should find that the entry of a preliminary injunction is in the public interest.

4. Write: Introduction

- Short conclusion—Instructor's answer

For the reasons explained below, the Commission should prevail in its petition for a preliminary injunction under Section 13(b) of the FTC Act blocking Clare's acquisition of Benny's pending the conclusion of the administrative adjudication of the merits of the Commission's Section 7 claim against the transaction. On the facts found in the investigation, the Commission has a strong likelihood of being able to prove to the district court that Clare's proposed acquisition of Benny's would violate Section 7 in the nationwide manufacture and sale of premium ice cream and separately in the nationwide manufacture and sale of all ice cream. The *PNB* presumption is easily satisfied in premium ice cream, and although more borderline in all ice cream, there is additional evidence of consumer harm resulting from both anticompetitive unilateral and coordinated effects. Consumers are likely to be harmed by both an increase in prices and a reduction in the rate of product innovation as a result of the merger. The various defenses advanced by the parties are either speculative (not verifiable), contradicted by the facts, or fail to show they are sufficient to negate the upward pricing pressures and the reduced incentives to innovate that the merger is likely to create. **The equities, especially the public's interest
5 in effective antitrust enforcement and effective relief, weigh heavily in favor of entering a preliminary injunction.** The equities weighing against the entry of the injunction are at most only the delay in the receipt of the private monetary benefits of the merger to the merging parties and their shareholders and these benefits will never materialize if the merger is found to be unlawful on the merits. The court should find that the entry of a preliminary injunction is in the public interest.

4. Write: Introduction

- Short conclusion—Instructor's answer

For the reasons explained below, the Commission should prevail in its petition for a preliminary injunction under Section 13(b) of the FTC Act blocking Clare's acquisition of Benny's pending the conclusion of the administrative adjudication of the merits of the Commission's Section 7 claim against the transaction. On the facts found in the investigation, the Commission has a strong likelihood of being able to prove to the district court that Clare's proposed acquisition of Benny's would violate Section 7 in the nationwide manufacture and sale of premium ice cream and separately in the nationwide manufacture and sale of all ice cream. The *PNB* presumption is easily satisfied in premium ice cream, and although more borderline in all ice cream, there is additional evidence of consumer harm resulting from both anticompetitive unilateral and coordinated effects. Consumers are likely to be harmed by both an increase in prices and a reduction in the rate of product innovation as a result of the merger. The various defenses advanced by the parties are either speculative (not verifiable), contradicted by the facts, or fail to show they are sufficient to negate the upward pricing pressures and the reduced incentives to innovate that the merger is likely to create. The equities, especially the public's interest in effective antitrust enforcement and effective relief, weigh heavily in favor of entering a preliminary injunction. **The equities weighing against the entry of the injunction are at most only the delay in the receipt of the private monetary benefits of the merger to the merging parties and their shareholders and these benefits will never materialize if the merger is found to be unlawful on the merits**. The court should find that the entry of a preliminary injunction is in the public interest.

6

4. Write: Introduction

- Short conclusion—Instructor's answer

For the reasons explained below, the Commission should prevail in its petition for a preliminary injunction under Section 13(b) of the FTC Act blocking Clare's acquisition of Benny's pending the conclusion of the administrative adjudication of the merits of the Commission's Section 7 claim against the transaction. On the facts found in the investigation, the Commission has a strong likelihood of being able to prove to the district court that Clare's proposed acquisition of Benny's would violate Section 7 in the nationwide manufacture and sale of premium ice cream and separately in the nationwide manufacture and sale of all ice cream. The *PNB* presumption is easily satisfied in premium ice cream, and although more borderline in all ice cream, there is additional evidence of consumer harm resulting from both anticompetitive unilateral and coordinated effects. Consumers are likely to be harmed by both an increase in prices and a reduction in the rate of product innovation as a result of the merger. The various defenses advanced by the parties are either speculative (not verifiable), contradicted by the facts, or fail to show they are sufficient to negate the upward pricing pressures and the reduced incentives to innovate that the merger is likely to create. The equities, especially the public's interest in effective antitrust enforcement and effective relief, weigh heavily in favor of entering a preliminary injunction. The equities weighing against the entry of the injunction are at most only the delay in the receipt of the private monetary benefits of the merger to the merging parties and their shareholders and these benefits will never materialize if the merger is found to be unlawful on the merits. **The court should find that the entry of a preliminary injunction is**
7 **in the public interest.**

4. Write: Introduction

- Applicable law
  - Clayton Act § 7
  - FTC Act § 13(b)
  - *Baker Hughes* three-step burden-shifting approach

4. Write: Introduction

- Applicable law
  - Clayton Act § 7
    - Instructor's answer (prepared in advance):

> Section 7 of the Clayton Act prohibits mergers and acquisitions "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." 15 U.S.C. § 18. By its terms, a Section 7 violation contains three essential elements: (1) a relevant product market ("line of commerce"), (2) a relevant geographic market ("section of the country"), and (3) a reasonably probable anticompetitive effect in the relevant market (that is, the combination of the relevant product market and the relevant geographic market).

    - The exam instructions state that you may assume that the requisite interstate nexus exists to apply Section 7
      - You do not have to address the interstate commerce requirement explicitly

4. Write: Introduction

- Applicable law
  - FTC Act § 13(b)
    - Instructor's answer (prepared in advance):

The Commission may seek injunctive relief to enjoin a transaction pending the resolution of the Section 7 merits in an administrative proceeding under Section 13(b) of the Federal Trade Commission Act "[u]pon a proper showing that, weighing the equities and considering the Commission's likelihood of ultimate success, such action would be in the public interest." 15 U.S.C. § 53(b). The public interest standard requires courts to "measure the probability that, after an administrative hearing on the merits, the Commission will succeed in proving that the effect of the [proposed transaction] may be substantially to lessen competition" in violation of the Clayton Act. *FTC v. Sysco Corp.*, 113 F. Supp. 3d 1, 22 (D.D.C. 2015). The Commission meets this standard if it "has raised questions going to the merits so serious, substantial, difficult and doubtful as to make them fair ground for thorough investigation, study, deliberation and determination by the FTC in the first instance and ultimately by the Court of Appeals." *Id*. at 23.

4. Write: Introduction

- Applicable law
  - *Baker Hughes* three-step burden-shifting approach
    - Instructor's answer (form prepared in advance):

Clare's acquisition of Benny's is a horizontal acquisition since it involves competitors in the production and sale of ice cream generally and premium ice cream in particular. In horizontal cases, courts have adopted a three-step burden-shifting procedure:

1. The plaintiff bears burden of proof in market definition and in market shares and market concentration within the relevant market sufficient to trigger the *PNB* presumption (explained below).
2. Once the plaintiff has made a prima facie showing, the burden of production then shifts to defendant to adduce evidence sufficient to put the *PNB* presumption in issue.
3. If the defendant discharges its burden, the burden of persuasion returns to plaintiff to prove in light of all of the evidence in the record that the merger is reasonably probable to have an anticompetitive effect in the relevant market.

See United States v. Baker Hughes, Inc., 908 F.2d 981, 982-83 (D.C. Cir. 1990). Although not required, the plaintiff may strengthen its prima facie case by presenting additional evidence supporting a finding that the transaction is anticompetitive. Courts apply a "sliding scale" approach to the defendant's burden in Step 2 above, so that the stronger the plaintiff's prima facie case, the higher the defendant's showing must be to discharge its burden of production for putting the plaintiff's prima facie case in issue. *Id*. at 983.

4. Write: Introduction

- The roadmap
  - Instructor's answer (form prepared in advance):

The DOJ/FTC 2010 Horizontal Merger Guidelines focus more on competitive effects and do not strictly require a showing of a relevant market. To obtain a preliminary injunction, however, the Commission will have to petition a federal district court, which will require the showing of a relevant market under prevailing case law precedent. As to the showing of anticompetitive effects, the courts continue to employ the *Philadelphia National Bank* presumption in assessing a prima facie case and also have largely accepted the theories of anticompetitive harm in the Merger Guidelines to further support the prima facie case. Accordingly, I will analyze the transaction under the usual judicial framework:

1. The prima facie Section 7 case
   a. The relevant product market
   b. The relevant geographic market
   c. Market shares, concentration, and the *PNB* presumption
   d. Additional evidence supporting the prima facie case
2. The defendants' arguments
3. Conclusion on Section 7 legality
4. Weighing of the equities
5. Conclusion

4. Write: The prima facie case

- The relevant product market
  1. Premium ice cream only
     - *Brown Shoe* “outer boundaries” and “practical indicia” (test and application)
     - Hypothetical monopolist test (test and application through one-product SSNIP recapture test)
  2. All ice cream
     - *Brown Shoe* “outer boundaries” and “practical indicia”
     - Hypothetical monopolist test (test and application through percentage critical loss)

Do not get lost in the details. Think about what your intuitions tell you are the correct relevant markets. When you do the details (especially the HMT), if you are getting an answer different from your intuitions, double check your work!

- Note:
  - It was unnecessary to analyze a regular ice cream market
    - There is no overlap in regular ice cream—and we have only looked at theories of harm in horizontal mergers
    - Incidentally, there is no nonhorizontal theory of harm that applies to a regular ice cream market either

4. Write: The prima facie case

- The relevant product market
  - Premium ice cream only—*Brown Shoe*
    - "Outer boundaries" test
      - Very high cross-elasticities/diversion ratios/recapture ratios within the candidate market
      - Little diversion to outside the candidate market for one-product price increases
    - Practical indicia
      - Industry recognition of premium ice cream as distinct from regular ice cream
      - Premium ice cream has differentiating characteristics (namely, more butterfat content, less overrun, and more calories than regular ice cream)
      - Premium ice cream costs more to manufacture ($2.80 v. $2.40 per gallon)
      - Probably most importantly, premium ice cream has—
        - a significantly higher price ($4.00 v. $3.00 per gallon at wholesale), *and*
        - a 50% higher percentage margin (30% = 1.20/4.00 v. 20% = $0.60/$3.00

4. Write: The prima facie case

- The relevant product market
  - Premium ice cream only—Hypothetical monopolist test
    - Homogenous vs. differentiated product markets—How can you tell?
      - Homogenous product markets can support only one price for all products in the market
        - If one firm raises its price, it loses all its customers to other firms in the market
        - Equivalently, a firm in a homogeneous market has *no* inframarginal customers
          - All customers are necessarily marginal customers
        - *Rule*: A necessary condition for products to be in a homogeneous market is that all products have the same price (as in the premium ice cream hypothetical premerger)
        - BUT equal prices is *<u>not</u>* a sufficient condition—the prices observed in the market may be coincidental and firms may still have inframarginal customers
        - Apply a critical loss test to homogeneous product markets
      - Products in differentiated product market have inframarginal customers
        - *Rule*: If it is possible to raise the price of one product and that product retain some customers, then the market is a different product markets
        - Implication: If products in the candidate market have had different prices in the past even through they have equal prices immediately before the merger, the market is a differentiated products market
        - *Implication*: A profit-maximizing monopolist must take into account profits on recaptured products when performing the hypothetical monopolist test
        - *Implication*: Must use a one-product SSNIP recapture test in applying the HMT

4. Write: The prima facie case

- The relevant product market
  - Premium ice cream only—Hypothetical monopolist test
    - *Example*: Suppose each type of product with an identical price in the picture is produced and sold by a different firm. Is a candidate market of all of these products a homogeneous product market or a differentiated products market?

- Equality of price is a necessary but not sufficient condition for the market to be homogeneous
- BUT you can imagine that each of these products has inframarginal customers, suggesting that the market is differentiated
- AND if the products exhibited different prices in the past, the market conclusively would be differentiated

4. Write: The prima facie case

- The relevant product market
  - Premium ice cream only—Hypothetical monopolist test
    - This is a differentiated candidate market, so use a recapture test rather than a critical loss test
    - How do you know?

Ice cream products are differentiated by content and brand. While prices can and have varied among brands within both premium and regular ice cream, actual prices charged by manufacturers during the investigation have converged—with no sign of collusion—throughout the country to $4.00 per gallon for premium ice cream and $3.00 per gallon for regular ice cream.[2]

[2] I appreciate that this is a very counterfactual assumption. I could ***make the problem more realistic by introducing different prices for different products, but then you would have to deal with some arithmetical complications*** in applying the hypothetical monopolist test that I am sure you would rather avoid.

So, for example, ***if one premium ice cream manufacturer were to increase its price*** while the other premium ice cream manufacturers held their prices constant, the higher-priced manufacturer ***would lose a very significant amount of volume*** to its premium brand rivals and little, if any volume to regular ice cream. The same is true for regular ice cream brands.

4. Write: The prima facie case

- The relevant product market
  - Premium ice cream only—Hypothetical monopolist test
    - This is a differentiated candidate market, so use a recapture test rather than a critical loss test

1. One-product SSNIP recapture test for *symmetric products*:

$$R^{i}_{Critical} = \frac{\delta}{m} = \frac{5\%}{30\%} = 16.67\%.$$

Here, $R_{Clare's}$ and $R_{Benny's}$ are close to 100% (need at least one of the products subject to the SSNIP to be a product of a merging firm), so the one-product SSNIP recapture test is satisfied, and premium ice cream satisfies the HMT

> Make sure you understand the inequalities! Actual recapture *greater* than critical recapture means that the hypothetical monopolist is recapturing enough customers to make the SSNIP profitable

---

2. You could also have used the general formula for the critical recapture ratio:

$$R^{1}_{Critical} = \frac{\$SSNIP_1}{\$m_{RAve}} = \frac{0.20}{1.20} = 16.67\%,$$

where $\$m_{RAve}$ is the diversion share-weighted average of the dollar margins of the recapturing firms

- Diversion share-weighted averages were part of the optional material in this course
- BUT note that in this hypothetical all premium ice cream manufacturers have the same dollar margin of \$1.20, so $\$m_{RAve}$ is \$1.20

4. Write: The prima facie case

- The relevant product market
  - Premium ice cream only—Hypothetical monopolist test
    3. Or brute force accounting: Apply SSNIP to Clare's (or Benny's)

NB: This calculates the incremental profit loss for Clare's from the SSNIP

Gain on inframarginal sales

	Premium		
\$SSNIP =	\$0.20	Calculated from hypothetical	G
$\%\Delta q$ =	25.00%	"a significant amount" (pick a number)	
q =	43.80	from hypothetical (table)	
$\Delta q = \%\Delta q \times q$ =	10.95		
$q_2 = q - \Delta q$ =	32.85		
Gain =	6.57		

Loss on marginal sales

$\$m = p - c$ =	1.20	Calculated from hypothetical	L
Δq =	10.95		
Loss =	13.14		
NET (Clare's) =	-6.57	should be negative if Clare's is profit maximizing	

NB: This calculates the incremental profit gain from the recapture by other premium ice cream manufacturers

Gain on recapture

R_i =	100.00%	from hypothetical	R
Recapture = $R_i \times \Delta q$ =	10.95		
$\$m_o$ =	\$1.20	from hypothetical	
Recapture gain =	\$13.14		
NET HM =	\$6.57		

4. Write: The prima facie case

- The relevant product market
  - Premium ice cream only—Hypothetical monopolist test
    - If you had used a critical loss test, the candidate market would have FAILED
    - Percentage critical loss to test the profitability of a uniform SSNIP:

$$\%CL = \frac{\delta}{\delta + m} = \frac{5\%}{5\% + 30\%} = 14.3\%.$$

    - But the actual loss is 16%. Therefore, the test fails.

Again, make sure you get the inequalities right! Actual loss greater than critical loss means that the hypothetical monopolist loses too many customers to make the SSNIP profitable

Only one test needs to pass. If the candidate market passes one test but fails other tests, it is still passes the HMT under the Merger Guidelines

If a candidate market supported by the Brown Shoe *factors fails the HMT:*

1. *Check your math*
2. *See if there are other implementations (e.g., one-product SSNIP test)*

4. Write: The prima facie case

- The relevant product market
  - Premium ice cream only—Hypothetical monopolist test
    - Applying the uniform SSNIP test
    - *Test*: If all the uniform recapture ratios are equal to or greater than the critical recapture ratio for all products and strictly greater than the critical recapture ratio for at least one product, then the hypothetical monopolist could profitably increase the prices by a uniform SSNIP
    - Determine the critical uniform recapture ratio $R^U_{Critical}$:

$$R^U_{Critical} = \frac{\delta}{\delta + m} = \frac{5\%}{5\% + 30\%} = 14.3\%$$

    - Determine the actual uniform recapture ratios R^U_i for each product *i* in the candidate market (there are different from the one-product SSNIP recapture ratios!)
      - The problem states: "if the prices of all premium ice cream products were increased uniformly by a SSNIP, each premium brand would lose 16% of its unit sales to regular ice cream and *none to other brands of premium ice cream or non-ice cream products*."
      - This tells you that $R^U_i = 0$ for all the products in the premium ice cream candidate market
    - The test FAILS

The key to remember is that retained inframarginal sales are NOT recaptured sales. Recaptured sales are lost marginal sales *that divert to another product in the candidate market.*

4. Write: The prima facie case

- The relevant product market
  - All ice cream—*Brown Shoe*
    - "Outer boundaries" test
      - The cross-elasticity between the two *categories* of ice cream products is relatively high
        - All premium ice cream with a uniform SSNIP diverts almost 100% diversion to regular ice cream
        - All regular ice cream with a uniform SSNIP diverts almost 100% diversion to premium ice cream
    - Practical indicia
      - Industry and the public recognition of ice cream as distinct from other types of foods
      - Ice cream has peculiar characteristics and uses
      - Ice cream is produced using unique production facilities
      - Ice cream has distinct prices

4. Write: The prima facie case

- The relevant product market
  - All ice cream—Hypothetical monopolist test
    - Easy answer:
      - *Rule*: With selective SSNIPs and the elimination of the smallest market principle, if a candidate market satisfies the HMT, then any superset of that candidate market satisfies the HMT
      - *Application*: Since we have already shown that premium ice cream satisfies the HMT, then all ice cream satisfies the HMT
      - You do not need to say anything more than this
    - Could also use a critical loss for a uniform SSNIP:

$$\%CL_{\text{premium}} = \frac{5\%}{5\% + 30\%} = 14.3\%$$

$$\%CL_{\text{regular}} = \frac{5\%}{5\% + 20\%} = 20.0\%,$$

Actual loss for premium ice cream and regular ice cream is 3% and 5%, respectively.

- That is, with a 5% SSNIP—
  - The hypothetical monopolist would make money on premium ice cream, *and*
  - The hypothetical monopolist would make money on regular ice cream
- Therefore, the hypothetical monopolist could profitably raise prices by a 5% SSNIP, and so all ice cream is a relevant product market

4. Write: The prima facie case

- Suggestions on applying the hypothetical monopolist test
  - Be sure you know the "accounting" principles
  - Every problem can be tested through brute force accounting

    If you are not sure of the formula to use, use brute force accounting

  - Do NOT spin your wheels on the HMT

    If you are having problems, make sure that your Brown Shoe analysis makes common sense in the context of the hypothetical, assume that this is the relevant market, and leave a hole in the answer to fill in after you finish the rest of the memorandum

    It is better to have a hole in the HMT than to leave other major issues inadequately addressed (much less unaddressed)

4. Write: The prima facie case

- More thoughts on applying the hypothetical monopolist test
  - Don't forget that you can apply the one-product SSNIP recapture test to product groups
    - Say you have two homogeneous product groups that are differentiated from each other groups (blue cars and red cars)
    - Suppose further that you have uniform SSNIP diversion ratios for each group to the other group
    - You can test each group using critical loss and test the combined group using a one-product "group" SSNIP recapture test (i.e., treat each group as if it were an individual product. Since all the prices and margins are the same for all products within the group, it does not matter what the diversion ratios are to individual products)
  - Special case:
    - Suppose one homogeneous product group satisfies the HMT
    - Suppose a second homogeneous product group is also symmetrical but differentiated from the first group, and that the second product group fails the HMT
    - *Proposition*: When the two groups are combined, they satisfy the HMT regardless of the diversion ratios from one group to the other
      - Just increase the price of blue cars and hold the price of red cars constant—the hypothetical monopolist makes a positive profit on blue cars and the financials on red cars are unchanged except perhaps some any recapture (which is unnecessary)
      - REMEMBER: At least one product of a merging firm must be subject the SSNIP in a one-product SSNIP recapture test

4. Write: The prima facie case

- The relevant geographic market
  - The United States
    - No dispute
      - Merging parties submit that the relevant geographic market is the United States
      - The staff agrees (fn. 3 of the hypothetical)

        If the hypothetical is clear that the parties agrees on the dimensions of the product or geographic market, it is enough that you simply state the agreement in the answer.

    - However, if you wanted (or had) to go further and do the analysis—
      - The "area of effective competition" test (test and application)
        - Nationwide sales by majors
        - Uniform nationwide pricing by majors
        - Insignificant amount of store brands (which may be local)
      - Hypothetical monopolist test—performed above
        - Remember, the HMT always needs a relevant product market and a relevant geographic market

4. Write: The prima facie case

- Market shares, concentration, and the *PNB* presumption
  - *PNB* presumption (boilerplate for judicial presumption and Merger Guidelines)
  - Use revenues for market shares
    - If you are going to be testing for an all ice cream market, products are differentiated in prices
  - No nonsellers in premium ice cream
    - Although technologically easy and inexpensive to switch, significant reputational barriers
      - Despite Clare's and Dino's aggressive efforts to grow in premium ice cream, neither was able to obtain more than a 5% market within three years of entry
      - Significant price differential ($4.00 v. $3.00) and especially the margin differential (30% v. 20%) between premium ice cream and regular ice cream not competed away by supply-died switching
      - Clare's is purchasing Benny's because it did not believe it could grow its market share significantly in the coming years on its own → high reputational barriers

4. Write: The prima facie case

- Market shares, concentration, and the *PNB* presumption
  - Applying the *PNB* presumption:

Premium Ice Cream

	Revenues ($millions)	Share	HHI
Al's	$1,575	45.00%	2025
Benny's	$1,400	40.00%	1600
Clare's	$175	5.00%	25
Dino's	$175	5.00%	25
Eddy's	$35	1.00%	1
Breyers	$35	1.00%	1
Blue Bell	$35	1.00%	1
Izzy's	$35	1.00%	1
Wells	$35	1.00%	1
	$3,500	100.0%	3680
Combined share		45.0%	
Delta			400
Postmerger HHI			4080

All Ice Cream

	Revenues ($millions)	Share	HHI
Clare's	$5,000	26.7%	713
Breyers	$4,800	25.6%	657
Al's	$4,000	21.4%	456
Benny's	$1,400	7.5%	56
Turkey Hill	$900	4.8%	23
Blue Bell	$650	3.5%	12
Izzy's	$450	2.4%	6
Wells	$300	1.6%	3
Dino's	$175	0.9%	1
Eddy's	$35	0.2%	0
Store brands (10)	$1,015	5.4%	3
	$18,725	100.0%	1,930
Combined share		34.2%	
Premerger HHI			1,930
Delta			399
Postmerger HHI			2329

45%, Δ = 400, postmerger HHI = 4080
Strong HHI and judicial precedent case (including surpassing thresholds in *PNB*)

34.2%, Δ = 399, postmerger HHI = 2329
Relatively weak HHI and judicial precedent case (surpasses 30% *PNB* threshold and maybe 4CFR)
Strengthened by supporting theories of anticompetitive harm (below)

4. Write: The prima facie case

- The *PNB* presumption in the all-ice cream market
  - Instructor's answer (form prepared in advance):
    - First, look at *Philadelphia National Bank* (if applicable):

Although the FTC has not recently challenged a transaction in this range, the combined share of 34.2% and an increase in the 2-firm concentration ratio from 53.2% to 59.8% arguably could satisfy the *PNB* presumption under the facts of *Philadelphia National Bank*. Moreover, the change in the HHI of 399 and the resulting postmerger HHI of 2329, although not presumptively unlawful, is be high enough to raise significant competitive concerns under the Merger Guidelines. While most modern complaints filed by the FTC and DOJ have larger HHI statistics, especially in postmerger concentration, there is judicial precedent for finding a Section 7 violation with shares and concentration in the same range as we have here. *See, e.g.*, *United States v. UOM-Kymmene OYJ*, No. 03 C 2528, 2003 WL 21781902 (N.D. Ill. July 25, 2003) (complaint alleging combined market share of 20%, delta of 190, and postmerger HHI of 2990); *see also In re Evanston Northwestern Healthcare Corp*., No. 9315, 2007 WL 2286195, at *4 (FTC Aug. 6, 2007) (combined market share of 35%, delta of 384, and postmerger HHI of 2739).

4. Write: The prima facie case

- The *PNB* presumption in the all ice cream market
  - Instructor's answer (form prepared in advance):
    - Second, look at the Merger Guidelines thresholds:

> Although the FTC has not recently challenged a transaction in this range, the combined share of 34.2% and an increase in the 2-firm concentration ratio from 53.2% to 59.8% arguably could satisfy the *PNB* presumption under the facts of *Philadelphia National Bank*. **Moreover, the change in the HHI of 399 and the resulting postmerger HHI of 2329, although not presumptively unlawful, is be high enough to raise significant competitive concerns under the Merger Guidelines.** While most modern complaints filed by the FTC and DOJ have larger HHI statistics, especially in postmerger concentration, there is judicial precedent for finding a Section 7 violation with shares and concentration in the same range as we have here. *See, e.g.*, *United States v. UOM-Kymmene OYJ*, No. 03 C 2528, 2003 WL 21781902 (N.D. Ill. July 25, 2003) (complaint alleging combined market share of 20%, delta of 190, and postmerger HHI of 2990); *see also In re Evanston Northwestern Healthcare Corp*., No. 9315, 2007 WL 2286195, at *4 (FTC Aug. 6, 2007) (combined market share of 35%, delta of 384, and postmerger HHI of 2739).

4. Write: The prima facie case

- The *PNB* presumption in the all ice cream market
  - Instructor's answer (form prepared in advance):
    - Third, look at the case law:

Although the FTC has not recently challenged a transaction in this range, the combined share of 34.2% and an increase in the 2-firm concentration ratio from 53.2% to 59.8% arguably could satisfy the *PNB* presumption under the facts of *Philadelphia National Bank*. Moreover, the change in the HHI of 399 and the resulting postmerger HHI of 2329, although not presumptively unlawful, is be high enough to raise significant competitive concerns under the Merger Guidelines. **While most modern complaints filed by the FTC and DOJ have larger HHI statistics, especially in postmerger concentration, there is judicial precedent for finding a Section 7 violation with shares and concentration in the same range as we have here. *See, e.g.*, *United States v. UOM-Kymmene OYJ*, No. 03 C 2528, 2003 WL 21781902 (N.D. Ill. July 25, 2003) (complaint alleging combined market share of 20%, delta of 190, and postmerger HHI of 2990); *see also In re Evanston Northwestern Healthcare Corp*., No. 9315, 2007 WL 2286195, at *4 (FTC Aug. 6, 2007) (combined market share of 35%, delta of 384, and postmerger HHI of 2739).**

Note: Not the strongest case authority, but use what you can. If the HHIs were somewhat higher, you could add other cases.

4. Write: The prima facie case

- Additional evidence supporting the prima facie case
  - Coordinated effects—applies
    - State the test (prepared in advance)
      - Premerger, the market is susceptible to tacit coordination
      - The merger will increase the likelihood or effectiveness of tacit coordination
    - *Premium ice cream market*: Appy the test—on price
      - Premium ice cream market susceptible to tacit coordination
        1. Selection problem
           - Will the firms be able to "agree" to the price or other terms on which they will tacitly coordinate?
        2. Incentive compatibility problem
           - Will the (short-run) incentive to pursue a more competitively aggressive strategy, which all profit-maximizing firms have, undermine any tacit coordination?
        3. External interference problem
           - Apart from the firms in the market, will other entities disrupt any tacit coordination?
      - Merger will increase the probability and effectiveness of tacit coordination
        - Reduces significant firms from three to two
        - Creates a duopoly with two equal-sized firms (and a competitive fringe)
    - All-ice cream market
      - Analogous analysis

4. Write: The prima facie case

- Additional evidence supporting the prima facie case
  - Maverick—applies (Clare's is a maverick in pricing and innovation)
    - State the test (prepared in advance)
      - Premerger, the market is susceptible to tacit coordination
      - One of the merging parties is a disruptive force that impedes coordination (the "maverick")
      - The acquisition of the maverick will remove the disruptive force and increase the probability or effectiveness of tacit coordination
    - Apply the test to Clare's
      - Small firm premerger
      - Disrupted the ability of Al's and Benny's to raise prices premerger
      - Innovative—forced Al's and Benny's to follow
      - Large firm with single brand postmerger (45% share; tied for No. 1 with Al's)—reduces maverick incentives on both price and innovation
      - Bottom line:
        - Will enable more accommodating conduct on higher premium prices
        - Will enable more accommodating conduct on lower rates of premium innovation
    - Note
      - Works in both the premium ice cream market and the all ice cream market

4. Write: The prima facie case

Corrected Nov. 7, 2023

- Additional evidence supporting the prima facie case
  - Unilateral effects on price—does not apply
    - Test (prepared in advance)
      1. The products of the merging firm must be differentiated and have different dollar margins (premerger, postmerger, or both)
      2. The products of the merging parties must be close substitutes for one another
         - That is, they have high cross-elasticities of demand or diversion ratios 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 or low diversion ratios 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 merged firm
    - Apply the test
      - Premerger, Clare's and Benny's premium ice cream products were coincidentally sold at the same price and have the same dollar margin
      - Postmerger,
        - Clare's will consolidate the premium brands, so there will only brand, so there will be no differentiated premium products on which to increase the price of one product and divert sales to a second product to recapture profits
        - Little diversion from premium products to regular products (and vice versa), so the merged firm has no opportunity for unilateral effects by raising the price in one category and recapturing diverted sales in the other category

4. Write: The prima facie case

- Additional evidence supporting the prima facie case
  - Unilateral effects on innovation
    - Apply the test
      - Premerger, the Clare's was uniquely innovative in premium ice cream
        - Largely in an effort to increase market share
      - Postmerger,
        - Combined firm will have a large market share in premium ice cream
          - 45%--Tied for #1 with Al's
        - Given the large share, Clare's no longer has the same incentives to innovate
        - So the rate of innovation in premium ice cream would decrease even if all other firms continued to maintain their premerger innovation rates
    - Note
      - Works in both the premium ice cream market and the all ice cream market
      - Although this theory is sound, the reduction in innovation works better as a coordinated effect theory

4. Write: The prima facie case

- Additional evidence supporting the prima facie case
  - One more thing—GUPPIs
    - Think carefully whether you need to discuss GUPPIs
    - These are used in models to predict postmerger price increases
      - GUPPIs themselves are only indices—Standing alone, they do not tell you very much
      - There are no thresholds for when a GUPPI is “too high” and suggests an actionable anticompetitive price increase
    - The only models we have examined that simulate prices with GUPPIs are ones with *complete symmetry* between the merging firms
      - If you do not see complete symmetry in the model, chances are that there is little to say about GUPPIs

Remember, you will get no credit for discussing things that are not useful in answering the question presented!!

4. Write: Defendants' rebuttal arguments

- First, make sure you know what defenses need to be addressed:
  1. *Broad markets/ low HHIs*: The only relevant market is all ice cream, and in this market the merger is too small to create a competitive problem
  2. *Entry/expansion*: Even if premium ice cream is the relevant market, the HHIs based on actual sales, which are not that high, should be further downgraded in their probative value of anticompetitive effect given the supply-side substitutability between regular ice cream and premium ice cream
  3. *Expansion defense*: Dino's, which entered four years ago and today has the same share in premium ice cream as Clare's, will continue to grow its business aggressively, and its efforts will ensure that the premium ice cream market remains competitive postmerger
  4. *Continued maverickness*: Clare's, which will control the merged firm, will continue its philosophy of growing market share through competitive pricing and product innovation in premium ice cream and so benefit consumers given its larger sales base
  5. *Efficiencies*: The merger will produce substantial efficiencies that will offset any possible anticompetitive effect of the transaction. None of these arguments should successfully rebut the presumption that the transaction is anticompetitive

This is taken verbatim from the hypothetical. But you cannot always expect that the hypothetical will be so clear in mapping the defense arguments to the legal defenses.

Also, you may find it helpful to name the defenses

4. Write: Defendants' rebuttal arguments

1. *Broad market*: The only relevant market is all ice cream, and in this market the merger is too small to create a competitive problem
   a. *Key 1*: Analysis shows that premium ice cream is also a market (see above) in which the merger is anticompetitive
      - Sufficient that the merger be found likely to be anticompetitive in only one relevant market to be enjoined
   b. Could argue that all ice cream violates the "smallest market" principle
      - Still cited by some courts but rejected as a strict requirement in the 2010 Merger Guidelines and an increasing number of courts—unlikely to be a winning argument
   c. *Key 2*: The transaction is anticompetitive in an all ice cream market
      i. Shares alone (weakly) predicate the *PNB* presumption
      ii. Merger eliminates Clare's as a maverick and creates an anticompetitive unilateral effect in pricing and innovation
   d. Note on recapture unilateral effects in an all ice cream market
      i. There is no anticompetitive recapture unilateral effect in pricing because—
         a. the premerger margins of Clare's and Benny's products are the same, *and*
         b. Clare's is consolidating the merged firm's premium ice cream products into one brand → no opportunity for diversion through recapture postmerger
      ii. Of course, you could argue that although Clare's says that it will consolidate the brands postmerger, it is under no obligation to do so and if it maintains two brands postmerger there would likely be an anticompetitive unilateral effect in pricing

4. Write: Defendants' rebuttal arguments

2. *Rapid entrants*: Even if premium ice cream is the relevant market, the HHIs are not that high and should be further downgraded given the supply-side substitutability between regular and premium ice cream
   a. *Reject HHI premise*: HHIs high enough in actual sales to predicate the *PNB* presumption under judicial precedent and the Merger Guidelines
   b. *State test* for rapid entrants "defense"
      i. There exist firms that are likely to rapidly into production or sale of a product in the relevant market, without incurring significant sunk costs of entry and exit, *and*
      ii. This entry or expansion (collectively) would be sufficient to prevent any anticompetitive effect from the merger from occurring

   NB: Rapid entrants are treated under the Merger Guidelines as market participants and assigned market shares. Here, I have refashioned it as an entry/expansion defense. You can be a bit flexible in the technical treatment of rapid entrants (as long as it makes economic sense)

4. Write: Defendants' rebuttal arguments

2. *Rapid entrants (con't)*:
   c. *Apply test*: Reputational barriers are too high for meaningful rapid expansion—
      i. Despite Clare's and Dino's aggressive efforts to grow in premium ice cream, neither was able to obtain more than a 5% market within three years of entry
      ii. Clare's is purchasing Benny's because it did not believe it could grow its market share significantly in the coming years on its own
      iii. Significant price differential ($4.00 v. $3.00) and especially the margin differential (30% v. 20%) between premium ice cream and regular ice cream did not induce regular ice cream producers other than Clare's to materially shift or expand production into premium ice cream
   d. *Bottom line*:
      i. High reputational barriers prevent timely and sufficient entry to constrain pricing
      ii. No argument that entry (rapid or otherwise) would protect the market from an anticompetitive decrease in the innovation of new premium ice cream products

4. Write: Defendants' rebuttal arguments

2. *Rapid entrants (con't)*:
   - Alternative analysis using the Guidelines market participants approach
     - *State test*:
       - Rapid entry would have to occur at a sufficient level to negate the application of the *PNB* presumption (and rebut any explicit theories of anticompetitive effect)
     - *Apply test*:
       - During the investigation, the merging parties did not advance any evidence of the timing and magnitude of rapid entry, much least evidence sufficient to show that the magnitude would be sufficient to make the *PNB* presumption inapplicable
       - Moreover, it is unlikely that such evidence exists
         - Rerun arguments that reputational barriers are too high for meaningful rapid expansion
     - *Bottom line*:
       1. High reputational barriers prevent meaningful rapid entry or expansion sufficient to defeat the application of the *PNB* presumption
       2. No argument that rapid entry would defeat explicit theories of anticompetitive pricing effects
       3. No argument that entry (rapid or otherwise) would protect the market from an anticompetitive decrease in the innovation of new premium ice cream products

Either approach would be sufficient on an exam question

4. Write: Defendants' rebuttal arguments

3. *Expansion*: Dino's, which entered four years ago and today has the same share in premium ice cream as Clare's, will continue to grow its business aggressively, and its efforts will ensure that the premium ice cream market remains competitive postmerger
    a. State test (expansion defense—prepared in advance)
        i. Timely
        ii. Likely
        iii. Sufficient
    b. Apply the test—not timely or sufficient
        i. Dino's only reached a 5% market share after four years
        ii. Even if Dino's grows at its historical rate—about 50% per year—in another two years, Dino's would only have a market share of a little over 11%
        iii. Should only look at *incremental* growth resulting from the merger—parties presented no evidence of future incremental growth in response to the merger
        iv. Even if Dino's is successful in eventually creating enough downward pricing pressure to offset the merger's anticompetitive effect, until this time the merger would be anticompetitive and violate Section 7
        v. Even enough downward pricing pressure would not offset the anticompetitive effect of reduced innovation

4. Write: Defendants' rebuttal arguments

4. *Continued maverickness*: Clare's, which will control the merged firm, will continue its philosophy of growing market share through competitive pricing and product innovation in premium ice cream and so benefit consumers
   a. Clare's premerger incentives to price and innovate aggressively were designed to increase its market share and become a larger, more profitable firm. After the merger, Clare's will have achieved its goal of becoming a larger firm.
   b. Moreover, Al's and the combined firm will account for 90% of all premium ice cream sales → strong incentive to follow the leader (coordinated effects)
      - Under these conditions, it will be in the combined firm's profit-maximizing interest to follow Al's lead in increasing prices—or even to lead price increases itself—since the opportunity costs of *not* doing so will be so high
   c. Given this profit incentive, Clare's claim that it will continue to price and innovate aggressively after the merger, just as it did before the merger, should not be credited

4. Write: Defendants' rebuttal arguments

5. *Efficiencies*: The merger will produce substantial efficiencies that will offset any possible anticompetitive effect of the transaction
   a. Test (prepared in advance)
      i. Merger specific
      ii. Verifiable
      iii. Sufficient to overcome otherwise anticompetitive effects of the merger
      iv. Not resulting from an anticompetitive effect of the merger
   b. All claimed efficiencies are fixed cost efficiencies and are not cognizable in an efficiency defense
      i. Eliminating duplicative administrative and sales overhead
      ii. Streamlining the combined sales force
      iii. Taking advantage of some excess capacity to consolidate production
      iv. Reducing the number of the merged firm's operating plants
   c. No claim of other cognizable efficiencies

Fixed cost savings are likely to be present in most hypotheticals. Be sure that your boilerplate explains that fixed cost savings are not cognizable in an efficiencies defense because they do not offset the merged firm's anticompetitive pricing incentives and are not passed on to consumers.

4. Write: Conclusion on likelihood of success

- Instructor's answer

> **3. Conclusion on likelihood of success on the Section 7 merits**
>
> Under the standards used in the Horizontal Merger Guidelines and by the courts, the FTC should be able to establish its prima facie case that the merger violates Section 7 by likely increasing prices and reducing product innovation in both a nationwide premium ice cream and a nationwide all ice cream and defeat the expansion, pricing and innovation efficiencies, cost efficiencies, and price reduction defenses of the merging parties. This proves a likelihood of success on the merits of proving a Section 7 violation in both markets.

- No need to be elaborate here—details in the conclusion in the introduction
  - State the dimensions of the relevant product and geographic market
  - State the nature of the anticompetitive effect
  - State what defenses were rejected
  - Conclude on the likelihood of success on the merits

You can use some boilerplate here—but be sure to customize it to the problem!

4. Write: Weighing the equities

- Role of equities in applying Section 13(b) (prepared in advance)
- The equities
  - The public equities (prepared in advance)
    - Public interest in the enforcement of the antitrust laws
    - Public interest in ensuring full relief if merger is found to violate Section 7
    - Public interest in ensuring that an anticompetitive merger is not allowed to exist and create anticompetitive harm, even if temporarily
  - The private equities (largely prepared in advance)
    - Deal will crater
    - Loss of premium to Benny's shareholders
- Weighing the equities (prepared in advance)
  - Weigh in favor of the FTC if a likelihood of success of the merits is shown

5. Write: Conclusion

- Instructor's answer

> **5. Conclusion**
> For the reasons stated above, the Commission should prevail in its petition for a preliminary injunction under Section 13(b) of the FTC Act blocking Clare's acquisition of Benny's pending the conclusion of the administrative adjudication of the merits of the Commission's Section 7 claim against the transaction.

  - Again, no need to be elaborate if the conclusion paragraph in the introduction answers the specific questions asked

Final thoughts

- Graded homework problem
  - Posted November 10 (in the evening); due on November 20 by 8:00 pm
  - Counts as one-third of the course grade/two-thirds for final exam
    - Before any adjustments (see course introductory memorandum)
  - No homework required for classes during the graded homework period → Spend your time on the homework problem
  - No time limit
- Review session
  - Friday, November 10, 3:30 pm – 5:30 pm (McD 208)
- Don't hesitate to reach out to me with questions on concepts and general principles through the end of the semester
  - But I will not be able to answer questions specific to the graded homework assignment once it is posted

Use the graded homework assignment to nail down the rubric, the boilerplate, your exam strategy, any Excel spreadsheet templates, and your "copying and pasting" technique. These will pay large dividends during the timed exam.

Class 20 slides

13. Staples/Office Depot

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

November 7, 2023

S

STAPLES

The Office Superstore

Office DEPOT

OfficeMax

Taking care of business

The Background

The deal

- Staples to acquire Office Depot for $6.3 billion (cash and stock)
  - Announced February 4, 2015
    - Take 2: Parties attempted to merge in 1997. The FTC challenged the deal and obtained a Section 13(b) preliminary injunction and the parties subsequently abandoned the deal.
  - Total transaction value: $6.3 billion (cash + stock)
    - 65% premium over 90-day Office Depot average closing price
  - Office Depot shareholders will hold approximately 16% of the combined company
  - Combined company pro forma sales: $39 billion

The parties

- Staples
  - Largest supplier of office supplies
  - Opened first office products superstore in 1986
  - Operates in three business segments:
    - North American retail stores and online sales (48.0% of revenues)
      - 1,515 stores in the United States and 331 stores in Canada North American commercial sales (B2B contract sales) (34.8%)
    - North American Commercial (34.2%)
      - Focusing on B2B sales
    - International operations (17.2%)
      - Consists of businesses in 23 countries in Europe, Australia, South America and Asia
  - 2014 revenues: $22.5 billion

The parties

- Office Depot
  - Second largest supplier of office supplies
  - Opened first store in 1986
  - Acquired OfficeMax (third largest office supply superstore) on November 5, 2013
    - Announced February 2013
    - FTC closed investigation without enforcement action on November 1, 2013
  - Operates in three business segments:
    - North America retail (41% of revenues)
      - 1,912 office supply stores, including 823 OfficeMax stores
    - North American business solutions (B2B contract sales) (31.8%)
    - International (27.1%)
  - 2014 revenues: $16.1 billion

The deal

- Purchase agreement
  - Drop dead date: November 4, 2015 (9 months)
    - Automatic extension if antitrust conditions not satisfied to February 4, 2016 (one year after signing)
  - Divestiture obligation:
    - Office Depot stores with 2014 revenues up to $1.25 billion in the United States
      - 7.8% of Office Depot sales
  - Antitrust reverse termination fee: $250 million (4% of transaction value)

Deal rationale

- Office superstores being severely challenged by new competitors
  - New competitors since the original 1997 enjoined transaction
    - Mass merchants such as Walmart, Target and Tesco
    - Warehouse clubs such as Costco
    - Computer and electronics retail stores such as Best Buy
    - Specialty technology stores such as Apple
    - Copy and print businesses such as FedEx Office
    - Online retailers such as Amazon.com and other discount retailers
  - Concomitant sales declines

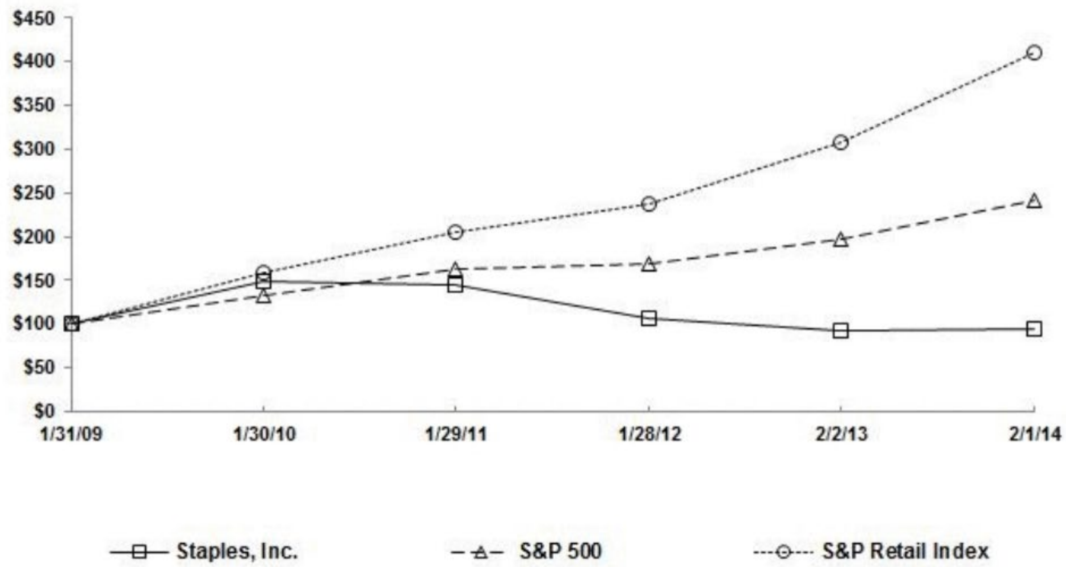
Sales Year-over-Year

	2011	2012	2013
Staples	-3.0%	-1.2%	-5.2%
Office Depot	-2%	-8%	-5%

  - Staples' response
    - Recently announced that it would be closing up to 225 stores
    - Reduced the size of its store prototype from 24,000 square feet to 12,000 square feet

Deal rationale

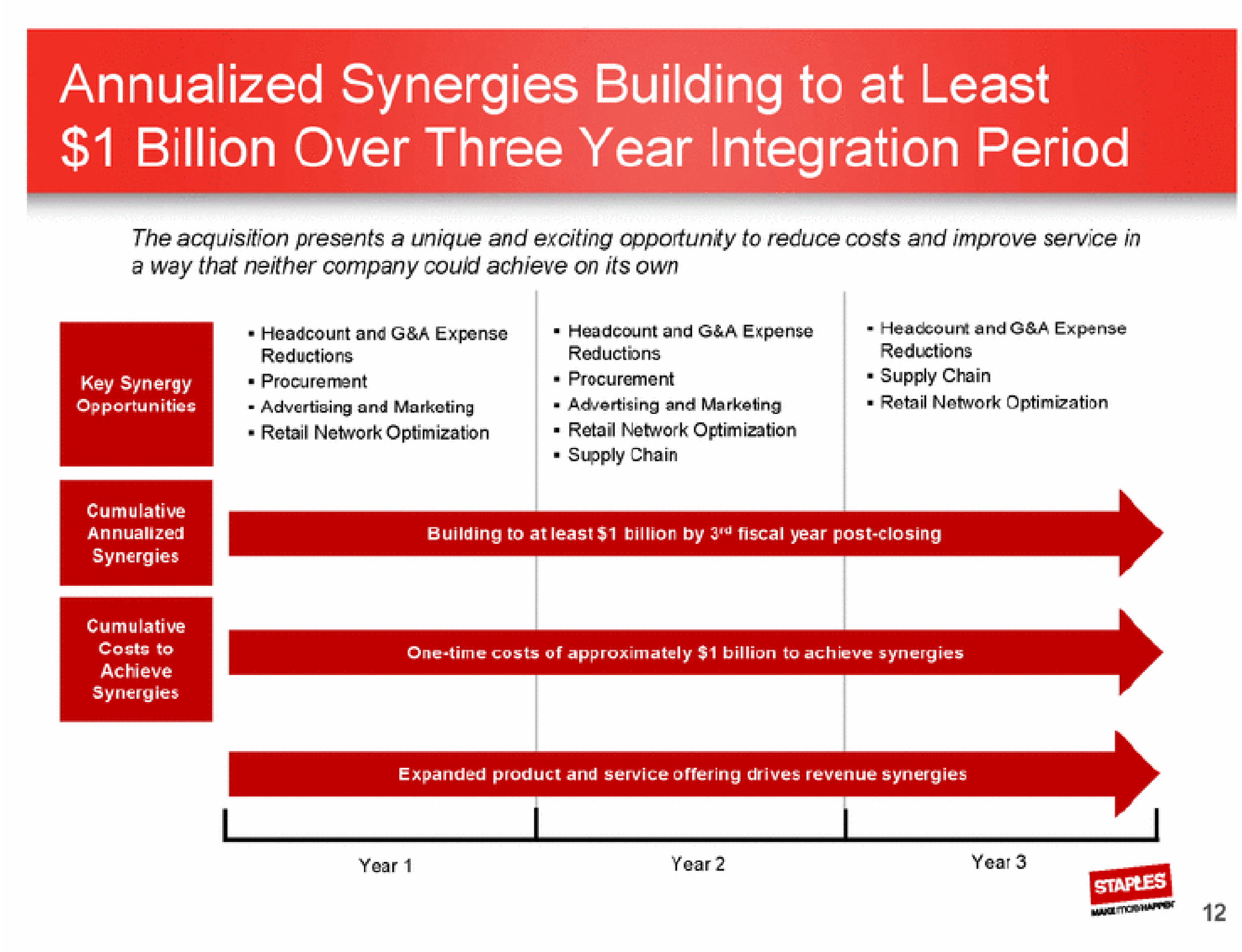
- Staples stock performance —Return on $100 investment on 1/31/2009



TOTAL RETURN TO STOCKHOLDERS

	31-Jan-09	30-Jan-10	29-Jan-11	28-Jan-12	2-Feb-13	1-Feb-14
Staples, Inc.	$ 100.00	$ 149.49	$ 144.63	$ 106.48	$ 92.95	$ 93.51
S&P 500 Index	$ 100.00	$ 133.14	$ 162.67	$ 169.54	$ 197.98	$ 240.58
S&P Retail Index	$ 100.00	$ 158.09	$ 205.24	$ 238.26	$ 307.32	$ 410.04

Deal rationale



The FTC investigation and litigation

- FTC investigated for almost one year

Date	Event
February 4, 2015	Deal signed
March 30, 2015	Second request issued
August 28, 2015	Staples and Office Depot certify substantial compliance
October 12, 2015	Staples and Office enter into a timing agreement with FTC not to close and the FTC agrees to decide outcome of investigation by December 8, 2015
November 4, 2015	Automatic extension of drop dead date to February 4, 2016
December 7, 2015	FTC challenges transaction by unanimous vote (4-0)

The complaint

- Two counts
  1. Acquisition, if consummated, would violate Clayton Act § 7
  2. Signing of the merger agreement violated FTC Act § 5
- Relevant market
  - Sale and distribution of consumable office supplies to large B2B customers in the United States
    - BUT excluding ink and toner for printers and copiers
  - *Query*: Why no challenge in retail markets?
- Prayer
  - Preliminary injunction pending resolution of the merits in an administrative proceeding

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

FEDERAL TRADE COMMISSION
600 Pennsylvania Avenue, N.W.
Washington, DC 20580

DISTRICT OF COLUMBIA
441 4th Street, N.W., Suite 600 South
Washington, DC 20001

COMMONWEALTH OF PENNSYLVANIA
14th Floor Strawberry Square
Harrisburg, PA 17120

Plaintiffs,

v.

STAPLES, INC.
500 Staples Drive
Framingham, MA 01702

and

OFFICE DEPOT, INC.
6600 North Military Trail
Boca Raton, FL 33496

Defendants.

Civil Action No. 15-cv-02115

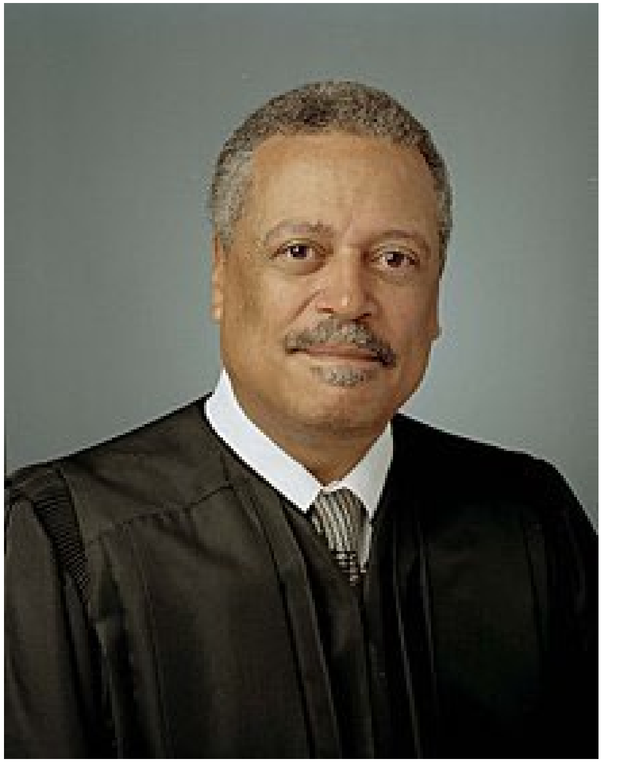
PUBLIC VERSION

COMPLAINT FOR TEMPORARY RESTRAINING ORDER
AND PRELIMINARY INJUNCTION PURSUANT TO
SECTION 13(b) OF THE FEDERAL TRADE COMMISSION ACT

Plaintiffs, the Federal Trade Commission ("FTC" or "Commission"), by its designated attorneys, and the District of Columbia and the Commonwealth of Pennsylvania, acting by and through their respective Office of Attorney General (collectively, "Plaintiff States"), petition this Court for a temporary restraining order and preliminary injunction enjoining Staples, Inc. ("Staples") from consummating its proposed merger (the "Merger") with Office Depot, Inc.

The District Court

- Tried in the District Court of the District of Columbia
  - Judge Emmet G. Sullivan
    - Appointed by President Clinton
    - Assumed office: June 16, 1994
    - First merger antitrust case



The Section 13(b) proceedings

- Timing developments

Date	Event
December 7, 2015	Section 13(b) complaint filled
December 21, 2015	Staples proposes divesting $1.25 billion in commercial contracts — FTC rejected with no counteroffer
February 2, 2016	Parties extend drop-dead date to May 16, 2016
February 10, 2016	EU approval (with conditions) — Divestiture of Office Depot's European contract business — Divestiture of all of Office Depot's operations in Sweden
February 16, 2016	Staples agrees to sell $550 million in large corporate contracts business to Essendent for $22.5 million — Conditioned on closing of Staples/Office Depot merger
March 21, 2016	Evidentiary hearing commences — 4 months after filing of the complaint

The Section 13(b) proceedings

- Discovery
  - 15 million pages of documents produced
  - >70 depositions taken
  - Five expert reports
- The trial
  - March 21, 2016, to April 5, 2016
  - 10 live witnesses
  - 4000 exhibits admitted
  - At the conclusion of the plaintiffs' case, the *defendants rested their case* without presenting any fact or expert witnesses
  - NB: Defendants represented to Court that they would *terminate their transaction* if the Court entered a preliminary injunction

PI entered: May 10, 2016
Deal terminated: May 10, 2016

The expert witnesses

- FTC expert: Carl Shapiro
  - Professor of Professor of Business Strategy, UC Berkeley
  - Former chief economist, Antitrust Division (twice)
  - One of two principal drafters of the 2010 Merger Guidelines
  - Former Member, Council of Economic Advisers
  - Very experienced trial expert witness
  - A favorite of the DOJ and FTC

- Merging parties: None
  - Rested their case without calling witnesses

Organization of opinion

- Relevant markets
  - The relevant geographic market
    - Stipulated to be the United States
  - The relevant product market
    - Consumable office supplies sold to B2B customers BUT excluding ink and toner
      - Legal principles considered when defining a relevant market
      - Application of legal principles to plaintiffs' market definition
      - Defendants' arguments in opposition to plaintiffs' alleged market
      - Conclusions regarding the relevant market
- Application of *PNB* presumption
  - Analysis of the plaintiffs' arguments relating to the probable effects on competition based on market share calculations
  - Defendants' arguments in opposition to plaintiffs' market share calculations
  - Conclusions regarding plaintiffs' market share
- Additional evidence of competitive harm
  - Plaintiffs' evidence of additional harm
- Defendants' further response to plaintiffs' prima facie case
  - Downward pricing pressure defenses
- Weighing the equities

The District Court Opinion

1. The Prima Facie Case

A. Relevant Geographic Market

Relevant geographic market

- Stipulated: The United States

The District Court Opinion
1. The Prima Facie Case
B. Relevant Product Market

Relevant product market: The parties' positions

- FTC alleged market
  - Sale and distribution of consumable office supplies to large B2B customers in the United States (excluding ink and toner)
    - Cluster market with a carveout
    - Also a targeted customer market
      - B2B customers (definition): spend $500K or more annually on office supplies (appx. 1200 companies)
      - The "large B2B" customers limitation essentially limits market participants to office supply superstores and a few other retailers (e.g., Amazon)
- The parties
  - Sale and distribution of all consumable office supplies by all firms
    - Cluster market without a carveout
    - No target customers

The Court: Accepts FTC's definition

- Notes that *cluster markets* and *targeted customer markets* are recognized by the courts and Merger Guidelines
- Three *Brown Shoe* factors support:
  1. Public recognition as a separate market (based on parties' business documents)
  2. Exhibits distinct prices and high sensitivity to price changes
     - Bid for vendors using RFPs for 3-5 yr. contracts (with upfront lump-sum rebates)
       - NB: Contracts not exclusive
     - Customer's "play" Staples and Office Depot off against each other
     - Pay about ½ compared to average retail customer
     - Bids are %-off list prices for core products
     - Customers will switch vendors for small percentage differences
  3. Consists of distinct customers with distinct requirements
     - Require bids by RFP
     - Require sophisticated IT capabilities
     - Personalized, high-quality customer service
     - Nationwide delivery to dispersed geographic locations
     - Expedited delivery services (next day and "desktop" delivery – direct to user within organization)
     - Internal business units organized to focus on B2B business

The Court: Accepts FTC's definition

- Hypothetical monopolist test satisfied
  - Parties agree on test and its applicability
  - *Evidence*: Shapiro expert testimony on hypothetical monopolist test
    - Court provides few details
    - An exhibit used in Shapiro's testimony shows he used a recapture analysis:

Hypothetical Monopolist Test ("HMT")
Depends on a Threshold Recapture Rate

- Using 5% price increase, HMT is satisfied if:

$$\textit{Recapture Rate} > \frac{10\%}{\textit{Profit Margin} + 10\%}$$

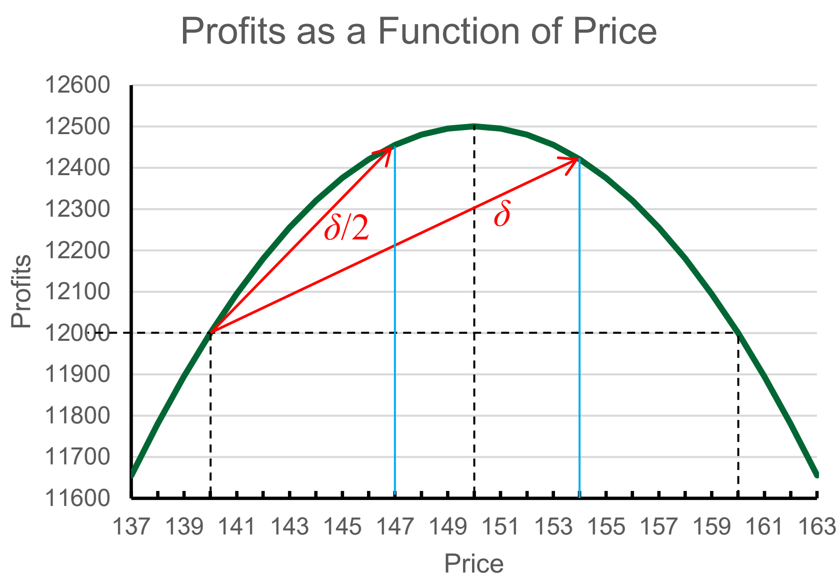
- Profit Margin estimates range = [redacted]% to [redacted]%
- Leads to Threshold Recapture Rate = [redacted]% to [redacted]%

Query: What kind of test is this? Is it the right test?

Query: If the SSNIP was 5%, why did Shapiro use 10% in calculating the critical recapture rate?

The Court: Accepts FTC's definition

- Hypothetical monopolist test satisfied
  - Shapiro testimony: Used the *profit-maximization version* of the HMT
    - Illustration—Not Shapiro's analysis
      - As shown by the diagram below, the equal profit-prices are at the prevailing price of 140 and at 160
      - For linear demand, the profit-maximizing price is one-half the distance between the equal profit prices—here, 150
      - So, for a SSNIP of 5% under a profit-maximizing HMT, use 10% in the critical loss or critical recapture formulas: Profitability under 2×SSNIP → Satisfies profit-maximization HMT



Propositions:

1. If a SSNIP δ is profitable, then the profit-maximizing percentage price increase is at least $\delta/2$
2. If a SSNIP δ is not profitable, then the profit-maximizing percentage price increase is less than $\delta/2$

NB: This technique works only with linear demand curves

Aside: Merger simulation

- *Example*: $\delta/2$ simulation

This is new and important

Widgets are homogeneous products and there are multiple firms producing them. The prevailing market price is 140, the aggregate production quantity is 300, and the marginal cost is a constant 100 for all producers. If the price of all widgets were to increase by 5%, aggregate quantity would decrease by 11.67%. What is the profit-maximizing price increase δ_{Max} for the hypothetical monopolist?

- *Answer*:
  - Set critical elasticity equal to actual elasticity to create a breakeven condition with an unknown price increase *x*:

$$\varepsilon_{Actual} = \frac{\%\Delta q_1}{\%\Delta p_1} = \frac{11.67\%}{5\%} = \frac{1}{x+m} = \frac{1}{x+\dfrac{40}{140}} = \varepsilon_{Critical}$$

  - Solve for the breakeven percentage price increase *x* using Mathpapa: *x* = 0.1428
  - The hypothetical monopolist profit-maximizing price increase is:

$$\delta_{Max} = \frac{x}{2} = \frac{0.1428}{2} = 0.0714 = 7.14\%$$

Taking into account rounding error, this is the profit-maximizing percentage price increase for the hypothetical monopolist (which yields a dollar price increase of $10)

The Court:

- Accepts FTC's definition
  - Proposed market encompasses all methods of procuring office supplies by large companies
    - Types of suppliers included in proposed market:
      - Primary vendors
      - Off-contract purchases
      - Online
      - Retail
    - Evidence
      - Customers
      - Documents (?)
      - Competitors
  - Note
    - Court relies on both the Shapiro and customer testimony for the proposition that companies can get lower prices because of the competition between Staples and Office Depot → a hypothetical monopolist could raise prices
    - WDC: This amounts to using an anticompetitive effect to prove market definition

The Court: Rejects defendants' attack

- *Argument 1*: Gerrymandered cluster market
  - Parties' position:
    1. No principled reason to exclude BOSS—Just made for litigation
       - Plaintiffs admit that excluded products are included in primary vendor contracts "the overwhelming majority of the time"
    2. Definition inconsistent with the one used by the FTC in assessing the 1997 proposed merger
    3. FTC made the decision on exclusions prior to Shapiro's independent determination

    NB: But defendants did not invoke *Brown Shoe* factors or hypothetical monopolist test to justify inclusion
  - Court: Rejects argument
    - Defendants' arguments fail to address the key question: "[A]re the items subject to the same competitive conditions?"

The Court: Rejects defendants' attack

- *Argument 1*: Gerrymandered cluster market
  - Court: Rejects argument (con't)
    1. Ink, toner , and BOSS subject to different competitive dynamics given competition from Managed Print Services vendors (e.g., Xerox, H-P, Lexmark, Ricoh)—
       - Recall, contracts not exclusive, so customers can purchase from other vendors
       - The number of companies providing ink and toner ("Managed Print Services" or "MPS") to large customers is greater than the number providing other consumable office suppliers
       - Customers view MPS vendors as viable contracting suppliers of ink and toner, but view only Staples and Office Depot as viable contracting suppliers for other consumable office supplies
       - Customers frequently disaggregate purchases of ink and toner from purchases of other consumable office supplies
       - Parties' market shares in ink and toner were lower than they are in the alleged relevant market, showing the lack of "analytical similarity" with the FTC's alleged relevant product market
       - *WDC*: Missed the most important thing: Products can be and are separately priced to respond to product-by-product competitive conditions that are different from other products in the cluster market
    2. Competitive conditions have "dramatically" changed since 1997
       - MPS vendors did not exist at the time
       - Case focused on retail consumers and not contract channels for large B2B customers
    3. Irrelevant that the FTC decided on exclusions prior to Shapiro making an independent determination
       - "Voluminous" empirical evidence supports the exclusions

The Court: Rejects defendants' attack

- *Argument 1*: Gerrymandered cluster market
  - A point not made in the opinion (but should have been): Staples breaks out ink, toner and BOSS in its SEC reporting, indicating that it views them as separate business lines:

	Fiscal Year Ended		
	February 1, 2014	February 2, 2013	January 28, 2012
Core office supplies	27.5%	28.1%	29.4%
Ink and toner	20.2%	19.7%	19.5%
Business technology	15.2%	16.6%	18.0%
Paper	9.0%	9.0%	9.0%
Facilities and breakroom	8.7%	7.4%	6.5%
Computers and mobility	6.9%	6.9%	6.8%
Services	6.9%	6.7%	5.7%
Office furniture	5.6%	5.6%	5.1%
	100.0%	100.0%	100.0%

  - The FTC's relevant product market appears to encompass:
    - Core office supplies (27.5%)
    - Paper (9.0%)

36.5% of Staple's overall business

So a cluster market does not have to contain the bulk of a firm's business

The Court: Rejects defendants' attack

- *Argument 2*: Improper to limit the market to large B2B customers
  - Parties' position
    - Plaintiffs' attempt to protect "mega companies" is misplaced, because the merger "indisputably will benefit all retail customers, and more than 99 percent of business customers"
  - Court: Rejects argument
    - Antitrust laws exist to protect customers, including relatively small targeted groups
      - Recognized by Merger Guidelines
      - Part of the judicial "submarket" concept
    - Here—
      - "Large" customers can be identified by suppliers
      - Can be differentially priced
      - No meaningful opportunities for arbitrage (i.e., markets are separable)
    - "Significantly, Defendants themselves used the proposed merger to pressure B-to-B customers to lock in prices based on the expectation that they would lose negotiating leverage if the merger were approved."
      - *QUERY*: Why did the Court think this was significant?
      - *QUERY*: What was really going on here?

The District Court Opinion

1. The Prima Facie Case

C. The *PNB* Presumption

PNB presumption triggered

- Data
  - Carl Shapiro used data obtained from a survey of Fortune 100 companies—81 responded with sufficient data:
    - Their overall spend on consumable office supplies
    - The amount spent on consumable office supplies from Staples
    - The amount spent on consumable office supplies from Office Depot

- Plaintiffs' market shares and HHIs
  - From opinion:

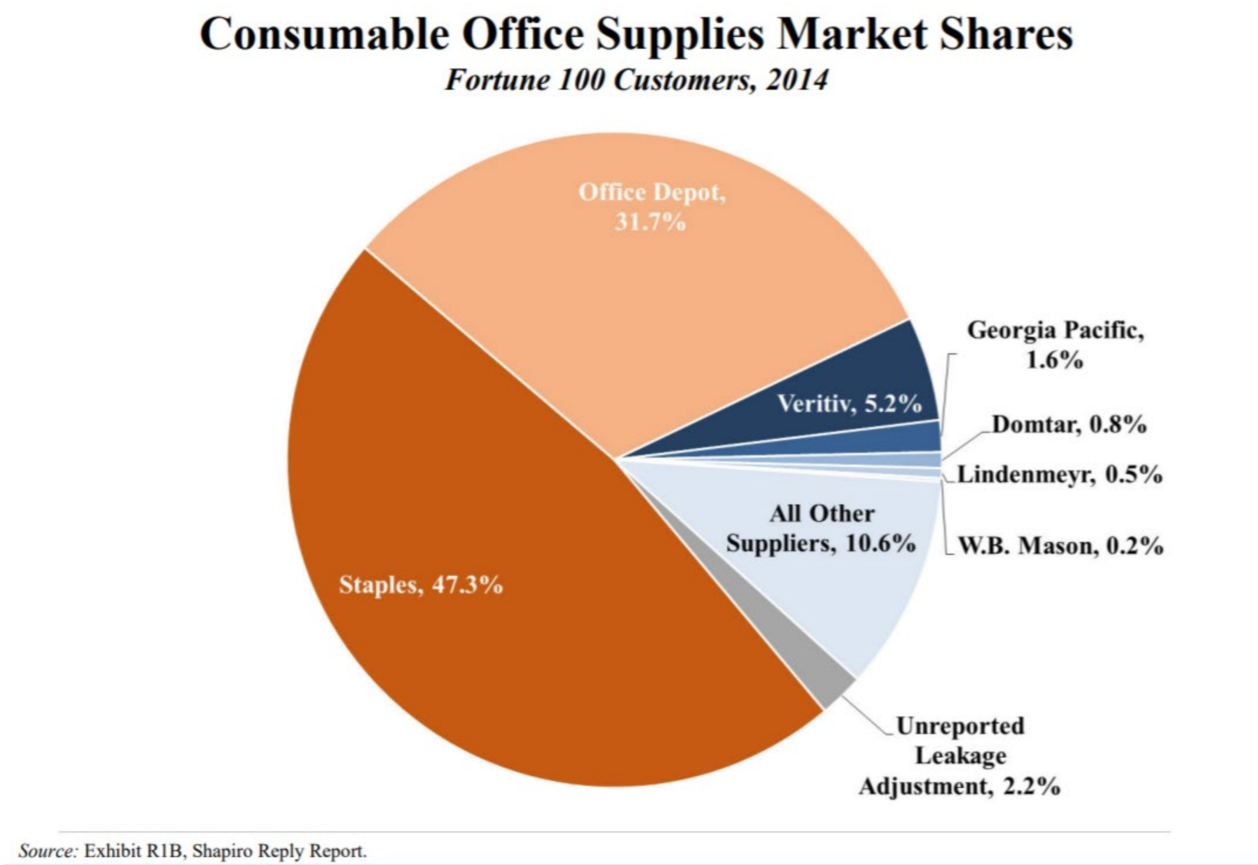
	Share	HHI
Staples	47.3%	2237
Office Depot	31.6%	999
Others (6)	21.1%	74
TOTAL	100.0%	3310
Combined	78.9%	3310
Delta		2989
Post		6299

> *WDC*: I arbitrarily chose the number of equally sized "other" suppliers—this is not in the opinion. Note that the HHIs are not especially sensitive to the number of "other" firms

  - *Court*: "Put another way, Staples and Office Depot currently operate in the relevant market as a 'duopoly with a competitive fringe'"

PNB presumption triggered

- Plaintiffs' market shares and HHIs
  - From Shapiro exhibit



PNB presumption triggered

- Plaintiffs' market shares and HHIs
  - From Shapiro exhibit

Consumable Office Supplies Market Shares: Core v. Paper

Fortune 100 Customers, 2014

Supplier	Consumable Office Supplies	Core	Paper
Staples	47.3%	48.4%	46.2%
Office Depot	31.7%	38.3%	25.2%
Other Suppliers	21.0%	13.3%	28.6%
Staples + Office Depot	79.0%	86.7%	71.4%

Sources: Exhibits R1B, R3A, and R3B, Shapiro Reply Report.

PNB presumption triggered

- Court:
  - Triggers *PNB* presumption and establishes a prima facie case of anticompetitive effect
  - NB: Court used only Merger Guidelines thresholds to reach this result

PNB presumption triggered

- Defendants' attack
  1. Challenged whether sample was representative of buyers in the relevant product market
     - 1200 companies in relevant market
     - Only 81 companies responded with sufficient data
  2. Did not adequately account for "leakage"(unreported discretionary "purchases" by employees)
     - Shapiro survey asked for leakage data
     - 26 reported
     - 12 indicated that leakage was de minimis
     - Fact witnesses testified that leakage was insignificant
     - Shapiro assumed 1%
- Court: Rejects attacks as speculative
  - *WDC*: Big problem for defendants
    - Failed to offer alternative data or analysis that would reach a materially different result

The District Court Opinion
1. The Prima Facie Case
D. Additional Evidence of Anticompetitive Effect

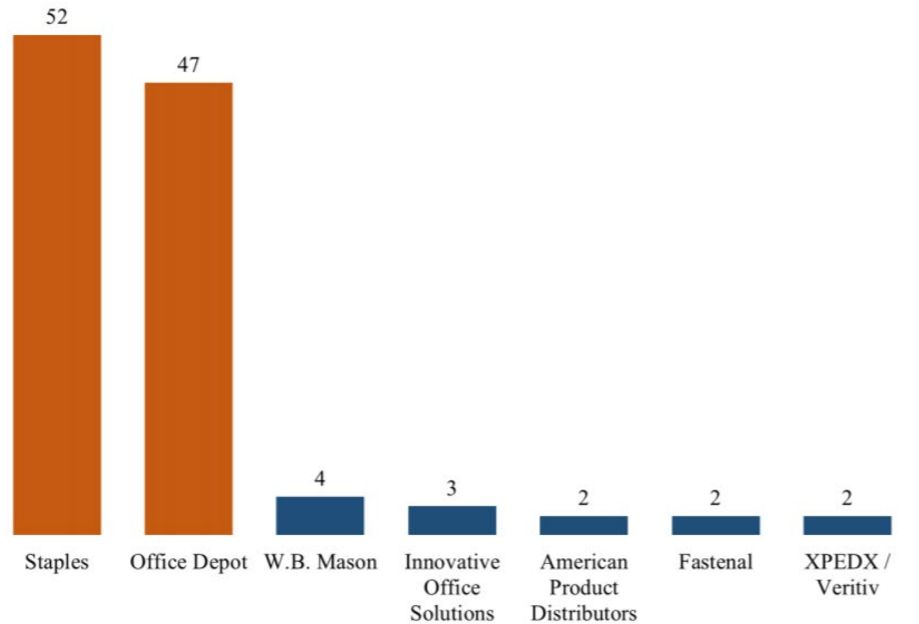
Additional evidence: Unilateral effects

1. Bidding data showed that Staples and Office Depot engaged in significant head-to-head competition
   - 81% of Staples' bid losses were to Office Depot
   - 79% of Office Depot's bid losses were to Staples
   - Often "played off" against each other by customers

Additional evidence: Unilateral effects

1. Bidding data showed that Staples and Office Depot engaged in significant head-to-head competition
   - From Shapiro exhibit:

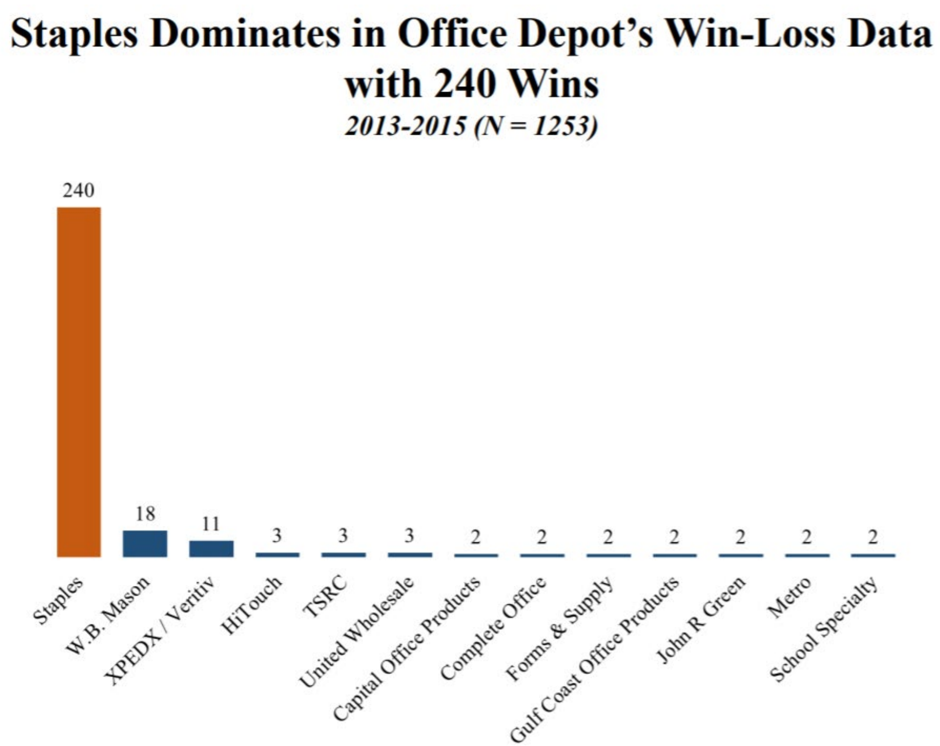
Staples and Office Depot Dominate in Fortune 100 RFP Data Appearances
***N* = 52**



Note: Based on most recent event at each Fortune 100 customer, 2012-2015. In total, 45 suppliers are mentioned.
Source: Exhibit R7A, Shapiro Reply Report.

Additional evidence: Unilateral effects

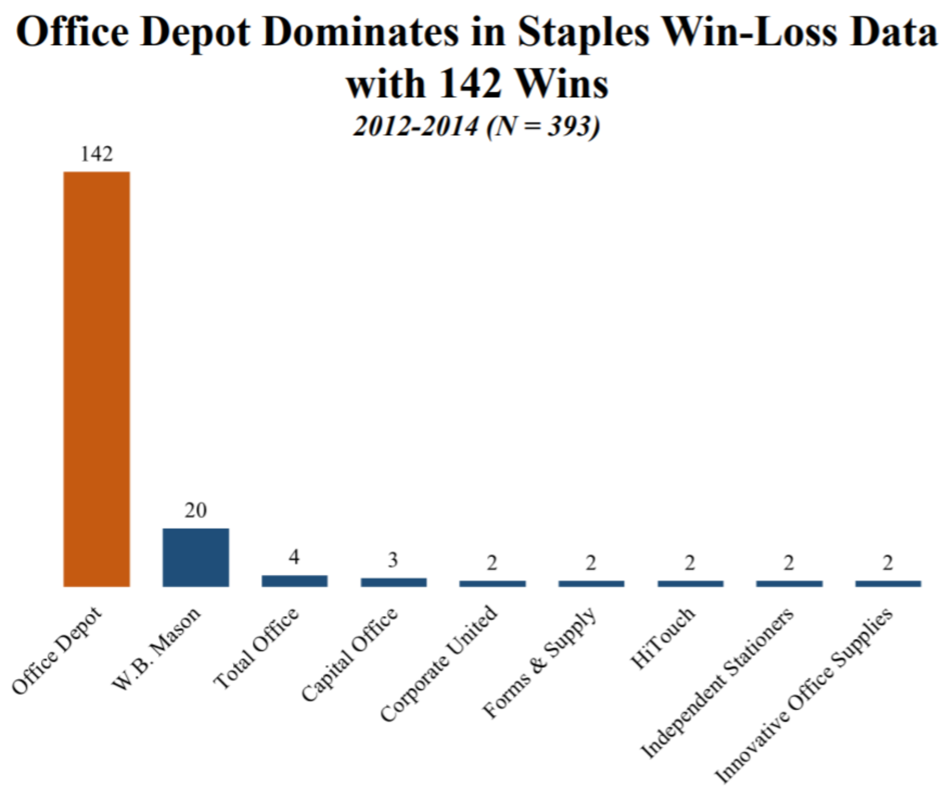
1. Bidding data showed that Staples and Office Depot engaged in significant head-to-head competition
   - From Shapiro exhibit:



Note: Competitors listed have at least 2 wins. In total, 40 competitors are mentioned.
Source: Exhibit 10, Shapiro Report.

Additional evidence: Unilateral effects

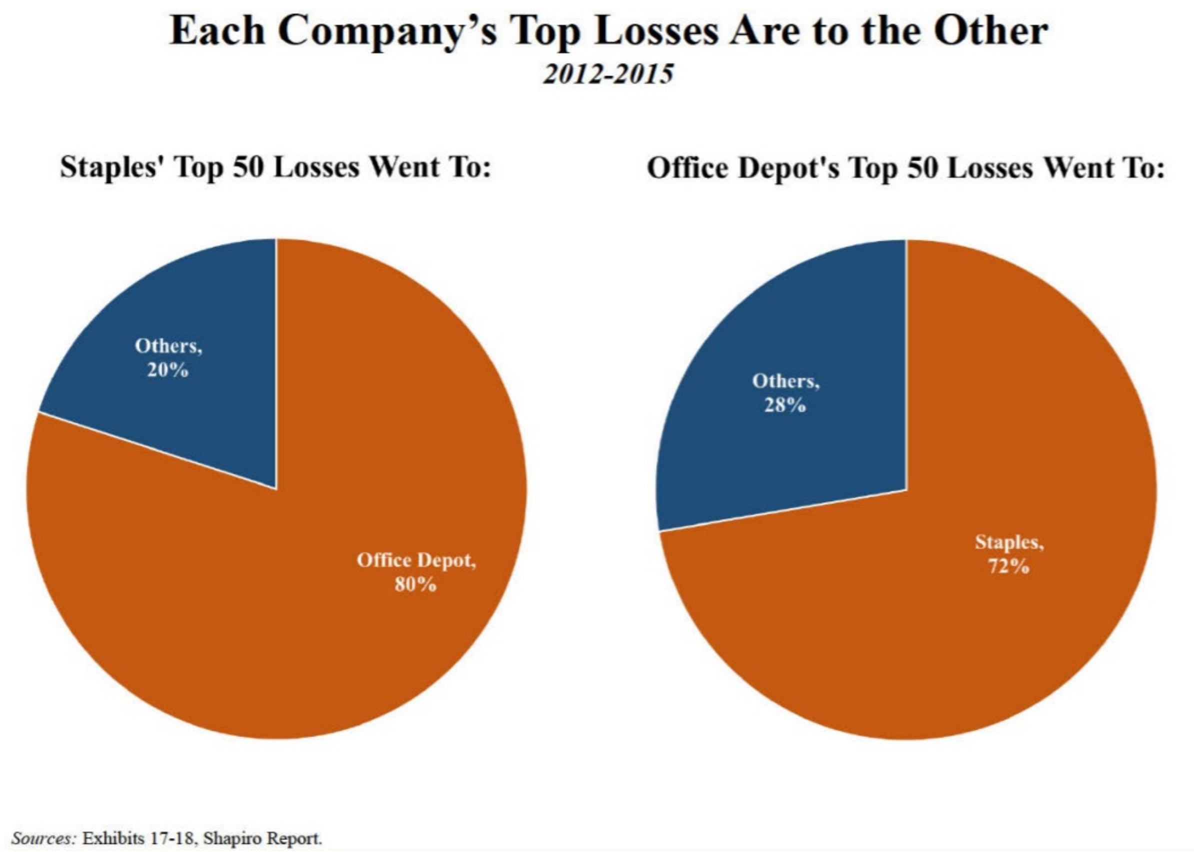
1. Bidding data showed that Staples and Office Depot engaged in significant head-to-head competition
   - From Shapiro exhibit:



Note: Competitors listed have at least 2 wins. In total, 27 competitors are mentioned.
Source: Exhibit 11, Shapiro Report.

Additional evidence: Unilateral effects

1. Bidding data showed that Staples and Office Depot engaged in significant head-to-head competition
   - From Shapiro exhibit:



Additional evidence: Unilateral effects

2. B2B customers see the merging parties as each other's most significant, if not only, competitor
   - From Shapiro exhibit:

Customers Recognize Staples and Office Depot as Closest Competitors

- [redacted] (June, 2015): "Only two B2B providers, Staples and Office Depot, are left in the Office Supplies space since the merger of Office Depot and OfficeMax."
- [redacted] (April, 2014): "Only two providers can support requirements, Staples and Office Depot"
- [redacted] (November, 2013): "The Big Three are soon to become the Big Two, and will make up 75% of total market share"

Sources: *See* Shapiro Rpt. at 26 (citing PX07008, PX07001, PX07010).

Additional evidence: Unilateral effects

3. Party ordinary course of business documents show that each views the other as its most significant competitor
   - From Shapiro exhibit:

Staples and Office Depot Recognize They Are Closest Competitors

- Staples (November, 2013): "There are only two real choices for customers. US or Them."
- Office Depot (March, 2014): "only 2 primary players in the Enterprise space."
- Office Depot (February, 2015): "I am sure you have heard the news today regarding the Staples acquisition…. I thought it was odd after the Max/Depot merger that global and large national organizations had basically only two options for office supplies. If this deal is approved that will dwindle to one.

  For companies wanting savings, new terms, or additional incentives now is the time to ink those details in a long term contract. [sic] with Depot."

Sources: *See* Shapiro Rpt. at 24-25, 40 (citing PX04082, PX05250, PX07175).

The District Court Opinion
2. Defendants' Rebuttal Arguments

Additional evidence of anticompetitive effect

> Defendants' sole argument in response to Plaintiffs' *prima facie* case is that the merger will not have anti-competitive effects because [1] Amazon Business, as well as [2] the existing patchwork of local and regional office supply companies, will expand and provide large B-to-B customers with competitive alternatives to the merged entity.[1]

- *Remember*:
  - Staples and Office Depot did not call any witnesses
  - Evidence closed after the plaintiffs presented their case-in-chief
- Queries:
  - How did the defendants get support for these arguments into evidence?
  - What was Staples' strategy here?

[1] FTC v. Staples, Inc., 190 F. Supp. 3d 100, 133 (D.D.C. 2016).

Amazon Business

- Defendants' position:
  - Amazon Business, a newly emerging company in the B2B space, would replace any lost competition
    - Started in 2015
  - *WDC*: This is an expansion defense
- Court: Rejected—Fails sufficiency and timeliness requirements
  - Court: Although Amazon Business has some impressive strengths, it—
    1. Lacks of RFP experience
    2. Has no commitment to guaranteed pricing
    3. Lacks ability to control third-party price and delivery [half of AB's sales are through 3Ps]
    4. Has no ability to provide customer-specific pricing
    5. Lacks customer service agents dedicated to the B2B space
    6. Has no desktop delivery
    7. Has no proven ability to provide detailed utilization and invoice reports
    8. Lacks product variety and breadth
  - Also, has a low market share projected for 2020, so are unlikely to provide significant additional competition in the four years following a Staples/Office Depot merger

Amazon Business

- WDC: The court could have gone further
  - Assume that Amazon is a committed expander
  - Consider the HHIs if Amazon had already expanded and taken 30% or even 50% of the business of each of Staples and Office Depot:

	Before Amazon		After Amazon (30%)		After Amazon (50%)	
	Share	HHI	Share	HHI	Share	HHI
Staples	47.3%	2237	33.1%	1096	23.7%	559
Office Depot	31.6%	999	22.1%	489	15.8%	250
Amazon	0.0%	0	30.0%	900	50.0%	2500
Others (6)	21.1%	74	14.8%	36	10.6%	19
TOTAL	100.0%	3310	100.0%	2522	100.0%	3328
Combined	78.9%	3310	55.2%	2522	39.5%	3328
Delta		2989		1465		747
Post		6299		3987		4075

  - These are all in ranges in which the *PNB* presumption has been triggered and courts have found Section 7 violations
    - Not surprising, since even with Amazon as a major player, the transaction is a 3-to-2 merger with a fringe

WB Mason and other competitors

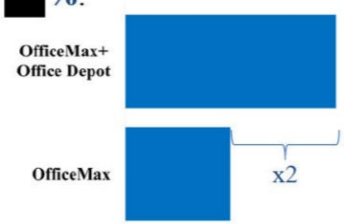
- Defendants' position:
  - *WB Mason* and other competitors would grow to replace any competition lost as a result of the merger
  - This is a type of entry/expansion defense
- Court: Rejected
  1. WB Mason is a regional supplier that targets 13 NE states and DC
     - $1.4 billion in revenues
  2. Distant #3, with less than 1% market share
     - No customers in the Fortune 100
     - Nine customers in the Fortune 1000
  3. Does not have resources to serve nationwide customers
  4. Does not bid for large RFPs outside of "Masonville" [DC] (where it is located)
  5. CEO testified that WB Mason does not have the desire or ability to compete with the merged company outside of Masonville

WB Mason and other competitors

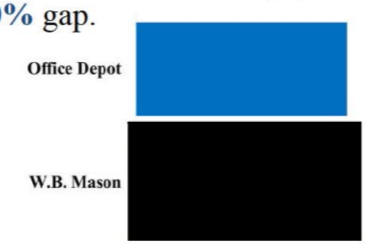
- Court: Rejected
  6. *Purchasing economies of scale*: Costs are higher than Staples and Office Depot, since WB Mason and other competitors must purchase through wholesalers rather than manufacturers
     - From Shapiro exhibit:

Estimate of a COGS Gap
Between W.B. Mason and Office Depot

- Based on estimates from OfficeMax-Office Depot merger, doubling in scale lowers COGS by [redacted]%.



- W.B. Mason would need to double roughly [redacted] times to match Office Depot's scale – implying a **6.0%** gap.



WB Mason and other competitors

- Court: Rejected
  6. *Purchasing economies of scale*: Costs are higher than Staples and Office Depot, since WB Mason and other competitors must purchase through wholesalers rather than manufacturers
     - From Shapiro exhibit:

Other Market Participants Have Higher COGS

- **W.B. Mason**: "I believe that no other vendor can consistently compete effectively with Staples or Office Depot on the cost of goods. They purchase far more volume from manufacturers than any other vendor. From my experience as a buyer of office supplies from manufacturers, I know Staples' and Office Depot's unmatched scale leads to unmatched buying power. WBM, as the third-largest office supplies vendor in the country, has some ability to obtain discounts from manufacturers, but not as much as Staples and Office Depot, so our cost of goods is higher."

- [redacted]: "In terms of overall purchase volume, it is generally true that the more a customer buys [redacted] the better the overall pricing and program incentive. As a result, Office Depot and Staples typically receive better combined pricing and program incentives based on their mix of purchases (less commodity/higher value mix) than do smaller independent dealers. Further, independent dealers often require additional services [redacted] (e.g., catalog support, marketing programs, digital platform support, etc.), which must be covered in the overall transactional pricing and incentive programs that they receive."

- [redacted]: "Based on my experience working for [redacted] for over a decade, I am familiar with the difference in COGS that large companies like Staples and Office Depot can negotiate with manufacturers compared to [redacted]. Although it varies based on the commodity and manufacturer, I estimate that Staples and Office Depot are able to obtain a net cost differential (including back-end rebates) of about 5% to 25% lower [redacted]."

WB Mason and other competitors

- Court: Rejected
  7. WB Mason would not commit to expand nationally even if Staples and Office Depot financed the expansion through a “cash divestiture”

WB Mason and other competitors

- Court: Rejected
  7. Other firms would not expand even in the event of a SSNIP
     - From Shapiro's exhibit:

Competitor Views on Expansion

- [redacted]: "[redacted] has no specific plans to expand into any new markets."
- [redacted]: "Even if Staples merged with Office Depot and the combined firm raised prices significantly (by 10%, for example), we would not alter our expansion plans. We currently do not have any excess physical capacity."
- [redacted]: "[redacted] has no material plans to pursue large national or multiregional customers, like Fortune 1000 companies. [redacted] does not have the resources to expand our geographic footprint or invest in the services necessary to compete for these large customers, and I do not see [redacted] making these investments within the foreseeable future."
- [redacted]: "[redacted] focuses on customers smaller than [the Fortune 1000], mostly within our primary operating region."
- [redacted]: "[redacted] has] no foreseeable plans to materially expand our business to pursue large national or multiregional accounts, such as Fortune 500 companies."
- [redacted]: "[redacted] would find it prohibitively expensive to make the investments necessary to compete for large business customers the way Staples and Office Depot do today."
- [redacted]: "[redacted] lack of a national sales and distribution network has impeded our ability to win national accounts. . . . More often than not, we choose not to bid on national accounts, because…it is an exercise in futility."

WB Mason and other competitors

- Court: Rejected
  - *Conclusion*: No evidence that supports defendants' contention that a collection of regional or local office supply companies could meet the needs of B2B customers

The District Court Opinion
3. Determining the Net Anticompetitive Effect

Determining the net anticompetitive effect

- Unnecessary to proceed to Step 3 of *Baker Hughes* since the defendants failed to produce sufficient evidence to put the prima facie case in dispute

It is fairly common in judicial decisions for courts to reach for "corner solutions"—finding a failure of proof in Step 1 or in Step 2 in order to avoid balancing in Step 3

The District Court Opinion
4. Balancing the Equities

The equities

- FTC: Equities in favor or entering preliminary injunction
  - Public interest in effectively enforcing antitrust laws
  - Public interest in ensuring that the FTC can order effective relief if it succeeds at the merits trial

The canonical public equities

- Merging parties: Equities in favor of denying the preliminary injunction
  - None addressed in the opinion

PI entered: May 10, 2016
Deal terminated: May 10, 2016

Class 21 slides

14. Elimination of Potential Competition

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

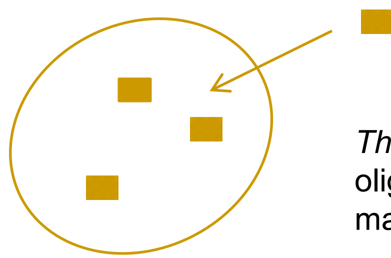
November 9, 2023

Three potential competition theories

1. Elimination of actual potential competition
2. Elimination of perceived potential competition
3. Elimination of a nascent competitor by a dominant firm

Actual potential competition

- The idea
  - An incumbent firm acquires a target that otherwise would have entered the market, reduced concentration, and increased competition
  - The acquisition of the "actual potential entrant" eliminates an increase in *future* competition that would have occurred but for the acquisition



Actual potential entrant

Theory: Entry would deconcentrate an oligopolistically performing market and make it more competitive

Actual potential competition

- The idea
  - Acceptance by courts
    - The Supreme Court has reserved judgment on the elimination of actual potential competition[1]
      - When these cases were decided, the Court has not yet developed the view that the proper test of the effect of a merger on competition was to compare the market outcomes going forward with and without the merger
      - The prevailing view was whether the acquisition reduced postmerger competition compared to premerger competition
    - Lower courts, the FTC, and the 1984 DOJ Merger Guidelines "recognize" the elimination of actual potential competition as an actionable anticompetitive harm under Section 7
      - Most courts accept the theory assuming its validity
      - A final decision of the theory's validity has not been necessary since not modern litigated case has found the elements of the theory satisfied on the merits
      - But it is clear from reading the opinions that the lower courts think the theory should be cognizable and would so hold if the merits favored the plaintiff
      - Courts should recognize the theory—and presumably the Supreme Court will if and when presented with the question—given the modern test of competitive effects

[1] *See* United States v. Marine Bancorporation, Inc., 418 U.S. 602, 625, 639 (1974); United States v. Falstaff Brewing Corp., 410 U.S. 526, 537-38 (1973).

Actual potential competition

- Five elements of the actual potential competition theory of harm
  1. *Noncompetitiveness*: The relevant market is operating noncompetitively
  2. *Uniqueness*: The actual potential entrant is relatively unique in its ability to enter the relevant market
  3. *Ability*: The actual potential entrant must have an "available, feasible means" of procompetitive entry
  4. *Incentive/likelihood of entry*: In the absence of the acquisition, the actual potential entrant would likely enter the relevant market "in the near future"
  5. *Procompetitive effect*: If the actual potential entrant in fact entered the market, it would enter at a scale that would materially improve the competitive performance of the market

Different courts may articulate the elements somewhat differently, but they all can be unpacked into these five elements

Actual potential competition

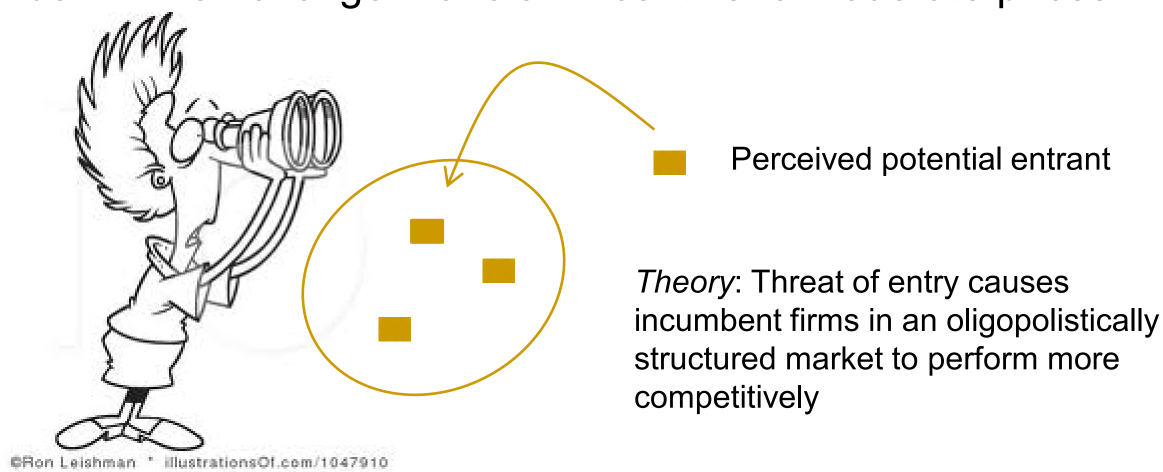
- Remedies
  - Typically, requires the divestiture of the incumbent product
  - Divestiture of assets of the actual potential entrant can be problematic—
    - Oftentimes, little to divest from the actual potential entrant (especially if only in the planning stages)
    - May be difficult to ascertain the commitment of the divestiture buyer to enter or the degree of success it is likely to have
  - Exception: When—
    1. There are substantial assets related to entry to be divested, *and*
    2. There is strong reason to believe that the divestiture buyer will have at least as much success in entering as the divestiture seller

    the agencies will accept the divestiture of entry-related assets

- The practice
  - Although modern courts have not found for the government under this theory, the agencies have used the theory to obtain divesture consent decrees when—
    1. The alleged target market is highly concentrated,
    2. There are few if any other similar or better situated actual potential entrants, *and*
    3. Entry by the putative actual potential entrant is almost certain in the immediate future

Perceived potential competition

- The idea
  - Incumbents firm fear the perceived potential entrant will enter the market and hence have moderate their prices (“limit pricing”) to discourage that firm from actually entering
  - An acquisition by an incumbent firm of the perceived potential entrant eliminates the threat of entry and incumbent firms no longer have an incentive to moderate prices



- Theory recognized by the Supreme Court
  - The Supreme Court has recognized the elimination of perceived potential competition as a valid theory of anticompetitive harm
  - Ironically, the agencies have used the theory rarely (if at all) since 1980 since it is almost impossible to show that incumbent firms have engaged in limit pricing to discourage entry

Perceived potential competition

- Five elements of the perceived potential competition theory of harm
  1. *Noncompetitiveness*: The relevant market must be susceptible to operating noncompetitively
  2. *Uniqueness*: The perceived potential entrant is relatively unique in its ability to enter the relevant market
  3. *Perception*: Incumbent firms must perceive the firm as a likely potential entrant
  4. *Incumbent reaction*: Incumbent firms must be responding to the perceived threat of entry by lowering their prices ("limit pricing"), improving their product quality, or engaging in some other procompetitive activities in order to discourage the entry of the perceived potential entrant
  5. *Anticompetitive effect*: Removing the perceived threat of entry through the acquisition of the perceived potential entrant must likely result in incumbent firms ceasing some or all of their procompetitive entry-deterring conduct and so lessen competition in the relevant market

Perceived potential competition

- Remedies
  - There is no remedy to preserve competition in a perceived competition case other than enjoining the acquisition

Potential expander cases

- *A slight variation*: "Potential expander" cases
  - A large firm enters the target market to "test the waters" and obtains a small market share
    - Typically by shipping into the target market from another market
  - But finding de novo entry unattractive, the firm acquires a substantial incumbent firm in the target market

At one time, the agencies have attacked these types of acquisitions as eliminating actual potential competition by the large firm

- Technically, the agencies may try these cases as horizontal acquisitions since the acquirer did have a "toehold" position in the relevant market. The agencies then argue that given the acquirer's interest in expanding into the market, the acquirer's small current market share significantly understates its future competitive significance in the absence of the acquisition
- Acquirers defend by showing that de novo entry is not in their profit-maximizing interest and that they are neither an actual potential entrant or a "potential expander" in the absence of the acquisition
- The agencies did not fare well in these cases, and they have not brought one recently on this theory

A final note

Under any of these theories, the potential entrant may be either the target or the acquirer

Mylan/Perrigo

Mylan/Perrigo (2015)

- The deal
  - On September 14, 2015, Mylan launched a hostile tender offer to acquire all outstanding ordinary shares of Perrigo for approximately $27 billion (stock and cash)
- Mylan
  - American global generic and specialty pharmaceuticals company
    - Makes the EpiPen (~ 40% of Mylan's profit)
  - 2015 revenues: $9.42 billion
- Perrigo
  - American international manufacturer of private label over-the-counter pharmaceuticals
  - 2013 revenues: $3.45 billion
- Backstory
  - Mylan may have wanted to acquire Perrigo to fend off a $40 billion hostile offer from Teva Pharmaceuticals

Mylan/Perrigo (2015)

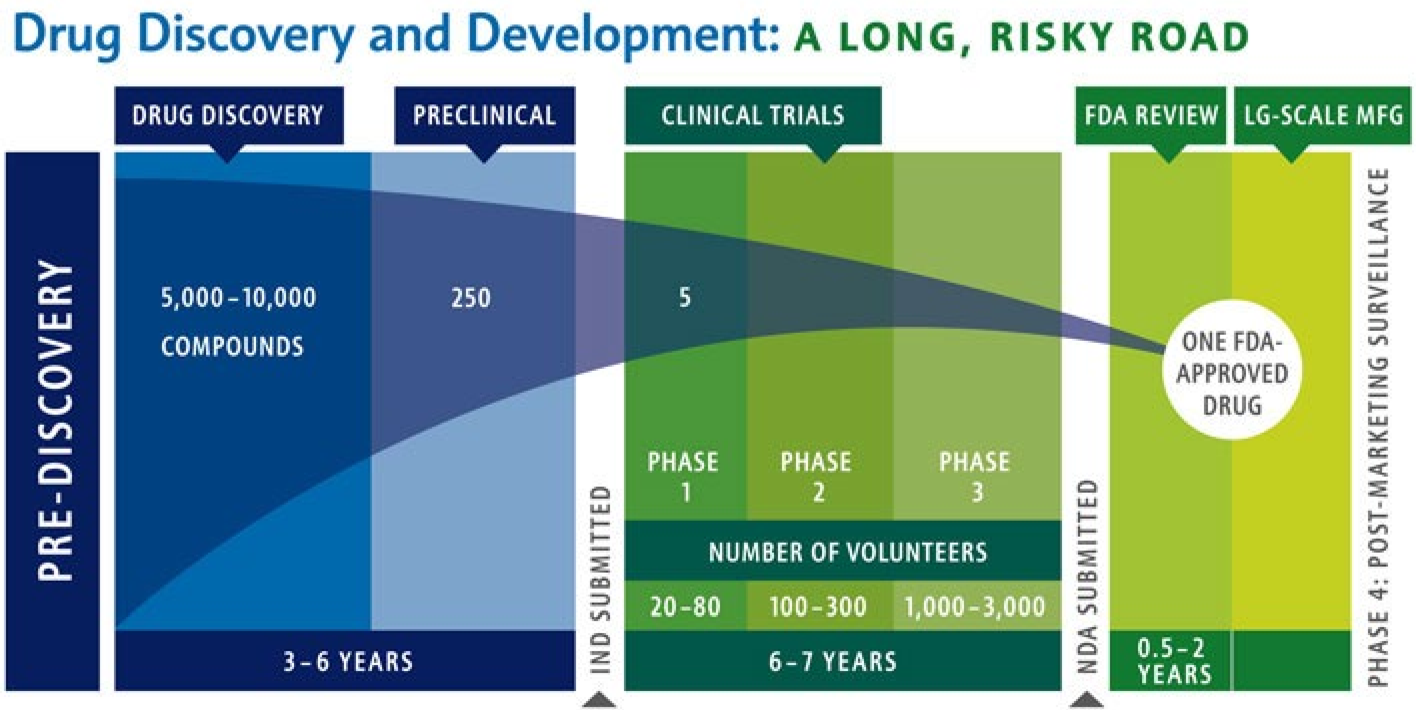
- Actual overlaps (4)
  1. Bromocriptine mesylate tablets
     - Treat conditions including type 2 diabetes and Parkinson's disease
  2. Clindamycin phosphate/benzoyl peroxide gels
     - Treat acne
  3. Liothyronine sodium tablets
     - Treat hypothyroidisms
     - Treats or prevents enlarged thyroid glands
  4. Polyethylene glycol 3350 OTC oral solution packets.
     - Laxative used to treat occasional constipation

- Potential future overlaps—Actual potential competition by Mylan (3)
  1. Acyclovir ointment
     - Slows the growth and spread of the herpes virus in the body
  2. Hydromorphone hydrochloride extended-release tablets
     - Treats moderate to severe pain in narcotic-tolerant patients
  3. Scopolamine extended-release transdermal patches
     - Prevents symptoms associated with motion sickness
     - Helps patients recover from anesthesia and surgery

Query: Why did the FTC conclude that Perrigo was an "actual potential entrant" into these drugs "in the near future"?

Mylan/Perrigo (2015)

- New drug approval process



Source: Pharmaceutical Research and Manufacturers of America

Mylan/Perrigo (2015)

- Generic drug approval process
  - Definition
    - A generic drug is comparable to an existing brand name drug in dosage form, strength, route of administration, quality, performance characteristics, and intended use
      - Essentially a knockoff of a brand-name drug
  - Regulatory approval under the Hatch-Waxman Act[1]
    - *ANDA*: To encourage the introduction of generic drug equivalents as soon as a name-brand drug's patent expires (or is shown to be invalid), Congress and the FDA have created an abbreviated new drug application (ANDA) process
      - The application is "abbreviated" because it does not require the drug company to include preclinical (animal) and clinical (human) data to establish safety and effectiveness
      - Instead, the generic applicant must scientifically demonstrate that its product is *bioequivalent* to the name-brand drug
    - *FDA approval*: Once the FDA approves the application, the applicant may manufacture and market the generic drug product
    - *Exclusivity*: Under the Hatch-Waxman Act, the first approved applicant has 180 days of marketing exclusivity from the date it commercially introduces the product
      - Alternatively, if the applicant challenges the validity of the name brand patent, the exclusivity runs from the date of a court decision finding the patent invalid, unenforceable or not infringed (if that is an earlier date)

[1] Drug Price Competition and Patent Term Restoration Act of 1984, Pub L. No. 98-417, 98 Stat. 1585 (1984).

Mylan/Perrigo (2015)

- FTC challenges by stage of product development
    - Goes to the question of whether there will be actual entry in the absence of the acquisition
  - Mylan/Perrigo (2015)—Approved ANDA
    - Mylan ordered to divest all rights, title and interest in and to all assets related to the United States in the four Mylan existing overlapping products and the three Mylan ANDA-approved products to Alvogen Group, Inc., an experienced generic pharmaceutical company
  - Hikma/Custopharm (2022) —Approved ANDA
    - Custopharm, a US-based generic sterile injectables company, ordered to transfer Custopharm's assets related to its development of the corticosteroid drug triamcinolone acetonide (TCA) to Long Grove Pharmaceuticals, LLC, another portfolio company owned by Water Street Healthcare Partners (the seller) that was not part of the acquisition
    - Long Grove ordered to operate and maintain Custopharm's TCA assets for four years
    - FTC may appoint a monitor to report on the companies' compliance with the order's requirements

Mylan/Perrigo (2015)

- FTC challenges by stage of product development
  - Allergan/Inamed (2006)—Phase III
    - Inamed ordered to divest its rights to clinical trials for the cosmetic botulinum toxin product Reloxin, which was in Phase III clinical trials
  - Sanofi/Aventis (2004)—Phase II/III
    - Aventis was ordered to divest its rights to clinical trials for the drug Camptosar, which included a study for treatment of metastatic gastric cancer which was in Phase II/ Phase III of development
  - Cephalon, Inc./CIMA labs (2004)—Phase III
    - Cephalon was ordered to divest Actiq, a cancer pain drug, in Phase III of clinical testing
  - Glaxo Wellcome/SmithKline Beecham (2001)—Phase III
    - Glaxo was ordered to divest its rights in DISC-HSV Prophylactic Vaccines, which included a prophylactic herpes vaccine in Phase III clinical trials

Medtronic/Covidien (2014)

Medtronic
When Life Depends on Medical Technology

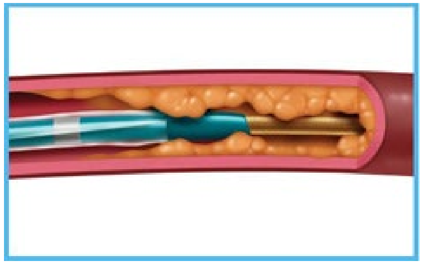
COVIDIEN

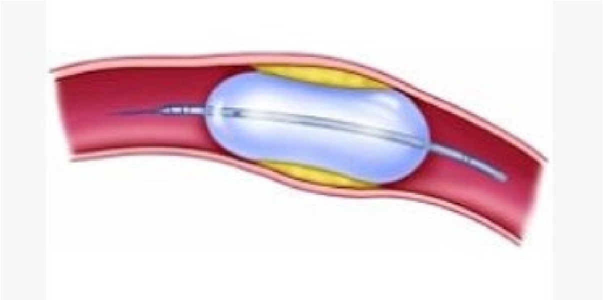
Medtronic/Covidien (2014)

- The deal
  - Medtronic to acquire Covidien for $42.9 billion
    - Announced June 15, 2014
    - 29% premium to Covidien's closing stock price the day before announcement
    - Expect $850 million in annual pretax cost synergies
    - Medtronic commits $10 billion in additional U.S. technology investments over 10 years
- Medtronic
  - Global medical technology and services company
- Covidien
  - Global healthcare products company
- Combined company
  - Combined revenue: $27 billion
  - 87,000 employees in more than 150 countries

Medtronic/Covidien (2014)

- The FTC concern
  - C.R. Bard was the only company manufacturing and selling drug-coated balloon catheters
    - Used primarily to treat peripheral artery disease, a narrowing of the peripheral arteries to the legs, stomach, arms, and head





  - Medtronic and Covidien were developing drug-coated balloon catheters for the femoral popliteal (fem-pop) artery to compete with Bard
    - Only companies with products in clinical trials in the FDA approval process (but the complaint does not indicate what phase)
    - Merger of two actual potential entrants
- Consent decree
  - Medtronic to sell Covidien's rights and assets related to Covidien's drug-coated balloon catheters business to Spectranetics
    - Spectranetics was a leader in peripheral vascular solutions with a portfolio of products that is highly complementary to Covidien's drug-coated balloon catheter

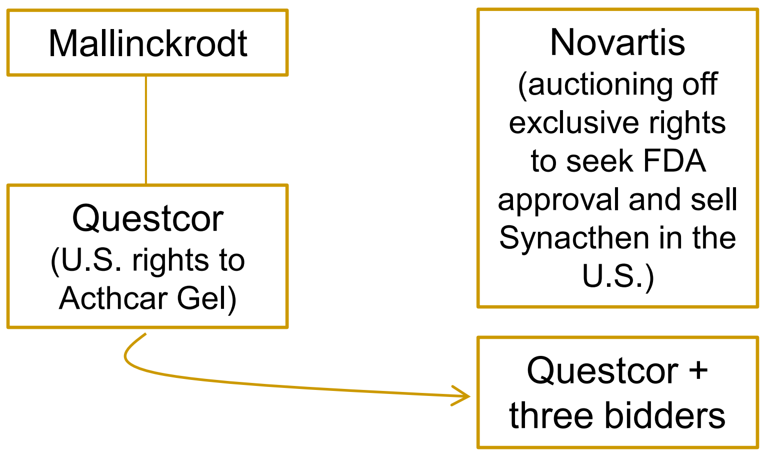
Mallinckrodt/Novartis AG (2017)

Mallinckrodt/Novartis AG (2017)

- The deal
  - In June 2013, Questcor Pharmaceuticals acquired the rights to sell Synacthen Depot in the United States from Novartis
    - On August 14, 2014, Mallinckrodt plc acquired Questor for $5.8 billion
- Background
  - Questcor's H.P. Acthar Gel was the only therapeutic adrenocorticotropic hormone ("ACTH") product sold in the United States
    - ACTH is the standard of care for infantile spasms ("IS"), a rare but extremely serious disorder involving seizures within the first two years of life
    - Questor acquired the rights to Acthar in 2001
    - Since 2001, Questcor has repeatedly raised Acthar's price from $40 per vial in 2001 to more than $34,000 per vial in 2017
    - A course of Acthar treatment for IS requires multiple vials and can cost well over $100,000

Mallinckrodt/Novartis AG (2017)

- The FTC's concern
  - Synacthen is a synthetic ACTH drug sold in other parts of the world to treat IS
  - In 2011, Novartis decided to sell the exclusive rights to seek FDA approval for Synacthen and commercialize it in the United States
  - Three firms submitted formal offers to Novartis
  - Subsequently, Questcor entered the bidding and outbid the other companies to acquire the U.S. rights to Synacthen



  - *Allegation*: Questcor acquired the Synacthen rights to prevent another company from entering into competition with Acthar in the United States

Mallinckrodt/Novartis AG (2017)

- The FTC's challenge
  - Complaint filed January 18, 2017 (post-acquisition)
  - Action brought in federal district court by FTC and five states
  - Questcor's acquisition of the Synacthen rights violated—
    - Section 2 of the Sherman Act (monopolization)
    - Section 5 of the FTC Act
    - Various state statutes
- Outcome
  - Mallinckrodt settled and stipulated to the entry of a permanent injunction:
    - No actual litigation—Stipulation filed simultaneously with the complaint
    - Pay $100 million (disgorgement)
    - Grant a license to develop Synacthen to treat infantile spasms and nephrotic syndrome to an FTC-approved licensee within 120 days of the entry of the order
    - Pay $2 million to states for attorney's fees and costs
    - Monitor to oversee compliance

Steris/Synergy Health (2015)

STERIS®

synergyhealth

our work protects your world

Steris/Synergy Health (2015)

- The deal
  - Steris to acquire SynergyHealth for $1.9 billion
    - Announced October 13, 2014
- Steris
  - Second largest sterilization company in the world (2014 revenues: $604 million)
  - Largest provider of gamma radiation sterilization services in the United States with 12 facilities
  - Also has 10 ethylene oxide ("EO") gas sterilization facilities
- SynergyHealth
  - Third largest sterilization company in the world
  - Operates more than 36 contract sterilization facilities outside of the United States
    - Primarily gamma radiation facilities
    - Daniken, Switzerland—a gamma ray/x-ray facility
      - Only facility in the world providing x-ray sterilization services on a commercial scale
  - BUT currently offers only e-beam and EO sterilization services in the United States

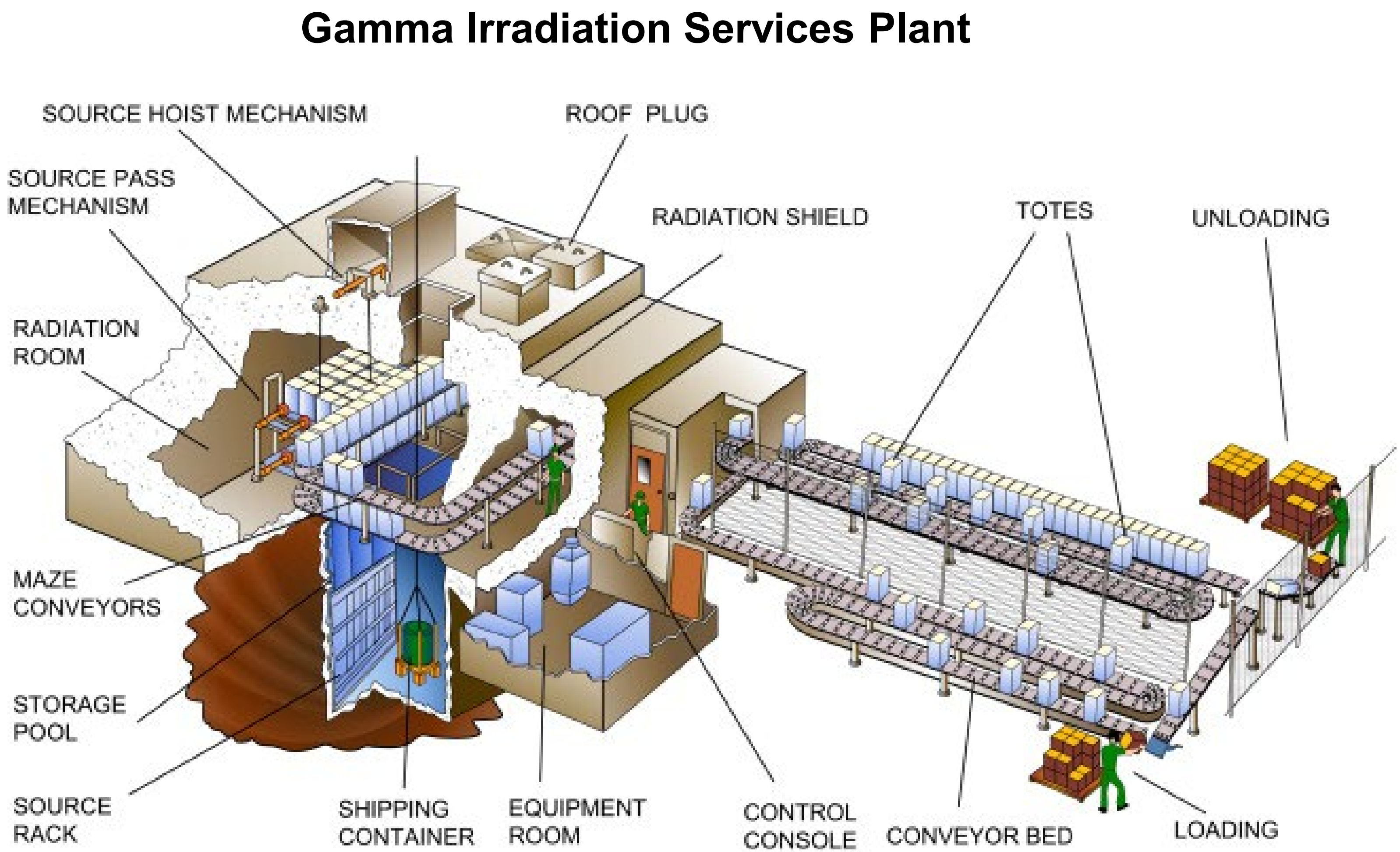
Steris/Synergy Health (2015)

- Three primary methods of contract sterilization used in the U.S.
  1. Gamma sterilization
     - Sterilizes by exposing products to photons from radioactive isotope Cobalt–60
     - Good penetration complete even at high densities
     - Compatible with most materials
     - Only viable option for dense products and products packaged in larger quantities
     - Turn-around time: Hours
  2. E-beam sterilization
     - Sterilizes by exposing products to ionizing energy (electrons) from electron beam
     - Does not penetrate as deeply as gamma radiation
     - Can be effective for low-density products sterilized in low volumes
     - Represents only 15% of all contract radiation sterilization in the United States
     - Turn-around time: Minutes
  3. Ethylene oxide gas (EO)
     - Sterilizes by exposing products to a sterilant gas to kill unwanted organisms
     - Requires gas permeable packaging and product design
     - Turn-around time: 9-10 days

Steris/Synergy Health (2015)

- Customer choice calculus
  - Customers choose sterilization methods based on their products' physical characteristics and packaging

Steris/Synergy Health (2015)

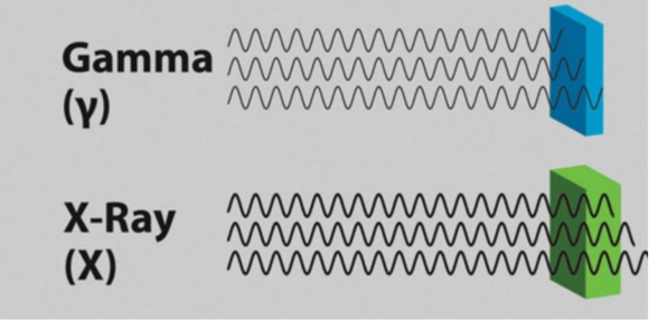


Steris/Synergy Health (2015)

Gamma Irradiation Services Plant

Steris/Synergy Health (2015)

- The FTC concern
  - There are only two gamma radiation sterilization providers in the United States:
    - Sterigenics (14 facilities)
    - Steris (12 facilities)
  - *Allegation*:
    - Absent the acquisition, SynergyHealth would have entered the U.S. with a new x-ray sterilization facility to compete directly with Sterigenics' and Steris' gamma sterilization services
    - According to the FTC, x-ray sterilization is a competitive alternative to gamma sterilization because it has comparable, "and possibly superior," depth of penetration and turnaround times



  - *Claim*: Steris's acquisition of SynergyHealth insulated Steris' gamma sterilization services from SH's entry with x-ray sterilization

Steris/Synergy Health (2015)

- The FTC's complaint
  - Relevant product markets
    - Contract radiation sterilization services
    - Contract gamma and x-ray sterilization services to targeted customers that cannot economically or functionally switch to e-beam sterilization
  - Relevant geographic markets—defined by facility location
    - "[W]ithin approximately [redacted] miles of each of the locations where Synergy planned to build an x-ray sterilization plant"
  - Likely anticompetitive harm: Elimination of a unique actual potential entrant

Steris/Synergy Health (2015)

- District court
  - Following a three-day evidentiary hearing, the court denied the FTC's request for a preliminary injunction
  - Assumed the elimination of actual potential competition is a cognizable theory
    1. Highly concentrated market
    2. Alleged potential entrant "probably" would have entered the market
    3. Such entry would have had procompetitive effects
    4. Few if any other firms could enter the market effectively

    NB: This test differs somewhat from the test we developed since it lacks a timing element SynergyHealth's entry but for the acquisition (but not important given the court's finds)
  - *Court*:
    - Prior to the hearing, the Court directed the parties to focus their attention on the second element of the actual potential competition theory (likelihood of entry)
    - After the hearing, found that the FTC failed to show that Synergy probably would have entered the U.S. but for the transaction

Steris/Synergy Health (2015)

- FTC argument on likelihood of entry
  1. Synergy was poised to enter the U.S. market in Fall 2014 by constructing one or more x-ray facilities
  2. The merger with Steris caused Synergy to abandon the effort
  3. Documents created and testimony given after the merger was announced should be viewed with a high degree of suspicion

Steris/Synergy Health (2015)

- Court: Rejects FTC's arguments
  1. While Synergy's PLC Board had endorsed the U.S. x-ray strategy in September 2014—
     - The business plan had not been approved
     - There were significant obstacles that the project team knew needed to overcome in order to win Board approval
     - The only Board-approved expenditures were two payments of £300K to IBA to obtain exclusivity in the United States
  2. The announced merger with Steris in October 2014 had no significant impact on Synergy's plans for U.S. x-ray
     - The project team continued to mobilize the employees under their direction to—
       - Obtain customer buy-in
       - Try to bring down the cost of the new facilities, and
       - Work with IBA to develop a dual-capability machine of sufficient power to meet Synergy's needs
  3. It was the project team leader, not CEO Steeves, who made the decision in February 2015 to discontinue the U.S. x-ray project after he concluded that there was little to no likelihood of obtaining SEB approval, let alone approval from a combined Synergy/Steris board

Eliminating "Nascent" Competition

“Nascent competitors”

- An emerging concern beginning in 2020 was the failure of the enforcement agencies to block acquisitions of “nascent competitors” by large tech companies
  - A “nascent competitor” is a firm that has the potential present a serious threat in the future to a dominant firm
  - The threat usually resides in the nascent competitor’s development of a new technology or a new product that could possibly shift share away from the dominant firm
- Nature of the competitive threat to the dominant firm
  - The “nascent competitor” may itself develop a product that competes with the dominant firm, or
  - The “nascent competitor” may be acquired by, or license its technology to, another firm that would use the technology to develop a product that competes with the dominant firm

"Nascent competitors"

- Nascent competitors and the potential competition doctrine
  - The actual potential competition doctrine requires, among other things, that:
    - But for the acquisition, the putative potential entrant must have sufficient incentive and ability to enter the market to make entry in the near future likely, and
    - Assuming it occurred, such entry must materially improve the competitive performance of the market
  - By their nature, "nascent competitors" fail to satisfy these requirements
    1. At the time of the acquisition, the nascent competitor may not be actively considering entering the market with a product competitive with the acquiring dominant firm
    2. It may be uncertain that, in the absence of the acquisition, the nascent competitor (or a third-party acquirer or licensee) would create a product competitive with the dominant firm
    3. Even if the nascent competitor contemplates entry with a competitive product, the timing for entry may be more distant that in "the near future"
    4. Even if the nascent competitor contemplates entry in the near future, the technological and commercial success of this entry—and the competitive impact of entry—may be highly speculative
  - Under the further rigid requirements of the actual potential doctrine, it does not appear very likely that the doctrine makes the acquisition of a "nascent competitor" actionable under Section 7

The Section 2 solution

- Sherman Act § 2
  - To deal with the apparent inability of Section 7 under prevailing case law to reach acquisitions of nascent competitors by well-entrenched dominant firms, proponents of aggressive intervention have suggested that enforcers use Sherman Act § 2
  - Section 2 prohibits "monopolization" and "attempts" to monopolize
    - Monopolization: Two elements (*Grinnell*)—
      - "(1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident."[1]
      - Conduct satisfying the second element is called an anticompetitive exclusionary act
    - Attempted monopolization: Three elements (*Spectrum Sports*)—
      - The defendant must have engaged in predatory or anticompetitive conduct
      - with a specific intent to monopolize, *and*
      - as a consequence of its acts and intent, have a dangerous probability of achieving monopoly power[2]

[1] United States v. Grinnell Corp., 384 U.S. 563, 570-71 (1966); *accord* Pacific Bell Tel. Co. v. Linkline Commc'ns, Inc., 555 U.S. 438, 447-48 (2009); Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 407 (2004); Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 595-96 (1985).
[2] Spectrum Sports, Inc. v. McQuillan, 506 U.S. 447, 456 (1993).

The Section 2 solution

- Sherman Act § 2
  - The idea
    - The idea—as yet untested in the courts—is that the acquisition of a nascent competitor by a firm with monopoly power is an anticompetitive exclusionary act that maintains the dominant firm's monopoly power and so can predicate monopolization or attempted monopolization
    - The principal authority is the D.C. Circuit's *Microsoft* decision, where the court required only a showing that "as a general matter, the exclusion of nascent threats is the type of conduct that is reasonably capable of contributing significantly to a defendant's continued monopoly power."[1]
      - Arguably, this requirement focuses on the "general tendency" of the anticompetitive conduct, not the specific effects of a particular acquisition[2]
      - There is also an argument that evidence of the "intent" of the acquiring dominant firm to protect its position by making the acquisition should have significantly greater weight in a Section 2 than in a Section 7 case

[1] United States v. Microsoft, 253 F.3d 34, 78-79 (D.C. Cir. 2001) (en banc).
[2] D. Bruce Hoffman, Dir. Bureau of Competition, Fed. Trade Comm'n, *Antitrust in the Digital Economy: A Snapshot of FTC Issues* 10 (May 22, 2019).

Reinterpreting Section 7

- The incipiency standard
  - Section 7 prohibits mergers and acquisitions that "may be substantially to lessen competition, or to tend to create a monopoly"[1]
  - Courts have interpreted this language to adopt an *incipiency standard* requiring only a showing of a "reasonable probability" at the time of suit of anticompetitive harm[2]

- WDC: A possible reinterpretation
  - Under the case law, Section 7's incipiency standard looks just to the *likelihood* of harm to competition
    - *Conventional (defense) wisdom*: The acquisition of a nascent competitor does not violate Section 7 because the likelihood of anticompetitive harm is speculative and hence not "reasonably probable"
  - *Argument*: But from a consumer welfare perspective, reasonableness should be interpreted in terms of the *expected value* of the harm, not just likelihood
    - So a low probability of anticompetitive harm should be "reasonable "within the meaning of the incipiency standard if the magnitude of the harm, should it occur, is high enough
    - This interpretation could reach nascent competitor acquisitions, if the foregone competitive benefit of entry, should it occur, is sufficiently high
    - An expected value analysis also should consider any offsetting procompetitive benefits of the acquisition

[1] 15 U.S.C. § 18.

[2] United States v. E. I. du Pont de Nemours & Co., 353 U.S. 586, 589 (1957); *accord* United States v. ITT Cont'l Baking Co., 420 U.S. 223, 242 (1975); Brown Shoe Co. v. United States, 370 U.S. 294, 325 (1962).

The legislative solution

- Other proponents see a judicial extension of Section 2 law to cover acquisitions of nascent competitors by dominant firms as unlikely to succeed in the courts and therefore seek a legislative solution[1]

[1] *See, e.g.*, Steven C. Salop, *New U.S. Antitrust Legislation before Congress Must Mandate an Anticompetitive Presumption for Acquisitions of Nascent Potential Competitors by Dominant Firms* (Washington Center for Equitable Growth June 22, 2021).

Some questions

- Whether through an extension of the actual potential competition doctrine under Section 7, the application of Section 2, or the creation of a new statutory provision, some questions arise:
  1. How dominant must the acquiring be?
  2. How much of a threat is required to be of competitive concern?
  3. How big does the threat have to be?
  4. How unique does the threat have to be?
  5. How likely does the threat need to be?
  6. How quickly must the threat be likely to materialize into real-world competition in the absence of the dominant firm's acquisition?
  7. What kind of defenses, if any, are available to a dominant firm acquiring a nascent competitor?
     - What if the acquiring dominant firm can prove that significant consumer welfare benefits will result from the acquisition?
     - There is a subsidiary question of which party should bear the burden of proof (production or persuasion) on any defenses

Some questions

- We can also imagine three types of nascent competitor acquisitions
  1. Acquisitions where the acquiring dominant firm plans on investing significantly in the new technology and bringing it to market either as a new product or a feature improvement on an existing product
  2. Acquisitions where the acquiring dominant firm does not plan on investing in the new technology but instead will redirect the efforts on the acquired company's R&D and product development teams to different technologies or products
  3. "Killer acquisitions," where the acquiring dominant firm intends to suppress the acquired technology postmerger[1]

[1] *See* Colleen Cunningham, Florian Ederer & Song Ma, *Killer Acquisitions*, 129 J. Pol. Econ. 649 (2021) (estimating that estimate that 6 percent of all acquisitions in the U.S. pharmaceutical sector (or 45 of acquisitions each year) are "killer acquisitions").

Meta/Within (2022)

Meta

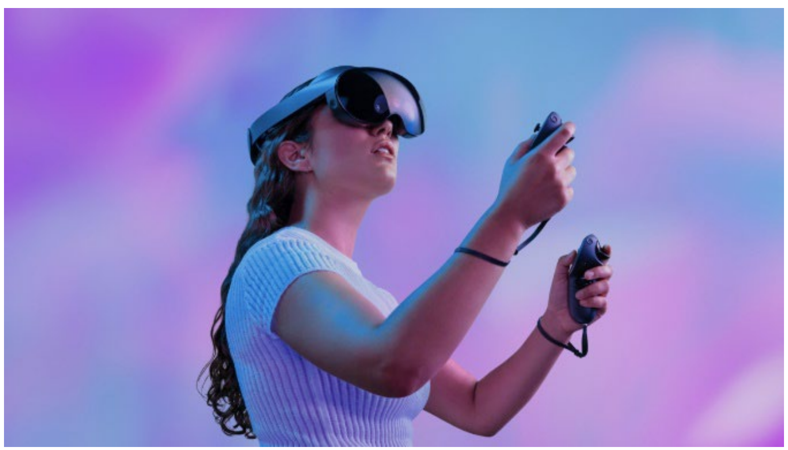
WITHIN

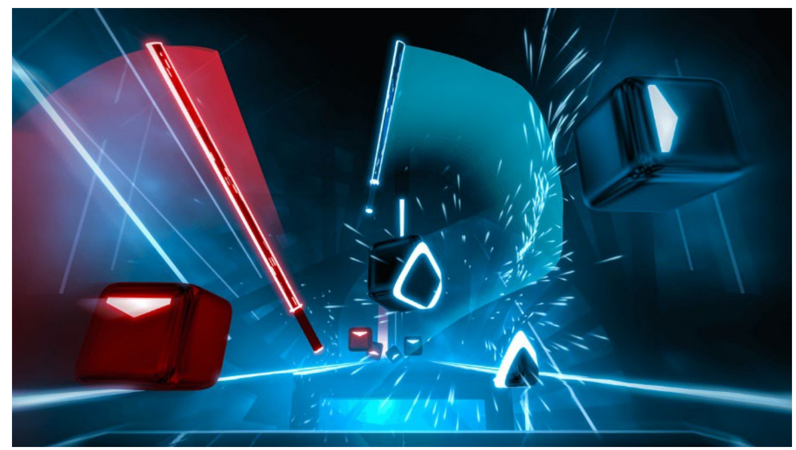
Meta/Within

- The deal
  - Meta for acquire Within Unlimited
    - Announced November 1, 2021
    - Reportedly for around $400 million—Not publicly announced

Meta/Within

- *The buyer*: Meta
  - Formerly known as Facebook
  - The leading developer of virtual reality ("VR") devices and apps through its Reality Labs division
    - Since 2017, has invested $36 billion in Reality Labs
      - For an operating loss of $30.7 billion
    - Leading hardware product: Oculus Quest VR headset
      - Flagship product: Meta Quest Pro ($1499)
    - Leading software product: Beat Saber
      - A VR rhythm game where the user slashes the beats of adrenaline-pumping music as they fly towards you, surrounded by a futuristic world





Meta/Within

- *The target*: Within Unlimited
  - A privately held virtual and augmented reality company
  - Flagship product: *Supernatural*, a VR subscription fitness service
    - The leading VR fitness app (monthly subscription: $18.99)
    - Offers over 800 fully immersive VR workouts, each set to music and located in a virtual setting such as the Galapagos Islands and the Great Wall of China

The Section 13(b) action

- The FTC's original complaint
  - July 22, 2022: 3-2 vote to challenge the transaction
  - Section 13(b) complaint filed in the Northern District of California
  - Claims
    1. Elimination of Meta as an actual potential entrant
    2. Elimination of Meta as a perceived potential entrant
    3. Elimination of horizontal competition between Within's Supernatural and Meta's Beat Saber

- The amended complaint
  - Filed October 7, 2022
  - Dropped horizontal competition claim

The District Court

- Tried in the District Court of the Northern District of California
  - Judge Edward J. Davila
    - Appointed by President Obama
    - Assumed office: March 3, 2011
    - Assigned case: July 22. 2022

    - Seven-day evidentiary hearing

The decision

- Market definition
  - Conclusions
    - Rejected defendants’ argument for a larger market including—
      - Non-dedicated fitness VR app, *and*
      - Non-VR connected fitness products and services
    - Accepted FTC's alleged market of a national market for VR dedicated fitness apps
  - *Brown Shoe* analysis
    - While VR dedicated fitness apps compete for consumers with other types of exercise products and apps, the evidence showed that VR dedicated fitness apps are a distinct economic submarket
    - Used *Brown Shoe* “practical indicia,” namely—
      1. Industry or public recognition of VR dedicated fitness apps as a distinct submarket
      2. Several “peculiar characteristics and uses” that distinguish VR dedicated fitness apps from “both other VR apps and non-VR fitness offerings,” including—
         - Specifically marketed for fitness (e.g., trainer-led workouts, trackable progress)
         - Provides a VR experience by transporting the user to a virtual 360-degree environment for the workout, being fully portable and taking up little space)
         - Fully portable (unlike large exercise machines like stationary bikes)
      3. Distinct customers (here, a younger male demographic) and distinct prices
  - HMT: Not important that the HMT analysis by the FTC's economic expert was faulty
    - *Rule*: A relevant product market need not be proved through the HMT and that the *Brown Shoe* factors alone sufficed

The decision

- Elimination of actual potential competition
  1. Court: Accepted the elimination of actual potential competition as a theory of anticompetitive harm under Section 7
     - Rejected defendants' argument that the theory was not viable because it had never been endorsed by the Supreme Court
  2. Court: Theory requires a concentrated market premerger
     - Here, FTC satisfied its burden by presenting evidence of that the market shares of firms in the markets resulted in market concentration "well above" the thresholds in the 2010 Horizontal Merger Guidelines
       - Rejected defendants' argument that the FTC was required to prove oligopolistic, interdependent, or parallel behavior as part of the FTC's prima facie case
     - Rather, required defendants to show that the market was in fact "genuinely competitive" in rebuttal
       - Court: Inclined to find the following defendant's rebuttal evidence insufficient, but did not have to decide since the FTC failed to make out a prima face case of other required elements of the theory
         a. Market nascency (all firms in the market entered within the last five years)
         b. Volatility of market shares
         c. Recent new entry (a doubling of VR dedicated fitness apps)
         d. Low barriers to entry
     - WDC: The best way to think about this is that the court employed a *rebuttable presumption* that a highly concentrated market operates anticompetitively
       - *Query*: What should be the burden of proof on the merging parties on rebuttal: production or persuasion?

The decision

- Elimination of actual potential competition
  3. Court: Theory requires that there be a reasonable probability that Meta would have entered the VR dedicated fitness app market de novo if it was not able to acquire Within
     a. Reasonable probability standard
        - Requires that the plaintiff make a prima facie case of a "a likelihood [of entry by the alleged actual potential entrant] noticeably greater than fifty percent"[1]
          - Rejected defendants' proposed "clear proof" standard
            - Standard adopted by the FTC in B.A.T. Indus., No. 9135, 1984 WL 565384, at *10 (F.T.C. Dec. 17, 1984)
        - Looks to—
          i. "Available feasible means" (ability)
          ii. Incentive

[1] *Meta Platforms*, 2023 WL 2346238, at *21-*22 (adopting reasonable probability interpretation of Mercantile Texas Corp. v. Bd. of Governors of Fed. Rsrv. Sys., 638 F.2d 1255, 1268-69 (5th Cir. 1981). *See supra* slide 15.

The decision

- Elimination of actual potential competition
  3. Court: Theory requires that there be a reasonable probability that Meta would have entered the VR dedicated fitness app market de novo if it was not able to acquire Within
     - b. Available feasible means
       - Court relied on *objective* evidence
         - *Standard*: Would a reasonable firm in Meta's position have the available feasible means of entering the market?
       - Here, the court found—
         - Meta has the financial and VR personnel resources to enter the market de novo
         - BUT lacks—
           - a. "the capability to create fitness and workout content, a necessity for any fitness product or market," *and*
           - b. "the necessary studio production capabilities to create and film VR workouts"
       - *Rule*: Simply having the resources to buy the necessary inputs is not enough
         - WDC: What more does is needed? What is the limiting principle?

The decision

- Elimination of actual potential competition (con't)
  3. Court: Theory requires that there be a reasonable probability that Meta would have entered the VR dedicated fitness app market de novo if it was not able to acquire Within
     c. *Incentive*. Here, the court found the record "inconclusive"
        - *Objective evidence:*
          - There were "certainly some incentives for Meta to enter the market de novo, such as a deeper integration between the VR fitness hardware and software, but ""it is not clear that Meta's readily apparent excitement about fitness as a core VR use case would necessarily translate to an intent to build its own dedicated fitness app market if it could enter by acquisition."
        - *Subjective evidence*: "[T]he subjective evidence indicates that Meta was subjectively interested in entering the VR dedicated fitness app market itself, either for hardware development or defensive market purposes."
          - NB: The court gave little weight to the testimony of executives and relied more on statements in the company's regular course of business documents
          - Compare to Steris/Synergy Health, where the district court gave significant weight to party testimony at trial
     d. Conclusion
        - Actual potential competition theory fails here for lack of "available feasible means"
        - *WDC*: Having the resources to obtain the necessary resources—as Meta surely did—is not enough in the absence of sufficient evidence of the company's subjective intent to use those resources

The decision

- Elimination of perceived potential competition
  1. Court: Theory requires—
     1. A concentrated market premerger
     2. Possession of the 'characteristics, capabilities, and economic incentive to render it a perceived potential de novo entrant'; *and*
     3. A “premerger presence on the fringe of the target market in fact tempered oligopolistic behavior on the part of existing participants in that market”
  2. Characteristics, capabilities, and economic incentive to render Meta a perceived potential entrant
     - The question posed
       - The question here is whether firms in the target relevant market—here, VR dedicated fitness apps—*perceive* the merging firm as an entrant ready to jump into the market if the market becomes less competitive and more profitable
     - Court: “[T]he objective evidence in the record is insufficient to support a finding that it was ‘reasonably probable’ Meta would enter the relevant market”
       - NB: Note the limitation to the *objective evidence*—that is, the evidence that incumbent firms in the relevant market could perceive and fact upon
       - What the firm was thinking of doing but not disclosing publicly (the subjective evidence) is irrelevant to the perceived potential competition theory—too unreliable
         - Within biased in favor of the deal
         - Other firms may have a self-interest in defeating the deal

The decision

- Elimination of perceived potential competition
  3. Tempering effect on incumbent firms in the relevant market
     - Court: The FTC failed to adduce sufficient evidence—direct or circumstantial—to make a prima facie showing that Meta's presence had a direct effect on tempering anticompetitive conduct by firms in the relevant market
       - Note: The court found that the allegation that Within was “concerned about making any moves that would hurt its ability to compete against Meta as a potential entrant” and providing an example was sufficient to satisfy the FTC's pleading burden and denied the defendants' motion to dismiss concurrently with the decision to deny the preliminary injunction[1]
  4. Conclusion
     - Court: Perceived potential competition theory failed for lack of sufficient evidence of either required element that—
       - Meta was a perceived potential entrant, *or*
       - There was a direct effect of Meta’s presence on the behavior of firms in the relevant market, leading in a more competitive market

[1] *Meta Platforms*, 2023 WL 2346238, at *21.

Subsequent developments

- February 6, 2023: The FTC announced it would not appeal the district court's decision[1]
- February 8, 2023: Meta closes Within Limited acquisition[2]
- February 24, 2023: The FTC dismissed the administrative complaint[3]

[1] *U.S. FTC Will Not Appeal Decision Allowing Meta To Purchase VR Content Maker Within*, Reuters.com (Feb. 6, 2023). Interesting, the FTC did not issue a press release or otherwise note its decision to dismiss on the FTC's web site.
[2] Jason Rubin, VP of Play, *Within Joins Meta*, Meta Quest Blog (Feb. 8, 2023).
[3] Order Returning Matter to Adjudication and Dismissing Complaint, Meta Platforms, Inc., No. 9411 (F.T.C. Feb. 24, 2023).

Class 26 slides

Unit 17: UnitedHealth/Change

Professor Dale Collins
Merger Antitrust Law
Georgetown University Law Center

November 29, 2023

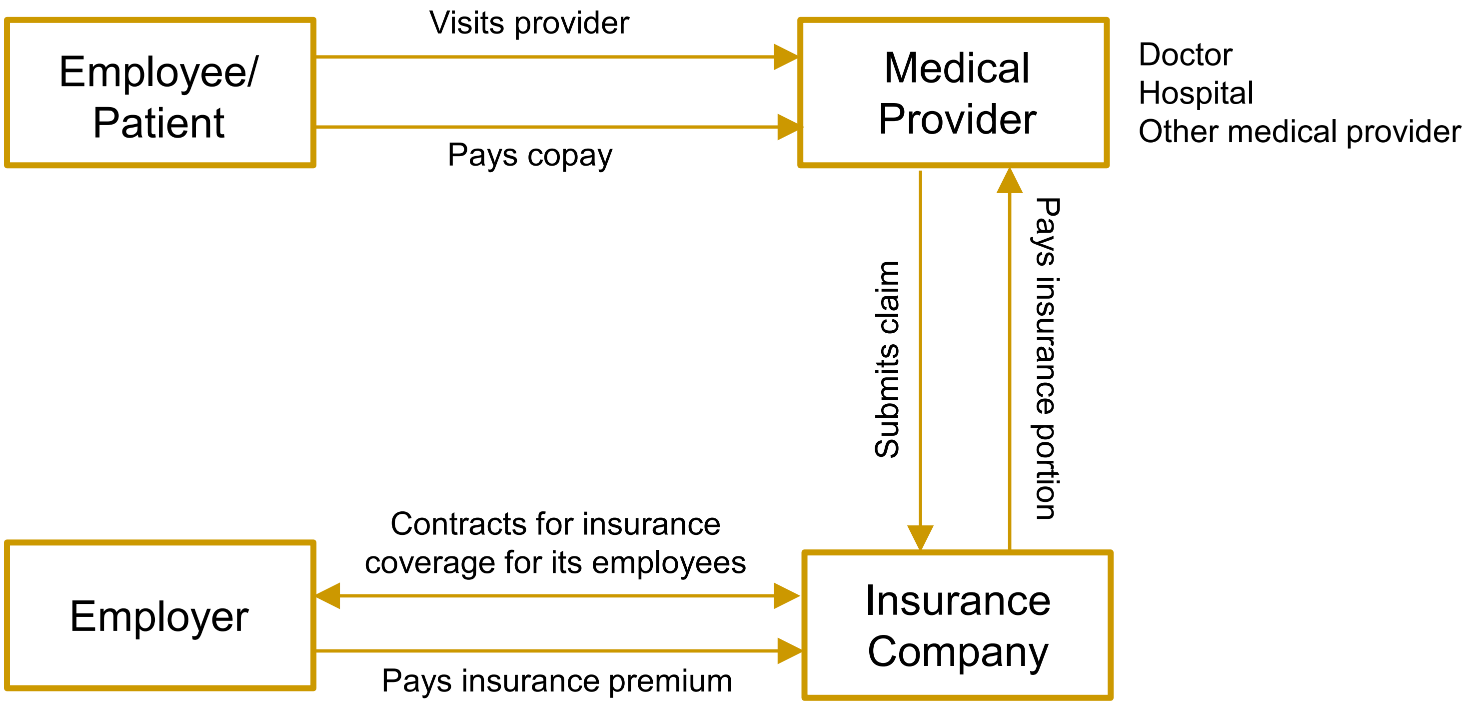
UnitedHealth Group®

CHANGE HEALTHCARE

The Health Insurance Process

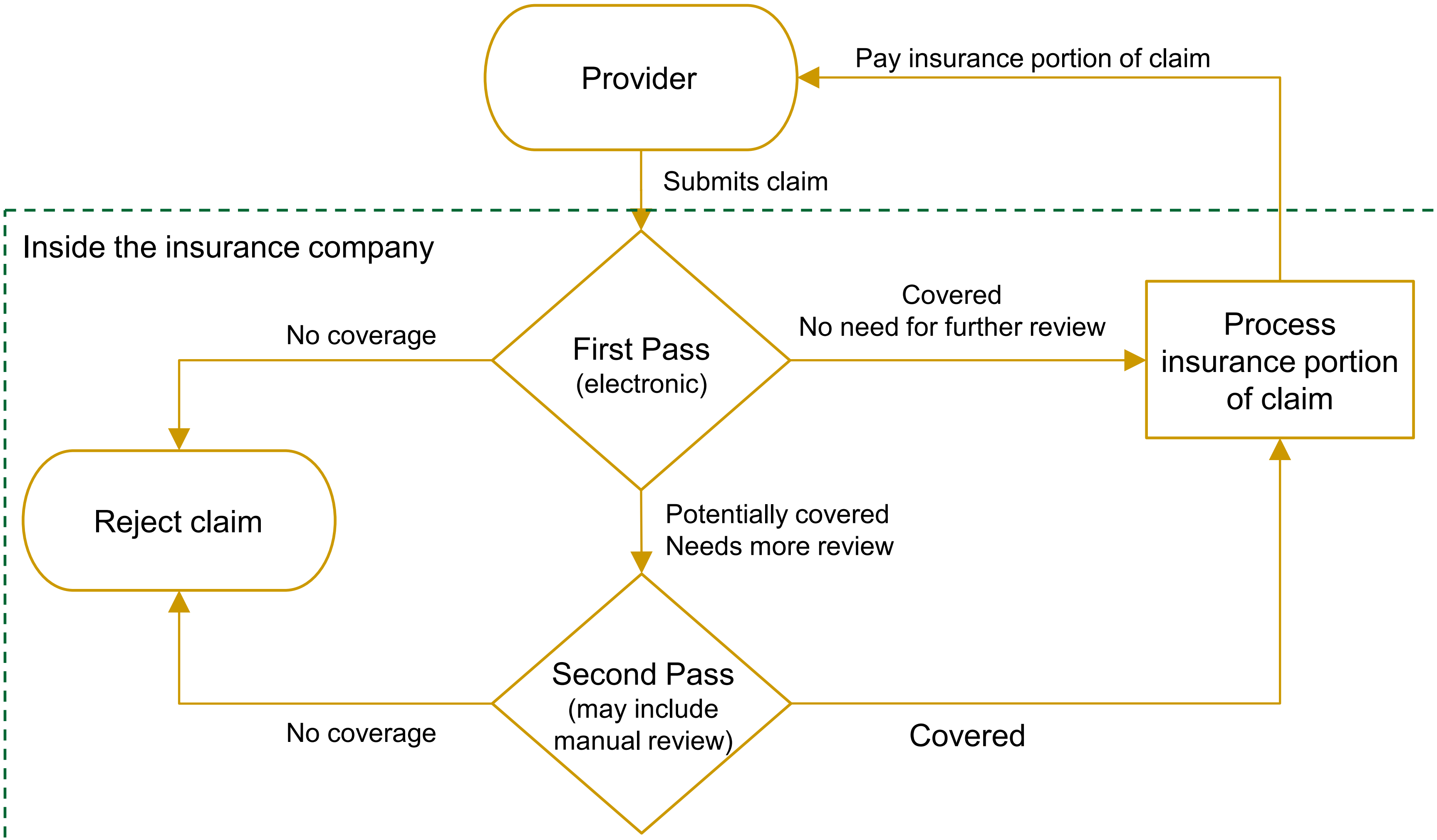
The health insurance payment process

- Overview



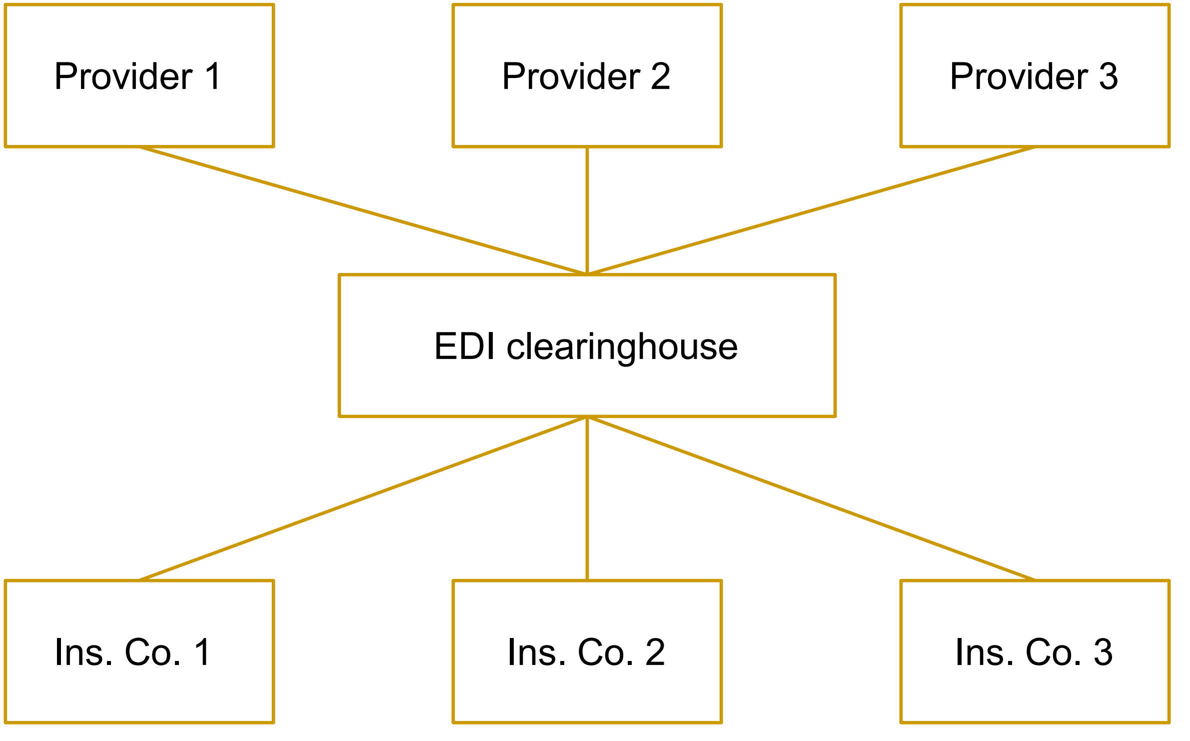
The health insurance payment process

- The "first pass/second pass" claims editing (review) process



The health insurance payment process

- EDI clearinghouses
  - Enable the electronic transmission of claims, remittances, and other information between and among payers and providers



The Deal

The deal

- UnitedHealth Group (UHG) to buy Change Healthcare
  - Merger Agreement signed January 5, 2021 (and announced January 6, 2021)
  - Purchase price: $13 billion
    - $7.84 billion in cash to be paid to Change shareholders
    - Assumption of Change’s $5 billion in debt
  - 41% premium over Change's closing price on January 5
  - Drop-dead date
    - Originally January 5, 2022, with an extension to April 5, 2022, if the antitrust conditions have not been satisfied
    - Extended on April 4, 2022, to December 31, 2022
      - Added an antitrust reverse termination fee of $650 million in connection with the extension

The parties

- UnitedHealth Group (UHG)
  - UnitedHealthcare
    - Nation's largest commercial insurer—covers 50 million people
  - Optum
    - *OptumHealth*: Offers care delivery and management
    - *OptunRx*: Offers pharmacy services
    - *OptumInsight*: Offers healthcare software solutions and services
      - Claims Edit System: Claims editing solution

The parties

- Change Healthcare
  - Software and Analytics
    - Includes ClaimsXten: Market leader in first-pass claims editing
      - 70% market share
      - 99% customer retention
  - Network Solutions
    - Products
      - Facilitates financial, administrative, and clinical transactions
      - B2B and C2B payments
      - Aggregation and analytical data services
    - Provided through Change's EDI clearinghouse
      - Largest EDI clearinghouse in the United States
  - Technology Enabled Services
    - Provides revenue cycle management, value-based care, pharmacy benefits administration, and healthcare consulting

Deal rationale

Benefits of Combination with Change Healthcare

- By combining our products and expertise with those of Change Healthcare, we can increase efficiency and reduce friction in health care, producing a better experience and lower costs.
- Simply put, with this new combination, Optum will help improve the quality of health care delivery, automate claims transactions, and accelerate payment between provider and payer. We will accomplish this through aligning clinical decision making, improving claims accuracy, and simplifying payment.
- The combination of capabilities can improve healthcare by:
  - Helping health care providers and payers better serve patients by more effectively connecting and simplifying key clinical, administrative and payment processes.
  - Promoting better patient outcomes.
  - Reducing the high costs and inefficiencies that plague the health system by improving decision-making processes and putting the right data in the right hands at the right time.
  - Decreasing claims denials. Today, 90% of claim denials are avoidable and create extra work on the back end for everyone involved. By combining with Change Healthcare, we aim to create a system that can help reduce this figure.
- The combination will help us to substantially reduce the estimated $267 billion the U.S. health care industry wastes annually on simply ensuring that health care providers submit valid and properly documented claims and that insurers pay the correct amount for the services provided.
- With the distinct and complementary capabilities and skills of Change Healthcare, Optum will advance anew and more modern foundation to support the next generation health system.

The complaint

- The complaint
  - Filed February 22, 2022
    - After investigating the proposed transaction for more than a year
  - Joined by New York and Minnesota
  - *Venue*: District of Columbia
  - *Relief*: Permanent injunction blocking the transaction

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA
U.S. Department of Justice
Antitrust Division
450 Fifth Street, NW, Suite 4100
Washington, DC 20530,

STATE OF MINNESOTA
445 Minnesota Street, Suite 1400
St. Paul, Minnesota 55101-2131,

and

STATE OF NEW YORK
28 Liberty Street
New York, NY 10005,

Plaintiffs,

v.

UNITEDHEALTH GROUP INCORPORATED
9900 Bren Road East
Minnetonka, MN 55343,

and

CHANGE HEALTHCARE INC.
3055 Lebanon Pike
Nashville, TN 37214,

Defendants.

COMPLAINT

UnitedHealth Group (United), which owns the largest health insurer in the United States, proposes to acquire Change Healthcare (Change), the leading source of key technologies that

Claims

1. Horizontal
   - Tend to create a monopoly in the sale of first-pass claims editing solutions in the United States by uniting Optum's Claims Edit System with Change's ClaimsXten

Optum's Claims Editing System	+	Change's ClaimsXten

2. Vertical 1—Anticompetitive information conduit
   - UHG's control over Change's EDI clearinghouse—a key input for UHG competitors—would give UHG the ability and incentive to use rivals' CSI for its own benefit
   - In turn, would lessen competition in the markets for national accounts and large group commercial health insurance
3. Vertical 2—Input foreclosure/RRC
   - UHG's control over Change's EDI clearinghouse would give UHG the ability and incentive to withhold innovations and raise rivals' costs in the markets for national accounts and large group health insurance

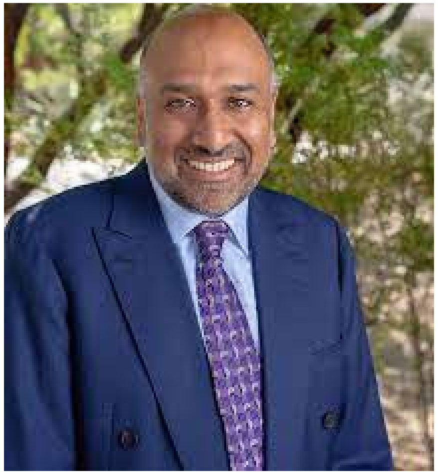
The trial

- Judge Carl J. Nichols
  - Former partner, Boies, Schiller & Flexner LLP
  - Nominated by President Donald Trump
  - Sworn in: June 25, 2019
- Trial
  - Parties stipulated to a TRO—proceeded to trial on the merits
    - Court consolidated proceedings under Rule 65(a)(2)
  - Trial began on August 1, 2022 (12 days)—5 months after the complaint was filed
    - Over two dozen fact witnesses/1000 exhibits
    - Two expert witnesses from each side
  - Decision: Permanent injunction denied on Sept. 19, 2022
    - Seven months after the complaint was filed
  - Deal closed on October 3, 2022

Experts: DOJ

- Benjamin R. Handel
  - Associate Professor of Economics, Berkeley
  - Consulting Expert, Cornerstone Research
  - Ph.D. Economics, Northwestern University (2010)
  - ASHEcon Medal (top health economist under 40)

- Gautam Gowrisankaran
  - Professor of Economics, Columbia University
  - Senior Advisor, Cornerstone Research
  - Ph.D., Economics, Yale University (1995)
  - Experienced testifying expert



Experts: Merging parties

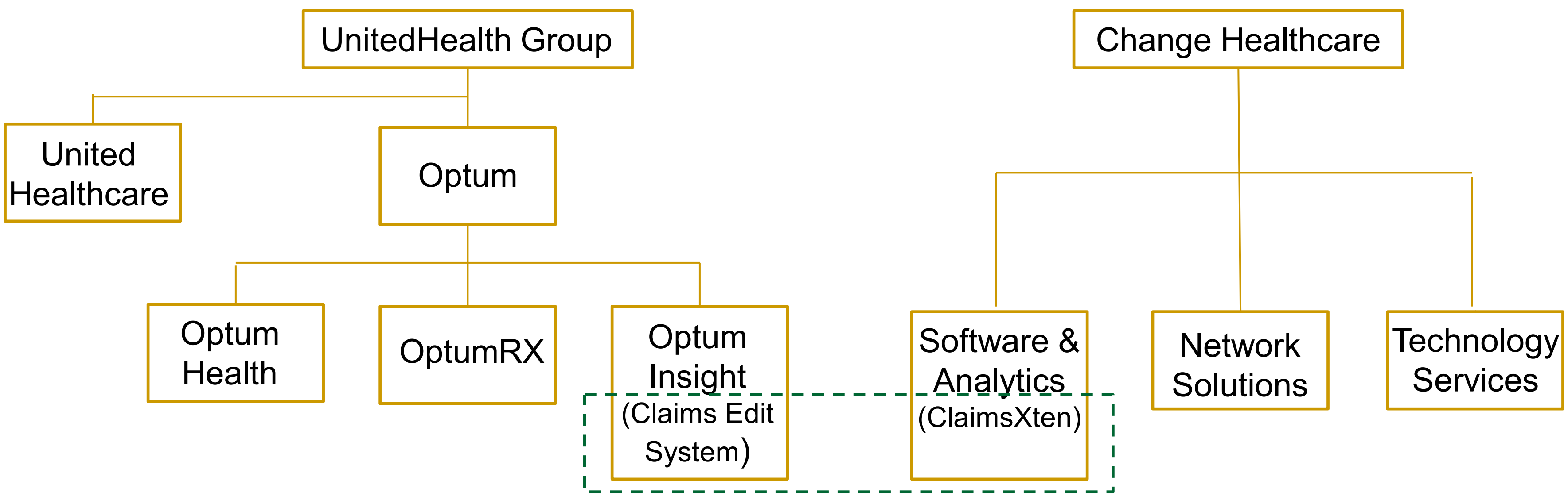
- Catherine E. Tucker
  - Sloan Distinguished Professor of Management Science and Professor of Marketing, MIT Sloan School of Management
  - Academic affiliate with Analysis Group
  - Ph.D., economics, Stanford University (2005)
  - Experienced testifying expert

- Kevin M. Murphy
  - George J. Stigler Distinguished Service Professor of Economics, University of Chicago Booth School of Business
  - John Bates Clark Medal/MacArthur Fellow
  - Ph.D., economics, University of Chicago (1986)
  - Academic affiliate with Charles River Associates
  - Expert witness in numerous antitrust cases

Horizontal overlap in first-pass claims editing

- The gravamen of the complaint
  - Relevant market: First-pass claims editing solutions in the United States
  - Merger to monopoly
    - Change's ClaimsXten (70%) + Optum's Claims Edit System (25%)
    - Delta: 3577
    - Postmerger HHI: 8831
  - Unilateral effects: Eliminate "intense competition" between the two systems

Merging parties do not dispute



Horizontal overlap in first-pass claims editing

- The merging parties' response: Litigate the fix
  - On April 22, 2022, UHG agreed to sell Change's ClaimsXten business to TPG Capital for $2.2 billion
    - Includes all of Change's four claims editing products, which comprise Change's entire primary and secondary claims editing businesses
    - Divestiture contingent on the closing of the UHG/Change transaction and would take place immediately after that closing

CLAIMSXTEN

Horizontal overlap in first-pass claims editing

- A preliminary question: The burden of proof
  - DOJ's position
    - Once the DOJ has proved a prima facie case against the transaction as originally structured, the burden shift to the merging parties to show that the divestiture "will replace the competitive intensity lost as a result of the acquisition"
    - At times suggests that the merging parties bear the burden of persuasion
  - Merging parties' position
    - Since UHG will never acquire ClaimsXten, the government must prove its prima facie case against the restructured transaction, not the original transaction
    - In any event, the DOJ bears the ultimate burden of persuasion under Step 3 of *Baker Hughes*

Horizontal overlap in first-pass claims editing

- A preliminary question: The burden of proof
  - Court
    - DOJ's position does find some support in D.C. case law
    - BUT contradicts the language of Section 7 and *Baker Hughes*
      - Section 7 requires that the transaction "*substantially* . . .lessen competition," which is different hat the burden the DOJ urges, which would require the merging parties to show that the fix completely replaces the competition lost as a result of the transaction
      - Step 3 of *Baker Hughes* places the ultimate burden of persuasion on the plaintiff
      - The DOJ's version would permit the government to prove its case using the *PNB* presumption and evidence about a transaction that will never happen if the merging parties fail to meet their burden in Step 2 (what it is)
        - The DOJ would never have to show that the restructured transaction was anticompetitive
    - Although the merging parties' position is the better one, the same result obtains in this case under the DOJ's proposed standard

So the court proceeded to analyze the transaction under the DOJ's proposed standard

Horizontal overlap in first-pass claims editing

Court*: Using the DOJ's proposed standard of proof*

1. The DOJ's prima facie case on the original transaction
   - *Relevant market*: The sale of first-pass claims editing solutions in the United States
   - Market shares and participants
     - Change's ClaimsXten: 70%
     - Optum's Claims Edit System: 25%
   - The *PNB* presumption—Easily triggered
     - Combined share: 95%
     - Delta: 3577; postmerger HHI: 8831
   - Explicit theory of anticompetitive harm: Unilateral effects

Parties do not contest

Courts finds that the DOJ has satisfied its burden to make out its prima facie case

Horizontal overlap in first-pass claims editing

Court*: Using the DOJ's proposed standard of proof*

2. Assessing the "fix": Five factors—
   a. Likelihood of divestiture: "Virtual certainty"
   b. Experience of TPG (the divestiture buyer)
   c. Scope of divestiture
   d. Independence of TPG
   e. Adequacy of the purchase price

Horizontal overlap in first-pass claims editing

Court: *Using the DOJ's proposed standard of proof*

2. Assessing the "fix": Five factors—
   a. Likelihood of divestiture: "Virtual certainty"
      - The parties have a definitive purchase and sell agreement
      - All conditions precedent have been satisfied, except for those to be satisfied at closing or by the resolution of this lawsuit
      - The DOJ does not contest
   b. Experience of TPG (the divestiture buyer)
      - One of the world's leading PE firms, with over $100 in assets under management
      - Investment strategy: "We make money from growing the businesses that we invest in"
      - Has significant experience and success with "carve-out" investments
      - Has significant experience in the healthcare industry
        - Has deployed over $24 billion in total equity in the healthcare space
        - Holds healthcare businesses on average for eight years before exiting
      - Intends to invest substantially in the ClaimsXten business
        - Change 2022 budget for ClaimsXten R&D: $14 million
        - TPG plans to increase this to $17 million in 2023, $26 million in 2024, $28 million in 2025, and $30 million in 2026
      - No reason to believe that TPG will not be an adequate divestiture buyer because it is a PE firm

Horizontal overlap in first-pass claims editing

Court*: Using the DOJ's proposed standard of proof*

2. Assessing the "fix": Five factors (con't)—
   c. Scope of divestiture
      - Credits TPG: ClaimsXten is a ""a highly separable asset" capable of succeeding on its own was based on extensive due diligence, including conversations with ClaimsXten customers who explained that the product "was sold very independently to the market"
      - ClaimsXten was sold as a standalone product before Change acquired it in 2017
      - Will include a large team of individuals with extensive experience managing ClaimsXten (including the person who will be CEO of ClaimsXten)
      - 375 people will transfer, including—
        - 70-member clinical content team
        - 60-person software and engineering team
        - 200-person customer-success team
   d. Independence of TPG
      - Independent buyer/independent competitor
      - Testimony that TPG will compete vigorously with UHG in first-pass claims editing solutions
        - No evidence to the contrary

Horizontal overlap in first-pass claims editing

Court*: Using the DOJ's proposed standard of proof*

2. Assessing the "fix": Five factors (con't)—
   e. Adequacy of the purchase price
      - To ensure that the divestiture buyer has enough "skin in the game" to provide it with a sufficient incentive to survive in the business and compete vigorously
      - No evidence to doubt adequacy of the purchase price ($2.2 billion)

Horizontal overlap in first-pass claims editing

Court: *Using the DOJ's proposed standard of proof*

3. Court's conclusion
   - *Under the DOJ's proposed standard*: Rebuts DOJ's prima facie case

> Indeed, the trial evidence shows—and the Court concludes—that competition in the post-divestiture market for first-pass claims editing will match, and perhaps even exceed, its current levels.

   - *Under the proper standard*: Evidence prevents DOJ from making a prima facie case
   - *Order*: UHG ordered to divest ClaimsXten as proposed
     - *Note:* A court order of divestiture exempts the transaction from the reporting and waiting period requirements of the HSR Act[1]
     - *Query*: If the court rejected the DOJ's claim and found for the defendants, what is the court's jurisdiction to issue the divestiture order?
       - One possibility: The All Writs Act:

> The Supreme Court and all courts established by Act of Congress may issue all writs necessary or appropriate in aid of their respective jurisdictions and agreeable to the usages and principles of law.[2]

[1] HSR Rule 802.70, 16 C.F.R. 802.70.
[2] 28 U.S.C. § 1651(a).

Vertical anticompetitive information conduit

- DOJ's theory: Four steps—
  1. The acquisition will give Optum access to rivals' claims CSI data
  2. Optum will have the incentive to share competitive insights from the CSI data with UHC
  3. Knowing this, UHC's rivals will innovate less because of the fear that UHC will free ride off their claims-related innovations
  4. Less innovation → harm to competition in the relevant insurance markets

Note: This theory depends on how rivals would react *to the possibility that UHG would access and use their CSI to their competitive disadvantage*

NOT how in fact UHG postmerger would use their CSI to competitively disadvantage them

Vertical anticompetitive information conduit

- The evidence
  - On sharing data
    - Evidence not to share or use rival CSI
      - Optum currently has access to rival CSI through its Claims Edit System, which it does share with UHC
        - Contrary to UHG’s entire business strategy and corporate culture
        - Would intentionally violate or repeal longstanding firewall policies
        - Would flout existing contractual commitments
        - Would sacrifice significant financial and reputational interests
    - Rival insurance companies testified that—
      - Optum’s has strong incentives to comply with the firewalls and protect customers’ data, and
      - They trust Optum not to share their data with UHC after the merger
    - The Government offered no conflicting testimony at trial
  - On innovation by rival health insurance companies
    - DOJ failed to adduce evidence that any UHC rival would innovate less out of fear that UHC would access and use their CSI
      - All payer witnesses testified to the contrary

Vertical anticompetitive information conduit

- Court's conclusion: The DOJ failed to make out a prima facie case
  1. Finding:

     > [T]he evidence at trial established, and the Court finds, that United will have strong legal, reputational, and financial incentives to protect rival payers' CSI after the proposed merger.[1]

  2. The DOJ failed to present evidence to show—
     - How much incremental rival CSI would UHG obtain as a result of the acquisition that it would not have through its Claim Edit System, *and*
     - That this incremental information would reverse UHG's premerger profit-maximizing incentive to protect its rivals' CSI and not share it with UHC
  3. The DOJ's allegation that rivals would innovate less was—
     - Based on the speculation of its expert witnesses without supporting real-world evidence
     - Contrary to the testimony of all payers at trial

[1] United States v. UnitedHealth Grp. Inc., No. 1:22-CV-0481 (CJN), 2022 WL 4365867, at *23 (D.D.C. Sept. 21, 2022).

Vertical anticompetitive information conduit

- Court's conclusion: The DOJ failed to make out a prima facie case
  3. Even if payers would innovate less, the DOJ failed to show that the reduced pace of innovation would *substantially* lessen competition:

> The Government rests on the axiomatic truth that payers who are innovating less are also competing less. But it made no attempt to show that the lessening of innovation and competition would be substantial. In fact, the Government's own expert admitted that rival insurers would still innovate after the proposed merger. But establishing that the proposed merger would "lessen innovation" (and thus competition) and that insurers would have "less of an incentive to innovate" (and thus compete) does not establish that the proposed merger would *substantially* lessen competition. The Government failed to offer evidence demonstrating that that standard is met here. But the Court need not rest its holding on this point, as the Government failed to establish other steps in its theory.[1]

Although dictum, this focus of a "substantial" lessening of competition is a significant precedent

[1] United States v. UnitedHealth Grp. Inc., No. 1:22-CV-0481 (CJN), 2022 WL 4365867, at *6 (D.D.C. Sept. 21, 2022).

Vertical anticompetitive information conduit

- Conclusion: The DOJ failed to make out a prima facie case
  4. Central weakness in the government's case
     - The DOJ presented opinion evidence by economic experts without any real-world support
     - The merging parties presented contrary evidence by knowledgeable and experienced party and rival representatives who worked in the business

> The evidence at trial highlighted weaknesses in each of these steps. But the central problem with this vertical claim is that it rests on speculation rather than real-world evidence that events are likely to unfold as the Government predicts. Governing law requires the Court to "mak[e] a prediction about the future," and that prediction must be informed by "record evidence" and a "fact-specific showing" as to the proposed merger's likely effect on competition. Under this standard, "antitrust theory and speculation cannot trump facts.“[1]

[1] United States v. UnitedHealth Grp. Inc., No. 1:22-CV-0481 (CJN), 2022 WL 4365867, at *6 (D.D.C. Sept. 21, 2022) (quoting United States v. AT&T, Inc., 310 F. Supp. 3d 161, 190 (D.D.C. 2018) (internal citations omitted), *aff'd*, 916 F.3d 1029 (D.C. Cir. 2019)).

Vertical foreclosure

- DOJ's theory: Three steps—
  1. Optum and Change are the only two firms developing an "integrated platform" for payers
  2. If UHG acquires Change, it would control the development of the only integrated platform
  3. UHG would then foreclose access by UHC rivals by withholding or delaying sales of the integrated platform

- The evidence
  - The "integrated platforms" in question are only concepts, not products
  - Optum has never withheld a product from UHC's rivals
    - Optum currently markets all its payment integrity products to UHC's biggest rivals
  - Optum has never sold one version of a product to UHC and a degraded version to other customers
    - Although Optum has piloted some products with UHG to test them before making them commercially available

Vertical foreclosure

- DOJ's expert testimony
  - Dr. Gowrisankaran's "vertical math" shows that UHG could increase its profits by foregoing sales of its integrated platform (once developed) to rivals
    - The profit losses from not selling the platform to UHC rivals would be more than offset by—
    - The profits gains from insurance sales that would shift from UHC's rivals to UHC's (presumably) better priced commercial insurance products
  - BUT

> Dr. Gowrisankaran's testimony, however, is at odds with the unrebutted testimony of various United executives, who stated consistently their view that it is not in United's interests for Optum to abandon its multi-payer strategy. . . . The Court concludes that this testimony [by Andrew Witty, the CEO of UHG]—and the similar testimony of a number of other United executives—is far more probative of post-merger behavior than Dr. Gowrisankaran's independent weighing of costs and benefits.[1]

The DOJ failed to make out a prima facie case

[1] United States v. UnitedHealth Grp. Inc., No. 1:22-CV-0481 (CJN), 2022 WL 4365867, at *27 (D.D.C. Sept. 21, 2022).

Current status

- Final Judgment entered on September 19, 2022
  - Denying DOJ's request for a blocking injunction
  - Ordering UHG to divest ClaimsXten to TPG Capital as proposed
  - Entering final judgment for the defendants
- Parties closed the transaction on October 3, 2022
  - The DOJ did not request a stay pending appeal
- The DOJ filed its notice of appeal on November 18, 2022
  - Normally, the time to appeal is 30 days after the filing of the final judgment
  - 28 U.S.C. § 2701(b) provides a 60-day period when one of the parties is a U.S. agency
  - DOJ files NOA on the last day permitted by Section 2701(b)
- Parties filed a Joint Stipulation of Dismissal of the appeal on March 20, 2023
  - Essentially no docket activity for four months