Classes 4-7

Unit 3: Sanford Health/Mid Dakota Clinic

Merger Antitrust Law

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HEALTH

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MID DAKOTA CLINIC
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The Deal

What was the transaction?

- Sanford Health to acquire MidDakota Clinic, P.C. (MDC)
  - Purchase the stock and clinic assets of MDC P.C.
  - Purchase the real estate and other assets owned by the Mid Dakota Medical Building Partnership that are leased by MDC
- Purchase price: Not given
  - But appears to be HSR reportable
    - Complaint alleges that "[a]bsent court action, Defendants will be free to close the Transaction after 11:59 pm EST on June 26, 2017"
- Term sheet dated August 22, 2016

Who was the buyer?

- Sanford Health
  - North Dakota not-for-profit corporation
  - Vertically integrated healthcare delivery system
    - Headquartered in Sioux Falls, SD
    - Operates in nine states
      - More than 40 hospitals
      - More than 250 clinics
    - Sells health insurance in four states

Who was the buyer?

- Sanford Health
  - Operates Sanford Bismarck
    - Wholly-owned subsidiary
    - Operates Sanford Bismarck Medical Center
      - 217-bed general acute care hospital and Level II trauma center
      - Employs 160 physicians who work in Bismarck or Mandan
      - Largest private employer in the Bismarck-Mandan area
    - Eight primary care clinics
    - Several specialty clinics

Who was the seller?

- Mid Dakota Clinic, P.C.
  - Not-for-profit, physician-owned professional corporation
  - Headquartered and operates in Bismarck, ND
  - Operates
    - Mid Dakota Clinic
    - Mid Dakota Center for Women
    - Ambulatory surgery center
  - Employs 61 physicians
    - 12th largest private employer in Bismarck

The Mechanics of Merger Antitrust Litigation

Antitrust merger litigation generally

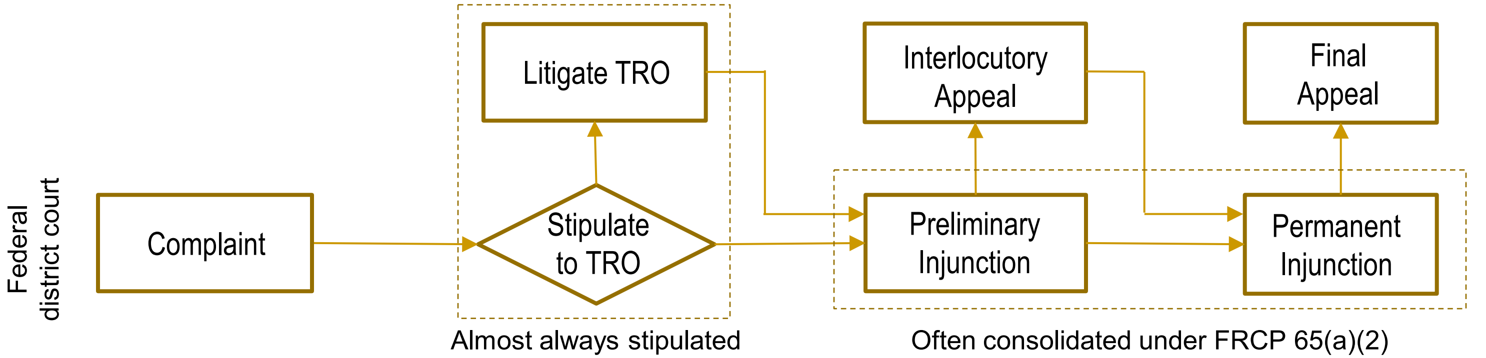
Plaintiff	Trial Forum	Appeal
DOJ	Federal district court	Court of appeals
FTC –Preliminary inj. –Permanent inj.	 Federal district court FTC administrative trial	 Court of appeals Full commission, then any court of appeals with venue
State AGs*	Federal district court	Court of appeals
Private parties*	Federal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

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

- Incentive to litigate
  - *By far the strongest*: DOJ and FTC
  - *Weak, but still see some challenges*: State AGs
  - *Almost nonexistent*: Private parties

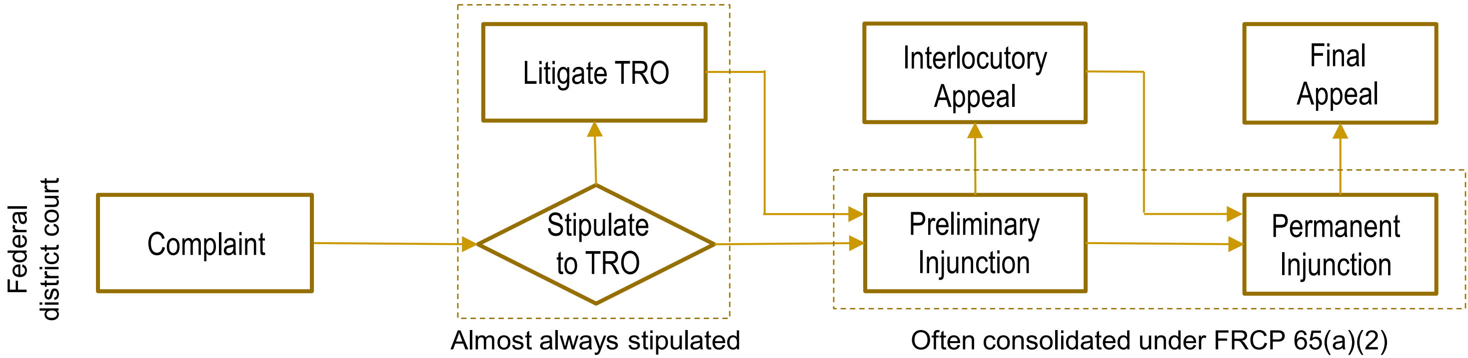
Typical litigation paradigms

DOJ preclosing challenge

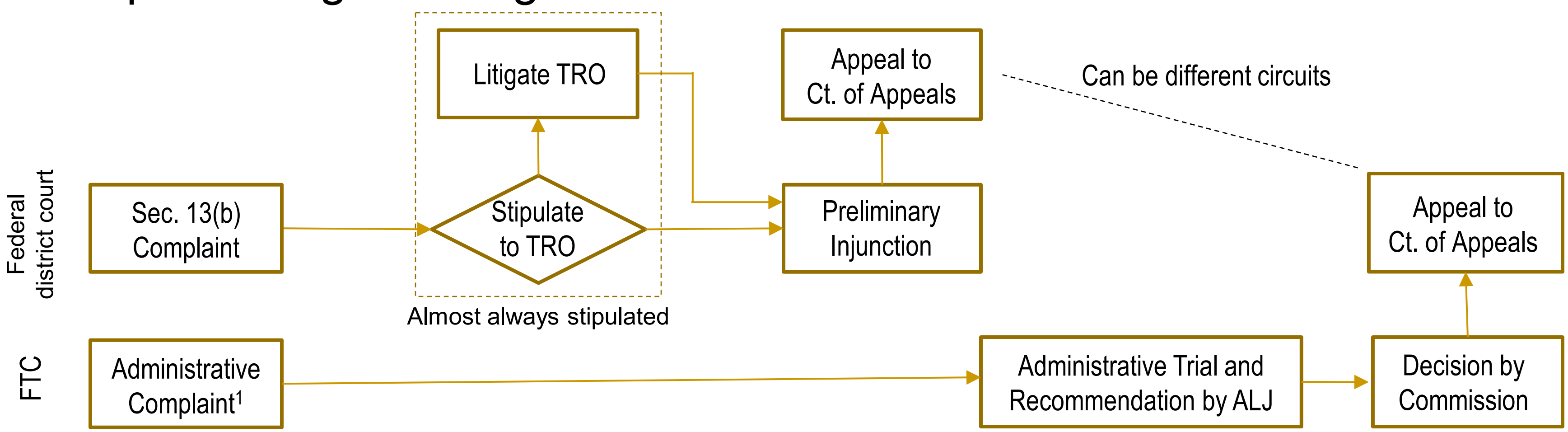


Typical litigation paradigms

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	Forum	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): 6.5 months from filing of the complaint
"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

Types of injunctions in merger cases

Injunction type	Relief ordered	
Temporary restraining order (TRO)	Maintain status quo pending decision on a preliminary injunction	
Preliminary injunction	Premerger:	Blocking injunctions
	Postmerger:	Hold separate/preserve assets for divestiture Rescission in appropriate cases
Permanent injunction	Premerger:	Blocking injunction
	Postmerger:	Divestiture (rescission in one case)

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

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”

Private parties: Clayton Act § 16
“Any person . . shall be entitled to sue for and have injunctive relief, in any court of the United States having jurisdiction over the parties, against threatened loss or damage by a violation of the antitrust laws . . ., **when and under the same conditions** and principles as injunctive relief against threatened conduct that will cause loss or damage **is granted by courts of equity** . . . .”

Winter v. Natural Res. Def. Council, Inc.[1]

- Seminal Supreme Court case on preliminary injunctions
- *Winter* test: "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."[2]
- Applies to—
  - The DOJ under Clayton Act § 15
  - Private parties (including states) under Clayton Act § 16
- Does not apply to the FTC
  - FTC Act § 13(b) standard applies instead

[1] 555 U.S. 7 (2008).
[2] *Id* at 20.

Comparison of injunctive relief standards

For North Dakota	For the FTC
***Winter* standard[1]**	**Section 13(b) standard**
A [private] plaintiff seeking a preliminary injunction must establish	A court must find, after
[1] that he is likely to succeed on the merits,	[1] considering the Commission's likelihood of ultimate success
[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	[2] weighing the equities
[4] that an injunction is in the public interest.	that entry of the preliminary injunction would be in the public interest

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

Antitrust preliminary injunction standard

- Debate over the Section 13(b) likelihood of success standard
  - The FTC often argues that Section 13(b) modifies the traditional equity standard for the entry of a preliminary injunction
  - Under this view, the FTC need only show—
    - "a fair and reasonable chance of ultimate success on the merits,"[1] *or*
    - more commonly cited by the courts, a "serious question":

> 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]

  - Almost all modern Section 13(b) opinions cite the "serious question" standard
  - BUT the debate is almost academic
    - Except for the articulation of the different standards, the opinions in DOJ Section 15 cases on a permanent injunction and FTC Section 13(b) cases for a preliminary injunction are indistinguishable and all finding for the agency show a certain or almost certain Section 7 violation

[1] *See* FTC v. Lancaster Colony Corp., 434 F. Supp. 1088, 1090 (S.D.N.Y. 1977); *urged in* FTC v. IQVIA Holdings Inc., No. 23 CIV. 06188 (ER), 2024 WL 81232, at *7 (S.D.N.Y. Jan. 8, 2024).
[2] FTC v. Warner Commc'ns, 742 F.2d 1156, 1162 (9th Cir. 1984).

Winter v. Natural Res. Def. Council, Inc.

- DOJ/FTC challenges
  - Irreparable harm is presumed to result if the law is violated
    - Other cases hold that the element of irreparable harm is simply not part of the test when the government is the plaintiff and is seeking to prevent a violation of law
  - Balance of the equities
    - The public equities
      - The public interest in effectively enforcing the antitrust laws
      - The public interest in ensuring that effective relief may be ordered if the government succeeds at the trial on the merits (secondary)
    - Where there is a likelihood of success, the public equities have always outweighed the private equities, whatever they may be
      - I am unaware of any merger antitrust case where the court found the private equities outweighed the public equities if the agency demonstrated a likelihood of success on the merits

Therefore, the critical factor when the government seeks a preliminary injunction is the likelihood of success on the merits

- *Query*: Can the *Winter* requirements be balanced on a sliding scale?

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 when circumstances require[1]
- Duration[2]
  - Not to exceed 14 calendar days
  - May be extended for good cause by the court for an additional 14 calendar days
  - 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
  - The parties may agree on a longer extension (stipulated TRO)
- 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)

[1] Fed. R. Civ. P. 65(b)(1).

[2] Fed. R. Civ. P. 65(b)(2).

Temporary restraining orders (TROs)

- Rarely litigated 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

Permanent injunctions

- Identical to the preliminary injunction standard applicable to the case
  - EXCEPT that a permanent injunction requires *actual* success on the merits[1]
  - Success on the merits requires proof by the preponderance of the admissible evidence
- The preliminary injunction record
  - In many non-merger cases, the record for a decision on a permanent injunction will be more developed if additional discovery and briefing have occurred since the preliminary injunction hearing
  - *Not the case in merger antitrust challenges*: Lay and expert discovery will be completed, a full trial record will be presented, and the court will hold a multiday evidentiary hearing with live witnesses
  - Although expedited, merger antitrust preliminary injunction hearings are indistinguishable from a full trial on the merits
- 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).

FTC v. Sanford Health:
The FTC's Case

The complaint

- Who were the plaintiffs?
  - FTC
  - State of North Dakota
- Who were the defendants?
  - Sanford Health (and its subsidiary Sanford Bismarck)
  - Mid Dakota Clinic, P.C.
- Where was the complaint filed?
  - United States District Court for the District of North Dakota
- When was it filed?
  - June 23, 2017
- Was the complaint filed pre- or post-closing?
  - Preclosing

The complaint

- What statutes did the plaintiffs allege would be violated?
  - Clayton Act § 7
  - FTC Act § 5
  - North Dakota antitrust law
    - This is a little confusing
    - The district court cited—
      - Section 7 as the only substantive statute that was violated
      - North Dakota law only for remedies
    - But the North Dakota state remedies law should not apply to a federal Section 7 claim
    - In the complaint, however, North Dakota did allege a violation of North Dakota Century Code § 5108.1, the state's analog to the Sherman Act
      - North Dakota does not have an analog to Clayton Act § 7
    - On the other hand, the complaint's prayer for relief did not seek any remedy beyond that provided in Clayton Act § 16, so the North Dakota remedies statute was superfluous
      - Except that the North Dakota law also provides for the award of attorneys' fees when the state prevails in its action

The complaint

- 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"[2]

Called the *relevant market*

Called the *anticompetitive effects test*

[1] 15 U.S.C. § 18 (emphasis added; remainder of section omitted).
[2] To be within federal subject matter jurisdiction, the parties and the transaction must have the requisite nexus to interstate commerce.

The complaint

- What was the gravamen of the complaint?
  - The acquisition by Sanford Health of Mid Dakota Clinic would violate Clayton Act § 7 by threatening to lessen competition in physician services "sold and provided to [1] commercial payers and [2] their insured members" in four separate relevant markets—
    1. Adult primary care physician services
    2. Pediatric services
    3. OB/GYN services, and
    4. General surgery physician services

    Relevant product markets

    in the Bismarck-Mandan area of North Dakota — Relevant geographic market

> The proposed Transaction will substantially lessen competition and cause significant harm to consumers. If Defendants consummate the Transaction, healthcare costs will rise, and the incentive to increase service offerings and improve the quality of healthcare will diminish.[1]

[1] Complaint for Temporary Restraining Order and Preliminary Injunction Pursuant to Section 13(b) of the Federal Trade Commission Act ¶ 2, FTC v. Sanford Health, No. 1:17-cv-00133-DLH-CSM (D.N.D. filed June 22, 2017).

The complaint

- What did the plaintiffs perceive as the source of the problem?
  - The acquisition would significantly increase concentration in each of the alleged relevant markets (creating monopolies or near-monopolies)

Physicians in the Bismarck-Mandan Region

	Sanford Bismarck	Mid Dakota	CHI St. Alexius	Others
Adult PCPs[1]	37	23	5	10
Pediatricians	5	6	0	1
OB/GYNs	8	8	0	1
General surgeons	4	5	0	0

[1] PCPs are primary care providers.

The complaint

- What relief did the plaintiffs seek?
  - *FTC*: Preliminary injunction under FTC Act § 13(b) enjoining the consummation of the transaction until a decision by the FTC on the merits
  - North Dakota:
    - Preliminary injunction under Clayton Act § 16 enjoining the consummation of the transaction until a decision by the FTC on the merits
    - Retain jurisdiction and maintain the *status quo* until the administrative proceeding that the Commission has initiated concludes
      - *Query*: Why ask for this?
    - Attorneys' fees

The complaint

- As to the likelihood of success on the merits, what did the FTC allege it would show?

Prima facie case

Preempt entry defense

Preempt efficiencies defense

> 68. The Commission has reason to believe that the Transaction would violate Section 7 of the Clayton Act, 15 U.S.C. § 18, and Section 5 of the FTC Act, 15 U.S.C. § 45. In particular, the Commission is likely to succeed in demonstrating, among other things, that:
>
> a. The Transaction would have anticompetitive effects in the adult PCP services, pediatric services, OB/GYN services, and general surgery physician services markets in the Bismarck-Mandan area;
>
> b. Substantial and effective entry or expansion into the relevant service and geographic markets is difficult and would not be timely, likely, or sufficient to offset the anticompetitive effects of the Transaction; and
>
> c. Any efficiencies that Defendants may assert as resulting from the Transaction are speculative, not merger-specific, and are, in any event, insufficient as a matter of law to justify the Transaction.[1]

[1] Complaint for Temporary Restraining Order and Preliminary Injunction Pursuant to Section 13(b) of the Federal Trade Commission Act ¶ 68, FTC v. Sanford Health, No. 1:17-cv-00133-DLH-CSM (D.N.D. filed June 22, 2017).

The complaint

- As to the balance of the equities and the public interest, what did the FTC allege it would show?

Difficulties in obtaining effective post-trial divestiture relief

Interim harm from price increases and quality reductions

69. Preliminary relief is warranted and necessary. The Commission voted unanimously to issue an administrative complaint. Should the Commission rule, after the full administrative trial, that the Transaction is unlawful, reestablishing the status quo ante of competition would be difficult, if not impossible, without preliminary injunctive relief from this Court. The integration of Sanford and MDC's operations, including the elimination or transfer of service lines, the implementation of higher prices, and potential staff reductions, would substantially impair any attempt to restore competition to pre-Transaction levels.

70. Moreover, in the absence of relief from this Court, substantial harm to competition could occur immediately, including [1] an increase in the costs that employers and their employees in the Bismarck-Mandan area incur for their healthcare and [2] a reduction in the quality of healthcare administered. Because any potential pro-competitive benefits of the Transaction do not outweigh the significant interim harm to competition and consumers, and should still be available pending the outcome of the administrative trial, the public equities weigh strongly in favor of Plaintiffs' request for preliminary injunctive relief.

[1] Complaint for Temporary Restraining Order and Preliminary Injunction Pursuant to Section 13(b) of the Federal Trade Commission Act ¶ 68, FTC v. Sanford Health, No. 1:17-cv-00133-DLH-CSM (D.N.D. filed June 22, 2017).

Proving the Prima Facie Case

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. *Gross anticompetitive effect*: Courts broadly look at two types of indicia in evaluating evidence on the relevant 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 and* Baker Hughes *burden shifting*

The *PNB* presumption

- Establishes a rebuttable presumption of prima facie anticompetitive Section 7 harm:

> "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 some 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*.

Baker-Hughes[1]

- Sets out a three-step burden-shifting approach:
  1. The plaintiff bears the 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 (contested) essential element of a Section 7 violation
     - Essential elements
       1. The relevant product market
       2. The relevant geographic market
       3. The requisite gross anticompetitive effect in the relevant market

> Also need to satisfy the interstate commerce element, but this is rarely contested

[1] United States v. Baker Hughes Inc., 908 F.2d 981, 982-83 (D.C. Cir. 1990).

Baker-Hughes

- Sets out a three-step burden-shifting approach:
  2. If the plaintiff satisfies its burden in Step 1, the *burden of production* shifts in Step 2 to the defendants to adduce evidence sufficient to rebut the plaintiff's prima facie case and create a genuine issue for the trier of fact
     a. Three avenues of rebuttal:
        i. Negate the plaintiff's market definition
        ii. Rebut the predicates of the *PNB* presumption and other evidence of (gross) prima facie anticompetitive effect
        iii. If applicable, provide evidence of one or more downward-pricing pressure defenses

Baker-Hughes

- Uses a three-step burden shifting approach:
  3. *The burden of persuasion* then returns to the 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
     - To the extent defendants have satisfied their burden in Step2, in Step 3 plaintiffs must prove by the preponderance of the evidence—
       - The relevant product market
       - The relevant geographic market, and
       - The merger will cause a cognizable *net* anticompetitive effect with reasonable probability

Market Definition Generally

Relevant markets

- The language of Clayton Act § 7 requires proof of the product and geographic dimensions of a relevant market:

> 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]

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

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 findings on market definition are reviewed under the *clearly erroneous rule*
    - To set aside, requires the reviewing court, after considering the entire evidence, to have a definite and firm conviction that a mistake has been committed even though some evidence supports the finding
  - FTC findings are reviewed under the *substantial evidence rule*
    - Must uphold where the supporting evidence is "more than a mere scintilla" and a reasonable mind could accept it as adequate to support the finding

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 argue 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 market definition in court
  - Courts
    - Have not had to decide a case precisely on point
    - BUT some courts have held that 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

Step 1. The Prima Facie Case: Relevant Product Markets

Product market tests

- Two complementary tests in judicial analysis:
  1. The "outer boundaries" and "practical indicia" criteria of *Brown Shoe*[1]
  2. The hypothetical monopolist test of the Merger Guidelines

- Market definition and the Merger Guidelines
  - The 1982, 1992, and 2010 Merger Guidelines recognized only the hypothetical monopolist test for defining markets
  - BUT the 2023 Merger Guidelines provide four methods for defining markets:[2]
    1. Direct evidence of substantial competition between the merging parties
    2. Direct evidence of the exercise of market power
    3. The *Brown Shoe* "practical indicia"
    4. The hypothetical monopolist test

Show only that a market exists, but do not define market boundaries

Subject to problems to be discussed in the next section

[1] Brown Shoe Co. v. United States, 370 U.S. 294, 325 (1962).
[2] U.S. Dep't of Justice & Fed. Trade Comm'n, Merger Guidelines § 4.3 (rev. Dec. 18, 2023); *see* U.S. Dep't of Justice & Fed. Trade Comm'n, Horizontal Merger Guidelines § 4 (rev. Aug. 19, 2010).

The *Brown Shoe* Tests

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

- 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

Designed to isolate all and only those products that exert significant price-constraining force on the overlapping products

- 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 "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
  - The *Brown Shoe* 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 one 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 (0-60 mph: 10.2 sec.; top speed: 115 mph)
       - Differences in functionality are often accompanied by differences in price (Ferrari 812 base price: $340,712; Nissan Versa base price: $15,625)
    3. *Differences in reputation*
       - Even without functional differences
    4. *Distinct marketing or advertising channels*
       - Premium cosmetics advertised in fashion magazines vs. generic cosmetics promoted in supermarket circulars
    5. *Distinct distribution channels*
       - Luxury electronics sold only in specialty boutiques vs. mass-market electronics distributed through Walmart or Amazon

Application in *Sanford Health*

- Product market definition in *Sanford Health* had two dimensions:
  1. A type of physician service
  2. The customers who paid for/consumed the service

Note: The *Sanford Health* court did not explicitly perform a *Brown Shoe* analysis, but we will see that the court's analysis easily fits within this framework

- Physician services
  - The district court identified four types of physician services as separate relevant products:
    1. Adult primary care physician (PCP) services
    2. Pediatrician services
    3. OB/GYN physician services
    4. General surgeon services
  - *Key*: Substitutability considerations
    1. Physicians within a relevant service category were reasonably interchangeable with other physicians within the same group
       - Especially true for commercial insurers
       - True for insureds (but recognizing the physicians with a category can be differentiated in the minds of patients)
    2. Physicians outside a relevant service category were not reasonably interchangeable with physicians within the category
       - Equally true for commercial insurers and their insureds

Application in *Sanford Health*

- Supporting *Brown Shoe* "practical indicia"
  - Industry or public recognition
    - Relied on testimony from commercial insurers (BCBSND, SHP, Medica), who uniformly testified that each physician service line (PCP, pediatrician, OB/GYN, general surgeon) is essential for a marketable network in the Bismarck-Mandan area
  - Peculiar characteristics and uses
    - Each service line involves distinct clinical roles, scopes of practice, and patient populations
  - Distinct customers
    - Commercial health insurers seeking a service provided by the physician group for their insureds
    - Patients insured by commercial health insurers
  - Distinct prices
    - While the court did not cite service-specific price levels, it found that insurers negotiate separate reimbursement rates for each service line
  - Specialized vendors
    - Providers are board-certified and licensed in distinct medical specialties
    - PCPs, pediatricians, OB/GYNs, and general surgeons cannot replace one another for insurance or clinical purposes
  - Not cited: Sensitivity to price changes
    - Although not framed in *Brown Shoe* terms, implicitly tested through the HMT

Would establish a prima facie case of market definition under Step 1 of Baker Hughes

Application in *Sanford Health*

- Defendants' substitution arguments
  - Defendants argued FTC's markets too narrow because they excluded close substitutes:
    - *PCPs*: Should include advanced practice providers (APPs), including nurse practitioners, physician assistants
      - APPs perform many of the same routine functions as PCPs
    - *Pediatricians*: Should include pediatric hospitalists
      - Pediatric hospitalists are board-certified pediatricians providing care in hospitals
    - *OB/GYNs*: Should include general surgeons
      - General surgeons and OB/GYNs share overlapping procedural skills
  - *Query*: What is the nature of the defense the merging firms were offering here?
    - Proof of the dimensions of the relevant market is an essential element of the plaintiffs' merits claim
    - The plaintiffs bear the burden of persuasion in Step 3 of *Baker Hughes* when market definition is disputed
    - If the merging firms can show that the relevant market includes health care providers that the plaintiffs failed to include in their alleged markets, the plaintiffs fail in Step 3 on an essential element of their claim

Arguably would create a genuine issue of fact of the dimensions of the product market and, if so, satisfy Step 2 of Baker Hughes

Application in *Sanford Health*

- Court's analysis of the substitution arguments
  - PCPs and APPs: Rejected
    - Insurers testified APPs not viewed as interchangeable with PCPs in insurance policy coverage
    - APPs require physician supervision; networks still need PCPs
  - Pediatricians and pediatric hospitalists: Rejected
    - Hospitalists limited to inpatient care; no outpatient or well-child services
    - Community-based pediatricians are essential for marketable networks
  - OB/GYNs and general surgeons: Rejected
    - Distinct training and scopes of practice
    - General surgeons cannot replace OB/GYNs for obstetric care for many gynecological procedures
  - *Bottom line*:
    - The Court rejected all substitution arguments
    - Each specialty alone is a separate relevant product market

Would provide the basis for the Court rejecting the merging firms' rebuttal of the plaintiffs' prima facie of market definition and sustain a finding that the plaintiffs' alleged markets are relevant markets under Step 3 of Baker Hughes

Problems with the *Brown Shoe* test

- Major problems with the *Brown Shoe* "practical indicia" test
  1. *Vague and subjective factors*: The indicia are not precisely defined, leading to high levels of subjectivity in their application
  2. *Lack of metrics*: There is no clear indication of how each factor should be measured or weighted relative to the others
  3. *Unclear threshold for market definition*: The framework does not specify how many indicia need to be satisfied to define a market or submarket
  4. *Undefined methodology*: The framework fails to provide a structured or quantitative approach for applying the indicia to define market boundaries
  5. *Lack of economic foundation*: The indicia are not grounded in economic theory, potentially leading to economically unsound market definitions
  6. *Insufficient focus on consumer substitution*: The indicia do not prioritize consumer substitution patterns, which are central to determining competitive constraints
  7. *Susceptibility to manipulation*: Agencies or industry participants can strategically present evidence to fit or contradict the indicia, skewing market definitions
  8. *Inconsistent outcomes*: Due to the subjective nature of the indicia, different courts and analysts may define markets differently even with the same set of facts

Result: An enormous amount of confusion, bad analysis, and bad decisions

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
    2. in which a hypothetical monopolist of those products *could raise prices profitably* above the current level
    3. by at least "*small but significant nontransitory*" amount
  - Some background
    - 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 above prevailing levels

HMT: The economics

- The intuition
  - When firms compete, they—
    - Charge lower prices,
    - Produce more market output, and
    - Collectively earn lower profits

    than would a (structural) monopolist
  - If all these firms were to merge into a hypothetical monopolist, the monopolist should be able to raise price profitably
  - BUT the ability of the monopolist to increase price is not unlimited—if it increases prices too much, no one will buy the product and the monopolist will earn zero profits
  - So what happens as the monopolist begins to increase price above the premerger level?
    - Profits rise above premerger level, peaking at the monopoly optimum
    - Then profits decline but remain above premerger level
    - Then profits fall to or below premerger level, eventually reaching zero

That is, fall into this region

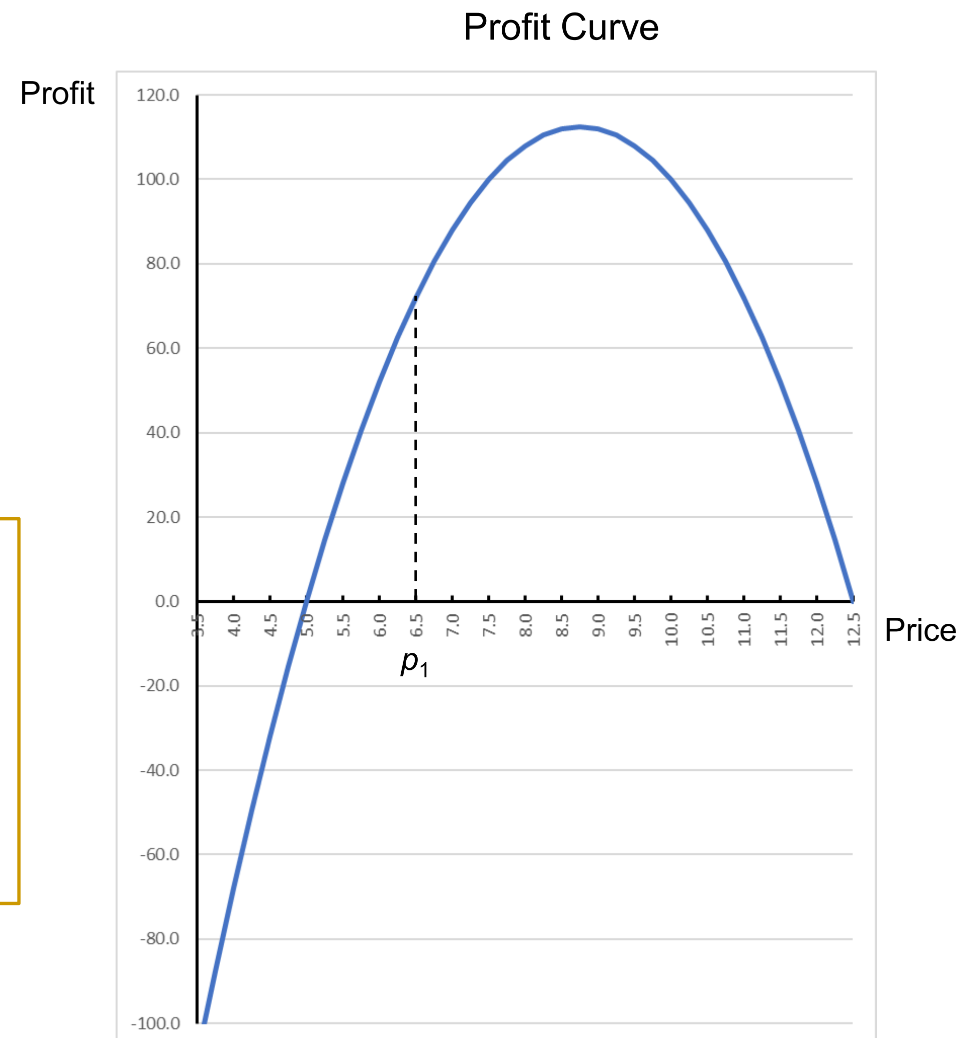
The HMT asks whether the hypothetical monopolist could profitably increase price by a SSNIP

HMT: The economics

- Why a SSNIP? Why not any price increase?
  - No explanation in the Merger Guidelines
  - *WDC*: I can think of two reasons:
    1. *Ensuring substantiality*: Section 7 requires that a merger be likely to *substantially* lessen competition. The SSNIP ensures that the relevant market can profitably support at least a "small but significant and nontransitory" price increase
       - In effect, the SSNIP defines a market where a merger could substantially lessen competition
       - BUT the SSNIP is not a "safe harbor" for the merger—evidence that a merger would not raise price by as much as a SSNIP does not provide a safe harbor from Section 7 liability
    2. *Reducing false positives from measurement error*: Because implementation of the HMT is subject to measurement error, requiring a SSNIP threshold reduces the risk that the HMT will falsely indicate a profitable price increase when none exists

HMT: The economics

- The intuition



Profits as a function of price

p_1 Prevailing market price

Look for π as a function of p:

$\pi = pq - cq - f$

Assume $f = 0$ and $q = a + bp$

Then:

$\pi = (p - c)(a + bq)$

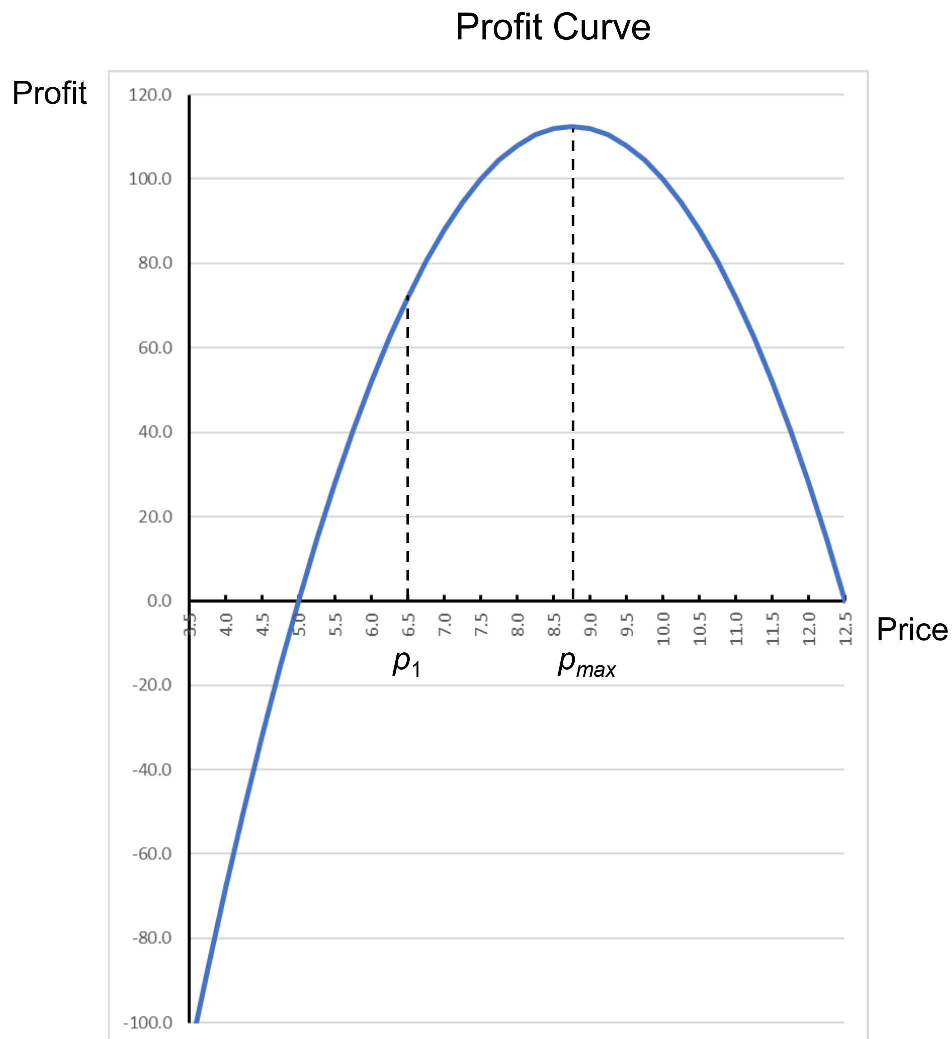
$\quad = a(p - c) - bcp - bp^2$

HMT: The economics

- The intuition

Profits as a function of price

p_1 Prevailing market price
p_{max} Profit-maximizing price



HMT: The economics

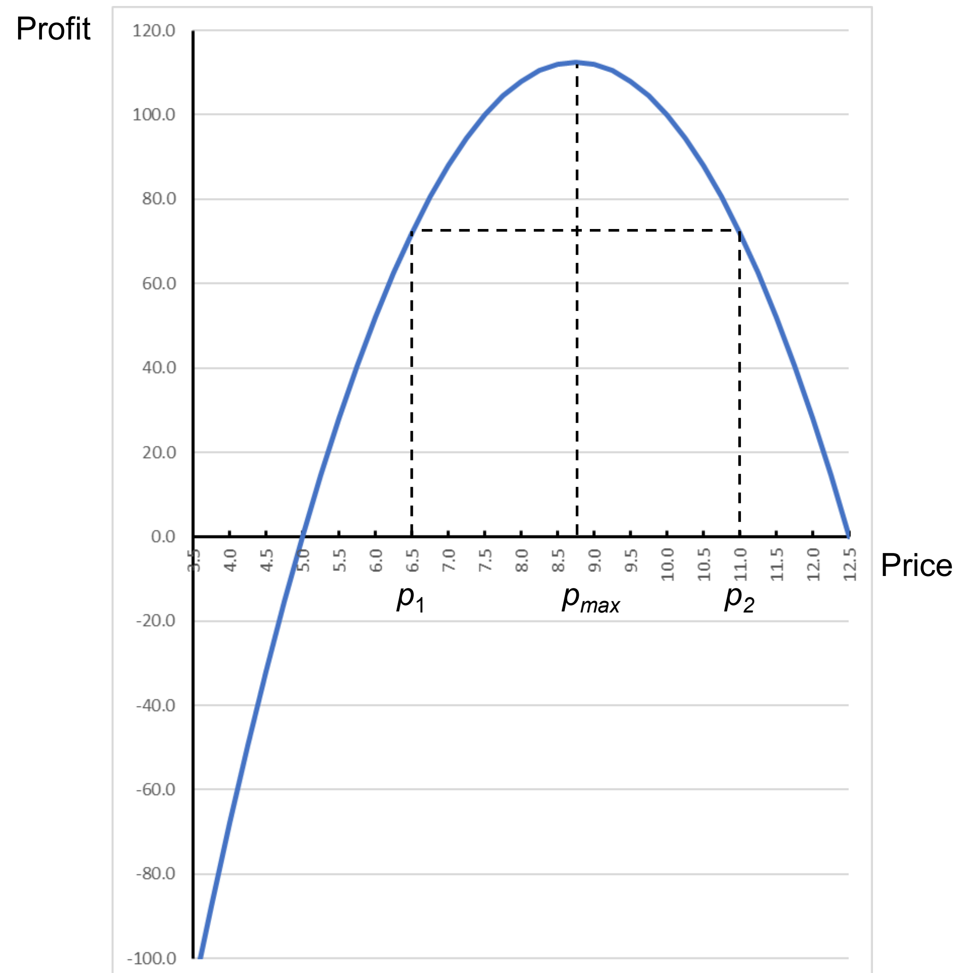
- The intuition

Profits as a function of price

p_1	Prevailing market price
p_{max}	Profit-maximizing price
p_2	"Break-even" price:

$$\pi(p_1) = \pi(p_1)$$

Profit Curve



HMT: The economics

- The intuition

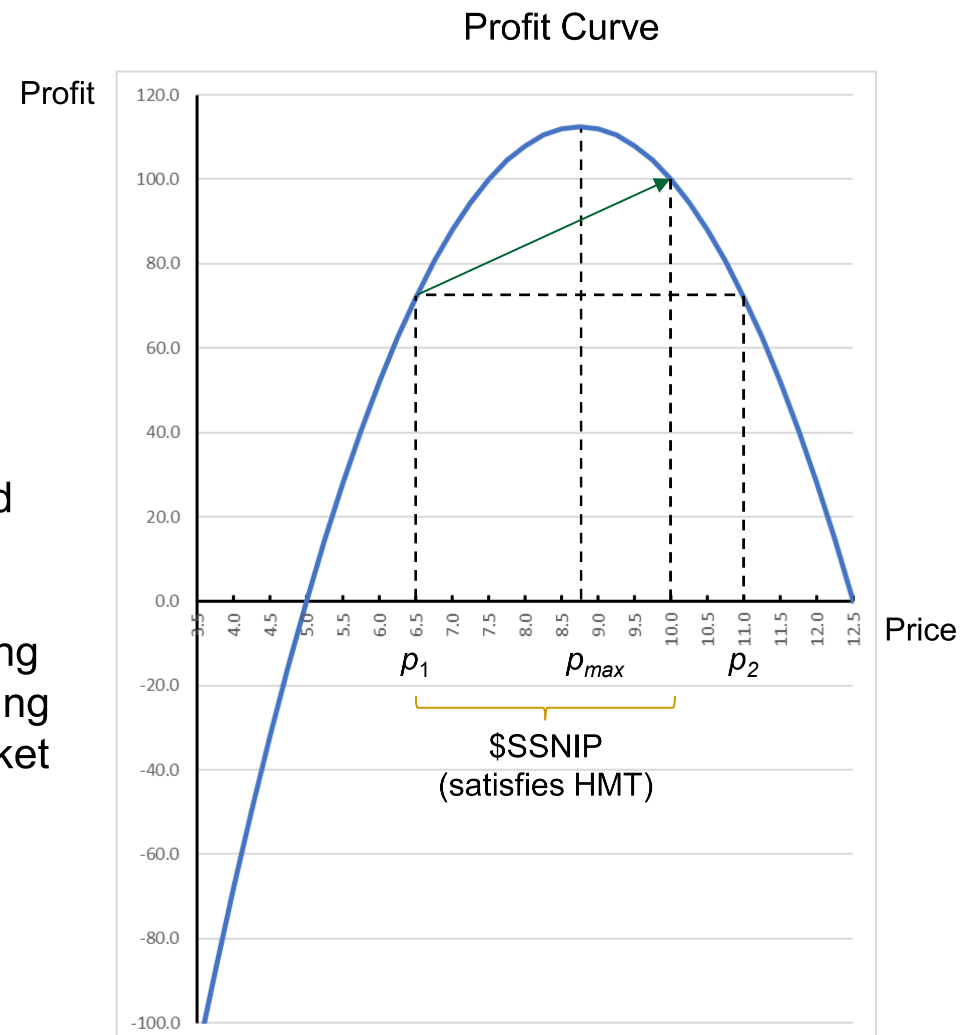
Profits as a function of price

p_1	Prevailing market price
p_{max}	Profit-maximizing price
p_2	"Break-even" price

$$\pi(p_1) = \pi(p_1)$$

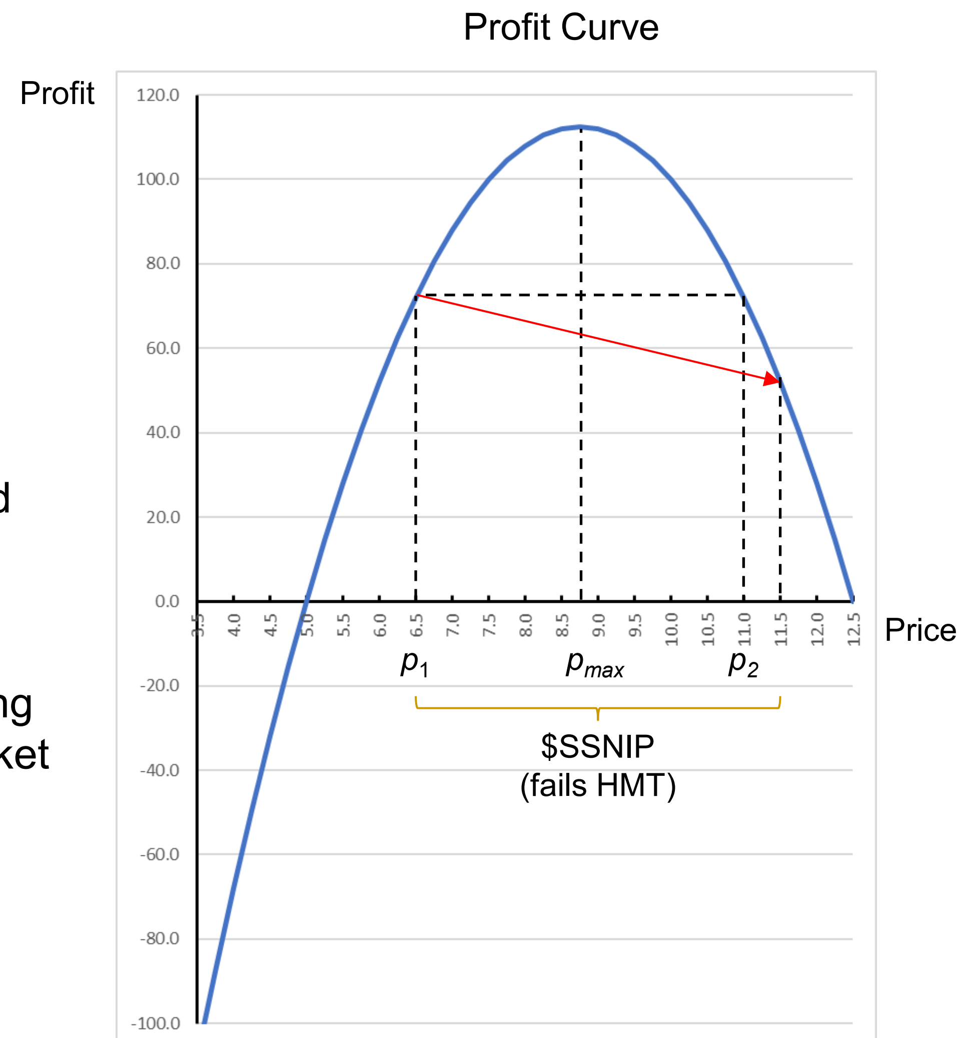
Let \$SSNIP be the dollar SSNIP and $p_2 = p_1 + \$SSNIP$

If p is between p_1 and p_2, the resulting profits are higher than at the prevailing market price and the candidate market satisfies the HMT



HMT: The economics

- The intuition



Profits as a function of price

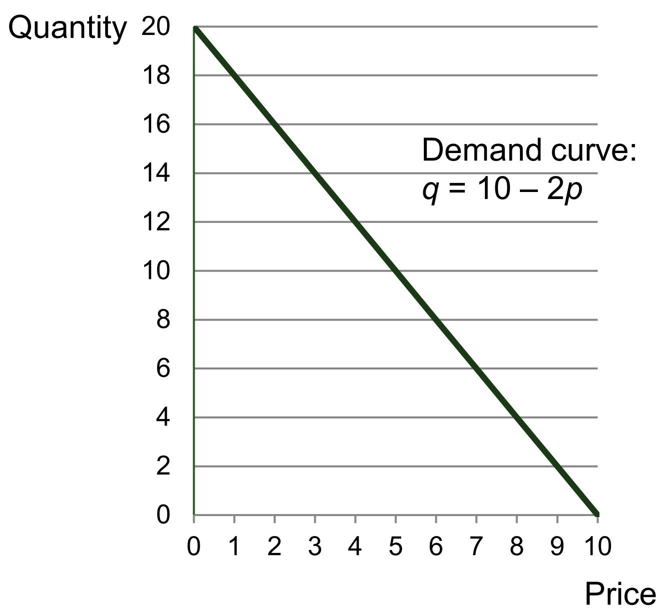
p_1	Prevailing market price
$p_{\max}$	Profit-maximizing price
p_2	"Break-even" price
	$\pi(p_1) = \pi(p_1)$

Let \$SSNIP be the dollar SSNIP and $p = p_1 + \$SSNIP$

If p is greater than p_2, the resulting profits are lower than at the prevailing market price and the candidate market fails the HMT

HMT: The mechanics

- Demand curves
  - *Definition*: A *demand curve* gives quantity consumers will purchase as a function of price
    - *Example:* Given my budget constraint, if the price is \$4.00, I will buy 12 units, but if the price is \$5.00, I will buy only 10 units
  - *Law of demand*: Demand curves are downward-sloping[1]
    - That is, a consumer will demand less as price increases



A *linear demand curve* is a straight line:

$$q = a + bp,$$

where

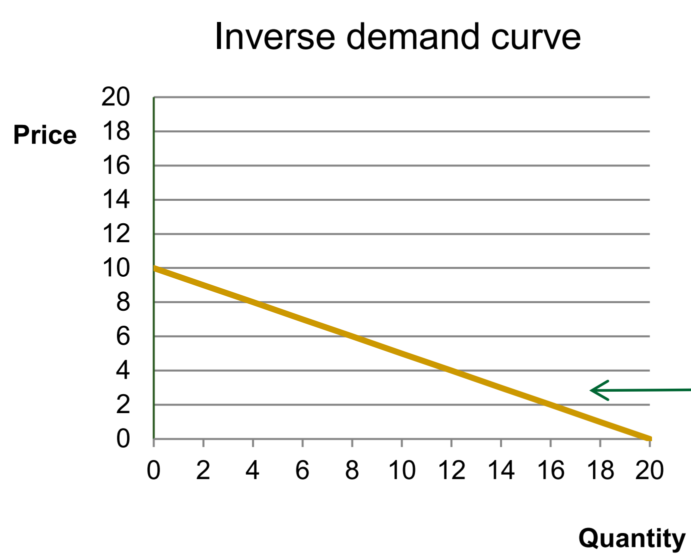
- q quantity demand
- p market price
- a a parameter (the "y-intercept")
- b a parameter (the slope of the demand curve—a negative number)

HMT: The mechanics

- Demand curves
  - Three types of demand curves
    1. *Aggregate demand curve*: Gives the total quantity demanded in the aggregate by all customers in the market at each price point
    2. *Residual demand curve*: Gives the total quantity demanded by all customers of a single firm at each price point while holding the prices of all other firms constant
    3. *Individual demand curve*: Gives the quantity demand by a single customer from all firms in the market at each price point
  - Relationships
    - The aggregate demand at a price point is the sum of—
      - The residual demands for all firms at that price point
      - Also, the individual demands for all customers at that price point

HMT: The mechanics

- Inverse demand curves
  - *Definition*: An *inverse demand curve* gives the market-clearing price for a given quantity
    - That is, it gives the price at which consumers in the market will demand no more and no less than that given quantity
  - NB: The demand curve and the inverse demand curve contain *exactly* the same information
    - To derive the inverse demand curve, take the demand curve and solve for price
    - The functions are simply rearrangements of one another (flip the *x*- and *y*-axes):

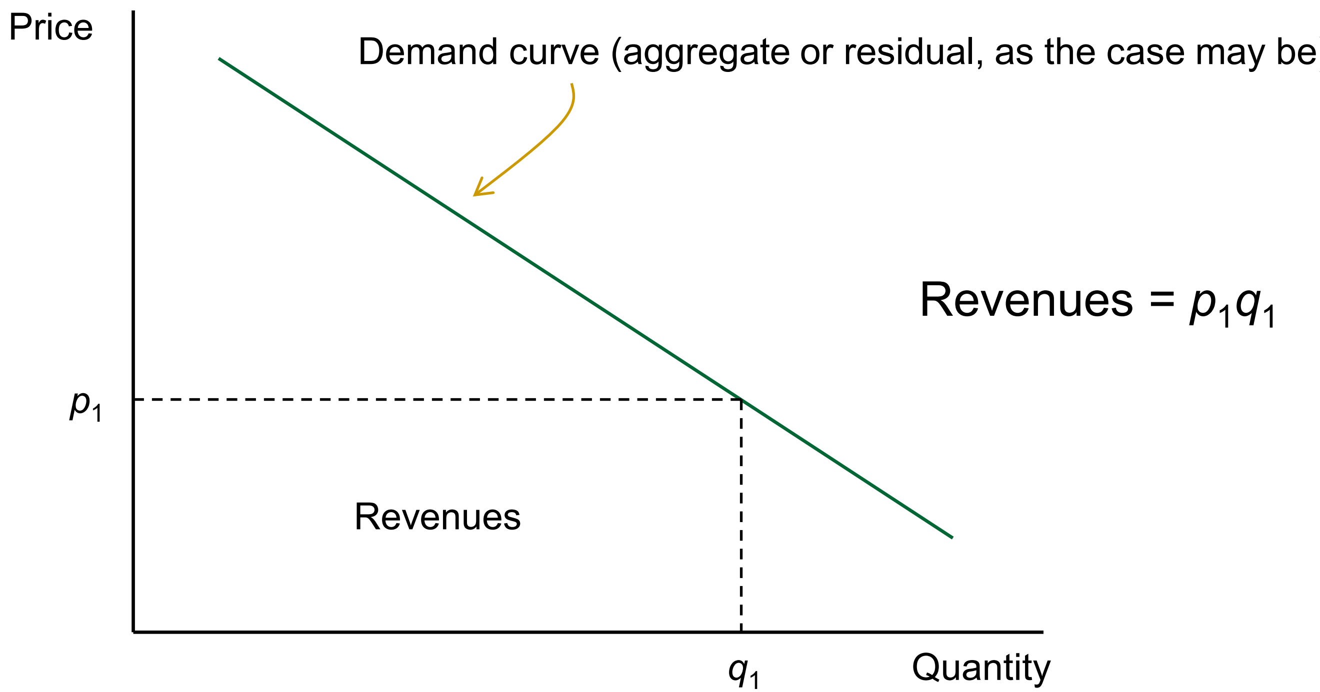


Demand curve: $q = 20 - 2p$

Rearranging to solve for p gives the inverse demand curve: $p = 10 - 0.5q$

HMT: The mechanics

- Revenues
  - *Aggregate revenues* equal the market price (p) times the aggregate quantity of all firms (q)
  - An *individual firm's revenues* equal the price charged by the firm (p) times the quantity that the firm sells at that price (q)



HMT: The mechanics

- Costs: Some basic terms
  - *Total costs* ($t(q)$)
    - The total cost of producing a production level q
    - Costs $t(q)$ = fixed cost (f) + variable cost $v(q)$)
  - *Fixed costs* (f)
    - Costs of production that do not vary with the quantity produced
  - *Variable costs* ($v(q)$)
    - Costs of production that vary with the production level and that are incurred producing a level q
  - *Average variable cost* ($avc(q)$)
    - Variable cost divided by q

$$avc(q) = \frac{v(q)}{q}$$

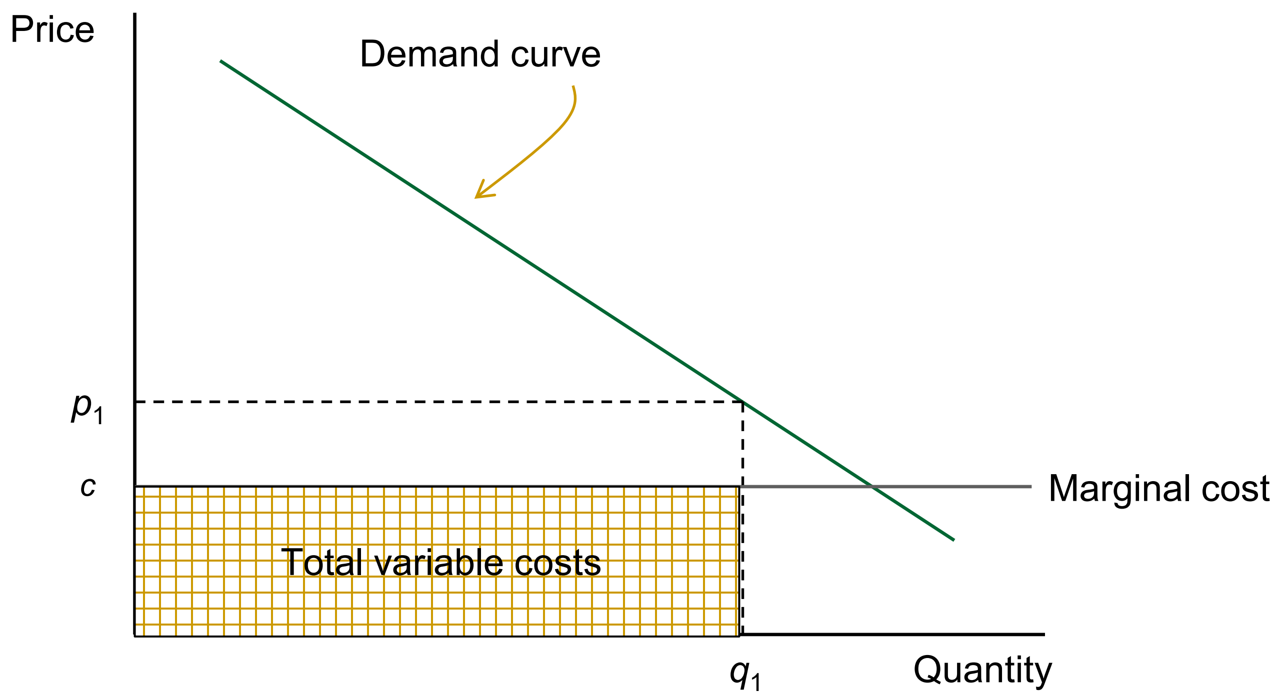
  - *Marginal cost* ($mc(q)$)
    - The additional costs the firm would incur for producing one *additional* unit having produced q units

$$mc(q) = t(q+1) - t(q) \text{ in the discrete case}$$

$$= \frac{dr(q)}{dq} \qquad \text{in the continuous case}$$

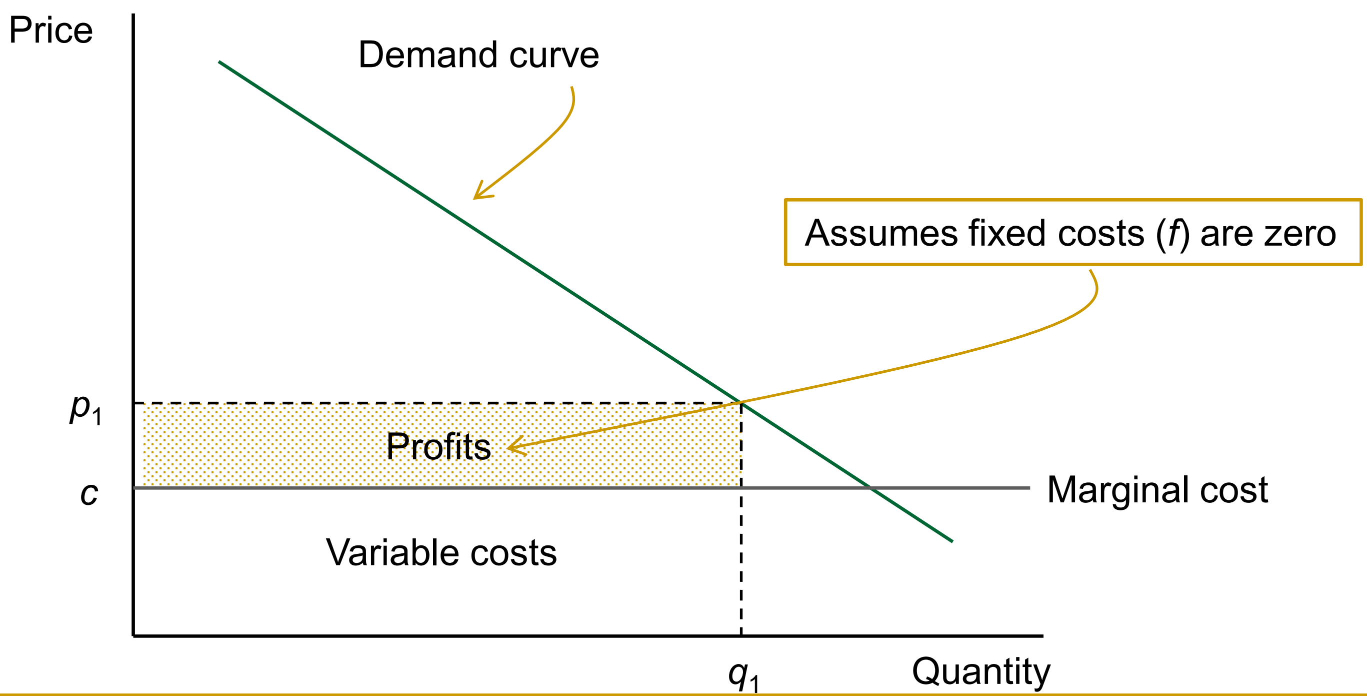
HMT: The mechanics

- Costs
  - IMPORTANT: In this course, we will assume that marginal costs are constant
    - This simplifying assumption works reasonably well in practice
  - When marginal costs are constant, total variable cost is equal to marginal cost *c* times quantity produced *q*: $TVC(q) = cq$



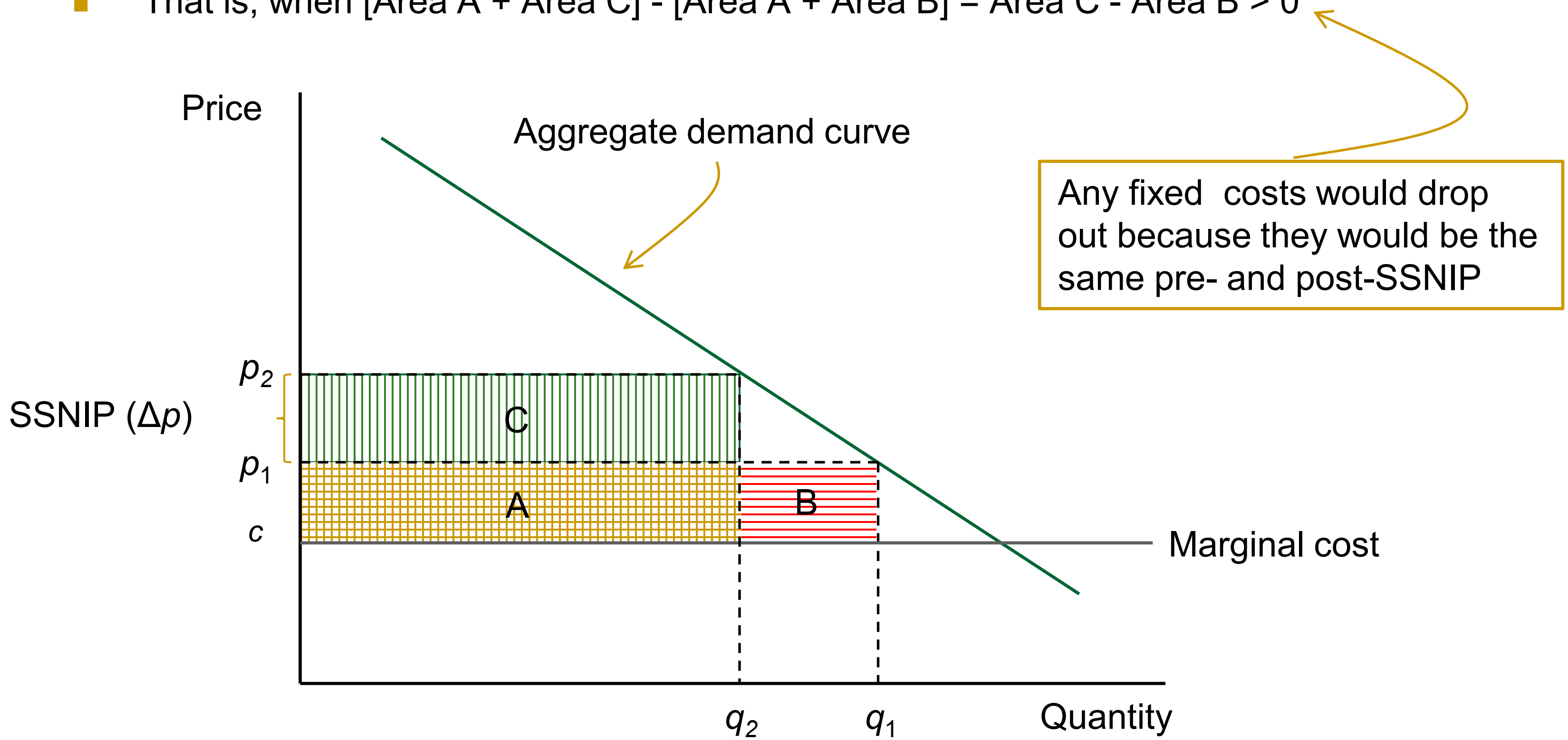
HMT: The mechanics

- Profits
  - *Profits* ($\pi(q)$)
    - Revenues minus costs earned at a production level *q*
    - $\pi(q) = r(q) - t(q)$
  - *Marginal profit* ($m\pi$)
    - The net additional profit that the firm would make if it produced an additional unit
    - Or equivalently, marginal revenues minus marginal costs



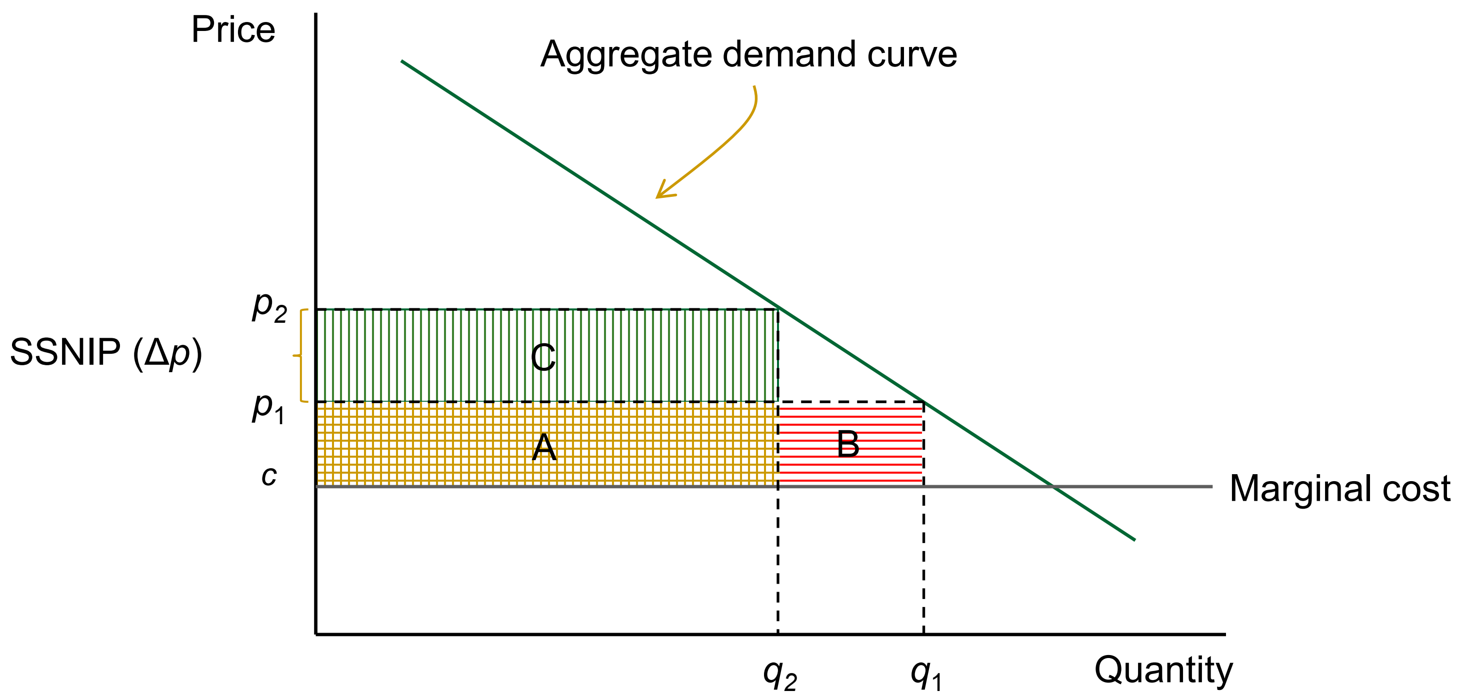
HMT: The mechanics

- The hypothetical monopolist test
  - In the diagram:
    - Pre-SSNIP profits = Area A + Area B
    - Post-SSNIP profits – Area A + Area C
  - The HMT is satisfied if the post-SSNIP profits exceed the pre-SSNIP profits
    - That is, when [Area A + Area C] - [Area A + Area B] = Area C - Area B > 0



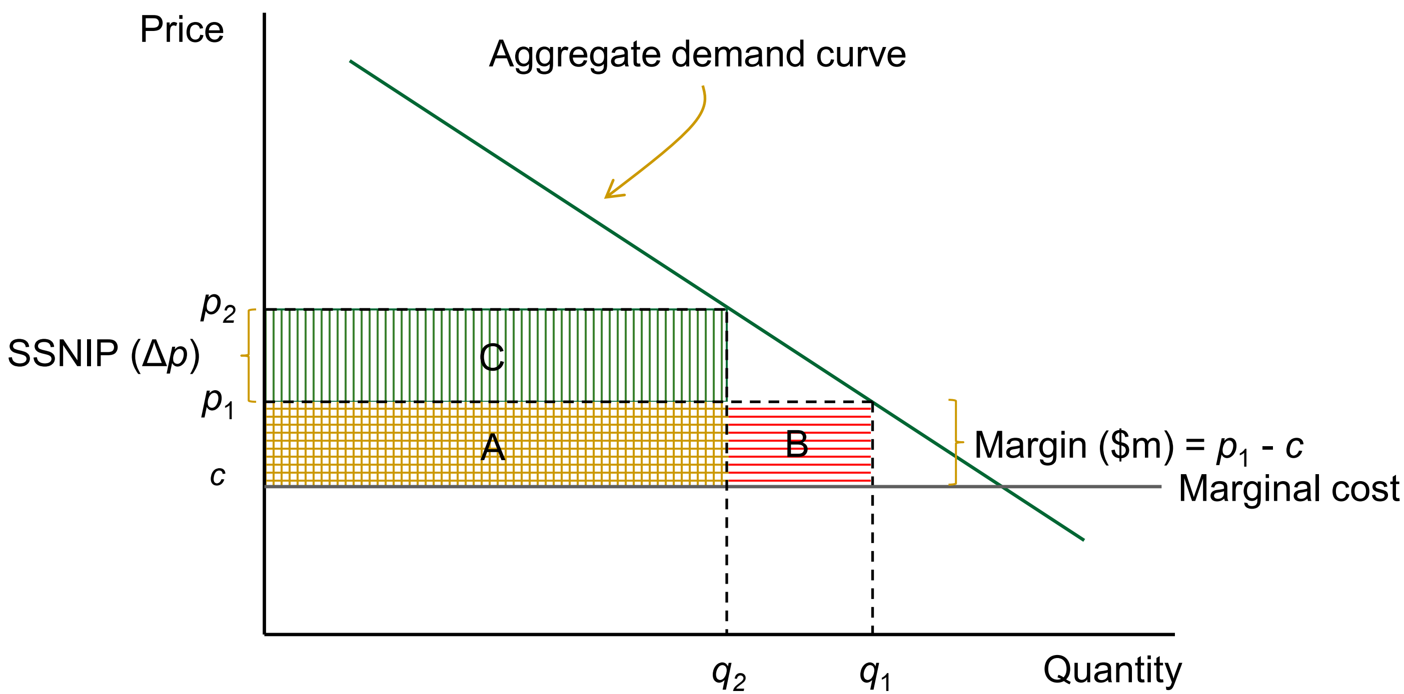
HMT: The mechanics

- The hypothetical monopolist test
  - Interpreting the areas
    - Area C is the *gross incremental profit gain* to the firm from continued sales to inframarginal customers
    - Area B is the *gross incremental profit loss* to the firm from the foregone sales to marginal customers who would have purchased at price p_1 but not at price p_2
    - So Area C – Area B is the *net incremental profit gain* to the firm (which may be positive or negative)



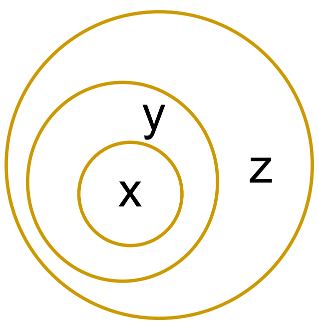
HMT: The mechanics

- The hypothetical monopolist test
  - Calculating the areas
    - Area C = Δp x q_2 (gross incremental profit gain from inframarginal unit sales)
    - Area B = Δq x ($p_1 - c$) = Δq x \$$m$ (gross incremental profit loss from foregone marginal unit sales)
    - So net incremental profit $\Delta\pi = \underbrace{[\Delta p \text{ x } q]}_{\text{Area C}} - \underbrace{[\Delta q \text{ x } \$m]}_{\text{Area B}}$



HMT: Original 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.

HMT Homework Problem 1

TreeTop and AppleWay together sell 60 million bottles of apple juice annually—35 million by TreeTop and 25 million by AppleWay—out of 100 million bottles sold across all apple juice brands. TreeTop and AppleWay both sell for $2.50 per bottle and earn a gross margin of 40%. If a hypothetical monopolist controlling all apple juice brands raised prices by 5% to $2.63 per bottle, 13 million bottles would divert to other fruit juices such as orange, cranberry, or grape juice, whose prices remain unchanged. Does the candidate market of all apple juice satisfy the HMT?

Data		Analysis		Result	
Price (p)	$2.50 per bottle	Loss on marginal sales			
Percentage gross margin	40%	Δq	13.00 million	Net gain	-$2.1250 million
$margin ($m)	$1.00 per bottle	$m	$1.00	HMT	FAILED
%SSNIP (%Δp)	5.00%	Gross loss	$13.00 million		
$SSNIP ($Δp)	$0.1250 per bottle				
Quantity (q)	100 million	Gain on inframarginal sales			
Unit marginal loss (Δq)	13.00 million	q - Δq	87.00 million		
		$SSNIP	$0.1250		
		Gross gain	$10.88 million		

HMT Homework Problem 2

Kraft is considering acquiring Hershey's premium chocolate bar business. The merging parties argue that the relevant product market should include not only Kraft and Hershey but also other premium chocolate bar producers such as Lindt, Godiva, Ghirardelli, and Tony's Chocolonely. The FTC staff believes that Kraft and Hershey have been too aggressive in including these other producers, which the staff views as makers of superpremium chocolate bars with relatively low cross-elasticities with the products of the merging parties. The FTC wants to test a narrower candidate product market consisting of only Kraft and Hershey chocolate bars. The Kraft and Hershey brands both sell for \$2.00 per bar, with a variable cost of \$1.20, and together account for 50 million bars in annual sales. The superpremium brands are priced at \$2.50, with a variable cost of \$1.70, and collectively sell another 50 million bars. If a hypothetical monopolist controlling only Kraft and Hershey raised the price by 5% to \$2.10 per bar, the hypothetical monopolist would lose 2.5 million bars, all to either superpremium or generic brands. Does the candidate market of Kraft and Hershey chocolate bars satisfy the HMT?

Data		Analysis		Result	
Price (p)	\$2.00 per bar	Loss on marginal sales			
Costs (c)	\$1.20 per bar	Δq	2.50 million	Net gain	\$2.75 million
%SSNIP (%Δp)	5.00%	\$m	\$0.80	HMT	PASSED
\$SSNIP (\$Δp)	\$0.10 per bar	Gross loss	\$2.00 million		
\$margin (\$m)	\$0.80 per bar				
Quantity (q)	50 million	Gain on inframarginal sales			
Percentage marginal loss (%Δq)	5.00%	q - Δq	47.50 million		
Unit marginal loss (Δq)	2.5 million	\$SSNIP	\$0.10		
		Gross gain	\$4.75 million		

HMT Homework Problem 3

Fresco Farms is considering acquiring PureHarvest, one of its competitors in the refrigerated orange juice market. The two firms together sell 80 million gallons of orange juice annually—50 million by Fresco and 30 million by PureHarvest—out of 120 million gallons sold across all brands. The average price of refrigerated orange juice is $4.00 per gallon, and the average gross margin is 40%. Industry analysts estimate that the own-price elasticity of demand for refrigerated orange juice as a whole is –1.2. Would a hypothetical monopolist controlling all refrigerated orange juice brands find it profitable to impose a 5% price increase? Does refrigerated orange juice satisfy the HMT?

Data		Analysis		Result	
Price (p)	$4.00 per gallon	Loss on marginal sales			
Percentage gross margin	40.00%	Δq	7.20 million	Net gain	$11.04 million
$margin ($m)	$1.60 per gallon	$m	$1.60	HMT	PASSED
%SSNIP (%Δp)	5.00%	Gross loss	11.52 million		
$SSNIP ($Δp)	$0.20 per gallon				
Quantity (q)	120 million	Gain on inframarginal sales			
Own-elasticity (ε)	-1.2	q - Δq	112.80 million		
Percentage marginal loss (%Δq)	6.00%	$SSNIP	$0.20		
Unit marginal loss (Δq)	7.2 million	Gross gain	$22.56 million		

HMT: Problem 2

The answer to this problem is incorrect. What did I do wrong?

- Example—Uniform price increase on all products in the candidate market

The answer is correct if I change the variable cost per can to $0.50

> Coca-Cola is considering buying the Dr Pepper business from Keurig Dr Pepper Inc. Coca-Cola concedes that Coke and Pepsi are in the same relevant market but argues that Dr Pepper is not. Both Coke and Pepsi currently sell for $1.00 per can, with a variable cost of $0.60 per can. Annual combined unit sales total 200 million cans: 100 million of Coca-Cola and 100 million of Pepsi. If the hypothetical monopolist raised the price of both products by 5 percent (to $1.05 per can), 20 million cans would switch to Dr Pepper, which remains priced at $1.00. Does the candidate market of Coke and Pepsi satisfy the HMT?

If I change the variable cost in the answer to $0.60, the net gain is $1 million and the candidate market satisfies the HMT

Data		Analysis		Result	
Price (p)	$1.00 per can	Loss on marginal sales			
Costs (c)	$0.50 per can	Δq	20 million	Net gain	-$1 million
%SSNIP (%Δp)	5.00%	$m	$0.50	HMT	FAILED
$SSNIP ($Δp)	$0.05 per can	Gross loss	$10 million		
$margin ($m)	$0.50 per can				
Quantity (q)	200 million	Gain on inframarginal sales			
Percentage marginal loss (%Δq	10.00%	q - Δq	180 million		
Unit marginal loss (Δq)	20 million	$SSNIP	$0.05		
		Gross gain	$9 million		

- Incremental net profits are negative, so Coke + Pepsi fails the HMT and the candidate market needs to be expanded to include the next best substitute (Dr Pepper)

HMT: Recap

- The question
  - Can a hypothetical monopolist of a group or products (a *candidate market*) profitably increase the price of those products by a small but significant nontransitory amount (a *SSNIP*)?
- The test: If the incremental profits from the price increase are—
  - *Positive*: The price increase is profitable and the HMT is satisfied
  - *Negative*: The price increase is unprofitable and the HMT fails
- The accounting: Net incremental profits
  - = The gain from the increased margin (Δp) on the inframarginal sales (q_2) *minus* the dollar loss of margin ($p_1 - c$) on the marginal sales (Δq):

$$= \underbrace{\Delta p \times q_2}_{\text{Gain on inframarginal sales}} \quad - \quad \underbrace{(p_1 - c) \times \Delta q}_{\text{Loss on marginal sales}}$$

- The data
  - The statement of the problem will give you p_1, q_1, c, the SSNIP, and some indication of how demand changes with an increase in price
  - Those variables will permit you to calculate Δp, q_2, Δq, and net incremental profits

HMT: Some questions

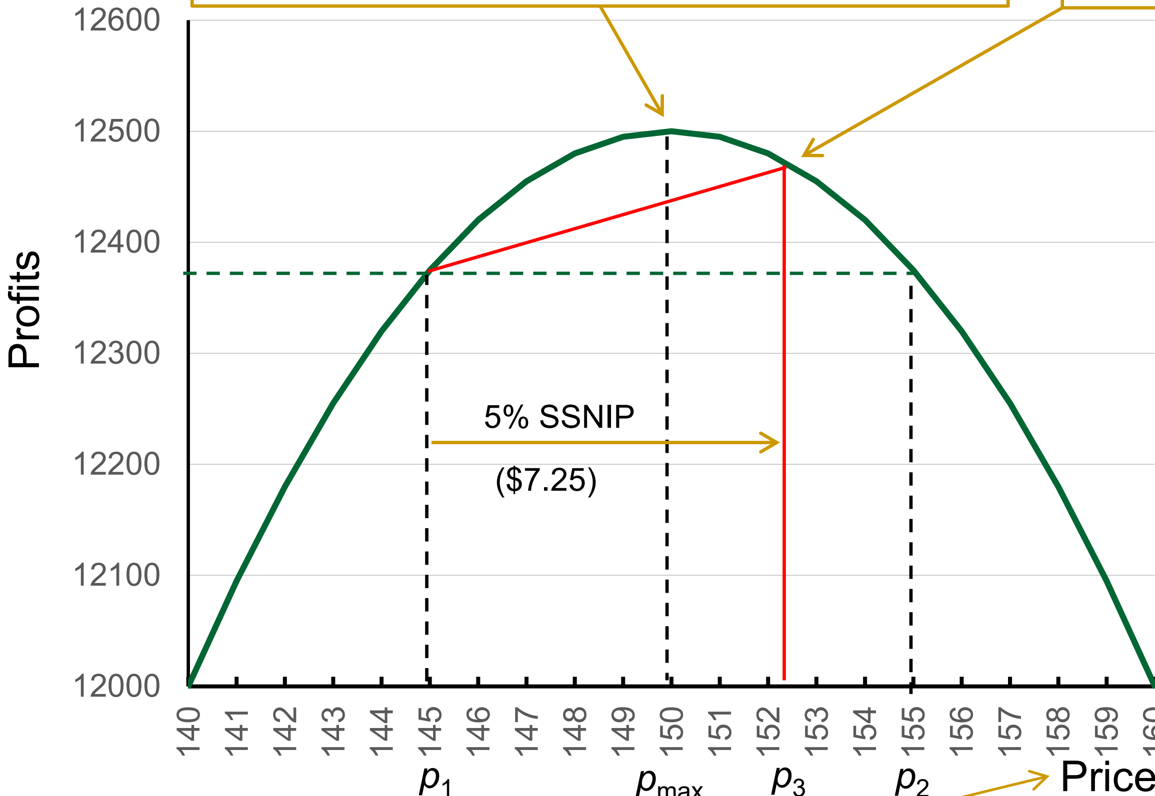
1. Should the test be whether the SSNIP is profitable for the hypothetical monopolist (the *profitability* or *breakeven test*) or whether the hypothetical monopolist's profit-maximizing price is equal to or greater than the SSNIP (the *profit-maximization test*)?
   - The practice under the 1982 and 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 profit-maximization test as the proper one in economic analysis as well as the one prescribed by the language of the Guidelines
     - The 2023 Merger Guidelines continue to state the HMT in terms of the profit-maximization test
   - 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 profitability version of the hypothetical monopolist test
     - Today, the profitability test remains the judicial test in most courts

HMT: Some questions

- *Example*: HMT profitability and profit maximization tests in a close-to-monopolized market

The *HMT profit maximization test* is not satisfied—Hypothetical monopolist would price at $150, less than SSNIP price of $152.25

The *HMT profitability test* is satisfied—a 5% SSNIP would be profitable



Model:
$q = 1000 - 5p$
$p_1 = 145$
$q_1 = 275$
$F = 0$
$mc = 100$
$\pi_1 = 12{,}375$

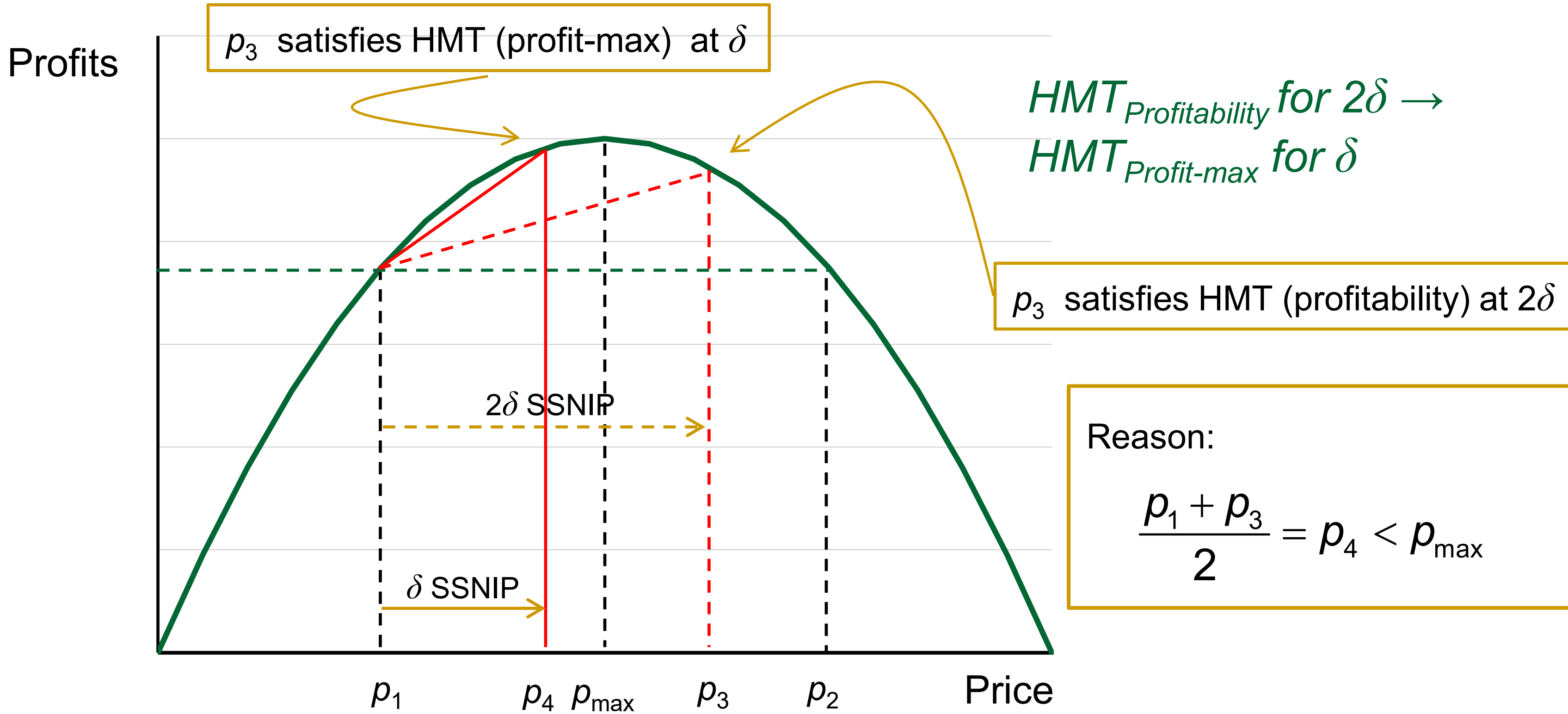
$p_{max} = 150$
$q_{max} = 250$
$\pi_{max} = 12{,}500$

%SSNIP = 5%
$SSNIP = $7.25
$p_2 = 152.25$
$q_2 = 238.75$
$\pi_2 = 12{,}475$

NB: The x-axis is *price*, not quantity

HMT: Some questions

- Testing for profit-maximization
  - *Proposition*: Given the symmetry in the profit curve when demand is linear, a candidate market will satisfy the profit-maximization test for a SSNIP of δ if the candidate market satisfies the profitability test of 2δ



$HMT_{Profitability}$ for $2\delta \rightarrow$
$HMT_{Profit\text{-}max}$ for δ

Reason:

$$\frac{p_1 + p_3}{2} = p_4 < p_{max}$$

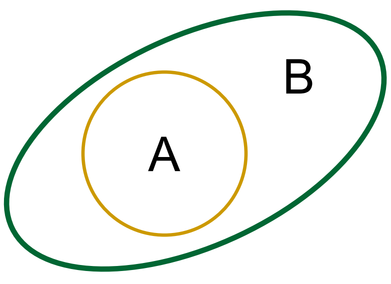
HMT: Some questions

- Adopts the 1992 Merger Guidelines HMT methodology with some very significant changes
  1. Relegates market definition to one of several tools useful in merger antitrust analysis
  2. Abandons the “smallest market” principle and unique relevant markets
  3. Asks whether a profit-maximizing hypothetical would raise price by a SSNIP, not whether it would be profitable to do so
     - *Profitability test*: 1982 and 1992 Merger Guidelines
     - *Profit-maximization test*: 2010 Merger Guidelines
     - Adoption by the courts: Adopted the profitability test prior to 2010 and for the most part have not changed
     - Does it matter?
       - Since the current price would be close to the monopoly price only if the market is operating within 5% of the profit-maximizing price of 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?

In this course, the default is the profitability implementation *of the HMT although we will see the profit-maximization version in some case studies*

HMT: Some questions

2. 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 and 2023 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 A + B satisfies the HMT (just keep the B products at their original prices)

HMT: Some questions

3. 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 and 2023 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

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.

HMT: Some questions

5. Is passing the HMT even a necessary condition for a relevant market?

Not anymore

- *2023 Merger Guidelines*: The 2023 Merger Guidelines abandoned the HMT as the sole means of defining markets and adopted three other methods
- *Courts*: Although courts typically use the HMT in analyzing markets, some courts have held that an HMT is not necessary[1]

[1] *See, e.g.*, Illumina, Inc. v. FTC, 88 F.4th 1036, 1050 n.8 (5th Cir. 2023) (holding that Commission was not required to use the hypothetical monopolist test to define the relevant product market); United States v. United States Sugar Corp., No. CV 21-1644 (MN), 2022 WL 4544025, at *24 (D. Del. Sept. 28, 2022) ("The Court recognizes the important role that the hypothetical monopolist test plays in antitrust cases but, regardless of how articulated, the process of identifying the relevant geographic market must conform to the economic realities of the industry to recognize competition where competition exists. Any rigid application of the hypothetical monopolist test must yield to the economic realities of the industry. Here, the economic reality is that sugar flows easily across the country from areas of surplus to deficit in response to prices and demand."), *aff'd*, 73 F.4th 197 (3d Cir. 2023). Courts hold similarly in Section 2 cases. See, e.g., United States v. Google LLC, No. 20-CV-3010 (APM), 2024 WL 3647498, at *68 (D.D.C. Aug. 5, 2024) ("There is no legal requirement that a plaintiff supply quantitative proof to define a relevant market.")

HMT: Application in *Sanford Health*

- Court explicitly applied the hypothetical monopolist test (HMT)
- *Candidate markets*: Four physician services in the Bismark-Mandan area—
  - Adult primary care physician (PCP) services
  - Pediatric services
  - OB/GYN services
  - General surgeon services
- *Customers*: Commercial insurers and their insured members
  - *Query*: Why do we need this?
- Point of departure in the analysis:

Insurer testimony:

> *Insurance plans not marketable to employers without all four physician service lines*

HMT: Application in *Sanford Health*

- Court explicitly applied the hypothetical monopolist test (HMT):

  Could a monopolist of each physician service line in Bismarck–Mandan profitably impose a 5% SSNIP?

- Considered whether insurers would drop or alter their provider networks in response to a SSNIP
- Court credited testimony from insurers (BCBSND, Sanford Health Plan, Medica) that—
  - Their health insurance plans could not be marketed to employers if they did not cover PCPs, pediatricians, OB/GYNs, and general surgeons
  - They would accept a SSNIP rather than sell a plan missing any of the four lines
- *Result*: Found the four distinct physician service markets satisfied the HMT
  - Application of the HMT here was *qualitative* and based on testimony about practical marketability and the commercial realities, not quantitative SSNIP incremental profitability calculations

Conclusion

The court found that plaintiffs established four distinct relevant product markets—adult PCP, pediatrics, OB/GYN, and general surgery—based implicitly on Brown Shoe *factors and explicitly on the HMT and commercial realities*

Step 1. The Prima Facie Case: Relevant Geographic Markets

Geographical markets generally

- Definition
  - For each relevant product market, there is one or more associated relevant 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
  - A single firm may operate in a number of different geographic markets
    - For example, a dialysis firm operating in a retail dialysis product market can operate in multiple distinct geographic markets
    - Each market is analyzed separately for a Section 7 violation
    - A violation in any relevant market is sufficient grounds to enjoin the transaction in its entirety
      - When litigating, the agencies will seek a blocking injunction for the entire transaction, even if it could be readily fixed
      - The courts accede to this practice
      - If the merging parties want only a partial divestiture, they must either—
        - Negotiate a suitable consent decree, or
        - Litigate the fix

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
- 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").

Geographic markets: Judicial tests

- General rules
  - 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
  - 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
    - However, courts often accept political boundaries (towns, counties, states) as relevant geographic markets when those boundaries reasonably approximate the area defined by judicial tests and the HMT

[1] Heerwagen v. Clear Channel Commc'ns, 435 F.3d 219, 228 (2d Cir. 2006) (internal citations omitted).

Geographic markets: HMT

- Methodology
  - Analogy to product market definition
    - The merger guidelines define geographic markets using the same hypothetical monopolist test and substitution 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 when sellers are geographically differentiated
    - Candidate 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.

Geographic markets: 2010 Merger Guidelines

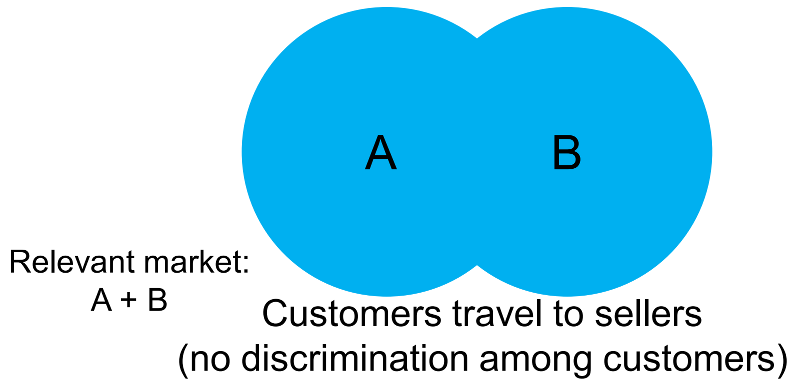
- 2010 Merger Guidelines revisions
  - As with product markets
    - Relegates geographic market definition to one of several tools useful to merger antitrust analysis and which may not be necessary in all cases
    - Abandons the "smallest market" principle and unique relevant markets
  - Two cases
    - 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

Geographic markets: 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
    - In other words, how much farther would a customer be willing to travel to avoid a SSNIP?
  - Examples
    - Grocery stores and supermarkets
    - Shopping malls and department stores
    - Restaurants and cafes
    - Gas stations
    - Auto dealerships and car lots
    - Hardware stores
    - Banks and credit unions
    - Legal offices and law firms
    - Hospitals and medical centers
    - Dental offices
    - Veterinary clinics
    - Pharmacies
    - Physical therapy clinics
    - Gyms and fitness centers
    - Spas and salons
    - Movie theaters and cinemas
    - Amusement parks and theme parks
    - Golf courses and country clubs
    - Concert venues and theaters
    - Schools and universities
    - Dry cleaners and laundromats
    - Auto repair shops
    - Hair salons and barbershops

Geographic markets: 2010 Merger Guidelines

- Geographic markets based on the locations of suppliers (cont.)
  - 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
      - This results from the hypothetical monopolist being unable to price discriminate between customers who can reasonably substitute suppliers and customers who cannot



Geographic markets: 2010 Merger Guidelines

- Geographic markets based on the locations of suppliers (cont.)
  - Problem 4: Wilton supermarkets (in prices and quantities)

> FreshMart and MarketChoice, two of the three supermarkets in Wilton, CT, propose to merge. Each serves 2,000 households, and each household spends $5000 annually at their preferred supermarket. This yields a total of 6,000 households with $30 million in supermarket spending. The gross margin for supermarkets sales is 25%. The evidence shows that if a hypothetical monopolist controlling all three Wilton supermarkets imposed a uniform 5% price increase, 10% of the Wilton households switch to supermarkets in Ridgefield, CT, 12 miles away. Does Wilton satisfy the HMT?

- NB: Here, we interpreted quantities to be in households and prices in annual supermarket spend per household. Part of formal antitrust analysis is setting up the problem so that it is workable

Data		Analysis		Result	
Price (p) per household	$5,000.00	Loss on marginal sales			
Percentage gross margin (%m)	25.00%	Δq	600	Net gain	$0.60 million
%SSNIP (%Δp)	5.00%	$m	$1,250.00	HMT	PASSED
$SSNIP ($Δp) per household	$250.00	Gross loss	$0.75 million		
$margin ($m)	$1,250.00				
Quantity (q)	6000	Gain on inframarginal sales			
Percentage marginal loss (%Δq	10.00%	q - Δq	5400		
Unit marginal loss (Δq)	600	$SSNIP	$250.00		
		Gross gain	$1.35 million		

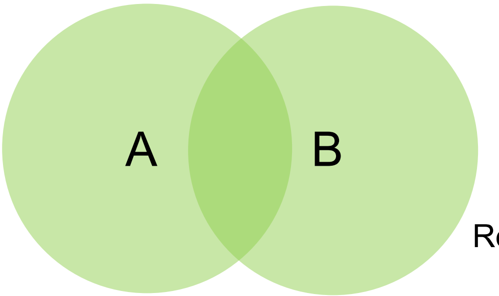
- The net profits from the SSNIP is positive, so Wilton satisfies the HMT

Geographic markets: 2010 Merger Guidelines

- Geographic markets based on the locations of customers
  - Generally
    - Here, suppliers deliver goods or services 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 candidate 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)
  - Examples
    - Vending machine service operators
    - Foodservice distributors
    - Ready-mix concrete suppliers
    - Lumber delivery to job sites
    - Plumbers and electricians
    - HVAC installation and repair
    - Waste collection and disposal
    - Commercial janitorial or cleaning services
    - Industrial gas delivery
    - Fuel oil or propane delivery
    - Bulk chemical delivery
    - Clinical laboratory (with pickup service)
    - Home healthcare services
    - Ambulance and non-emergency medical transport

Geographic markets: 2010 Merger Guidelines

- Geographic markets based on the locations of customers



Relevant market:
A ∩ B

Sellers travel to customers
(may permit discrimination among customers)

Geographic markets: 2010 Merger Guidelines

- Geographic markets based on the locations of customers (cont.)
  - Problem 6: Foodservice distribution merger

SysMeal and FreshPro are the only full-line foodservice distributors with distribution centers in Lancaster, Pennsylvania, and propose to merge. MetroServe, located 70 miles away in Allentown, serves a small number of Lancaster customers via long-distance delivery. The merging parties argue the relevant geographic market includes both Lancaster and Allentown; the FTC claims Lancaster is a distinct market. In Lancaster, SysMeal and FreshPro together serve 1,000 customer locations, each spending $50,000 annually, with a 30% gross margin. A 5% price increase would cause 5% of customers to leave—60% to MetroServe and 40% to other options. Does Lancaster satisfy the HMT?

- NB: The division in the lost sales to MetroServe and other options is irrelevant to the profitability of the SSNIP. It is relevant, however, to identifying MetroServe as the closest substitute to candidate market of Lancaster.

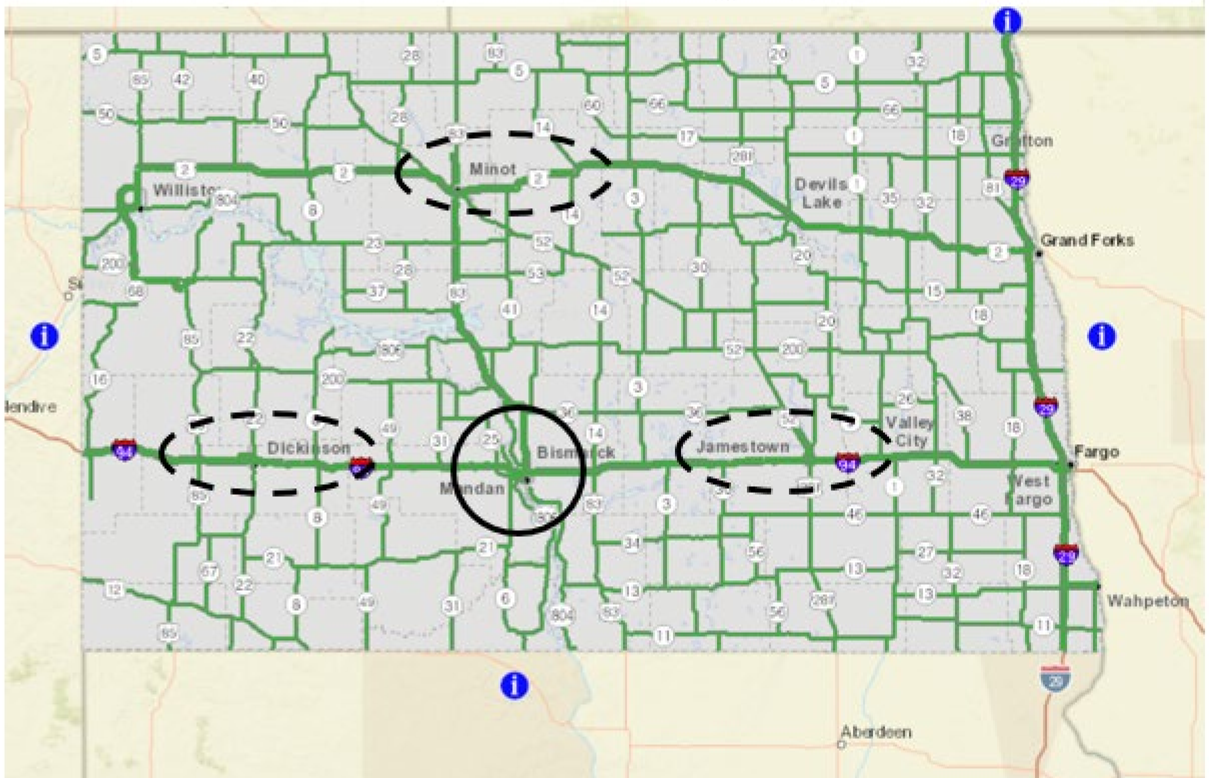
Data		Analysis		Result	
Price (p) per household	$50,000.00	Loss on marginal sales			
Percentage gross margin (%m)	30.00%	Δq	50	Net gain	$1.63 million
%SSNIP (%Δp)	5.00%	$m	$15,000.00	HMT	PASSED
$SSNIP ($Δp) per household	$2,500.00	Gross loss	$0.75 million		
$margin ($m)	$15,000.00				
Quantity (q)	1000	Gain on inframarginal sales			
Percentage marginal loss (%Δq	5.00%	q - Δq	950		
Unit marginal loss (Δq)	50	$SSNIP	$2,500.00		
		Gross gain	$2.38 million		

Geographic market: *Sanford Health*

- What did the Eight Circuit say is the legal test of a relevant product market?
  - The “hypothetical monopolist test” governs geographic market definition
- What result did the district court find when it applied the HMT?
  - Commercial health insurers would accept a hypothetical monopolist’s SSNIP rather than market a health insurance plan in the Bismarck-Mandan area that did not include Bismarck-Mandan area physicians providing adult PCP services, pediatrician services, OB/GYN services, and general surgeon services
- Observations
  - The district court relied only on the testimony of commercial insurers
  - Presumably, the FTC also submitted confirming evidence on how far patients were will to drive to see a doctor or go to a hospital
    - Although they may have relied on regular course of business studies from insurers on this (rather than conduct a consumer survey)

Geographic market: Sanford Health

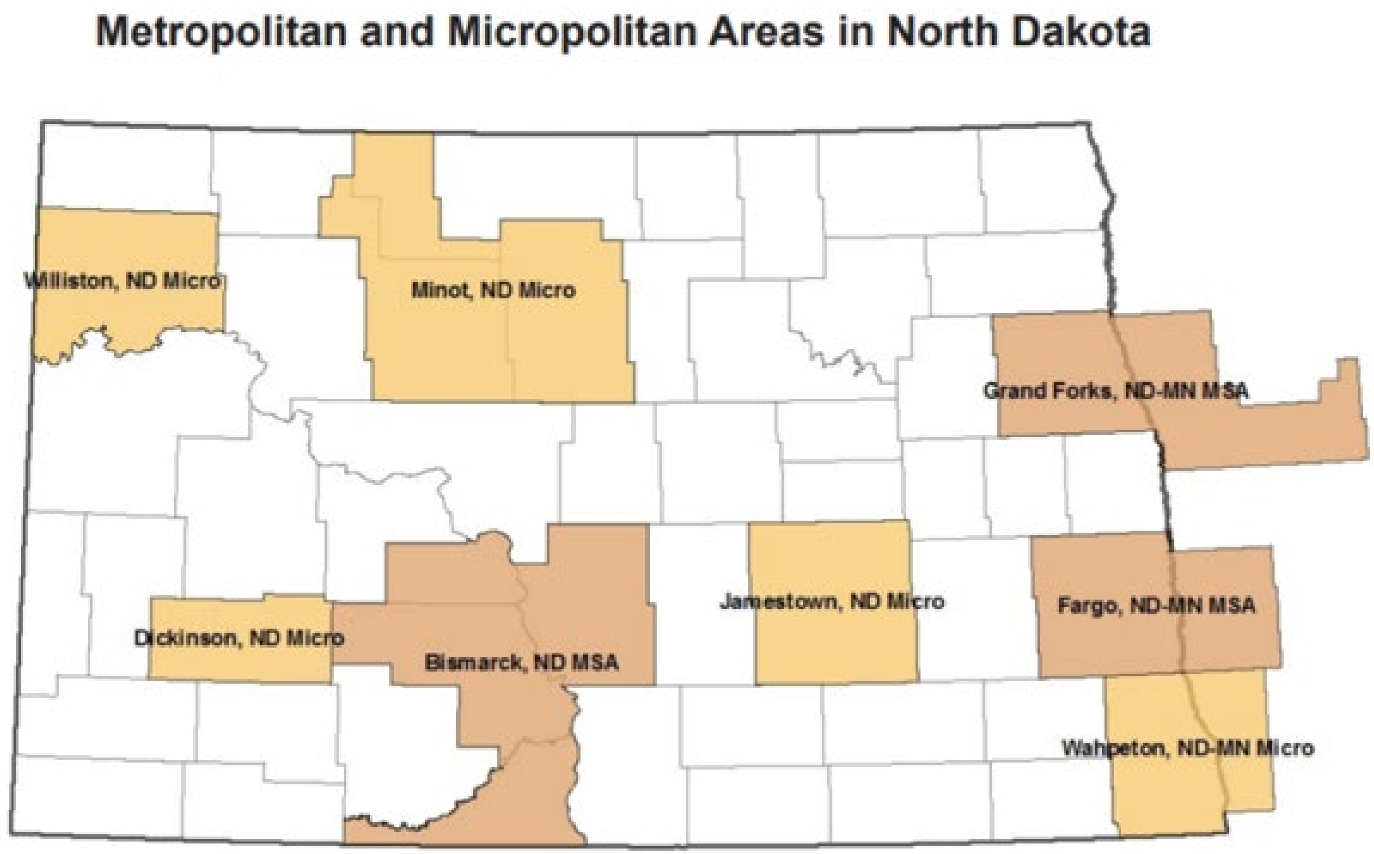
North Dakota County Map



Bismark to Dickinson: 97.4 miles (1 hr., 22 min.)
Bismark to Jamestown: 102 miles (1 hr., 31 min.)
Bismark to Minot: 111 miles (1 hr., 46 min.)

Geographic market: *Sanford Health*

- What relevant geographic market did the district court find?
  - Four-county Bismarck-Mandan Metropolitan Statistical Area



Two final thoughts on market definition

1. The SSNIP is used *only* for the purpose of market definition.
   - It does NOT provide a safe harbor for a price increase resulting form a merger
   - The agencies view ANY price increase resulting from a merger to be anticompetitive

Two final thoughts on market definition

2. Market definition is an essential element of the plaintiff's prima facie case of a Section 7 violation in Step 1 of *Baker Hughes*

- The merging firms have two avenues of rebuttal on market definition—
  1. Adduce evidence sufficient to create a genuine issue of fact on the product or geographic dimensions of the relevant market
  2. Adduce evidence to create a genuine issue of fact on—
     - The product or geographic dimensions of the relevant market AND
     - A "better" alternative for the market definition
       - "Better" in the sense of more conformity to the market definition tests and the commercial realities
- Both ways technically work, but the second method is *far* more persuasive
  - Judges are much more comfortable rejecting the agency's alleged relevant market when the merging firms show a superior alternative
  - BUT for the merging firms to win on the merits, they merging firms must also show within their alternative market the transaction is not anticompetitive
    - Usually by negating the predicates of the *PNB* presumption

Step 1. The Prima Facie Case: Anticompetitive Effect

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
    - Does *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[2]
  - (Maybe) reduced product diversity[3]

These are called *anticompetitive effects*

A firm that has the power to produce or strengthen an anticompetitive effect is said to have *market power*

[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] See, e.g., FTC v. Hackensack Meridian Health, Inc., 30 F.4th 160, 172 (3d Cir. 2022); Viamedia, Inc. v. Comcast Corp., 951 F.3d 429, 475 (7th Cir. 2020); United States v. Anthem, Inc., 855 F.3d 345, 475 (D.C. Cir. 2017); United States v. JetBlue Airways Corp., No. CV 23-10511-WGY, 2024 WL 162876, at *28 (D. Mass. Jan. 16, 2024).

[3] The idea that reduced product diversity may be a cognizable customer harm was formally introduced in the 2010 DOJ/FTC Horizontal Merger Guidelines. Courts have recognized that a merger’s elimination of a product option that consumers value is a cognizable harm to competition. *See, e.g.*, United States v. Anthem, Inc., 855 F.3d 345, 366 (D.C. Cir. 2017); United States v. JetBlue Airways Corp., No. CV 23-10511-WGY, 2024 WL 162876, at *28 (D. Mass. Jan. 16, 2024).

Step 1. The Prima Facie Case: Anticompetitive Effect

The PNB 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 increase in market concentration caused by the transaction
- 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”
  - Share of the two largest banks in the relevant market should increase from 44% to 59%:
    - Enough for a “significant increase” in market concentration
  - Therefore, the *PNB* presumption applied
  - Nothing in record to rebut presumption
    - 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 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]
    - 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).

Problems with the *PNB* presumption

- Presumption depends critical on boundaries of the relevant market, but there was no economically sound test for market definition to use when applying the *PNB* presumption
- The "Potter Stewart rule"
  - In the absence of a test, courts generally defer to the government's alleged market definition
  - So if the government gets to define the market, it essentially can ensure that the market shares will trigger the *PNB* presumption of anticompetitive effect

> The sole consistency that I can find is that in litigation under § 7, the Government always wins.[1]

- Although originally created as a rebuttable presumption, soon treated by lower courts as a conclusive presumption—essentially recognized no defenses

[1] United States v. Von's Grocery Store, 384 U.S. 270, 301 (1966) (Stewart, J., dissenting).

United States v. General Dynamics Corp.

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

Returned *PNB* to a rebuttable resumption

[1] United States v. General Dynamics Corp., 415 U.S. 486 (1974).

The Merger Guidelines approach

- Status of the *PNB* presumption as of the late 1970s
  - *General Dynamics* (1974) had returned *PNB* to a rebuttable presumption
  - BUT
    1. There was no meaning test of market definition
    2. The market share triggers remained very low
    3. The evidence sufficient to rebut the presumption remained generally undefined

- 1982 DOJ Merger Guidelines: The start of modern merger antitrust practice
  1. Provided an economically rigorous and sensible means of defining markets in which to ground the *PNB* presumption
  2. Introduced the HHI as the measure of market concentration
  3. Provided new market share thresholds to be used by the DOJ in applying the *PNB* presumption
  4. Provided a catalog of defenses to rebut the presumption and show the transaction was not anticompetitive

The Merger Guidelines approach

- The 1982 Merger guidelines maintained a *PNB*-like presumption to guide prosecution discretion, but with two significant changes:
  1. Changed the measure of market concentration
     - The guidelines replaced the *n*-firm concentration ratio with the *Herfindahl-Hirschman Index* (HHI)
     - The HHI is defined as the sum of the squares of the market shares of the firms in the market of interest:

$$HHI = \sum_{i=1}^{n} s_i^2 = s_1^2 + s_2^2 + \cdots + s_n^2$$

where there are n firms in the market, with firm i having a market share of s_i

Calculating the delta: Let a and b be the market shares of the merging companies.

Premerger contribution to the HHI: $a^2 + b^2$

Postmerger contribution to the HHI: $(a + b)^2 = a^2 + 2ab + b^2$

Difference (= HHI delta): $2ab$ ← This is important to know

The Merger Guidelines approach

- Example

Firm	Market Share	HHI Contribution
1	45%	2025
2	26%	676
3	22%	484
4	5%	25
5	2%	4
	100%	3214

$\left(= s_i^2\right)$

n = 5

HHI

  - Combined share: 22% + 5% = 27%
  - Premerger HHI: 3214
  - Delta (2*ab*): 2 x 22 x 5 = 220
  - Postmerger HHI: 3214 + 220 = 3434

The 2010 & 2023 Merger Guidelines

- 2010 Horizontal Merger Guidelines

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

Significantly reduced threshold

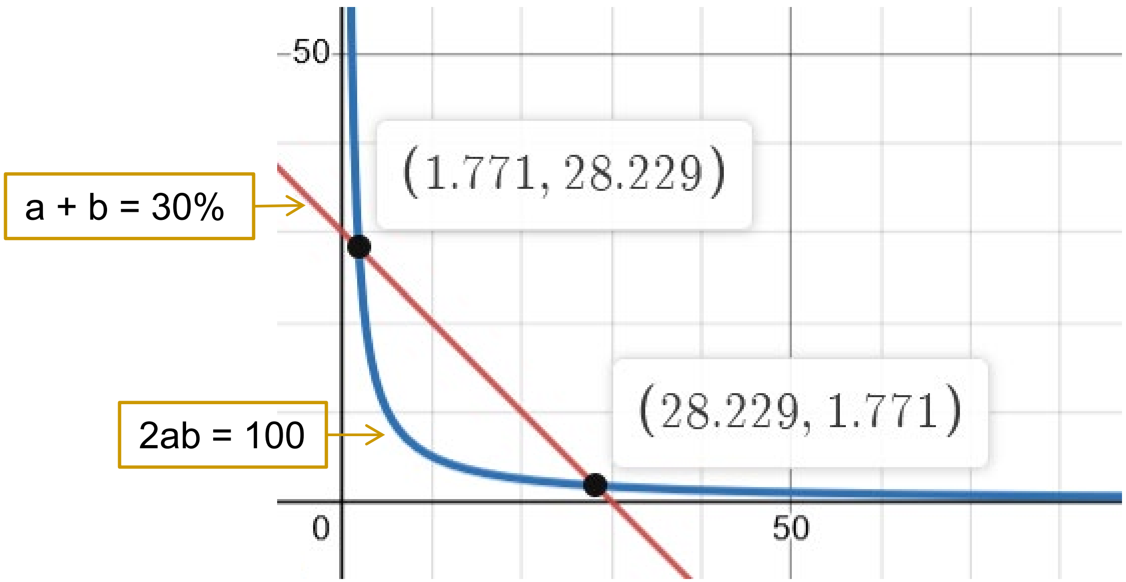
- 2023 Merger Guidelines: “Thresholds for Structural Presumption”

New

Postmerger HHI > 1800 or Combined share > 30%	Δ > 100

The 2023 Merger Guidelines

- The new 30% threshold almost always triggers the *PNB* presumption whenever the two firms have a combined market share of 30%
  - That is, the ΔHHI > 100 requirement only comes into play if one of the merging firms has a market share of less than 2%, and then not always (depending on the market share of the larger firm)



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	2024	Tapestry	58.7	1449	3646	2197	Preclosing
FTC	2023	IQVIA	46	2538	3635	997	Preclosing
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

[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
FTC	2015	Staples	75[4]	3036	5836	2800	Preclosing
FTC	2015	Sysco	71[5]	3153	5519	1966	Preclosing
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.

Sanford Health

- Giving each practitioner an equal market share:

The HHI contribution of a firm is the square of the firm's market share (s_i^2)

	Adult PCP		Pediatricians	
	Share	HHI	Share	HHI
Sanford	34.4%	1183	34.0%	1156
MDC	51.3%	2632	64.6%	4173
CHI	7.9%	62		
Others (2)	6.4%	20	1.4%	2
	100.0%	3898	100.0%	5331
Combined	85.7%		98.6%	
PreHHI		3898		5331
Delta		3529		4393
PostHHI		7427		9724

The "delta" is equal to $2s_1s_2$

The postmerger HHI is the sum of the premerger HHI plus the delta

There appear to have been two Adult PCPs, so each would have a share of 3.2%. Each then would have a contribution to the HHI of 10.24, so together they would contribute about 20 points to the premerger HHI

Sanford Health

- In the district court:

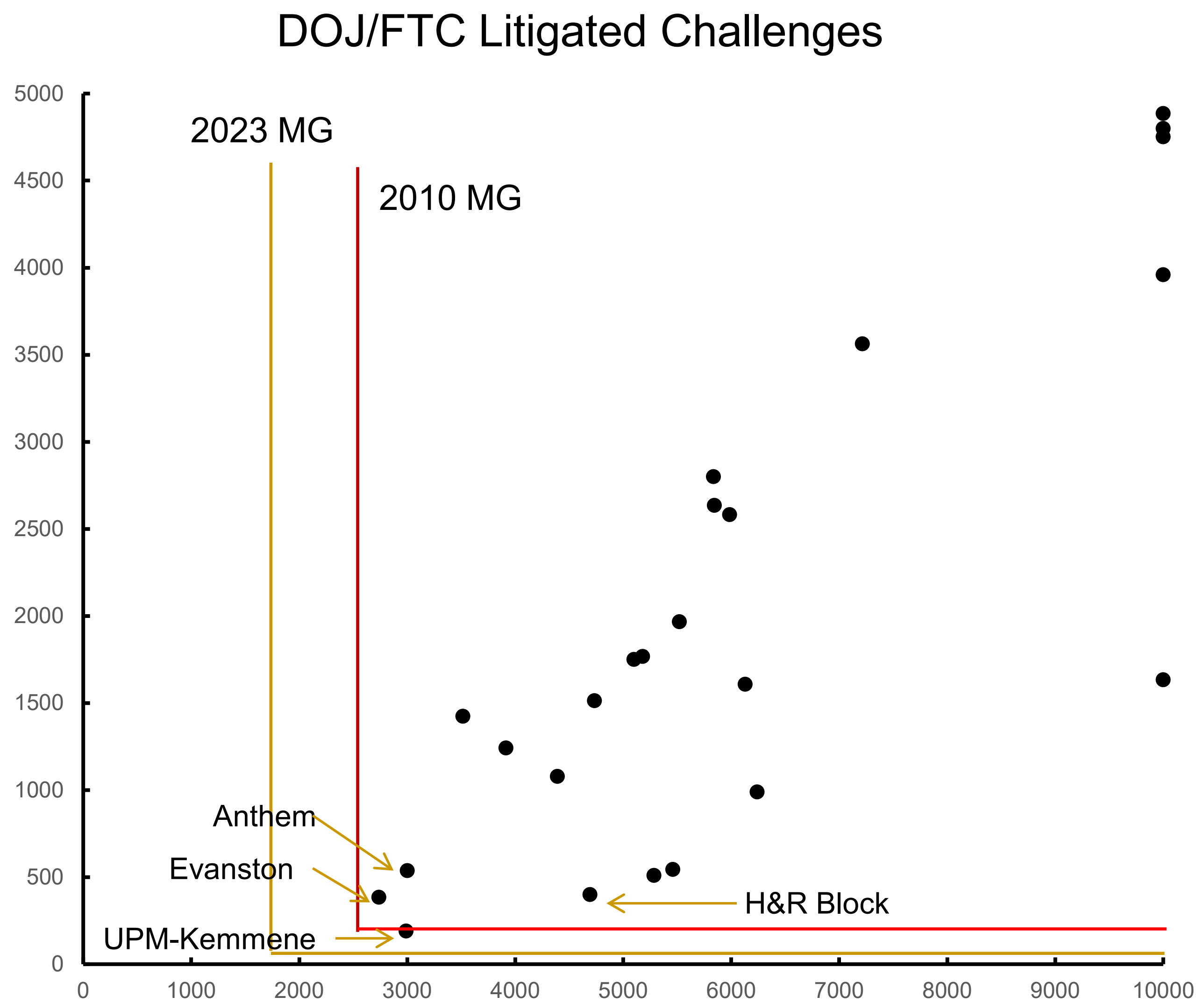
23.9% +75.1% -15.4%

	OB/GYN				General Surgery	
	Premerger		Postmerger			
	Share	HHI	Share	HHI	Share	HHI
Sanford	23.9%	571	84.6%	7157	36.1%	1303
MDC	75.1%	5640			63.7%	4058
CHI						
Others (1)			15.4%	237		
	99.0%	6211	100.0%	7394	99.8%	5361
Combined			84.6%		99.8%	
PreHHI				6211		5361
Delta				1183		4599
PostHHI				7394		9960

Use "brute force" to calculate

Note: One current MDC OB/GYN (representing a market share of 15.4%) would leave MDC to practice on her own postmerger. So she would be included in MDC's premerger share but subtracted out of the combined firm postmerger and made an independent firm.

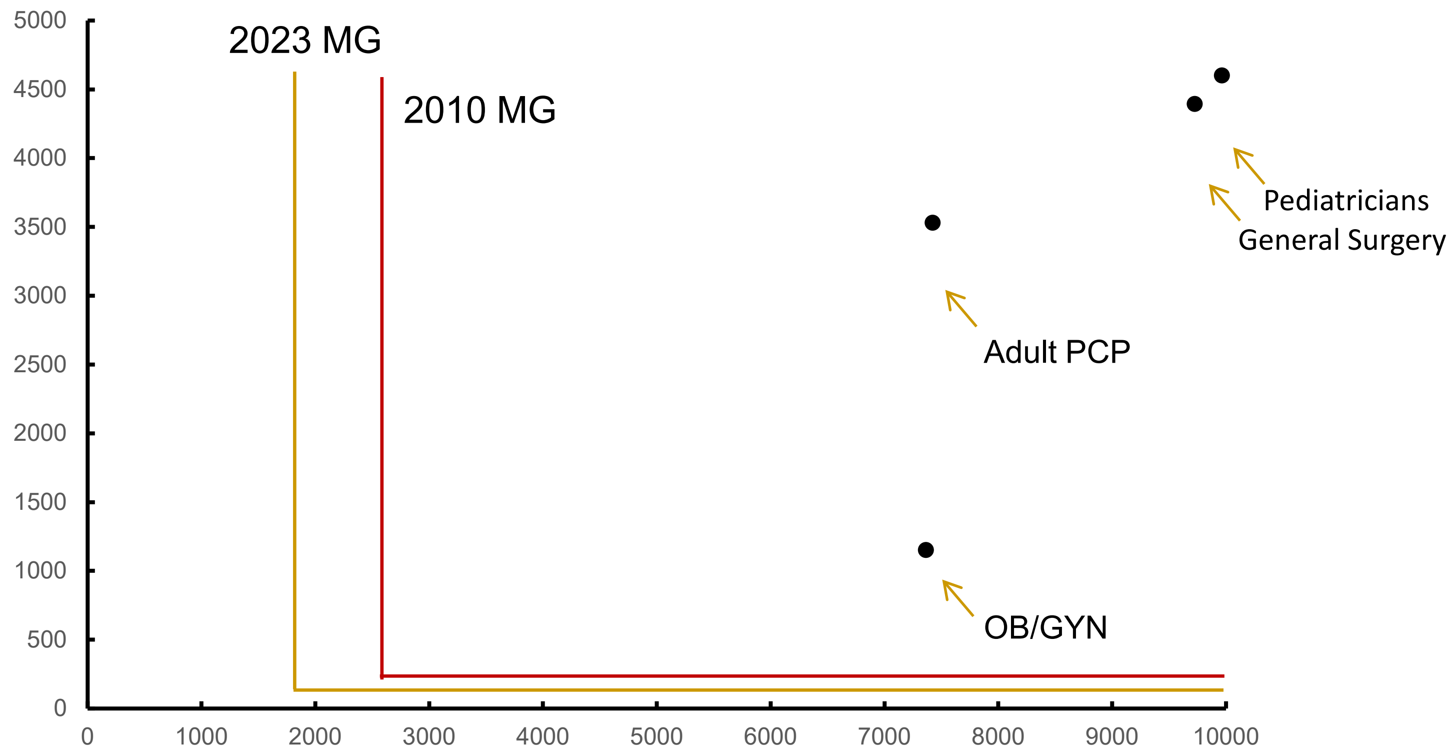
Sanford Health



Sanford Health

- District court findings

Sanford Health/Mid Dakota Clinic



Sanford Health

- Eight Circuit:

> The district court next found that the government made a sufficient *prima facie* showing because "[t]he changes in [Herfindahl-Hirschman Index] in each of the four physician service lines are well above the Merger Guidelines' threshold for presumption that the proposed transaction is likely to enhance market power."[1]

- The district court—
  - Invoked the *Philadelphia National Bank* presumption to make out its prima facie case of the requisite anticompetitive harm in the four relevant markets
  - Used the Merger Guidelines to determine whether the threshold triggers for the presumption were satisfied
    - The district court also could have looked at the combined market share and the change in concentration resulting from the merger and compared these statistics to those in prior cases that triggered the *PNB* presumption (traditional judicial approach)

[1] FTC v. Sanford Health, No. 17-3783, at 7 (8th Cir. June 13, 2017) (p. 59 in reading materials)

Sanford Health: Conclusion

- Eight Circuit: No error in—
  - Relevant product markets
    1. Adult primary care physician services
    2. Pediatric services
    3. OB/GYN physician services
    4. General surgeon services
  - Relevant geographic market
    - Four-county Bismarck-Mandan MSA
  - Requisite anticompetitive effect
    - The postmerger HHIs and the deltas
    - Application of the *PNB* presumption
- Eight Circuit:
  - Prima facie case is very strong
    - Even through anticompetitive effect was established only the *PNB* presumption
    - The higher the HHI statistics, the stronger the presumption
    - Could also have used additional non-market share evidence to further strength the presumption
  - The stronger the presumption, the stronger the evidence must be in Step 2 to raise a genuine issue of fact under the *Baker Hughes* sliding scale

One final thought on the *PNB* presumption

- How do you prove that the combined market share and change in market concentration predicate the *PNB* presumption?
  1. *Case law precedent:* Look for cases that have found the *PNB* presumption applied with lower HHI statistics
  2. *Merger Guidelines*: Although not legally binding on the courts, are often cited as ‘persuasive” authority
  3. *The PNB 30% combined share*: Although rarely cited by the agencies in their briefs and hence by the courts in their opinions between 1990 an the mid-2010s, the agencies started in the Biden administration to cite consistently in their briefs and many courts followed in their opinions

Step 1. The Prima Facie Case: Anticompetitive Effect

Explicit Theories of Anticompetitive Harm
Horizontal Mergers

Explicit theories of anticompetitive harm

- Some history
  - The 1992 DOJ/FTC Horizontal Merger Guidelines, the most economically sophisticated of any Guidelines, required agency staff to go beyond the *PNB* presumption by advancing one or more explicit theories of harm with supporting evidence
  - In effect, the Guidelines required the staff to tell a coherent story about how the merger would likely reduce consumer welfare or economic efficiency
- Three principal explicit theories of harm in horizontal mergers
  - The 1992 Guidelines detailed three explicit theories:
    - Coordinated effects
    - Elimination of a maverick
    - Unilateral effects
  - These three theories are firmly embedded in modern merger antitrust law
  - The Guidelines do not limit explicit theories to these three, but no other explicit theories have emerged
- Acceptance by the courts
  - Since the 1992 Guidelines, agencies have consistently supplemented their *PNB* with explicit theories in litigation—and courts now expect to see such theories developed with substantial evidence in both briefing and trial.

Coordinated effects

- The concept
  - *Coordinated effects* arise when a merger increases the probability, effectiveness, or stability of *tacit collusion*
    - Tacit collusion is the process by which firms in an oligopoly coordinate their behavior—such as pricing or output decisions—without any explicit agreement, relying instead on mutual recognition of interdependence and *accommodating responses* over time[1]

      Think of coordinated effects as rivals pulling their "competitive punches," resulting, for example, in higher prices

  - Introduced in the 1992 DOJ/FTC Horizontal Merger Guidelines
  - Well-accepted by the courts as a Section 7 theory of anticompetitive harm in horizontal mergers when the result is likely to be higher prices, lower market output, reduced market product or service quality, or a reduced rate of technological innovation or product improvement

[1] Theories of anticompetitive strategies that can be implemented postmerger by the merged firm alone, without accommodating conduct by rivals, are classified as a *unilateral effects* (addressed below).

Coordinated effects

- The law
  - Two-element test:
    1. The relevant market must be susceptible to tacit coordination
    2. The merger must make tacit coordination more likely, more effective, or more stable
  - Requirement 1: Common types of probative evidence—

    Most important factors

    1. The market is highly concentrated
    2. Prior actual or attempted attempts to coordinate (whether successful or unsuccessful, whether unlawful or lawful)
    3. Market transparency on the dimensions of competition that firms will allegedly coordinate (usually prices or output, but it can be other variables)
    4. Limited competitive responses from noncoordinating firms that would disrupt coordination (e.g., entry, expansion, or repositioning)
    5. Aligned incentives to coordinate
    6. Profitability or other advantages of correlation

    NB: Some courts presume that if the market satisfies the *PNB* thresholds premerger, the market satisfies Requirement 1
  - Requirement 2: Common types of probative evidence—
    - If Requirement 1 is satisfied, most courts find that the elimination of a significant competitor through the merger makes out a prima facie showing of Requirement 2
  - *Burden of proof*: The plaintiff has the burden of proving a prima facie case of anticompetitive effects in its prima facie case

Coordinated effects

Poorly developed in the case law

- Susceptibility: Generally accepted economic wisdom—
  - *3 or fewer firms*: Tacit coordination is highly plausible
  - *4 to 6 firms*: Tacit coordination is possible, depending on symmetry (incentive alignment), transparency, and product homogeneity
  - *7 or more firms*: Coordination is generally considered unstable or implausible absent explicit agreement or extraordinary conditions
- Scope of coordination: The *collusive group*
  - Coordinated effects does not need to involve every firm in the relevant market
  - It is sufficient that coordination occurs among some subset of firms (the *collusive group*) that collectively can influence a dimension of competition, especially market price or aggregate output, even if others do not participate
    - In applying the generally accepted economic wisdom, agencies and courts only look at the firms in the putative collusive group
  - As a result, courts often ignore fringe firms in the market when assessing a theory of competitive effects
- Likely anticompetitive effect
  - It is not enough that a collusive group tacitly colludes to violate Section 7 (not per se)
  - The result of the tacit collusion must be a Section 7 anticompetitive effect

Coordinated effects in *Sanford Health*

- Requirements
  1. The relevant markets premerger were highly concentrated and susceptible to premerger tacit coordination in negotiations with insurers
  2. The acquisition would significantly increase concentration in all markets and likely increasing the likelihood, effectiveness, or stability of tacit coordination postmerger
- The Court did not apply a coordinated effects theory
  - Focused instead on unilateral effects

Why?

Coordinated effects in *Sanford Health*

1. Premerger susceptibility to coordination
   - *Concentrated markets*:
     - Each market was highly concentrated, with only two or three significant firms premerger
     - BUT evidence showed rivalry between Sanford and MDC for "winner-take-all" for insurer contracts, producing vigorous head-to-head premerger competition rather than accommodation
   - *Market transparency*:
     - Physician affiliations and insurer network composition were widely known and easily monitored
     - BUT insurer reimbursement rates were negotiated privately and providers had incentives not to be accurate in disclosing one insurer's proposed rates to a competitor insurer
   - *Few potentially disruptive fringe competitors*:
     - Smaller physician groups lack the necessary scale replace a major player in an insurer network
   - *Aligned incentives*:
     - All firms relied on commercial insurers, with incentives to avoid aggressive discounting
     - BUT evidence showed vigorous premerger competition for insurer contracts, confirming rivalry rather than accommodation

Coordinated effects in *Sanford Health*

2. Effect of the merger
   - Increase in concentration
     - The acquisition would significantly increase market concentration
     - BUT
       - In three of the four markets the merger was tantamount to a “merger to monopoly” with some fringe providers
       - In the general surgeons’ market, Sanford would be the only provider postmerger, leaving no firms with which to coordinate

Takeaway: The analysis of both *premerger susceptibility and the effect of the merger highlight the head-to-head competition between Sanford and MDC and the lack of significant competition from other providers.*

This undermines postmerger coordinated effects as a theory of anticompetitive harm but powerfully reinforces unilateral effects, since the merged firm would internalize its closest rival and dominate negotiations with insurers.

Unilateral effects

- The idea
  - In markets where products are differentiated—for example, by product attributes, geographic locations, or reputation—a firm may compete intensely with a few competitors and less intensely with other competitors in the market
  - When two close rivals merge, the merged firm may profitably increase its prices even if other firms keep their prices constant
  - The agencies and the courts have recognized this reduction in "local competition" as an anticompetitive effect under Section 7 since the theory was introduced in the 1992 Merger Guidelines

In contrast to coordinated effects, unilateral effects requires no accommodating conduct by other firms in the market

Unilateral effects

- Examples of close competitors
  - Two full-service supermarkets across the street from one another, compared to the next closest supermarkets five miles away
  - Coca-Cola and Pepsi, compared to other carbonated soft drinks such as Sprite or Mountain Dew
  - Honda Civic and Toyota Corolla, compared to SUVs or pickup trucks
  - iPhone and Samsung Galaxy mobile phones, compared to lower-priced smartphones
  - Häagen-Dazs and Ben & Jerry's ice cream, compared to more generic or store-brand ice cream
  - Clorox and Lysol branded bleach, compared to generic store-brand bleach that is chemically identical

In each example, a merger between the two close competitors would likely be more substantial effect on competition than a merger between one of the named firms and a distant substitute

- Relation to diversion ratios
  - Close competitors have high diversion ratios
  - More distant competitors have lower diversion ratios

Diversion ratio D_{12} from Product 1 to Produce 2 for a given Δp_1 $= \left.\dfrac{\Delta q_2}{\Delta q_1}\right|_{\Delta p_1}$

Unilateral effects

- Three theories of unilateral effects
  1. *Recapture unilateral effects*, which depends on the merged firm being able to increase prices in one product and "recapture" a large portion of the lost marginal sales through substitution to the other merging product (assuming no price increase in the second product)
  2. *Auction unilateral effects*, which depends on the merging firms being the likely number 1 and number 2 low bidders when sales are made in an auction process
  3. *Merger-to-monopoly*, a degenerate form of unilateral effects, since postmerger there are no other firms in the market with which the merged firm can tacitly coordinate

Recapture unilateral effects

- The mechanics
  - Premerger, each of the merging firms sets price to maximize its *individual* profits
    - If Firm 1 were to increase its price, it would lose its marginal sales and reduce its profits
  - Postmerger, the merged firm sets its prices to maximize its *joint* profits
    - Again, if the merged firm increased Product 1's prices, Product 1 would lose its marginal sales and reduce the profits it earns
    - BUT to the extent Product 2 "recaptures" some of Product 1's marginal sales because they now have become attractive at Product 2's (unchanged) price, Product 2 will increase its profits
  - *Bottom line*: The merged firm can increase its total profits by increasing Product 1's price if the recaptured profits in Product 2 are greater than the net lost profits in Product 1
    - True even if no other firm in the markets accommodates this price increase

Recapture unilateral effects

- Mathematically:
  - We can express this in terms of incremental profits:

$$\Delta\pi_M = \overset{(-)}{\Delta\pi_1} + \overset{(+)}{\Delta\pi_2}$$

$$= \underbrace{\left[\Delta p_1\left(q_1 - \Delta q_1\right) - \$m_1\Delta q_1\right]}_{\text{Incremental profit loss on Product 1*}} + \underbrace{D_{12}\Delta q_1 \$m_2}_{\text{Incremental profit gain on Product 2}}$$

> If $\Delta\pi_M > 0$, the price increase is profitable
> If $\Delta\pi_M < 0$, the price increase is unprofitable

where D_{12} is the *diversion (recapture) ratio* from Product 1 to Product 2

- That is, D_{12} is the percentage of the marginal unit sales lost by Product 1 that is recaptured by Product 2
  - *Example*: If the price increase causes Product 1 to lose 100 units and Product 2 recaptures 40 of those units, then the diversion ratio is 40/100 = 40%
- $D_{12}\Delta q_1$ is the diversion ratio times the lost marginal unit sales of Product 1, which are the unit sales recaptured by Product 2
  - *Example*: Using the numbers above, 40% x 100 = 40

* If Firm 1 was profit-maximizing premerger, then a price increase in Product 1 necessarily will result in reduced profits.

Recapture unilateral effects

- HW Problem 1

> Two companies selling competing candy bars—CrispBite and CocoaSnap—plan to merge. Before the merger, each bar sells for \$3.00 with \$2.00 marginal cost. At the \$3.00 price, CrispBite sells 800 bars per week. After the merger, the combined firm considers raising CrispBite's price by \$0.15 to \$3.15 while keeping CocoaSnap's price at \$3.00. The price increase is expected to reduce CrispBite's sales by 120 bars per week; of those lost sales, 42 divert to CocoaSnap and 78 are lost to other products or not purchased. Does the merged firm have a profit-maximizing incentive to implement the contemplated price increase in CrispBite's price?

Data		Firm with the price increase CrispBite		Recapturing firm CocoaSnap	
Price (p_1 & p_2)	\$3.00 per bar	Loss on marginal sales			
Marginal cost (c_1 & c_2)	\$2.00 per bar	Δq_1	120		
Dollar margin (\$$m_1$ & \$$m_2$)	\$1.00 per bar		\$1.00		
Price increase (Δp_1)	\$0.15	Gross loss	\$120.00		
Quantity (q_1)	800 bars				
Marginal sales (Δq_1)	120 bars	Gain on inframarginal sales		Gain on recaptured sales	
		$q_1 - \Delta q_1$	680	Δq_2	42
Recapture unit sales (Δq_2)	42 bars	Δp_1	\$0.15	\$$m_2$	\$1.00
		Gross gain	\$102.00	Gross gain	\$42.00
		Net gain	-\$18.00	Net gain to merged firm	
				$\Delta\pi_1 + \Delta\pi_2$	\$24.00

> Here, there is a profit gain of \$24, so the merged firm would find it profitable to increase the price of CrispBite by \$0.15 postmerger

Recapture unilateral effects

- HW Problem 3

The manufacturer of ReliefMax A proposes to acquire its rival allergy-tablet AllerSure. Before the acquisition, ReliefMax sells a 24-tablet box for $12.00 with $7.00 marginal cost, while AllerSure sells a comparable box for $11.50 with $7.50 marginal cost. At the $12.00 price, ReliefMax sells 1,200 boxes per week. After the merger, the combined firm considers raising ReliefMax's price by $1.00 (to $13.00) while keeping AllerSure's price at $11.50. The increase is expected to reduce ReliefMax's sales by 240 boxes per week; of those lost sales, 84 divert to AllerSure and 156 are lost to other products or not purchased. Does the merged firm have a profit-maximizing incentive to implement this contemplated increase in ReliefMax's price?

Data		Firm with the price increase ReliefMax		Recapturing firm AllerSure	
Price (p_1)	$12.00 per box	Loss on marginal sales			
Marginal cost (c_1)	$7.00 per box	Δq_1	240		
Dollar margin ($\$m_1$)	$5.00 per box	$\$m_1$	$5.00		
Price increase (Δp_1)	$1.00	Gross loss	$1,200.00		
Quantity (q_1)	1200 boxes				
Marginal sales (Δq_1)	240 boxes	Gain on inframarginal sales		Gain on recaptured sales	
		$q_1 - \Delta q_1$	960	Δq_2	84
Price (p_2)	$11.50 per box	Δp_1	$1.00	$\$m_2$	$4.00
Marginal cost (c_2)	$7.50 per box	Gross gain	$960.00	Gross gain	$336.00
Dollar margin ($\$m_2$)	$4.00 per box				
Recapture unit sales (Δq_2)	84 cans	Net gain	-$240.00	Net gain to merged firm	
				$\Delta\pi_1 + \Delta\pi_2$	$96.00

Here, the merged firm would achieve a profit gain of $96, so a postmerger $1.00 price in ReliefMax would be profitable

Recapture unilateral effects

- Two important questions
  1. What is the merged firm's profit-maximizing increase in the price of one product if it holds the price of the other product constant?
     - So far, we have only examined whether a given price increase is *profitable*
     - In unilateral effects analysis, we must focus on what the merged firm *is likely to do* in its profit-maximizing interest, not just what price increase might be profitable
     - We will cover this question when we examine H&R Block/TaxACT (Unit 5)
  2. Is the firm's profit-maximizing price increase sufficiently large so that would to "substantially" lessen competition within the meaning of Section 7 were it to occur postmerger?
     - The agencies' view is that any price increase, no matter how small, that the merger is likely to cause is anticompetitive in the absence of offsetting consumer benefits (e.g., quality improvements)
     - The courts have not answered this question, although there are indications that they will not credit projections of low single digit percentage increases as anticompetitive.
       - We will see this in Sysco/U.S. Food (Unit 9)

Recapture unilateral effects

- The law
  - In practice, modern courts generally require four *necessary* (but not sufficient) elements to prove "recapture" unilateral effects:
    1. *Differentiated products*: The merging firms' products must be sufficiently differentiated—pre- or postmerger—to permit meaningful diversion between them
       - Firms with differentiated products face downward-sloping residual demand curves, so that they can increase price and lose only some, but not all, of their sales
       - *Key*: The merging firms retain their inframarginal customers
    2. *Close substitutes*: The merging products must be close (but not necessarily the closest) substitutes
       - That is, the merging products must have a high diversion ratio from at least one merging product to the other merging product
       - It is not necessary for the diversion ratios to be high in both directions
    3. *Distant substitutes from other products*: Most rival firms' products must be poor substitutes
       - That is, the diversion ratio from the merging product whose price is expected to increase postmerger to most other substitute products should be low
       - This still allows a few products to have high diversion ratios: the merging products do not have to be uniquely close substitutes
    4. *Barriers to entry, expansion, or repositioning*: It must be difficult for rivals to offset the merged firm's price increase through timely and sufficient new entry, expansion, or repositioning
       - The merged firm must be able to increase price for at least one product without being disciplined by new competition

Not necessary in the prima facie case

Recapture unilateral effects

- For any given price increase to be profitable under the unilateral effects theory, one more condition must be satisfied:

  The incremental profit gain on the sales recaptured by Product B must be greater than the incremental profit loss on the foregone marginal sales of Product A

  - In later classes, we will develop formulas to test whether this profitability condition holds
- NB: *Some* price increase will always be prima facie profitable if there is any recapture by the merging firm
  - As a matter of economic theory, the recapture by Firm B ensures that there is some "headroom" to profitably increase Firm's A price
  - The profitable price increase, however, may be insignificant in magnitude and hence not amount to a "substantial lessening" of competition under Section 7

Auction unilateral effects

- The idea
  - A form of unilateral effects specific to *winner-take-all* markets where customers award contracts entirely to the lowest-priced (or lowest-cost) supplier
  - Common in markets where contracts or negotiations award a single supplier nearly all of a customer's business (e.g., procurement auctions, distributor negotiations).
- Mechanism
  - In each competition, the winning supplier supplies 100% of the customer's demand
  - The winning contract price is disciplined by the second-best alternative (second-lowest bid or cost)
  - When the first- and second-best suppliers merge, the price rises to just below the third-best alternative
  - *Result*: Postmerger price increase equal to the gap between the second- and third-best alternatives
- Key distinction from recapture unilateral effects
  - No inframarginal customers and no recapture of lost sales
  - Competitive harm arises from loss of head-to-head bidding pressure in winner-take-all contests

Auction unilateral effects

- Example: Road salt merger

The City of Columbus, Ohio contracts annually for road salt to treat its streets in winter. Columbus awards the contract to a single supplier (winner-take-all) through a bidding process. Three suppliers can deliver to Columbus, with the following delivered costs per ton:

Lake Erie Salt Co., Cleveland, OH: $60/ton
Hoosier Mineral Logistics, Fort Wayne, IN: $65/ton
Motor City Minerals, Detroit, MI: $70/ton

Two of the suppliers are planning to merge. Will the merger likely result in an auction unilateral effect in Columbus?

Auction Unilateral Effects: Price Increase Simulation

Merger	Premerger outcome	Postmerger outcome	Effect on price
1 &2	Supplier #1 wins; price ≈ $64 (just below #2 at $65)	Supplier #1 wins; price ≈ $74 (just below #3 at $75)	+$10/ton
1 &3	Supplier #1 wins; price ≈ $64 (just below #2)	Supplier #1 still disciplined by Supplier #2 at $65	No effect
2 &3	Supplier #1 wins; price ≈ $64 (just below #2)	Supplier #1 still disciplined by Supplier #2 (now merged) at $65	No effect

- *Result*: Columbus is likely to experience an auction unilateral effects price increase only if Lake Erie Salt and Hoosier Mineral Logistics merger (#1 and #2)
  - NB: The merger could increase Columbus' price for other reasons (e.g., coordinated effects) in all three cases

Auction unilateral effects

- Conditions for application in the prima facie case
  1. The customer awards *winner-take-all contracts*
     - *O*ne supplier obtains the contract for 100% of the volume
     - This condition eliminates any inframarginal customers
  2. Prices are disciplined by the second-best alternative
     - The winning price sits just below the runner-up's delivered cost
  3. The merging firms are the first- and second-lowest delivered-cost suppliers to the customer
  4. The third-best delivered cost is materially higher than the second-best alternative
  5. The seller can price discriminate by customer
     - There is no arbitrage across customers

Auction unilateral effects

- Observations
  - The model is grounded in an iterative open-cry auction process that drives the winning price to just below the second-lowest delivered cost[1]
    - In sealed-bid auctions, submitted bid prices may depart from the open-cry outcome; however—
      - Differences in bids generally track differences in delivered costs
      - The pricing discipline still comes from the second-best alternative
  - Courts accept cost-based auction models as prima facie evidence of an auction unilateral effect, including in sealed-bid settings

[1] Think about the sellers calling out their bids to supply the contract, with each seller bidding a lower price than the previous bidder. The process continues until no one beats the last bid, which should be just below the delivered cost of the second lowest-cost bidder.

Auction unilateral effects

- Rebutting the prima facie case (not exhaustive)
  1. Attack the predicates of the prima facie case
     - *Not #1 and #2*: Show the merging firms are not the first- and second-lowest delivered-cost suppliers for any material customer or bid
     - *Not winner-take-all*: Show multi-sourcing, primary-plus-backup awards with meaningful shares, or volume splits
     - *Pricing not set by the second-best*: Sealed-bid practices with reserve prices or caps, index-linked formulas, service/quality scoring; bid logs where the winner did not price just below the runner-up's price
     - *Third-best not materially higher*: Show delivered costs for alternative suppliers that shrink the delivered cost gap in supplying the customer
  2. Restore a second-best alternative
     - *Rapid entry, expansion, or repositioning before the next award cycle*: transload depots, rail or barge alternatives, contracted trucking, temporary storage
  3. Scope and materiality
     - If any effect exists, confine it to specific customers and volumes; show de minimis impact at the market level
  4. Efficiencies
     - Usually not relevant if the binding constraint on pricing is the next lowest delivered cost bidder
     - Unless contract terms require a pass-through to the customer of efficiencies

Unilateral monopoly: Merger-to-monopoly

- The idea
  - The merger eliminates all competition and leaves only one firm in the market
    - Except perhaps some competitively insignificant fringe firms
  - Postmerger price is constrained only by demand and entry conditions, not by a competing supplier

Unilateral monopoly: Merger-to-monopoly

- Two mechanisms (depending on market type)
  1. Markets with downward-sloping aggregate demand (continuous sales)
     - Prima facie elements:
       - Merging parties account for essentially all output/capacity
       - Any fringe firms lack capacity to supply material volumes and are competitively insignificant
     - Premerger, price is disciplined by the counterparty's rival presence
     - Postmerger, the merged firm sets price at the monopoly price
       - Marginal cost = marginal revenue
  2. Markets with winner-take-all contracts
     - Prima facie elements:
       - Merging parties are the only qualified suppliers able to meet the customer's full requirements in the next award
       - Any fringe firms lack capacity/qualification/proximity to fulfill the contract
     - Premerger, price is disciplined by the presence of the other merging firm
     - Postmerger, the merged firm sets price at the buyer's reservation price (that is, the highest price the buyer will pay rather than go without the purchase)

Elimination of a "maverick"

- The concept
  - A *maverick* is a firm that disrupts tacit coordination in a way that materially benefits consumers, often through *aggressive pricing*, *innovation*, or *other competitive conduct*
    - The antitrust concern is that the merger would eliminate a uniquely disruptive firm whose conduct materially constrains premerger market pricing or behavior—either by deterring coordination or disciplining a rival—thus resulting in a less competitive postmerger equilibrium
  - Anticompetitive effect
    - *Coordinated effects*: Often arises as a special case of coordinated effects theory when the maverick is acquired by a firm that is more accommodating to its rivals and likely to suppress the maverick's disruptive behavior
      - The theory can also apply if the maverick acquires a rival and the evidence shows that postmerger merged firm is likely to be more accommodating to rivals, degrading or eliminating the maverick's premerger disruptive conduct
    - *Unilateral effects*: Can also arise as a special case of unilateral effects, when the maverick exerts a significant competitively disciplining influence on the acquiring firm, and the merger is likely to eliminate that discipline
      - The theory can similarly apply when the maverick is the acquiring firm, and the evidence shows that the merged firm is unlikely to maintain the maverick's disruptive proconsumer strategy postmerger
  - Courts and the agencies recognize elimination of a maverick as a valid theory of Section 7 anticompetitive harm
    - But require strong evidence that the firm truly is, and will remain, a maverick absent the merger

Elimination of a "maverick"

- The law
  - The leading doctrinal framework comes from *H&R Block*,[1] which sets out a four-part test:
    1. The market must be conducive to a materially higher degree of coordinated interaction than it currently exhibits
    2. The disruptive conduct of the maverick must materially contribute to the market's current lower level of coordination
    3. The merger must make it likely that the disruptive conduct will be discontinued
    4. The loss of disruptive conduct must likely result in a materially higher degree of coordination that harms consumers

[1] United States v. H&R Block, Inc., 833 F. Supp. 2d 36, 80 (D.D.C. 2011). H&R Block/TaxACT will be our case study for Classes 10-12.

Elimination of a "maverick"

- The law
  - *Unilateral effects*: There is no case law on the requirements, but they follow directly from the general theory of unilateral effects:
    1. The merging firms must be close substitutes, with most other products in the relevant market significantly more distant
    2. The maverick must be exerting a significant disciplining effect on the other merging firm, causing it to price more aggressively, innovate more, or otherwise behave more competitively than it otherwise would in the absence of the maverick
    3. The merged firm is unlikely to continue the maverick's premerger procompetitive strategy, resulting in a less competitive equilibrium and consumer harm that would not have occurred absent the merger
    4. Other firms must not be able to enter, expand, or reposition in a manner that is timely, likely, and sufficient to restore the competitive discipline lost with the maverick's elimination

Elimination of a "maverick"

- A central question: Why are "mavericks" mavericks?
  1. Mavericks are often smaller firms
     - Smaller firms have fewer inframarginal sales at risk and more to gain from aggressive pricing or innovation, making them more willing to disrupt coordination than larger firms
  2. Mavericks may be pursuing a long-term, growth-oriented business model
     - Firms prioritizing scale or customer acquisition may compete aggressively to expand their market position, even at the expense of short-term profits
  3. Mavericks may have lower marginal costs or unique cost advantages
     - Cost advantages can make it profitable to undercut rivals even when others would find such pricing unsustainable
  4. Maverick conduct may reflect the firm's internal culture or leadership incentives
     - Disruptive strategies may be driven by executives rewarded for risk-taking, innovation, or price competition
  5. Mavericks may not be aligned with industry norms or expectations
     - Structural differences or outsider status may lead the firm to disregard implicit coordination or industry conventions
  6. Mavericks may face limited risk of retaliation from rivals
     - Firms insulated by niche positions, geographic distance, or vertical integration may be less vulnerable to punishment for aggressive conduct

Elimination of a “maverick”

- Practical and evidentiary considerations
  - Courts and agencies are skeptical of labeling a firm a maverick without clear evidence of persistent, distinctive procompetitive conduct that constrains rivals premerger
  - Evidence must show that the firm’s disruptive conduct is both material and likely to continue absent the merger
    - Past behavior alone may be insufficient if it is not durable or tied to structural features likely to persist
  - The theory fails if there is no reasonably likely postmerger pathway for the merger to proximately cause a Section 7 anticompetitive effect

Step 1. The Prima Facie Case: Summary

The prima facie case

1. Product market definition
   a. *Brown Shoe* "outer boundaries"/practical indicia tests
   b. Hypothetical monopolist test
2. Geographic market definition
   a. "Commercial realities" test
   b. Hypothetical monopolist test
3. Anticompetitive effect
   a. *PNB* presumption
      i. Supporting case law precedent
      ii. Merger Guidelines thresholds
      iii. PNB 30% threshold
   b. Explicit theories of anticompetitive harm
      i. Coordinated effects
      ii. Unilateral effects
         1) Recapture unilateral effects
         2) Auction unilateral effects
         3) Merger-to-monopoly
      iii. Elimination of a maverick
         1) Coordinated effects
         2) Unilateral effects

Step 2. Rebutting the Prima Facie Case

Defenses generally

- Two types of defense
  1. Defenses that attack the predicates of the plaintiff's prima facie case
     - The plaintiff's evidence fails to make out a prima facie showing of relevant product market
     - The plaintiff's evidence fails to make out a prima facie showing of relevant geographic market
     - The plaintiff's evidence fails to make out a prima facie showing of anticompetitive effect
  2. Defenses that assume arguendo that the plaintiff has proved a prima facie case but show offsetting procompetitive forces that negate any likely anticompetitive effect from the merger:
     1. Entry/expansion/repositioning
     2. Power buyers
     3. Efficiencies
     4. Failing firm

     These are the standard *downward-pricing pressure defenses*

     The plaintiff does not have to anticipate these defenses in its complaint or proof of a prima face case
- All standard merger antitrust defenses are *negative* defenses, not *affirmative* defenses
  - Defendants, however, in litigation do have to plead them as "affirmative defenses" under FRCP 12(b) in their answer
  - Also, laches and other equitable defenses are affirmative defenses

Step 2. Rebutting the prima facie case

- What defenses did the merging parties in *Sanford Health* advance to rebut the plaintiffs' prima facie case?
  1. *Entry*: Catholic Health was poised to enter the market to compete with Sanford Health after the merger and CH's entry would offset any anticompetitive effect of the merger
  2. *Power buyers*: Blue Cross has sufficient bargaining power to protect itself from any attempted anticompetitive price increase resulting from the merger
  3. *Efficiencies*: The merger would permit the merged firm to provide services and programs to patients that would improve their quality of health care that the one or both of the merging firms could not provide without the merger
  4. *Failing firm (variant):* Given Mid Dakota's weakened condition, MDC would not be able to compete in the future in the absence of the merger with the same competitive force as it has had historically, and when this reduction in MDC's future competitiveness is taken into account MDC's acquisition by Stanford Health would not be anticompetitive

Defense 1: Entry by Catholic Health

- Merging parties' argument:
  - Catholic Health is poised to enter the four relevant product markets in the Bismarck-Mandan MSA
  - Entry has already started—CH has already recruited a top physician in Bismarck
  - Catholic Health's entry would provide commercial insurers and patients with a suitable alternative to the merged firm and counteract any anticompetitive effects of the merger

Defense 1: Entry by Catholic Health

- The law
  1. *Timely*, that is, “must be rapid enough to make unprofitable overall” the output reduction in the relevant market that otherwise would have created the increase in prices
  2. *Likely*, that is, sufficiently profitable when compared to alternative courses of action by the third-party firms that the firms have a high probably of actually expanding their output if the merging firms (and any other tacitly coordinating firms) attempted to reduce output in the relevant market, *and*
  3. *Sufficient*, that is, that the magnitude of the timely and likely output expansion by these third-party firms will be enough to “fill the hole”

- A fourth “requirement”
  - Although not explicit in the case law or the Merger Guidelines, a fourth requirement should be added:

    The entry/expansion/repositioning is the proximate result of the merger and would not happen otherwise

  - If the entry/expansion/repositioning would occur absent the merger, it should be taken into account as part of the future market structure in the “going forward” analysis
    - This requirement is typically ignored by the courts and to a lesser extent by the agencies

Defense 1: Entry by Catholic Health

- Almost impossible to make out in an agency investigation
  - The agency starts by insisting that the merging parties identify the potential entrants by name
  - It then calls the potential entrants and asks: “Would you enter this market if prices increased by 5% to 10%?”
  - The company almost always answers “no”
    - May be true
    - Even if the company was thinking of possibly entering, it would not want to get caught up in a government investigation by answering anything other than “no”

Defense 2: Blue Cross as a power buyer

- Merging parties' argument:
  - Blue Cross is the dominant commercial insurer in the area
  - There is no relationship between provider market concentration and provider prices in local markets (which is the premise of the *PNB* presumption), and Blue Cross is able to maintain a statewide pricing schedule regardless of provider concentration in local markets
  - Accordingly, Blue Cross will not change its statewide prices as a result of the merger ad the merged firm will have to accept Blue Cross' rate schedule

Defense 2: Blue Cross as a power buyer

- Power buyer defense
  - The Blue Cross argument is essentially a power buyer argument
- The idea
  - "Power buyers" have enough bargaining power to be able to protect themselves from an anticompetitive price increase
  - If the merged firm cannot raise prices in the face of power buyers, the merger cannot be anticompetitive
- The requirements
  1. The buyer in question must be able to protect itself from an anticompetitive price increase
     - This requires proof of the *mechanism* through which the buyer will be able to protect itself
  2. Every buyer in the market must be a power buyer
     - Otherwise, the buyers that cannot protect themselves will be relevant market

Defense 2: Blue Cross as a power buyer

- Power buyer defense: The practice
  - Requirement 1: Proof that a given buyer is able to protect itself
    - The mechanisms underlying a buyer power defense often a rigorous foundation
      - The foundation almost undoubtedly will be subject to intense cross-examination
      - The mere assertion that the buyer is large and therefore must be able to protect itself is not enough
    - A practically necessary (although not sufficient) condition is that the putative power buyer testify that it can protect itself
      - If the putative power buyer will not testify that it can protect itself, it is hard for the court to conclude that it can
    - Contrary evidence from "natural experiments" or buyer testimony can kill the defense (as was the case in *Sanford Health*)
  - Requirement 2: All buyers must be able to protect themselves
    - Almost impossible to prove—most markets contain small buyers that do not even arguably have sufficient buyer power to protest themselves from a price increase

Since the court found that Blue Cross was not a power buyer that could protect itself, there was no need to examine the second requirement

Defense 2: Blue Cross as a power buyer

- District court analysis
  - Despite the market power of Blue Cross, there is a relationship between provider market concentration and prices paid by commercial insurers
  - Evidence
    - Blue Cross representative:
      - Absent the merger, Blue Cross could stay in the market if *either* Sanford or MDC was in the Blue Cross network—Blue Cross could play the firms off one another to obtain lower prices
      - Combined firm would have the power to force Blue Cross to choose between paying higher prices or leaving the market—Blue Cross would pay the higher prices to stay in the market
    - "Natural experiment": Blue Cross was forced to modify its contract terms and pay higher prices to a near-monopoly in another part of the state

Defense 3: Efficiencies

- Merging parties' argument:
  - The merger would permit the MDC to provide services and programs to its patients that would improve their quality of health care that it could not provide without the merger:
    1. Imagenetics, a Sanford Health program integrating genetic medicine into primary care
    2. Behavioral health therapists embedded into primary care clinics
    3. Cancer care trials and cancer care outreach to communities outside the Bismarck-Mandan area
  - The merger would permit the combined firm to provide services and programs to its patients that would improve their quality of health care that it could not provide without the merger:
    1. A combined and customized electronic medical record system that would better integrate and coordinate patient care
    2. Recruitment of subspecialists to the area that could be supported by the merged firm

Defense 3: Efficiencies

- *Law*: To be cognizable as a defense, efficiencies must be—
  1. Verifiable
  2. Merger specific
  3. Sufficient in magnitude to offset the otherwise likely anticompetitive effect of the merger
  4. [Not the result of an anticompetitive aspect of the merger (such as a reduction in output)]

Defense 3: Efficiencies

1. Are the alleged efficiencies *verifiable*?
   - Have the efficiencies been rigorously demonstrated by the parties?
   - Can they be objectively ascertained by a third party?
     - The agencies usually regard this "third party" as an accountant or an economist, that is, someone without expertise in the industry in question—causes them to reject efficiencies that depend on expert industry judgment
     - Courts are trending this way as well
   - Most, if not almost all, efficiency defenses are rejected by the agencies and the courts for failure to meet the burden of production on verifiability
     - That is, a finding that the merging parties' evidence was insufficient to raise a genuine issue of fact that the alleged efficiencies were verifiable

Defense 3: Efficiencies

1. Are the alleged efficiencies *merger specific*?
   - The alleged efficiencies must result from the merger
   - Two competing views:
     - *"Could" test*: Efficiencies are not merger specific if they *could* conceivably be achieved without the merger
       - Adopted by the agencies and most courts
     - *"Would"*: Efficiencies are merger specific if, in business reality, they *would not* be achieved absent the merger even if theoretically possible

Defense 3: Efficiencies

1. Are the alleged efficiencies *merger specific*?
   - The "could" test in practice
     - Invites speculation into hypothetical alternatives, such as—
       - Internal improvements by one or both firms (e.g., developing better technology, reorganizing operations, closing excess capacity)
       - Bilateral contracts or limited joint ventures with third parties (including the merger partner)
       - Industry-wide collaborations or licensing agreements that, in theory, could replicate the cost savings
       - Strategic alliances or supply agreements with alternative partners that could deliver partial efficiencies
     - Alternatives are considered regardless of their *cost*, *difficulty*, *likelihood of success*, or the *time required to achieve them*
       - *Example:* Proprietary know-how transferred postmerger is dismissed as non–merger specific because the other firm could develop the technology itself—even if the transferee firm has already spent a decade and millions of dollars unsuccessfully trying to do so
     - In practice, the burden falls on the merging parties to prove that these alternative means are not even theoretically possible
       - *Query*: How do the merging parties show that the transferee firm cannot develop the technology in the future if would just keep trying?

Defense 3: Efficiencies

2. Are the alleged efficiencies *merger specific*?
   - The "would" test in practice
     - More consistent with the "going forward" focus of merger antitrust law
       - The central question is whether consumers will be customers would be better or worse off with the merger than without it
       - This requires a prediction of what is likely to be the market outcomes in the two scenarios, not what the theoretically possible outcomes could be
     - More consistent with the *Baker Hughes* allocation of the burdens of proof
       - Step 2 places only the burden of production on the merging parties
         - The burden of production on this element requires the merging parties only to adduce evidence sufficient to support a finding of fact that the claimed efficiency would result from the merger
         - Under Step 3, the plaintiff then has the burden of persuasion of showing, by a preponderance of the evidence, that the claimed efficiency—
           - Would not likely result from the merger, or
           - Would likely be achieved absent the merger, but only at such cost or after such delay that, in light of the merger's anticompetitive effects, consumers would still be worse off with the merger than without it

Defense 3: Efficiencies

3. Are the alleged efficiencies *timely and sufficient*?
   - Efficiencies must materialize quickly enough to fully offset any likely anticompetitive effects from the merger

     Key question: *Assuming verifiability and merger specificity, will consumers be better off with the merger than without it?*

   - Timeliness
     - Under the 2010 and 2023 Merger Guidelines, there is no grace period for anticompetitive effects to occur—the efficiencies must occur in time to completely offset *any* likely anticompetitive effect from the merger
       - By contrast, the 1982 and 1992 Guidelines allowed a two-year grace period for efficiencies to "catch up" and offset the merger's otherwise anticompetitive tendencies
     - Courts have also been skeptical of efficiencies that are not demonstrably near-term, though they have not gone as far as the agencies in requiring immediate offset

Defense 3: Efficiencies

3. Are the alleged efficiencies *timely and sufficient*?
   - Sufficiency
     - Efficiencies must be large enough to prevent the merger from being anticompetitive
       - Efficiencies that only partially mitigate the merger's likely anticompetitive effects are not sufficient in themselves as a defense
     - The agencies and courts treat efficiencies as cognizable only to the extent they are *passed through to consumers*
       - When efficiencies related to costs or revenues are achieved, a firm facing a downward-sloping residual demand curve has an incentive to withhold passing on at least some of the benefits to its customers
         - Efficiencies that are retained by the firm or distributed to shareholders are not cognizable efficiencies
       - Fixed-cost efficiencies are generally not cognizable absent strong evidence of pass-through
         - Fixed cost efficiencies raise the merged firm's profit curve, but in static economic models they do not change the firm's profit-maximizing price → Impose no downward pricing pressure
         - If the merging parties want to advance fixed cost efficiencies as a defense, they will need to develop a dynamic model of competition that will make it in their profit-maximizing interest to pass on some or all the fixed costs savings to customers
           - I am unaware of any merger the agencies accepted fixed cost savings as cognizable efficiencies, although the agencies may consider them in the exercise of prosecutorial discretion
       - According, any analysis of these types of efficiencies would have to analyze the pass-through rate of the efficiencies
         - Pass-through analyses are often heavily contested in litigation

Be sure to remember this!

Defense 3: Efficiencies

3. Are the alleged efficiencies *timely and sufficient*?
   - Sufficiency in practice
     - Sufficiency is the least developed of the elements—Neither the agencies nor the courts have developed an operational test beyond restating the consumer welfare standard
     - In practice, courts avoid analyzing sufficiency—except in extreme cases where the claimed efficiencies could not plausibly offset the merger's likely anticompetitive effects
     - Instead, most decisions dispose of efficiency claims on verifiability or merger-specificity grounds, making further sufficiency analysis unnecessary

Defense 3: Efficiencies

- The efficiencies defense in practice
  - The Supreme Court has cast doubt on an efficiencies defense in three cases[1]
  - That said, some (and perhaps most) modern lower courts recognize that efficiencies resulting from the merger may be considered in rebutting the government's prima facie case
    - Courts that entertain an efficiencies defense use the Merger Guidelines' requirements
  - No court has yet found that the merging parties have successfully defended a merger through a showing of efficiencies

[1] Brown Shoe Co. v. United States, 370 U.S. 294, 344 (1962); United States v. Philadelphia Nat'l Bank, 374 U.S. 321, 371 (1963); FTC v. Procter & Gamble Co., 386 U.S. 568, 580 (1967).

Defense 3: Efficiencies

- District court
  - *Factual findings*
    - Only Imagenetics was merger specific
      - FTC expert: MDC could make all other improvements without merger
        - Patient demands—not practice size—drive physician recruitment
        - A combined electronic medical record system was neither required nor certain to integrate and coordinate patient care
        - Mid Dakota and Sanford already provided community outreach services and could expand those services without the merger
      - Sanford witness
        - Admitted that MDC could employ a behavioral health therapist without the merger

Defense 4: Failing/weakened company

- Merging parties argument:
  - MDC had only dim long-term prospects
  - Given Mid Dakota's weakened condition, MDC will not be able to compete in the future in the absence of the merger with the same competitive force as it has had historically
  - When this reduction in MDC's future competitiveness is taken into account, MDC's acquisition by Stanford Health would not be anticompetitive

Failing firm defense

- Requirements: The allegedly failing firm—
  1. Would be unable to meet its financial obligations in the near future,
  2. Would not be able to reorganize successfully under Chapter 11 of the Bankruptcy Act, *and*
  3. Has made unsuccessful good-faith efforts to elicit reasonable alternative offers that would keep its tangible and intangible assets in the relevant market and pose a less severe danger to competition than does the proposed merger[1]
     - A "reasonable alternative offer" to the agencies means any offer above the liquidation value of the failing firm
     - To the agencies, a "good faith effort" to find a less anticompetitive buyer is tantamount to a full-press offering of the company

- Observations
  - The failing firm defense works in principle for a failing division or subsidiary
  - The failing firm defense has had essentially no success since the Supreme Court recognized it in 1930 in *International Shoe*[2]

[1] 2010 DOJ/FTC Horizontal Merger Guidelines § 11.
[2] International Shoe Co. v. FTC, 280 U.S. 291, 302 (1930).

Weakened firm defense

- The idea
  1. The firm in question is in a weakened financial condition
  2. The firm’s weakened financial condition will not enable it to perform going forward as competitively in the market as it has historically
  3. Therefore, the firm’s current market share and other indicia of competitiveness should be discounted below current levels
  4. When the weakened firm is properly discounted, the merger would not be anticompetitive

Defense 4: Failing/weakened company

- District court
  - Factual findings
    - MDC was financially healthy—
      - Increased revenues in the three years prior to the FTC action
      - Physician compensation was 32% above the national average
      - 2015 MDC shareholder minutes showed that the motivation to sell was the high share price offered by Sanford Health, not concern about MDC's long-term financial viability
- Eight Circuit
  - (Implicit) A weak financial condition is a necessary condition to consider this factor
  - No clear error in factual finding that MDC was not a weakened company