Theory and Practice of Merger Antitrust Law

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Class 1: Mergers under the US Antitrust Laws

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The New Oligopolies

- Today's commercial world is increasingly characterized by oligopolies. (Between perfect competition and monopoly)
- "Friendly competition." Being a monopolist is often too much of a hassle.
- If you have to be big to play, how do you grow? "Buy or build."
- The antitrust merger laws are concerned with buying (external growth)

What motivates the buyer of a business?

- Cost savings (eliminate duplication; economies of scale and scope)
- Entry into new markets (e.g., removal of patent barriers)
- Create internal capital market to cross-subsidize risky operations
- Protection against opportunistic behavior by customers or suppliers (vertical)
- Eliminate competition

More on buyer motivation

- Every public company has to please analysts and shareholders
- “Grow or die”
- “Being #1 and #2 is great, being #3 is hard, and being #4 is the kiss of death.”
- “Only the big can serve the big” (e.g., accounting firms, law firms, staffing companies, etc.)

What motivates the seller of a business?

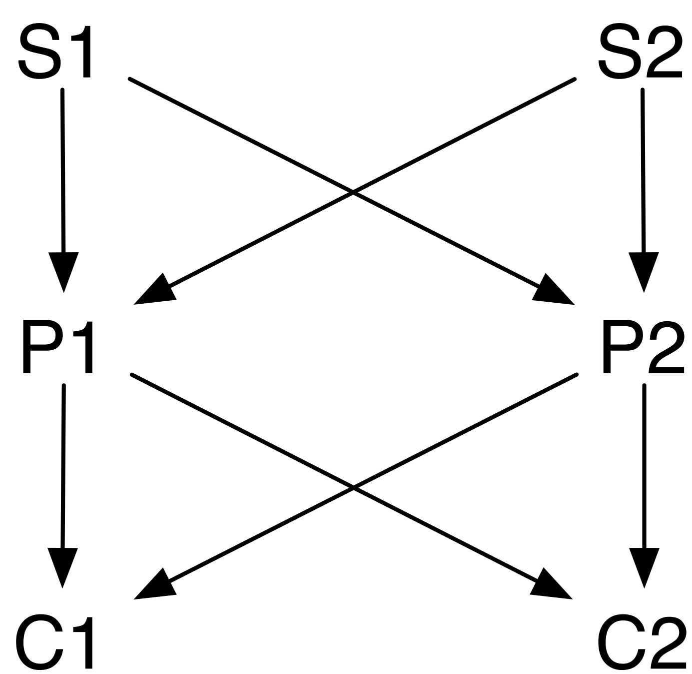
- Cash out ("liquidity event")
- Gain access to a broader platform (e.g., Blogger sold to Google)
- Access to capital if IPO not feasible (e.g., too expensive) or undesirable (e.g., SOX)

Why antitrust cares about mergers

- There are two kinds of injuries that the antitrust laws are concerned with
    - Overcharges (*ultimate concern;* π = consumer/customer)
    - Lost profits (*derivative concern;* π = competitor)
        - Loss of "economic freedom" as an independent injury?
- Mergers can result in both kinds of injuries
    - Post-merger c*ollusive behavior* injures consumers directly (*overcharge, consumer exploitation*)
    - Post-merger *exclusionary behavior* first injures competitors (*lost profits*) and then, after successful exclusion in the right circumstances, consumers (*overcharge*) ("one-two punch")

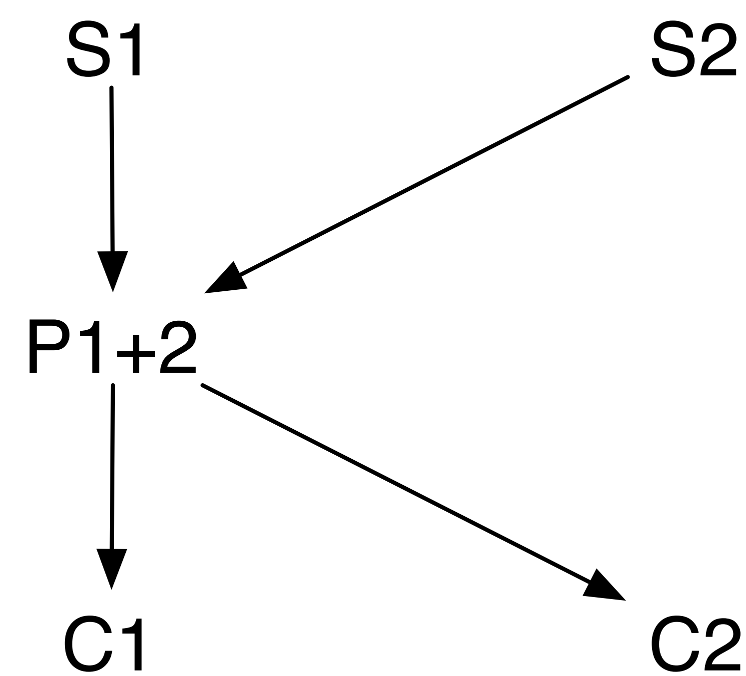
Horizontal mergers: Overcharge

Before



Two options for C1, C2, S1, S2

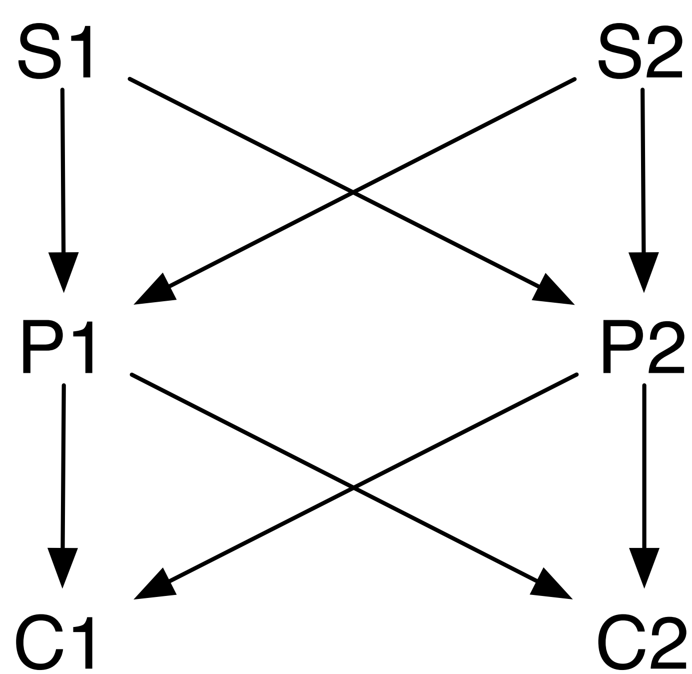
After



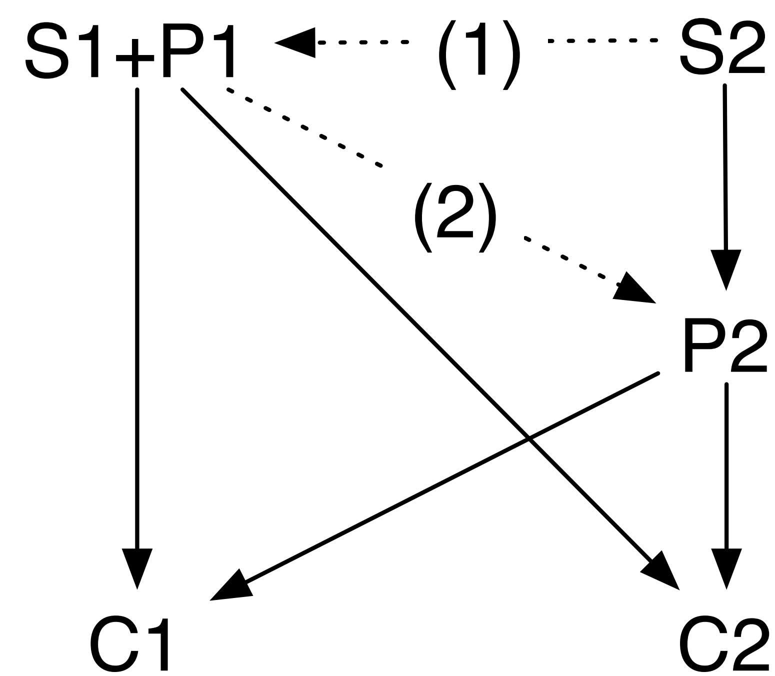
One option for C1, C2, S1, S2

Vertical mergers: First lost profits, then overcharges?

Before



After



S2 sells to 2 customers
P2 buys from 2 suppliers

S2 sells to a competitor (1)
P2 buys from a competitor (2)

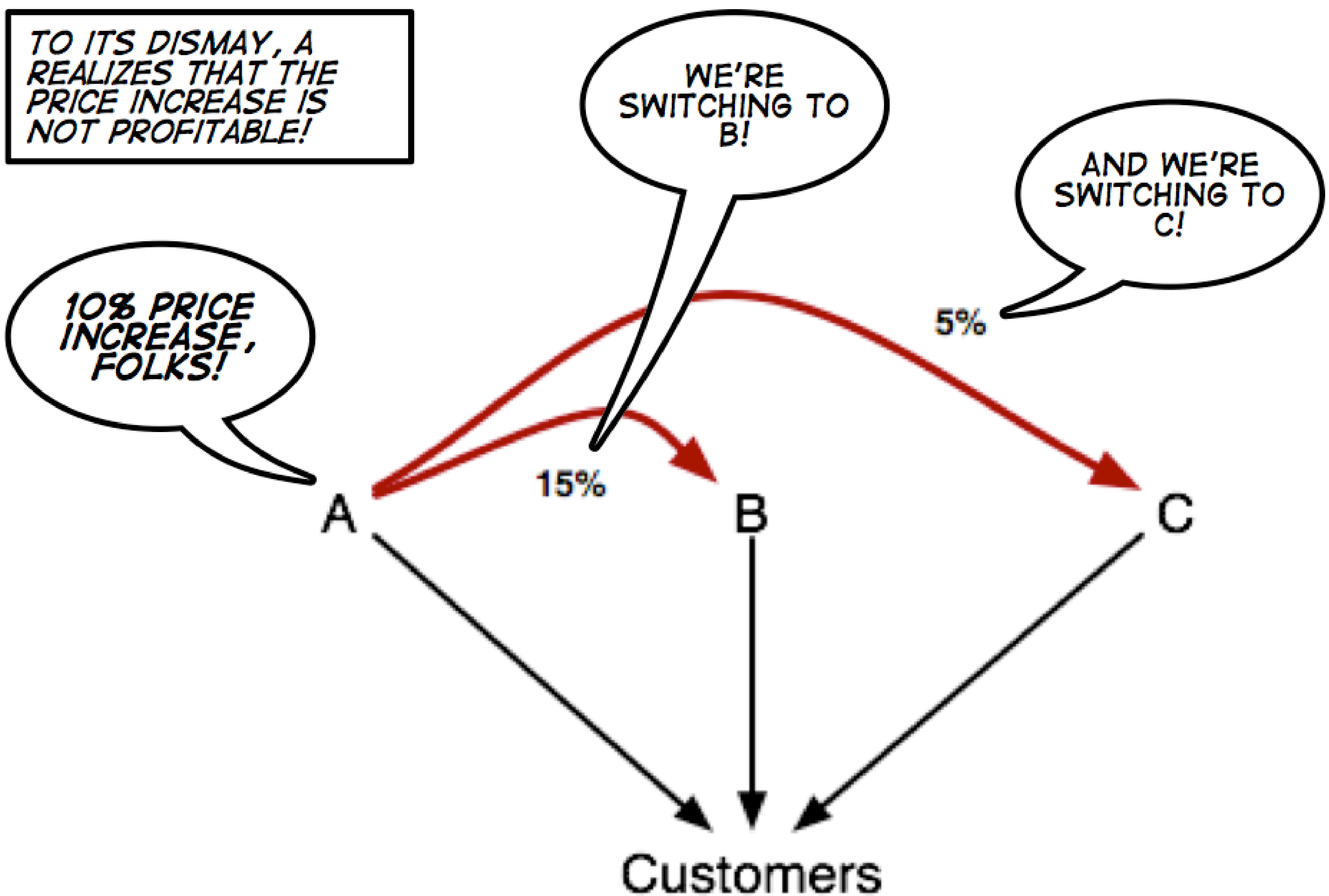
Preview: Coordinated and unilateral effects

- Coordinated effects: After the merger, collusion among the remaining competitors to raise prices is more likely than before.
  - "Imagine that today the VPs of Sales of companies A, B, C, and D get together and try to set up a cartel. Would that work? Now imagine the same thing after A merges with D. Would it work? Would it be easier? Why? Why not?"
- Unilateral effects: After the merger, the combined company will be able to profitably raise prices all by itself.
  - "If you controlled the price for both product A and product B, could you raise prices for your product A in a way that you can't today? How about for their product B?"

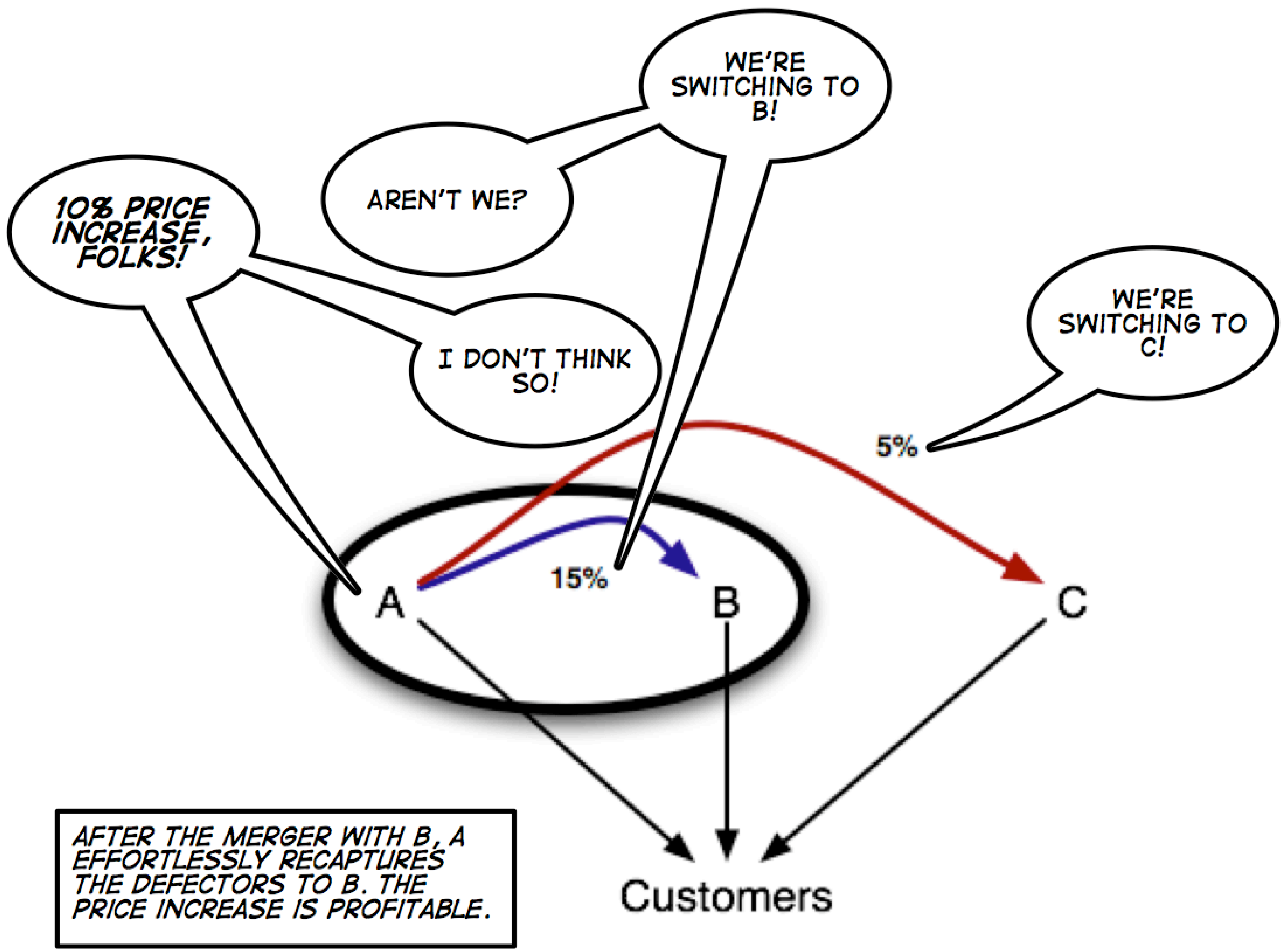
Preview: Coordinated effects

- A, B, C are high cost, high-price firms. D is a new low-cost, low-price entrant.
- Can A, B, C, and D agree on a price fixing cartel?
  - Probably not, because D has no incentive to do so.
- What if A acquires D? Can AD, B, and C agree on a price fixing cartel?
  - Probably yes, if A has a significant market share.

Unilateral effects: Before the merger



Unilateral effects: After the merger



Class 2: The Rise of the Structural Presumption

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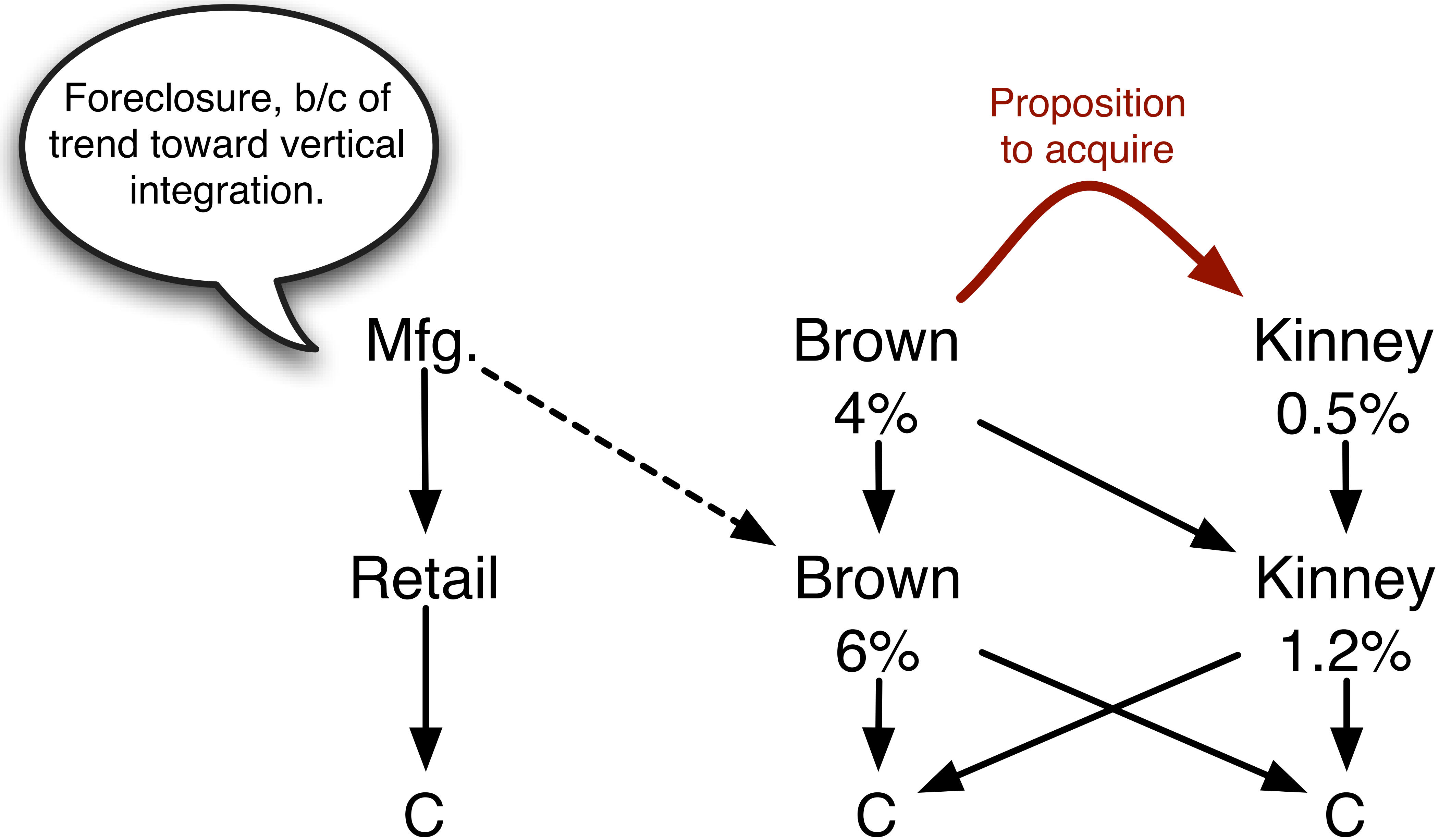
Public policy and the problem of time

- *Brown Shoe v. U.S.*, 370 U.S. 294 (1962)
  - Origin of the vexing "competition, not competitors" formula
  - One of the most significant AT policy statements by the Supreme Court
- *U.S. v. PNB*, 374 U.S. 321 (1963)
  - The "structural presumption" is an attempt at solving the problem of time

Brown Shoe (1962)



Brown Shoe v. US, 370 US 294 (1962)

Policy goals (1962)

- Congress wanted to "stem the rising tide of economic concentration in the American economy."
- Retaining "local control" over business
- Protection of small business
- Counter threat from concentration of economic power "to other [= non-economic] values."
    - The 1950 Amendment to §7 was in part a reaction to the collaboration of the German industry with the Nazi government

“Competition, not competitors”

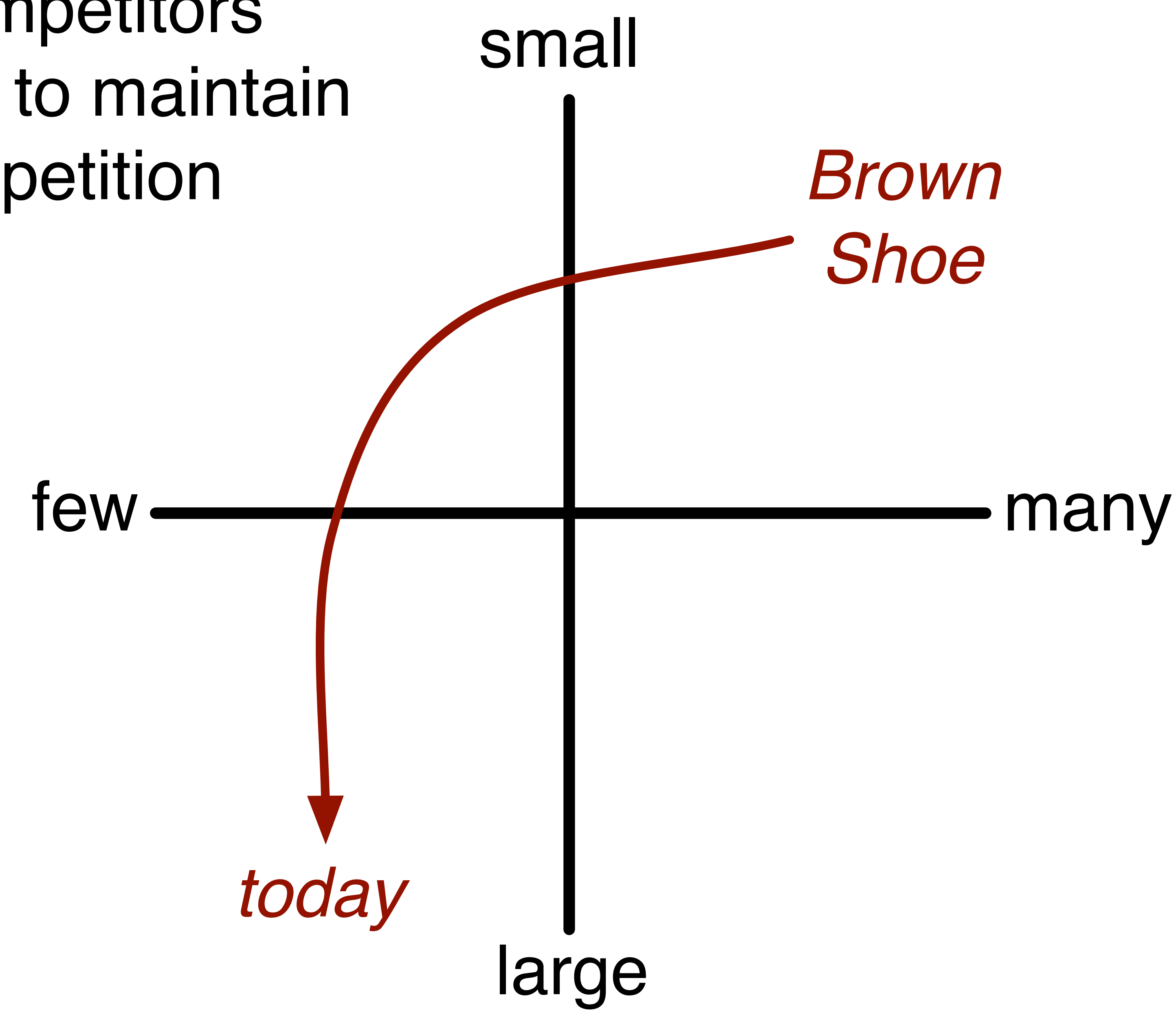
- Vexing statement, because there is no competition without competitors.
    - At some point you have to start protecting competitors in order to protect competition.
- The “competition, not competitors” formula appears twice in *Brown Shoe*.
    - First appearance: pro-competition
    - Second appearance: pro-competitor

Solving the *Brown Show* puzzle

- Protecting "competition, not competitors" means:
  - Protecting a competitor's profits is a secondary objective. It is a *means* to protect consumers from overcharges.
  - Section 7 protects competitors only if their continued survival is required to maintain competition

How many competitors are required?

Number and nature of competitors required to maintain competition

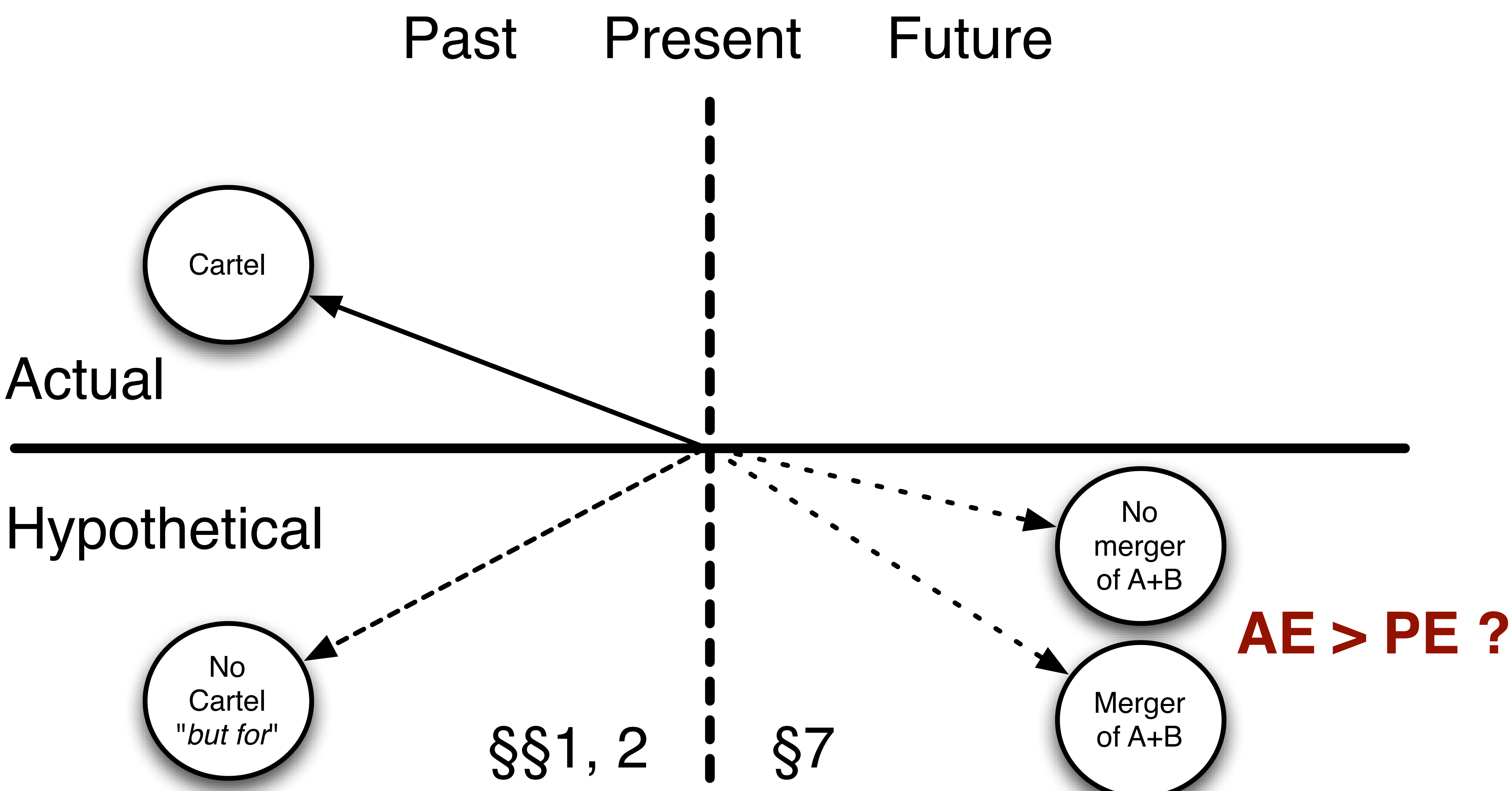


PNB and the problem of the future in the law

- From *ex post* regulation of harm to *ex ante* prevention of risk
    - Dramatic shift in post-WW II jurisprudence (EPA, FDA, etc.)
- The law has no tools to make predictions
- Consequently, lawyers turned to science, including economics

U.S. v. Philadelphia Natl. Bank, 374 U.S. 321 (1963)

Comparing two future counterfactuals



Uncertainty and judicial restraint

- Economic predictions are hit or miss
  - You wouldn't have much confidence in an analyst predicting the stock price of Exxon and Mobil four years out. Why would a court be better equipped to make even more difficult predictions about the development of the market after a merger of Exxon and Mobil?
- Judicial restraint acknowledges the magnitude of the problem
  - *Per se* rules (legality or illegality, type 1/2 errors)
  - Presumptions (e.g., structural presumption)
  - Predictability
  - Administrability

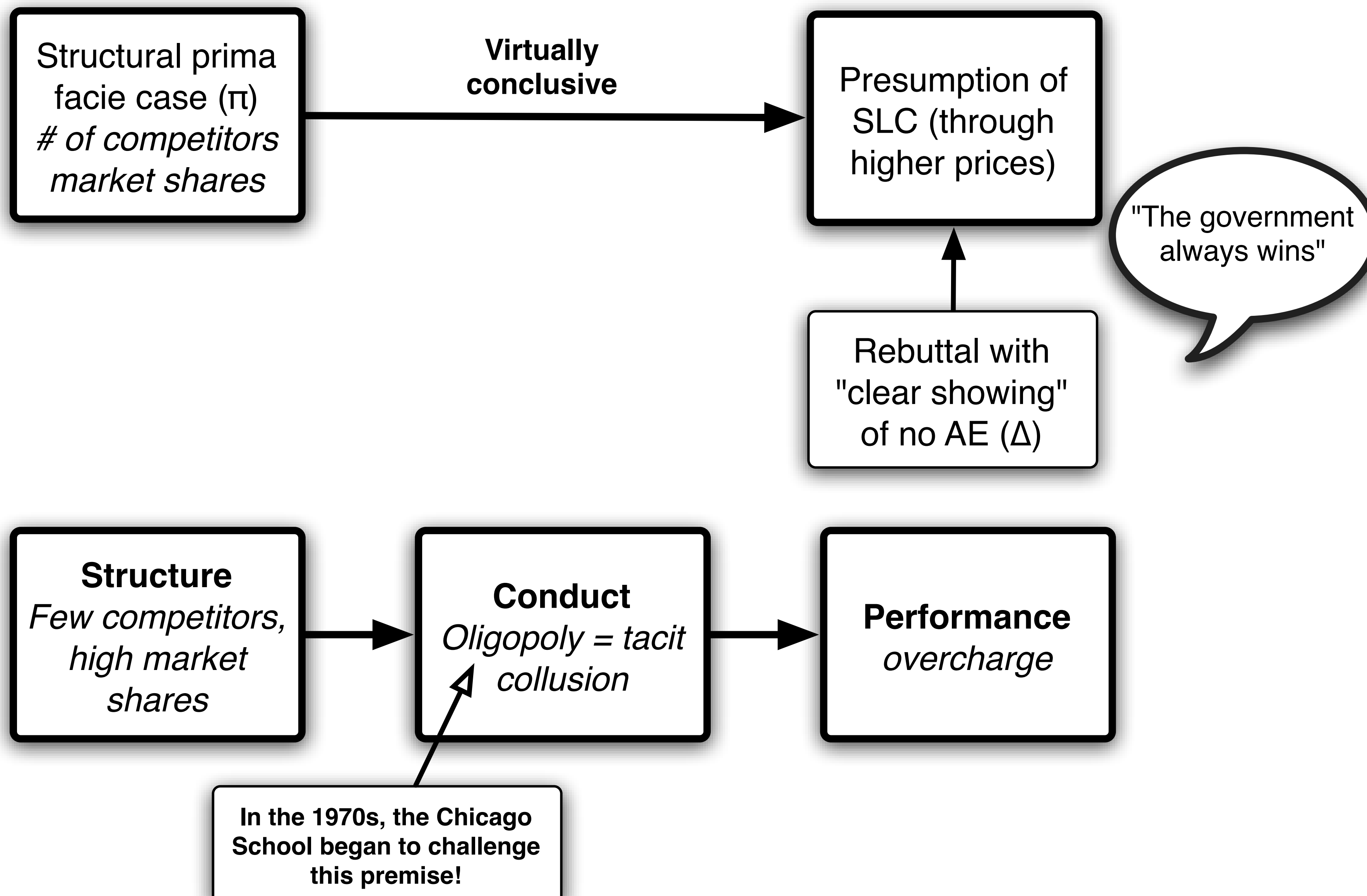
PNB's justification for a structural presumption

1. §7 requires courts to predict competitive conditions in the future
2. That prediction must be based on the structure of the relevant market
3. Even if (2) is not perfect, losses from type 1 errors will be outweighed by welfare gains in predictability and judicial administrability

Structural presumption and SCP paradigm

Supreme Court in PNB

Economic theory at the time



Class 3: Modifications to the Structural Presumption

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Modifications to the Structural Presumption

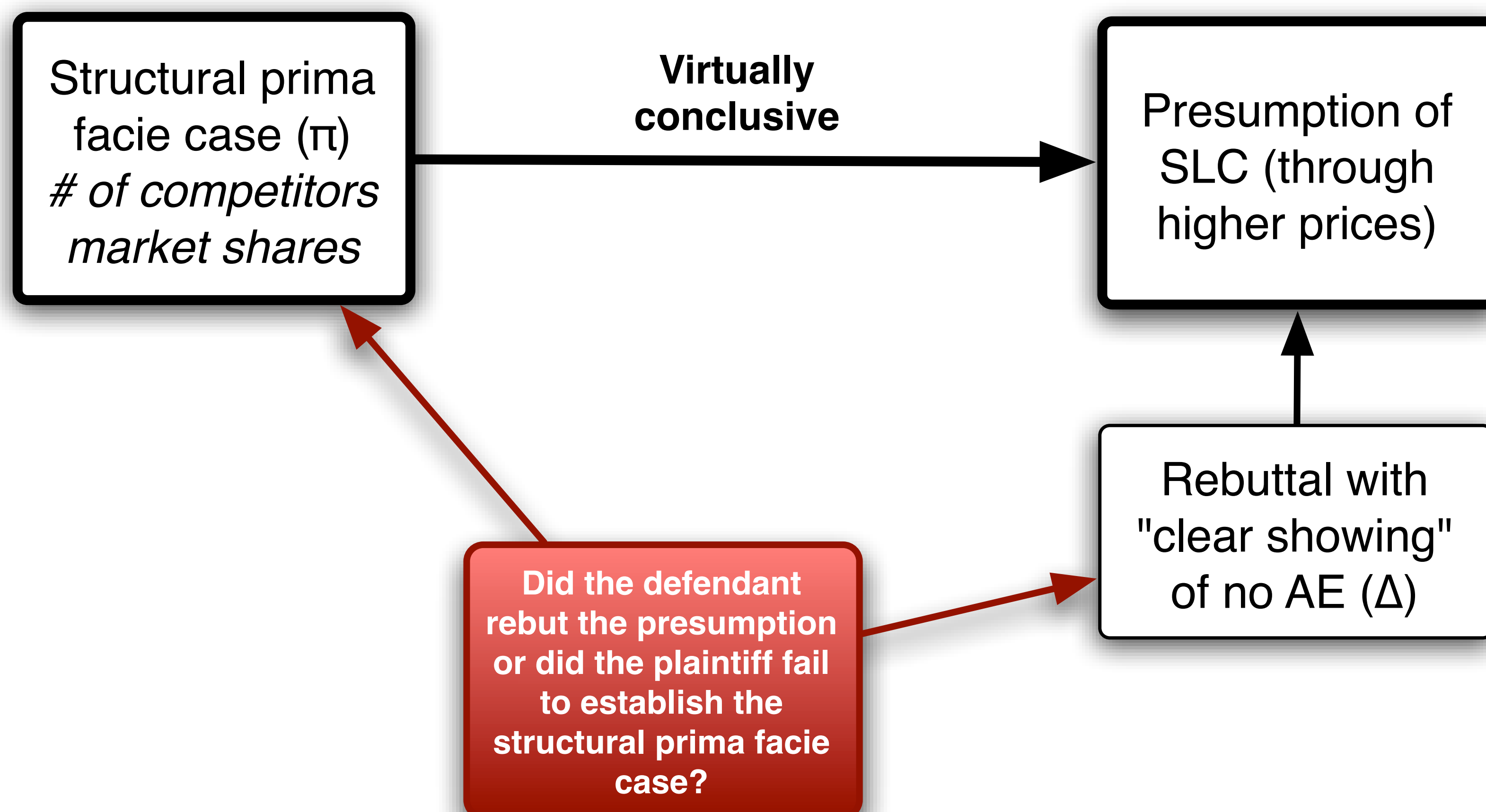
- *U.S. v. General Dynamics* (1974)
  - The first case since *Brown Shoe* (1962), in which the government didn't win (Stewart)
  - Successful rebuttal (Δ *won*) or failure to establish the facts required to trigger the structural presumption (π *lost*)?
- *U.S. v. Baker Hughes* (1990)
  - The structural presumption meets the "totality-of-the-circumstances" test (Thomas, Ginsburg)
- *FTC v. Heinz* (2001)
  - The structural presumption today. Modified, *yes*. Dead, *no*.

U.S. v. General Dynamics (1974)

- In 1959, General Dynamics acquired United Electric. Both companies produced coal. DOJ challenged the acquisition, because *in terms of present production*, the C4 in the Illinois region was 75% in 1967, up from 55% in 1957. The District Court ruled in favor of GD, the Supreme Court (Stevens) affirmed, because United's *uncommitted reserves* were negligible.
  - Eight years earlier, in *Von's Grocery* (1966) Justice Stewart had written in dissent that the "sole consistency ... is that in litigation under §7 cases, the Government always wins."
- Does *General Dynamics* depart from *PNB* (1963)?

Victory for defendant or loss for plaintiff?

General Dynamics



General Dynamics doesn't depart from *PNB*

- The structural presumption remains firmly in place

  The government may "rest its case on a showing of even small increases of market share or market concentration in those industries or markets where concentration is already great or has been recently increasing." (Citing *PNB*).

- But in this case, the government failed to establish the factual predicate to *trigger* the presumption

  Because coal is sold under long term contracts, *present production* only reflects the results of *past competition*. Uncommitted reserves is the correct measure for a firm's "probable *future* ability to compete." Thus, DOJ relied on the wrong measure and no presumption is triggered.

- This reading of *General Dynamics* is controversial.

The so-called "*General Dynamics* defense"

- In the trade, *General Dynamics* also stands for a common argument to defend a proposed merger, namely that, while not a failing firm under the 1992 Merger Guidelines, *the target is unlikely to be significant competitive force going forward*.
  - Example: Earth imaging satellite companies A, B, and C depend on government contracts for their operations. After the government awarded all contracts to A and C, A proposes to buy B. The merger is unlikely to substantially lessen competition, because of B's significantly weakened position.

In 1975 the Supreme Court decided the last §7 case

- Supreme Court merger precedents are at least 30 years old. Today, many of these cases are *de facto* obsolete (e.g., *Von's Grocery*), but they are still on the books and in a formal sense "good law."
- On the basis of Supreme Court merger cases from 1962-1974, we would have to conclude that:
  - Plaintiffs can establish a structural presumption of illegality based on (i) combined post merger market shares of ~5% (*Pabst*); and (ii) a trend toward concentration. (*PNB*).
  - The presumption based on market shares is virtually conclusive (*PNB*), provided that the market shares reflect likely future competitiveness. (*General Dynamics*)
  - If push comes to shove, decentralization trumps efficiency. (*Brown Shoe*).

Read the excellent "Sound of Silence" Sidebar on pp.439-441

U.S. v. Baker Hughes (1990)

In 1989 Tamrock proposed to acquire Secoma. Both T and S made and sold underground drilling rigs in the US. In1988 the combined firms had a 76% share of the US market. The post-merger HHI was 4,303 (+ 1,427). DOJ challenged the acquisition under §7 and lost in the District Court. The D.C. Cir. (Thomas, Ginsburg) affirmed.

DOJ argued that to rebut its structural *prima facie* case, Δs must make a "clear showing" (= evidentiary standard) that market "entry by competitors would be quick and effective." (= substantive standard) The D.C. Cir. rejected both propositions.

U.S. v. Baker Hughes, 908 F.2d 981 (D.C.C. 1990)

“Convenient starting point”

- *Baker Hughes 1*: From a virtually conclusive presumption to a “convenient starting point”

  “ That the government can establish a prima facie case through evidence on only one factor, market concentration, does not negate the breadth of this analysis. Evidence of market concentration simply provides a convenient starting point for a broader inquiry into future competitiveness.”

  “The Supreme Court has a adopted a totality-of-the-circumstances approach to the statute, weighing a variety or factors to determine the effects of particular transactions on competition.”

Rebuttal and "totality of the circumstances"

- *Baker Hughes 2*: Rebuttal is not limited to a *General Dynamics*-style attack on the predicate for the structural presumption

  "A defendant can make the required showing by affirmatively showing why a given transaction is unlikely to substantially lessen competition [= departure from *PNB*], or by discrediting the data underlying the initial presumption in the governments favor [= *General Dynamics* approach].

- *Baker Hughes 3*: A "totality of the circumstances" is relevant for the rebuttal (and the affirmative case)

  Really?

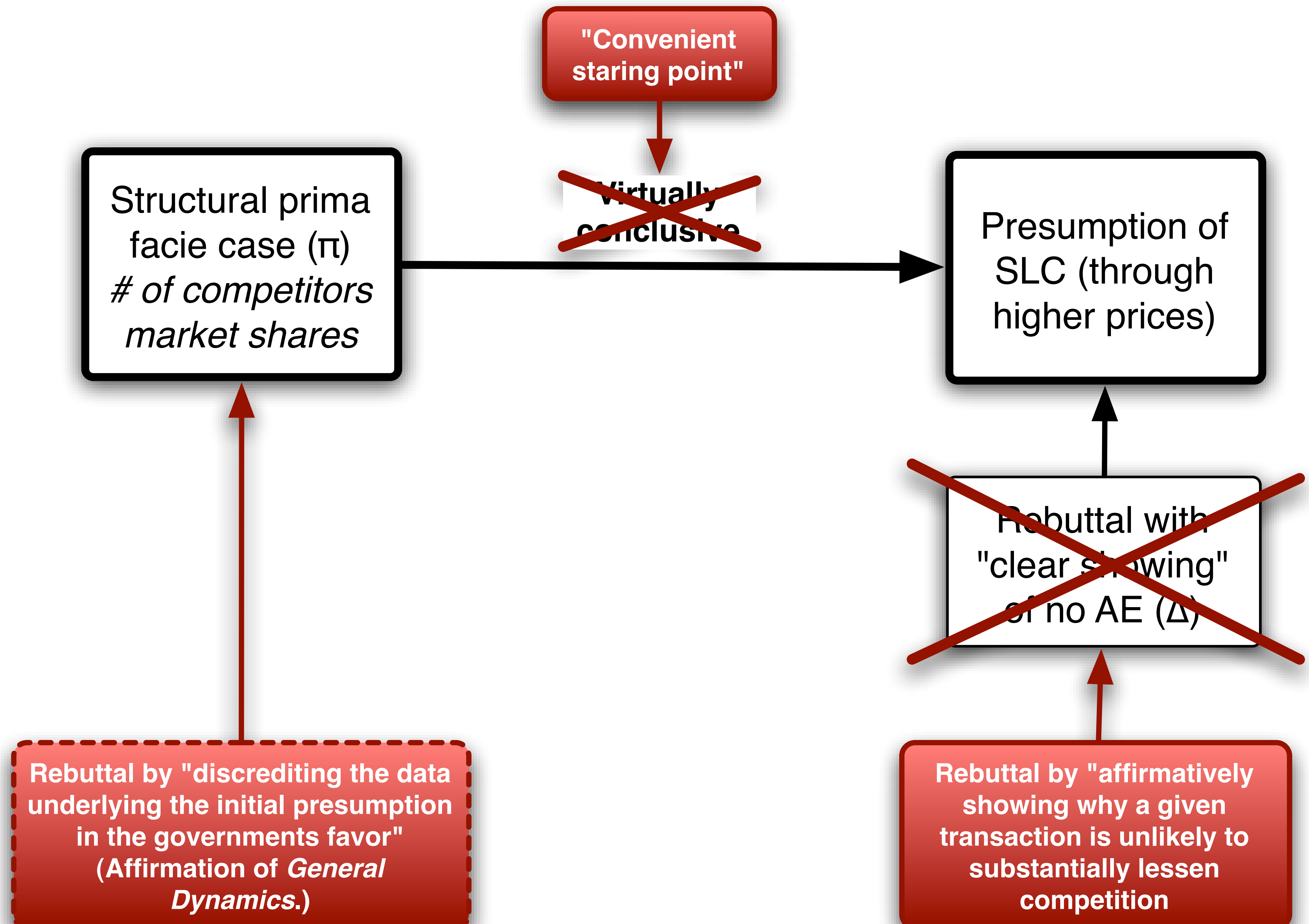
  "The Supreme Court has a adopted a totality-of-the-circumstances approach to the statute, weighing a variety or factors to determine the effects of particular transactions on competition.

The evidentiary standard doesn't favor the plaintiff

Baker Hughes 4: A clear showing is *not* required

- "Imposing a heavy burden of production on the defendant would be particularly anomalous where, as here, it is easy to establish a prima facie case."
- "We conclude that a 'clear' showing is unnecessary, and we are satisfied that the district court required the defendant to produce sufficient evidence."

Baker Hughes modifies the structural presumption

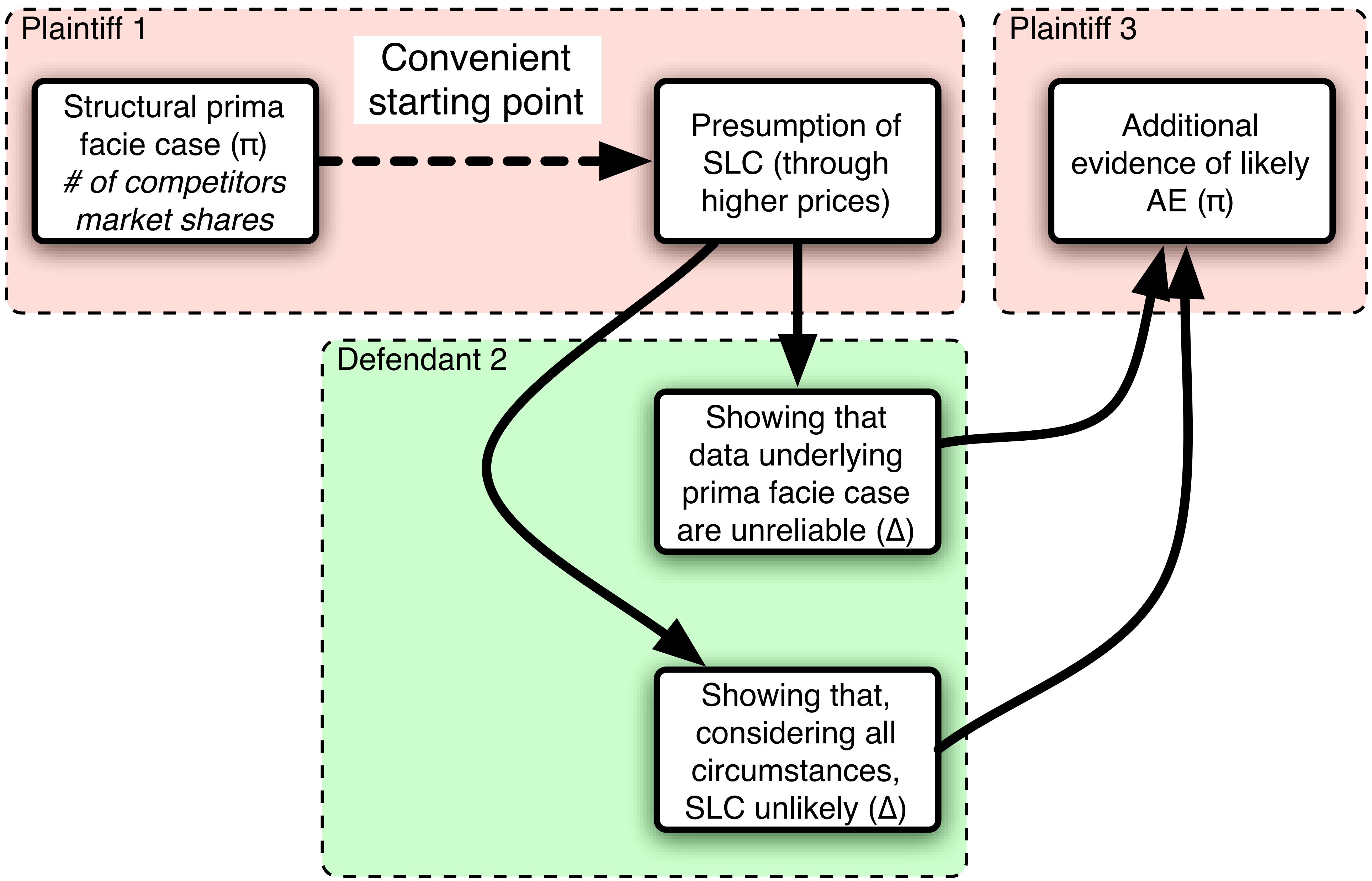


Baker Hughes: A modern burden-shifting approach

- *Baker Hughes 5*: Introduction of the modern, burden shifting approach

  "By showing that a transaction will lead to undue concentration ... the government establishes a presumption that the transaction will substantially lessen competition. The burden of producing evidence to rebut this presumption then shifts to the defendant. If the defendant successfully rebuts the presumption, the burden of producing additional evidence of anticompetitive effect shifts to the government, and merges with the ultimate burden of persuasion, which remains with the government at all times."

The post-*Baker Hughes* §7 framework



FTC v. Heinz (2001)

In 2000, Heinz proposed to acquire Beech-Nut. Both companies make baby food. Gerber (#1) has a 65% market share, Heinz (#2) has a 17.4% market share, and Beech-Nut (#3) has a 15.4% market share. Gerber is on the shelf in 90% of all US supermarkets, Beech-Nut in 45%, and Heinz in 40%. Geographically, Heinz and Beech-Nut tend to be strong in different regions. Heinz and Beech-Nut compete for "the second position on the supermarket shelves." (Note that most supermarkets only carry two brands.)

The FTC challenged the acquisition. The district court ruled in Heinz/Beech-Nut's favor and denied the preliminary injunction. The D.C. Cir. reversed and granted the injunction.

FTC v. Heinz, 246 F.3d 708 (D.C. Cir. 2001)

Prima facie case and rebuttal evidence

<table>
<tr><th>Prima facie case</th><th rowspan="1">Rebuttal evidence</th></tr>
<tr><td>(i) 3 to 2 merger
(ii) High HHIs</td><td rowspan="3">SLC unlikely, because
(i) only limited competition at the retail level
(ii) efficiencies will lower costs and allow merged firm to more aggressively compete with #1 (Gerber)</td></tr>
<tr><th>Further evidence</th></tr>
<tr><td>(iii) High entry barriers</td></tr>
</table>

Key difference to *Baker Hughes*

Class 4: Market Definition I
Relevant markets and participants

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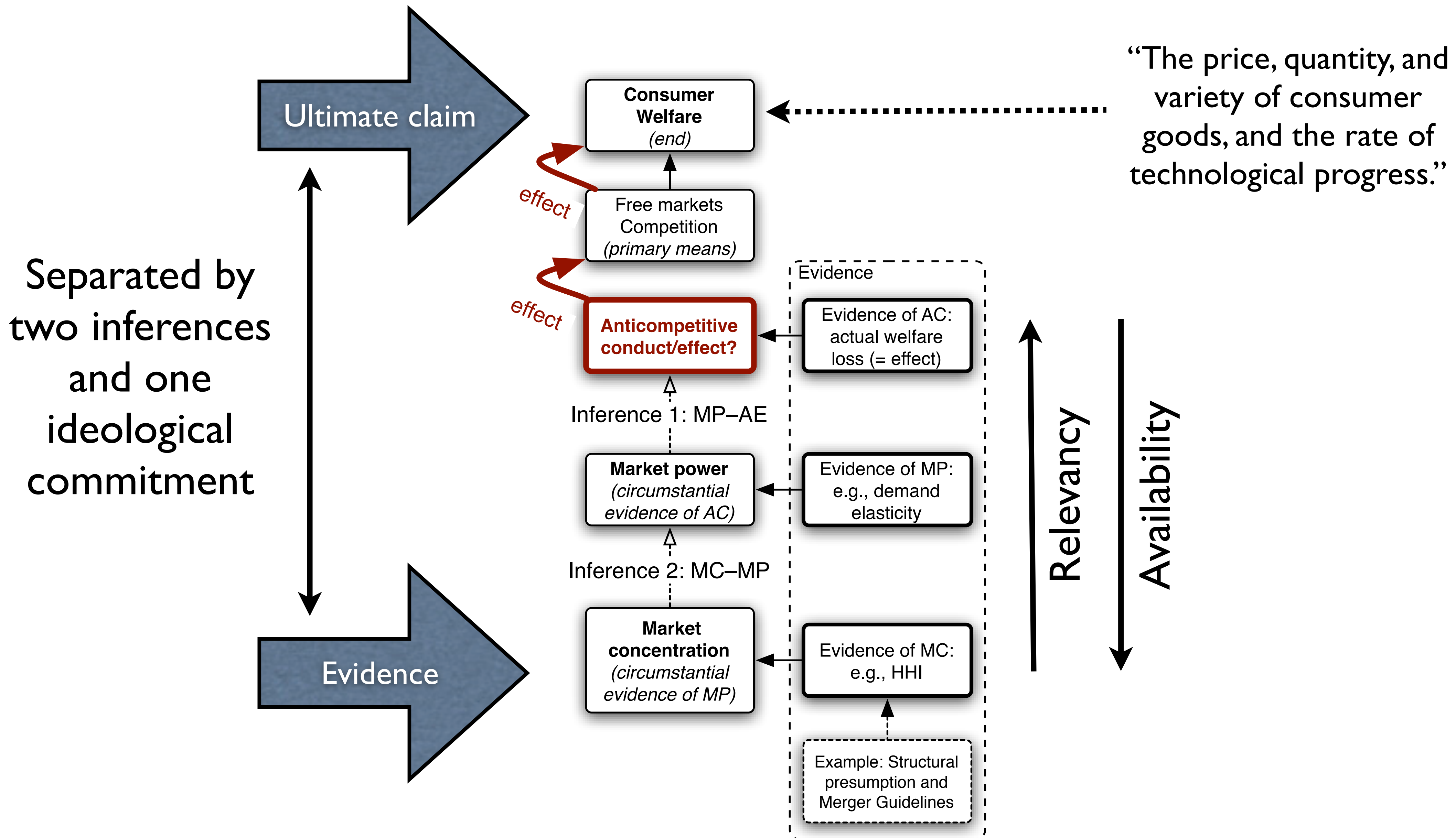
Why market definition?

- What we really want to know is whether the merger will diminish consumer welfare
  - But evidence of *actual* welfare loss is usually not available in the context of *ex ante* merger analysis
- High market concentration provides *circumstantial evidence* of anticompetitive effects (see next slide)
  - Trade-off between *relevance* and *availability* of evidence
  - In order to determine the market concentration, we need to know (i) the relevant market, (ii) the number of competitors in that market, and (iii) each competitor's market share

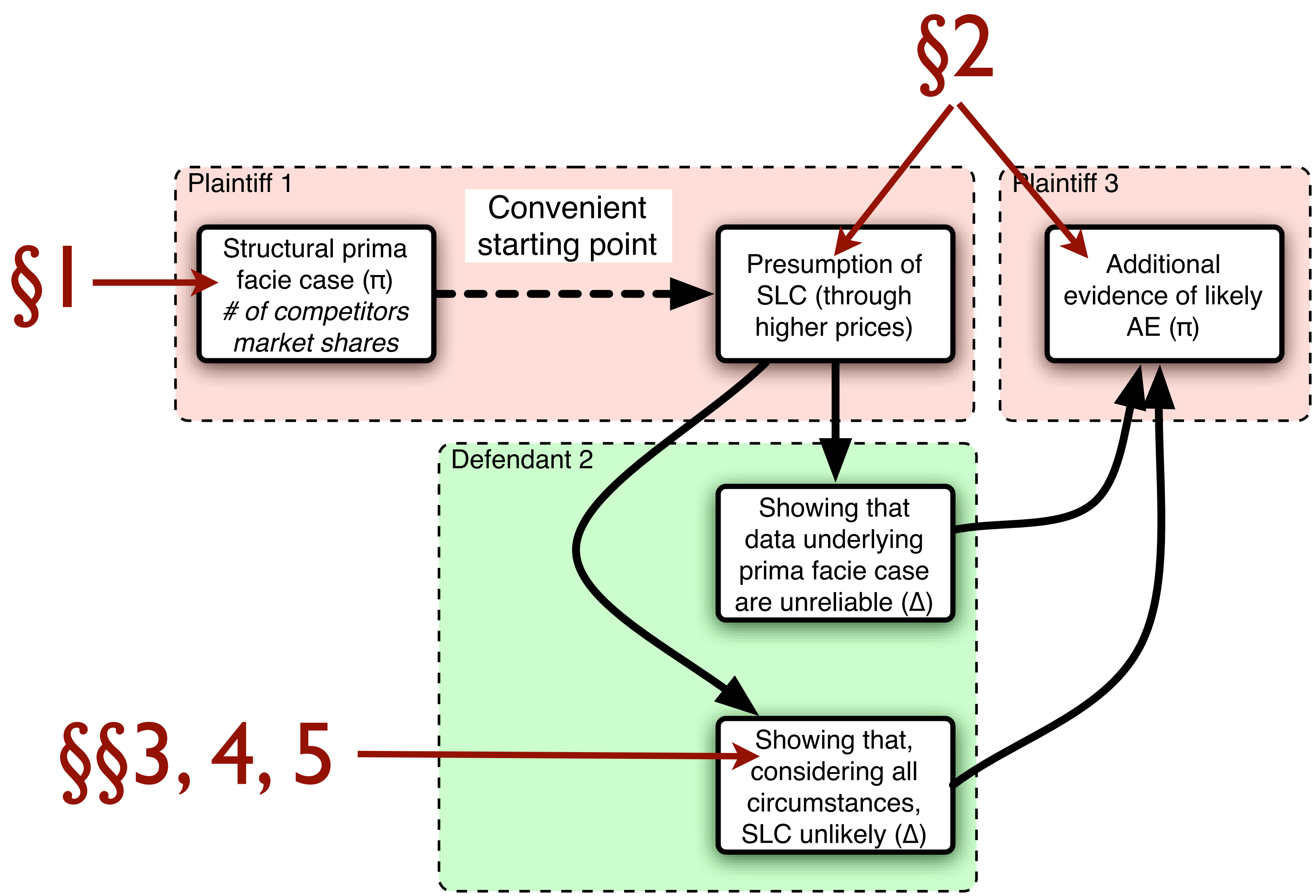
The relative remoteness of market definition



The 1992 Horizontal Merger Guidelines

- Five prong analytical framework, employed by FTC and DOJ
  - §1 Market concentration
  - §2 Anticompetitive effects (coordinated, unilateral)
  - §3 Entry sufficient to counteract/deter §2
  - §4 Procompetitive efficiencies
  - §5 Failing firm
- Not binding on the courts or the agencies *in court*
- 1984 Guidelines govern DOJ's vertical merger analysis

The Guidelines and the SP address similar issues



Product market: HM, SSNIP, and own elasticity

Not profitable
Not a market

10% price increase
30% drop in quantity

P1

Step 1: The hypothetical monopolist (HM) raises prices by 10% and loses 30% of its customers. The price increase is not profitable. (Price elasticity of demand = 3). P1 is not a relevant product market.

Not profitable
Not a market

10% price increase
20% drop in quantity

P1
P2

Step 2: We add another product, P2. The HM increases price for P1 and P2. Still not profitable.

Not profitable
Not a market

10% price increase
15% drop in quantity

P1
P2
P3

Step 3: Yet another product, P3. The HM increases price for P1, P2, and P3. Still not profitable.

Profitable
= Market

10% price increase
8% drop in quantity

P1
P2
P3
P4

Step 4: Finally, after adding P4, a price increase over P1, P2, P3, and P4 would be profitable. (Price elasticity of demand = 0.8). The relevant product market consists of P1, P2, P3, and P4.

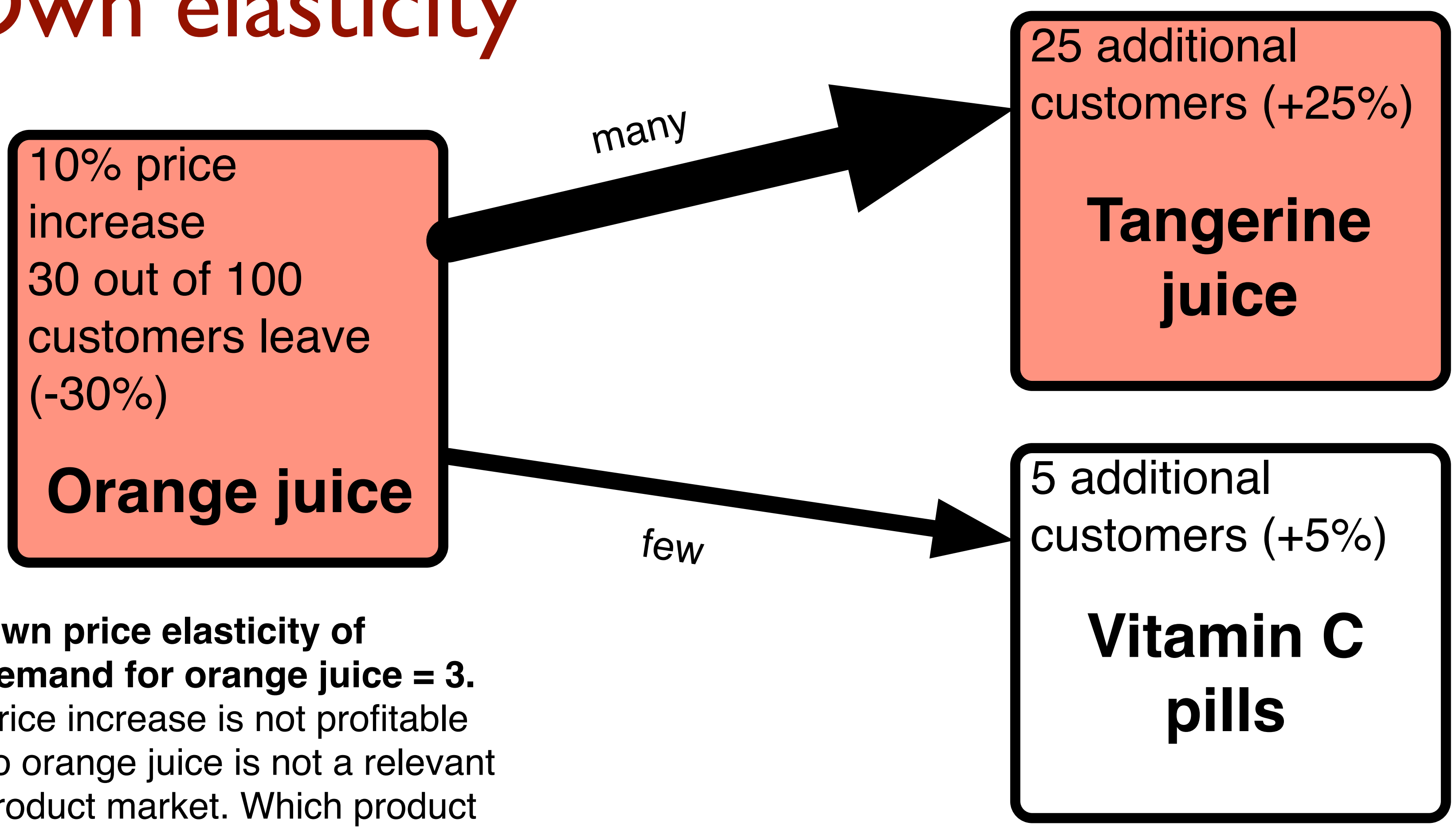
Note that the focus on revenues is only the first step. The question of profitability also depends on costs. A complete analysis would have to calculate the *critical loss*.

How do we know which products to add?

- The hypothetical monopolist (HM) + SSNIP test identifies relevant markets using the *own price elasticity of demand* for the HM's products (P1, P2, P3, P4)
  - The own price elasticity only tells us that if prices go up by p%, then q% of the customers *go elsewhere*. It doesn't tell us *where* they are going. That's where *cross-elasticity* of demand comes in.
- Cross elasticity helps us identify products to add to the candidate markets (P2, P3, P4)
  - E.g., high cross-elasticity suggests adding tangerine juice (P2) *but not milk* to orange juice (P1)

Using own and cross price elasticity of demand

Own elasticity



If price for orange juice goes up by 10%, quantity demanded of tangerine juice goes up by 25%. **Cross-price elasticity of demand for tangerine juice = 2.5.** Tangerine juice should be included in the next candidate market, consisting of orange and tangerine juice.

If price for orange juice goes up by 10%, quantity demanded of vitamin C pills goes up by only 5%. **Cross-price elasticity of demand for tangerine juice = 0.5.** Vitamin C pills should not be included in the candidate market (*at least not yet!*)

Own price elasticity of demand for orange juice = 3. Price increase is not profitable so orange juice is not a relevant product market. Which product should be added to the candidate market for the next HM + SSNIP iteration?

Cross elasticity

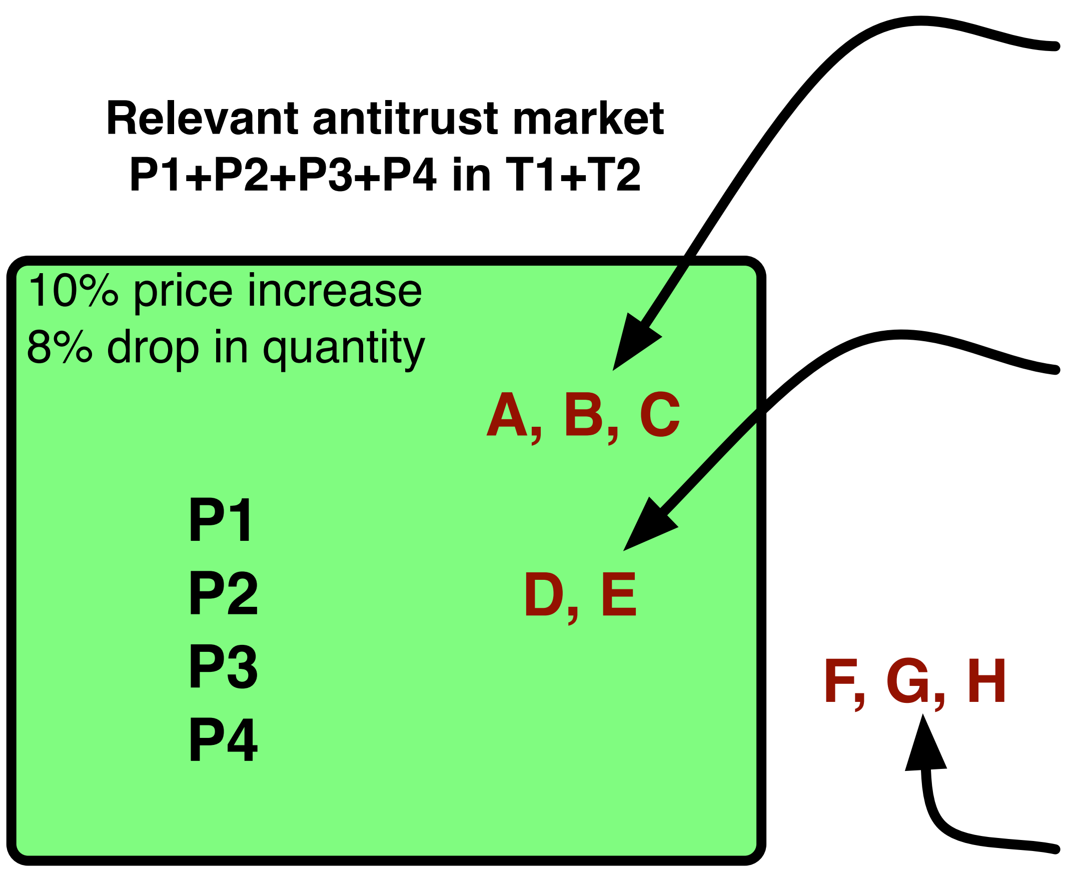
Note: The 30 customers = 30%, 25 customers = 25%, etc. numbers are for illustration only. What counts are the %, not the absolute numbers. Similarly, what's significant is the decrease in *quantity demanded*. Losing "customers" is just a commonly used shorthand for a drop in quantity demanded..

Geographic market definition: Same test

- Take the set of relevant products (P1, P2, P3, P4)
- Start with the smallest reasonable candidate territory (T1). Would a SSNIP by the HM for P1, P2, P3, and P4 in T1 be profitable?
  - Depends on how many customers who are presently purchasing from within T1 would switch to sources located outside of T1 (*own price elasticity of demand*)
- If not, expand the territory (T1, T2...Tn) and repeat, until the price increase would be profitable
  - Identify candidates for T2...Tn based on *cross price elasticity of demand* (if prices in T1 go up, demand in T2 increases)

Identifying market participants

Relevant antitrust market P1+P2+P3+P4 in T1+T2



A, B, and C are firms that currently make or sell P1, P2, P3, or P4 in T1+T2
(= **actual competitors)**

D and E are firms that don't currently make or sell but could start making or selling P1, P2, P3, or P4 in T1+T2 in less than one year without having to incur significant sunk costs in response to a SSNIP
(= **uncommitted "hit & run" entrants)**

F, G, and H are firms that don't currently make or sell but could start making or selling P1, P2, P3, or P4 in T1+T2 in response to a SSNIP, but not within one year or without incurring significant sunk costs.
(= potentially **committed entrants)**

Note: Committed entrants will be considered in the entry analysis (§3)

Beware of the *Cellophane* fallacy

U.S. v. E. I. du Pont de Nemours, 351 U.S. 377 (1956)

- Δ's argue: "Because P2 is a good substitute for P1, there is no market power for P1." (*Cellophane* fallacy)
  - The mere fact that demand for P2 goes up by 20% in response to a 10% price increase of P1 (= high cross elasticity of demand) doesn't imply that P2 is a good substitute for P1 *at the competitive price*. It only tells us that *at the prevailing price* P2 is a good substitute for P1.
  - The prevailing price, however, may well be the *monopoly price!*
- The *Cellophane* fallacy is less of a problem in *ex ante* merger analysis, because of its focus on *incremental market power gains* from the *proposed* merger

Class 5: Market Definition II
Market Concentration

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The role of market concentration

- Market concentration is connected to diminished consumer welfare through a "double inference."
  - High concentration indicates market power. Market power indicates "opportunity and motive" to diminish consumer welfare (Class 5)
- Measuring market concentration requires
  - Market definition (Class 5)
  - Identification of market participants (Class 5)
  - Application of an appropriate, numerical concentration measure that captures relevant aspects of both *market structure* and *changes in the market structure* as a result of the merger

C4 fails to capture relevant structural differences

	A	B	C	D	C4
M1	25%	25%	25%	25%	100
M2	97%	1%	1%	1%	100

- Market M1 is clearly more competitive than M2
- Simply adding the market shares of the top 4 firms in each market (= C4 ratio) fails to capture this critically important difference

The Herfindahl-Hirschman Index (HHI)

	A	B	C	D	(C4)/HHI
M1	25%	25%	25%	25%	(100)
HHI (M1)	625	625	625	625	2,500
M2	97%	1%	1%	1%	(100)
HHI (M2)	9,409	1	1	1	9,412

- The HHI first *squares* and then *adds* the market shares of all firms in the relevant market
- Unlike the C4 test, the HHI *emphasizes* the relative significance of high market shares and thus captures the difference between M1 and M2

C4 fails to capture relevant changes in market structure

Merger between A and B			
Firm	Share pre	Share post	ΔC4
A	40%	70%	
B	30%	--	
C	20%	20%	
D	9%	9%	
E	1%	1%	
C4	99	100	1

Merger between A and E			
Firm	Share pre	Share post	ΔC4
A	40%	41%	
B	30%	30%	
C	20%	20%	
D	9%	9%	
E	1%	--	
C4	99	100	1

- The ΔC4 is identical for both mergers, even though the AB merger is significantly more likely to lessen competition than the AE merger

The HHI captures relevant changes in market structure

Merger between A and B			
Firm	Share pre	Share post	ΔHHI
A	40%	70%	
B	30%	--	
C	20%	20%	
D	9%	9%	
E	1%	1%	
HHI	2,982	5,382	2,400

Merger between A and E			
Firm	Share pre	Share post	ΔHHI
A	40%	41%	
B	30%	30%	
C	20%	20%	
D	9%	9%	
E	1%	--	
C4	2,982	3,062	80

- ΔHHI(AB) is 30 times greater than ΔHHI(AE), which appropriately reflects the greater likelihood of merger AB to substantially lessen competition

Putting it all together in the guidelines grid

ΔHHI / Post merger HHI	<50	50-100	>100
<1000 *low concentration*	no challenge	no challenge	no challenge
1000-1800 *moderate concentration*	no challenge	no challenge	high scrutiny
>1800 *high concentration*	no challenge	high scrutiny	presumed unlawful

I've seen this grid first in Randy Picker's (University of Chicago) lecture slides

The grid in the real world (1999-2003)

ΔHHI / Post-merger HHI	<100	100-300	>300
>2000	0/0 (0%)	0/5 (0%)	0/5 (0%)
2000-2400	0/0 (0%)	0/1 (0%)	3/11 (2%)
>2400	0/0 (0%)	2/7 (1%)	183/45 (97%)

Enforced/Closed

Enforced/
Total Enforced

"Other" Markets (excluding grocery, oil, chemicals, pharmaceuticals)
FTC Merger Challenges Data, Fiscal Year 1999-2003. (Table 3.6.)

Rules of thumb, based on FTC data

Competitors	Enforced/Closed	Risk of challenge
2 to 1	68/5	Very high
3 to 2	84/23	High
4 to 3	22/20	Medium
5 to 4	1/10	Low

The presence of hot documents and/or strong customer complaints move the 4 to 3 category from medium to high risk.

"Other" Markets (excluding grocery, oil, chemicals, pharmaceuticals)
FTC Merger Challenges Data, Fiscal Year 1999-2003. (Table 4.6.)

Summary: Applying steps 1-3

- *Example:* A, B, C and D make copper wires, which customers use for underground wiring. E, F, G, and H make aluminum wires, which customers use for above-ground wiring. Each firm sells 25 units/year, and there are no other makers of copper or aluminum wires. A proposes to acquire B. If prices for copper went up after the merger, customers would not switch from copper to aluminum. But E, F, and G would shift capacity from aluminum to copper (15, 10, and 5 units/year, respectively). The capacity switch would be quick and costless.
- *Step 1:* What's the relevant market? *Copper wires*, because aluminum wires are no substitutes (focus on the demand side).
- *Step 2:* Who are the market participants? A, B, C, D as actual producers of copper wire and E, F, G as uncommitted entrants (focus on the supply side).
- *Step 3:* What's the market concentration? The total size of the copper wire market is 130 units/year (A=25, B=25, C=25, D=25, E=15, F=10, G=5). The combined share of A and B is 38%. The post-merger HHI is 2,426 (Δ740).

The hypothetical is based on Jonathan Baker, Market Definition (2006)

Class 6: Competitive Effects, Entry, and Efficiencies

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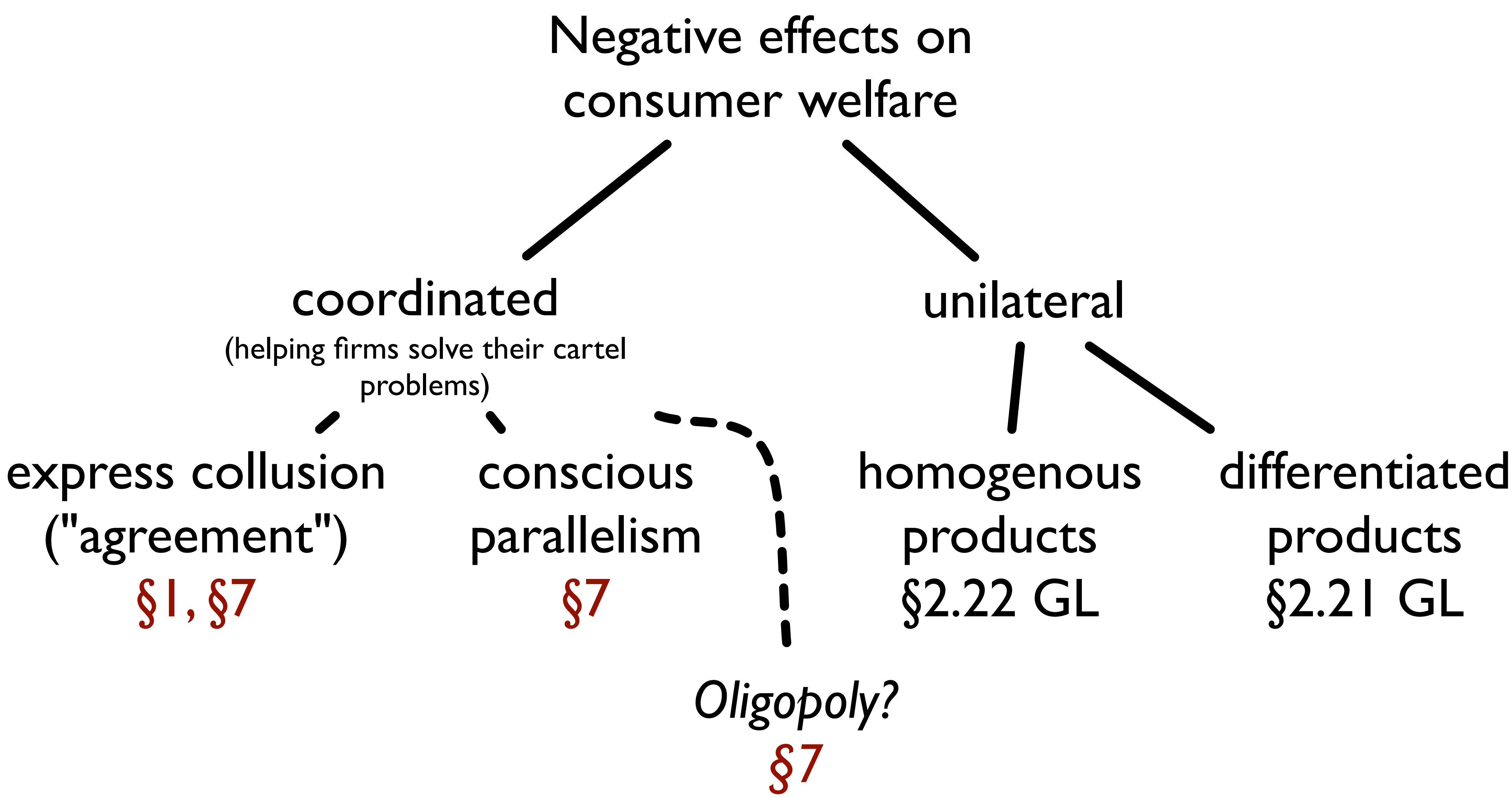
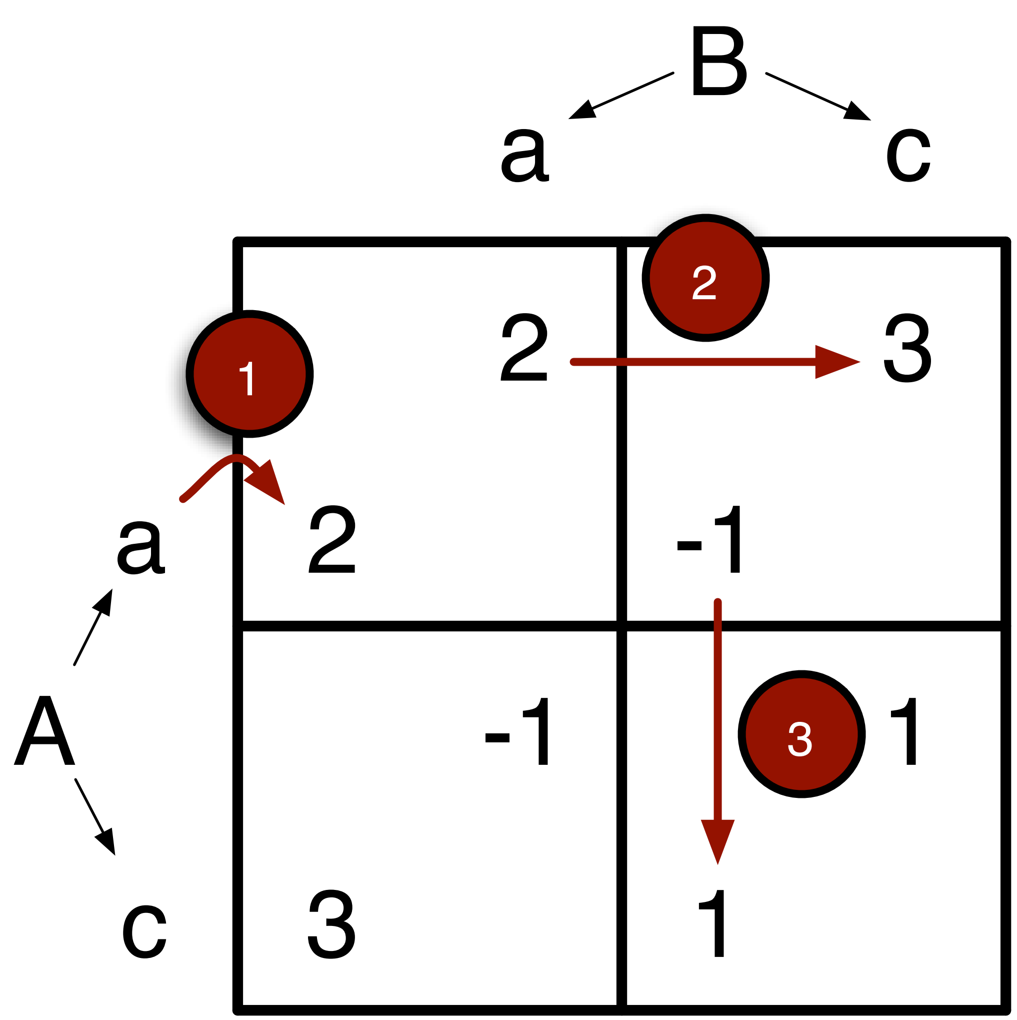
As always, the opinions expressed in these slides are mine alone.

Competitive effects



Coordinated effects: The cartel dilemma



- (1) A moves first and agrees (a) to a price fixing arrangement. Payoff for A and B (2,2)
- (2) B can improve its payoff from 2 to 3 by cheating/competing (c)
- (3) A, having been pushed into the NE quadrant, can improve its payoff from -1 to 1 by cheating/competing
- A and B are stuck in the SE quadrant (1,1). Every unilateral move yields a lower payoff (-1,-1)
- The more successful the group is at raising prices, the greater the individual incentives to cheat

Cartel problems and solutions

- *Problem 1:* Arrive at and maintain the agreement
  - *Solution:* few firms, barriers to entry (e.g., IP), personal trust, similar incentives, no mavericks, production quotas, compensation mechanism
- *Problem 2:* Detect cheating
  - *Solution:* transparent pricing, RPM, government involvement (e.g., import/export statistics, certificates of need)
- *Problem 3:* Punish cheating
  - *Solution:* excess capacity, multi-market contacts

Anatomy of a successful cartel: Vitamins, Inc.

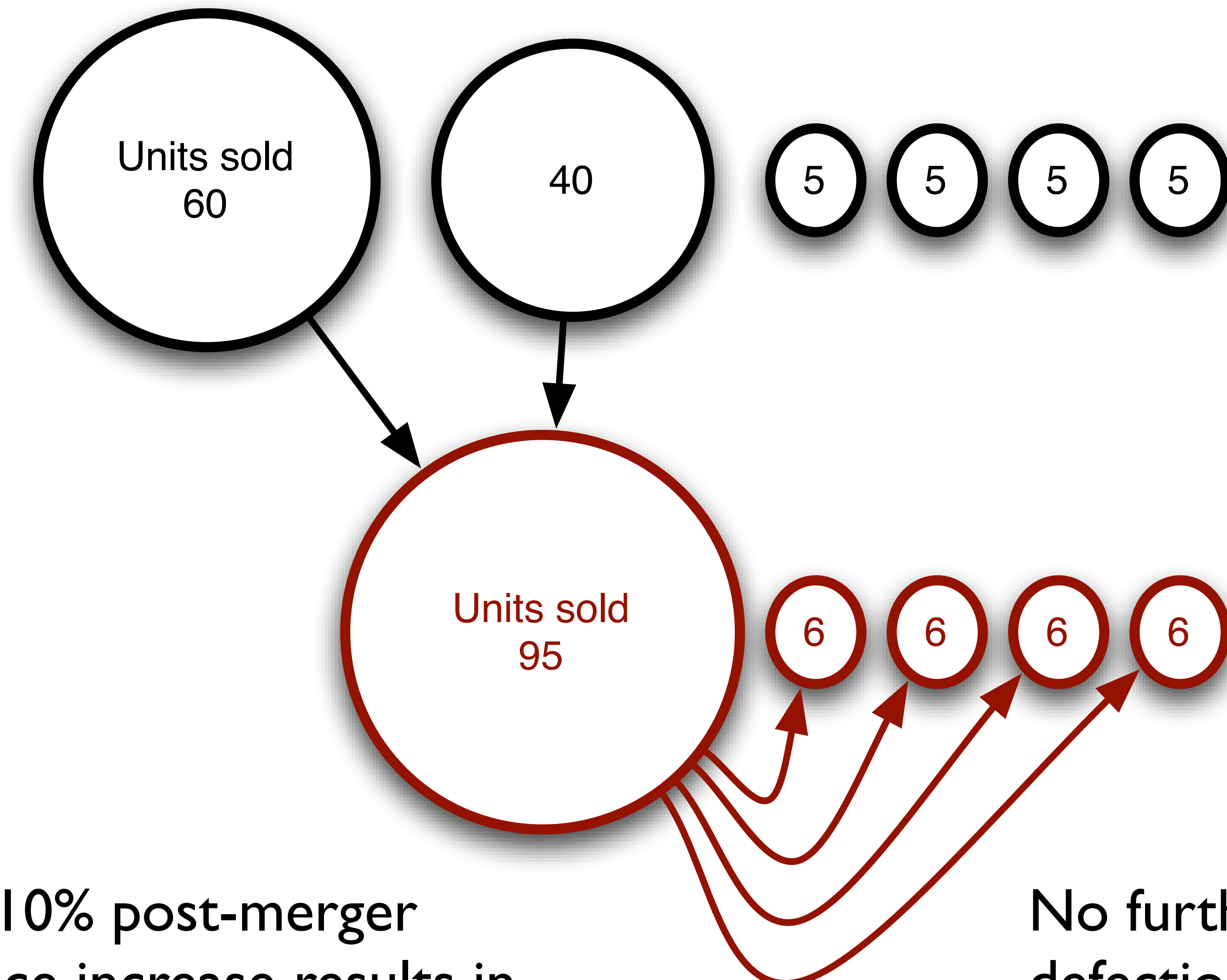
	Trade affected	Overcharge	Fines	Damages	Net gain *after prosecution*
US	$7,400	$2,200	$911	$3,397	($2,088)
Europe	$8,300	$2,905	$767	$10	$2,128
Canada	$550	$193	$100	$15	$78
ROW	$18,200	$6,370	$17	$7	$6,346
Total	$34,450	$11,688	$1,795	$5,224	$6,464

Assumptions: (1) US overcharge 30%; (2) EU, CAN, ROW overcharge 35%; (3) US damages (a) class action settlements $596; (b) opt-out settlements $2,000; (3) indirect purchasers $801; (4) EU damages $10; (5) ROW recovery in US courts $0. (For details see Conner, Extraterritoriality of the Sherman Act and Deterrence of Private International Cartels, Staff Paper 04-08, Purdue University (2004))

Unilateral effects: Homogenous products

Pre-merger

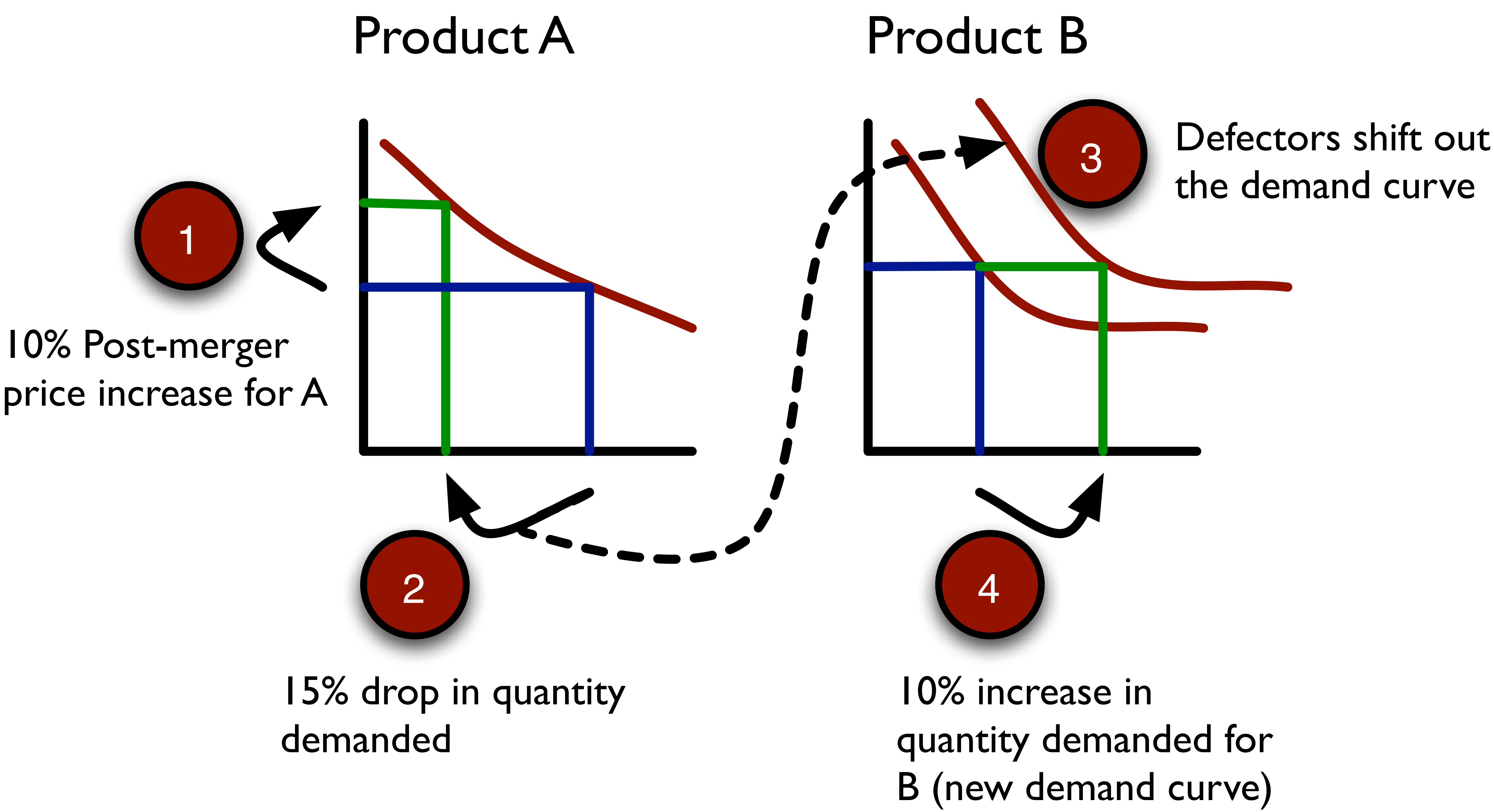
Post-merger



A 10% post-merger price increase results in a 5% drop in sales.

No further customer defection as smaller firms are capacity constrained.

Differentiated products: Capturing defectors



FTC v. Staples (1996)

FTC v. Staples, 970 F. Supp. 1066 (D.C.C. 1997)

Market A	Market B	Price levels in market A compared to B
Staples	Staples Office Depot	+11.6%
Staples Office Max	Staples Office Depot Office Max	+4.9%
Office Depot	Staples Office Depot	+8.6%
Office Depot Office Max	Staples Office Depot Office Max	+2.5%

Based on Dalkir, Warren-Boulton, Prices, Market Definition, and the Effects of Merger: Staples-Office Depot (1996), in: Kwoka, Antitrust Revolution, 4th Ed.

- Narrow (sub-) market definition

  The sale of *consumable* office supplies *through office superstores*

- High HHIs to trigger structural presumption
- Direct evidence of price effects
- "Bad" documents

  "Office superstore industry" "Big Three" "Benefits from pricing in non-competitive markets" "Margin lift as the industry moves to 2 players"

- "Bad" testimony
- Overstated efficiency claims

  Savings of $4.5-6 bn/5 years, 500% higher than in presentation to board of directors. 2/3 pass though rate despite 17% historical track record.

Entry under the Merger Guidelines (§3)

- If *committed entry is easy*, then the merger raises no antitrust concerns
- Significant sunk costs of entry and exit make entry *committed*, i.e., the entrant is in for the long haul.
- Three-prong test to determine *ease* of entry
    - *Timely* = within 2 years from initial planning to achieving significant market impact
    - *Likely* = profitable in the long run *at pre-merger prices*
    - *Sufficient* to return prices to pre-merger levels
- Some courts arguably apply a less stringent standard for entry analysis, even though *Baker Hughes* (1990) and *WMI* (1984) may be read as addressing *uncommitted* entry only.

Efficiencies (§4)

- "[P]ossible economies cannot be used as a defense to illegality." *FTC v. Procter & Gamble*, 386 U.S. 568 (1967) (*Clorox*).
- "[A]n efficiency defense ... is appropriate in certain circumstances." *FTC. v. University Health*, 938 F.2d 1206 (11th Cir. 1991)
- Under the Guidelines, efficiencies are *cognizable* only if they are
  - substantiated and verified (focus on *short-run variable cost* savings)
  - merger specific (i.e., they could not practically be achieved otherwise)
  - not the result of an anticompetitive output reduction
- A pass-through requirement is arguably *implied* in the suggestion that efficiencies must prevent price increases (*consumer* welfare focus)
- The burden of proof is effectively on the defendants, because they control almost all of the relevant evidence

Failing and flailing firms (§5)

- The Guidelines recognize a failing firm defense only under very restrictive circumstances:
  1. Failing firm about to go bankrupt
  2. Chapter 11 reorganization not feasible
  3. No other buyer
  4. But for the acquisition, the assets would exit the market
- Compare to the more lenient *General Dynamics* defense: "Flailing firm is unlikely to be a significant competitor in the future."

Class 7: The Merger Process

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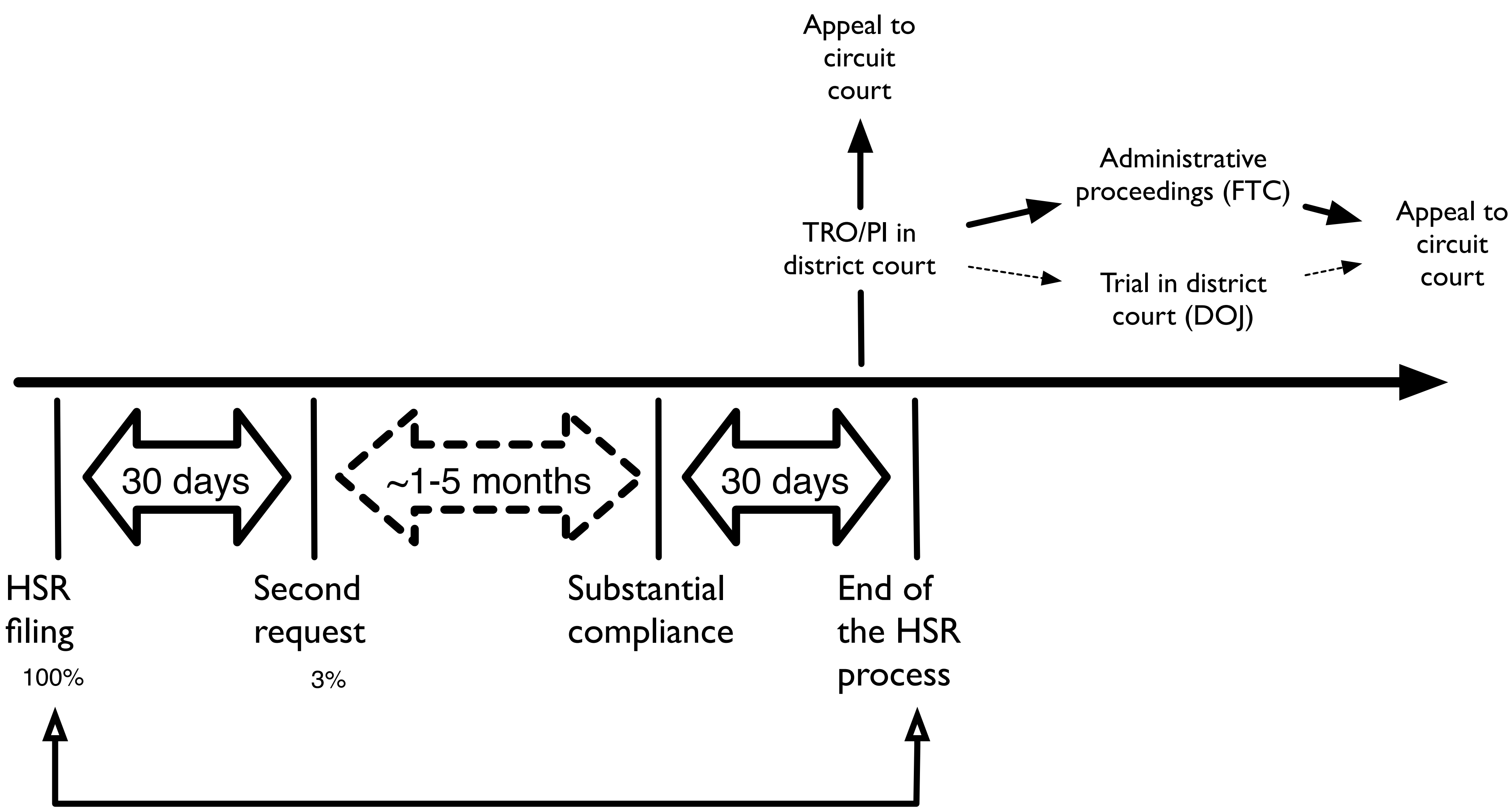
Steps, participants, and key antitrust concerns

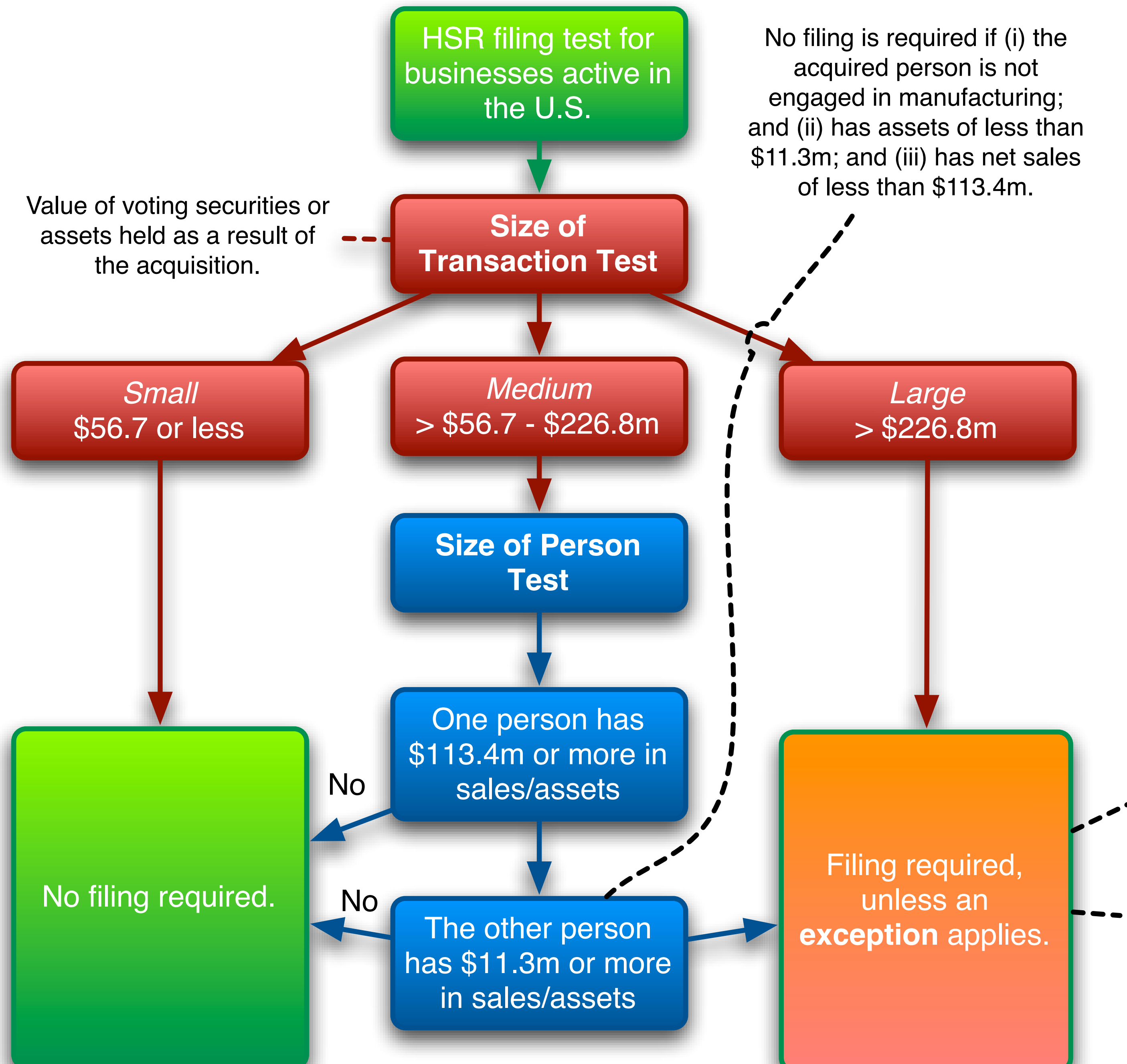
	Decision to sell (buy)	Solicitation of potential buyers (targets)	Negotiate letter of intent	Conduct due diligence	Negotiate and sign agreements	HSR process & integration planning	Closing	Integration
Management	X	X	X	X	X	X	X	X
Board of directors	X	X	X					
Investment bankers	X	X	X	X				
Lawyers			X	X	X	X	X	
Accountants				X	X		X	X
Business consultants	X					X		X
Key antitrust concerns	Creation of "bad" documents	Antitrust risk assessment		Information exchange	Risk allocation, document retention	Gun jumping, information exchange		

The (normal) pre-merger notification process



Waiting Period
(1) Consummation prohibited before termination or expiration of the waiting period.
(2) The agencies may terminate the waiting period at any time after the filing.

HSR filing requirements



Note: Even though the thresholds are adjusted for inflation, it is still common to refer to “$10/$100m persons.”

Some of the more common exceptions are:
- Acquisitions in the ordinary course of business, §802.1
- Certain acquisitions of real property, §802.2
- Acquisitions made solely for investment purposes, §802.9
- Intraperson transactions, e.g. restructuring, §802.30
- U.S. firm buys foreign assets/voting securities, §802.50
- Foreign firm buys assets or voting securities, §802.51
- Acquisitions subject to federal agency approval, §802.6

The filing fee (*acquiring person only*) is based on the value of the transaction.
If < $113.4m, then $45,000;
if $113.4m - $567m, then $125,000;
If > $567, then $280,000.

"Bad" documents

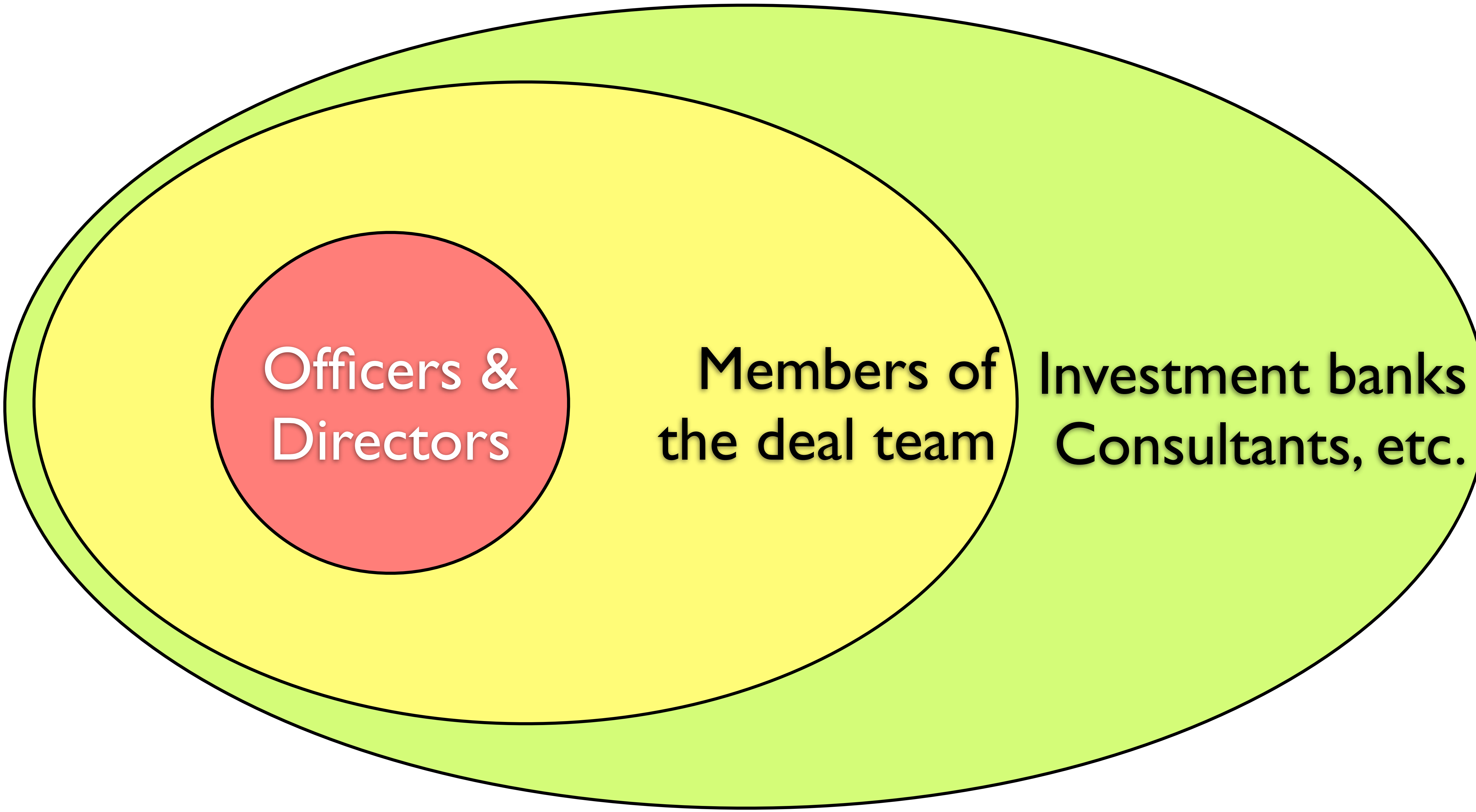
- Firms and their advisors often use terms with a specific antitrust meaning (e.g., market, leverage, entry) and inflammatory language (e.g., kill, crush, dominate, war and sports metaphors) in internal documents
- Firms tend to define "markets" around a sub-set of *key customers* or *target customers*, even though their actual customer base might be much broader
    - Gives incorrect impression of narrow *relevant antitrust markets*
- Similarly, firms tend to focus on their *primary* competitors as proxies for competition in general
    - Gives incorrect impression of high market concentration
- What's good from an investors point of view (e.g., high barriers to entry) is often cause for concern from an antitrust point of view
- Many of those documents must be submitted to the FTC/DOJ with the HSR filing (Item 4(c) documents)

Item 4(c) documents

- *Universe:* "All documents," including hardcopies, electronic documents, emails, voicemails at work and in home offices
- *Content:* Discussing markets, market shares, competition, competitors. Also expansion and potential for sales growth *of the combined company*
- *Custodians:* Prepared by or for (real) officers and directors
  - General presumption that what's in a D/O's files was prepared for him or her
- *Finals and final drafts only:* Earlier drafts don't qualify unless presented to the board of directors
- *Automatic 4(c)s:* Banker's books and offering memoranda
- *Common sources for 4(c)s:* D/O files, deal team, strategic development group, investment bankers, business consultants

Bruno, Mohr, Prager, Locating and Identifying Item 4(c) Documents, Antitrust (2002)

Locating 4(c) documents from the inside out



Antitrust and risk allocation in merger agreements

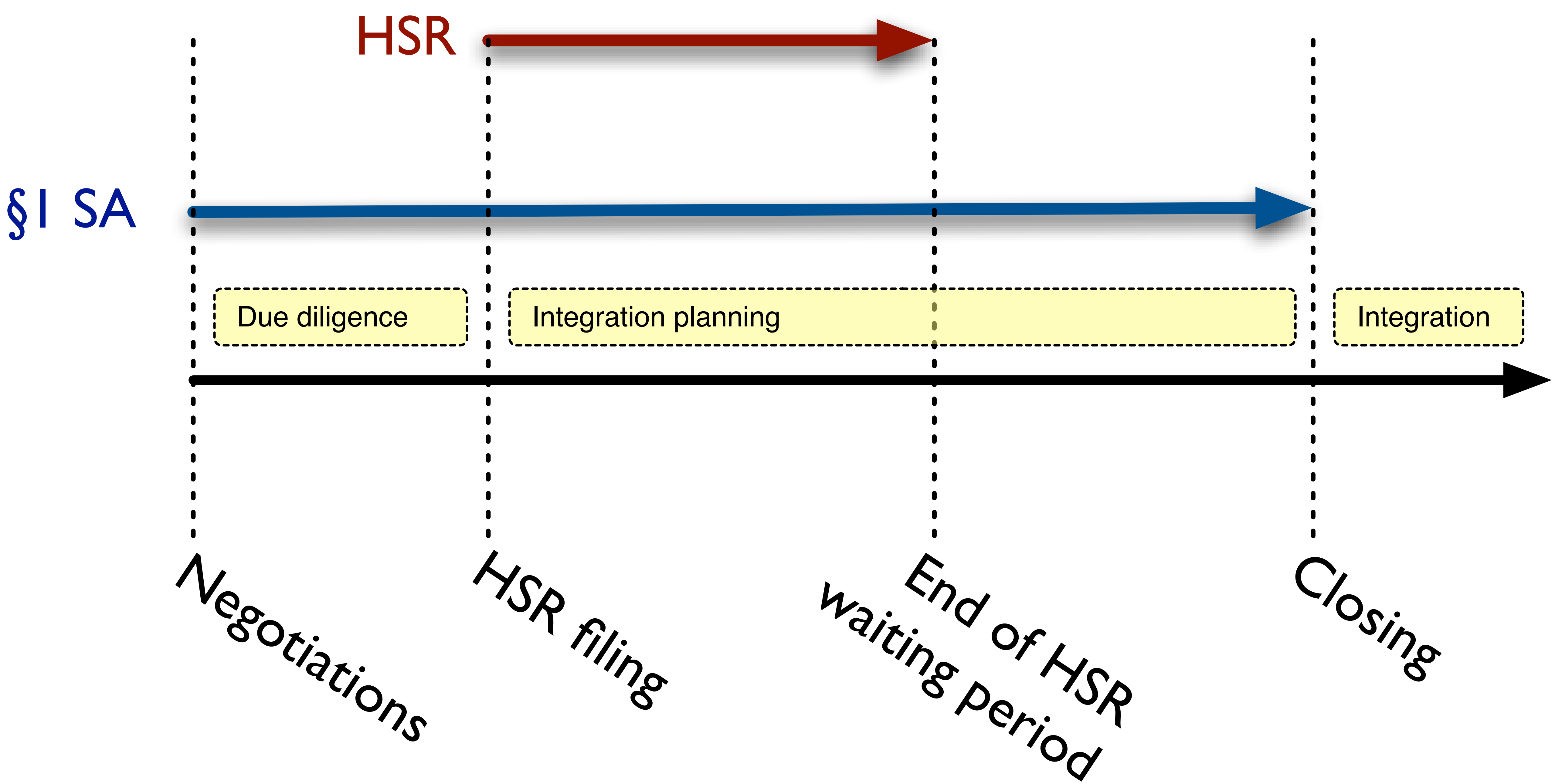
- Antitrust risks include delay, divestitures, injunction, costs, employee defection as a result of a government challenge
- Seller's objective: *To get the consideration, no matter what*
- Buyer's objective: *To get full value for the purchase price*

Common seller wish list	**Common buyer wish list**	**Common compromise**
Buyer to pay full purchase price, even if buyer has to divest the assets acquired or its present operations ("hell and high water clause")	No divestiture requirement. Buyer may walk if the government issues a second request, challenges the transaction, or requires divestitures.	Enumerated list of buyer divestitures. (Problem: Signals low hanging fruits to the government.)
Secure buyer commitment by way of "reverse break-up fee", if the deal can't be consummated because of antitrust problems	"No shop" provision imposed on seller. Secure seller commitment through break-up fee.	A buyer breakup fee is a common substitute for enumerated divestitures.
Buyer to use "best efforts." (Including divestitures)	Buyer to use "commercially reasonable efforts" (Excluding divestitures)	Both parties to use "reasonable best efforts." (Vague, uncertainty on both sides)

Gun jumping: Legal framework

	§1 Sherman Act	§7A Clayton Act
Scope	All mergers among competitors	Only mergers above the notification thresholds
Duration	Until closing	Until expiration or termination of the waiting period
Competitive effects	Central to §1 analysis ("restraint of trade")	Irrelevant. The HSR Act is a *formal* notification statute
Substantive test	Rule of reason *plus* ancillary restraints analysis	Beneficial ownership test

HSR and §1 both apply to large horizontal mergers



Ancillary restraints and beneficial ownership

§1 Sherman Act	§7A Clayton Act
Rule of reason + ancillary restraints analysis • Otherwise *per se* illegal restraints come under the rule of reason if ▪ There is a *pro-competitive main purpose* (the merger) and; ▪ the restraint is *reasonably necessary* to achieve the main purpose	*Beneficial ownership test* • *Incentives* (risk of loss, chance of gain, right to distributions) • *Influence* (vote stock, designate management, control operations) • *Information* (right to receive financial, strategic information)

Pre-closing information exchange

- Practical necessity for due diligence (purchase price) and integration planning (post-merger operations and strategy)
- *Problem:* Knowledge of the other firm's sensitive information might inform unilateral pre-merger conduct and coordinated interaction ("spill over")
  - *Legal standard:* §1 rule of reason
- *Solutions:* Use of historic or aggregated information, separation of integration and operation teams, third-party clean rooms

Blumenthal, The Rhetoric of Gun Jumping (2005)

Integration planning

- Joint planning *for competitive post-closing conduct* is permissible ("After the merger, the joint firm will drop supplier x.")
  - But watch out for spill-over effects
- Agreements on *competitive pre-closing conduct* are impermissible ("Let's each drop supplier x now.")
  - *Gun jumping:* §1 (per se) and §7A ("beneficial ownership")
- Bona fide *unilateral pre-closing conduct*, even with an eye towards the closing, is usually permissible ("I will drop supplier x now." *But preserve evidence of the decision's unilateral nature*.)

Blumenthal, The Rhetoric of Gun Jumping (2005)

Gun jumping: Examples

- *Assuming operational control* of the target by the buyer violates §1 and §7A
  - Target refers customers to buyer
  - Buyer has veto rights over target's day-to-day operations
  - Target and buyer agree to "slow roll" customer negotiations until after the closing

Blumenthal, The Rhetoric of Gun Jumping (2005)

Joint communications

- Jointly *selling the transaction* to shareholders, customers and suppliers is permissible
- Jointly *selling the merging firms' products* before closing is generally not permissible ("gun jumping")
- Examples
  - Joint press release, announcing the transaction = OK
  - Joint calls to top customers and suppliers to tout the benefits of the transaction = OK (unilateral calls are preferable)
  - Joint calls to sell products pre-closing = Impermissible

Blumenthal, The Rhetoric of Gun Jumping (2005)

Class 8: Coordinated Effects after *FTC v. Arch Coal* (2004)

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As always, the opinions expressed in these slides are mine alone.

FTC v. Arch Coal (2004)

- In the Southern Powder River Basin (SPRB), there are ten "tier 1 mines," operated by four firms

  #1 Peabody (North Antelope/Rochelle, Caballo, Rawhide)

  #2 Kennecott (Antelope, Jacobs Ranch, Cordero-Rojo)

  #3 Arch Coal (Black Thunder, Coal Creek)

  #4 Triton (North Rochelle, Buckskin)

- Some considered RAG the #4 player, even though its mines were "tier 2"
- Arch proposed to buy Triton's high cost North Rochelle mine and to divest the lower cost Buckskin mine to Kiewit, a new entrant ("fix it first")
- The FTC challenged the merger, arguing that it would facilitate coordination on output
- The court denied the FTC's request for a preliminary injunction, and the merger went forward
  - Contrary to the court's pronouncement, the FTC's theory was not "novel" in any way
  - The FTC failed to explain *how exactly* the merger would facilitate coordination
  - The court discounted *forward-looking* customer testimony

The FTC failed to make a traditional case

	FTC	Court
Structural presumption	• 4 to 3 merger • Narrow 8800 BTU market • Significant HHI/ΔHHI	• 5 to 5 merger (*FTC v. Libbey*) • All SPRB coal market • HHI 2100-2350/ΔHHI 49-224
Coordination checklist	• Few competitors • High entry barriers • Homogenous products • Transparent prices	• Competitive oligopoly • Capacity expansion easy • Heterogeneous products • Confidential RFP bid process
History of collusion	• Public exhortation to impose discipline • Followed by price spike in 2000 and mine closures	• Price spike caused by harsh winter, gas prices, and low inventories • Mine closures were result of
Customer complaints	• "Fewer suppliers and prices will rise."	• Customers have no expertise in making economic *predictions*

The FTC's *(ill explained)* theory of competitive harm

- Merger will facilitate coordination among the big three by increasing the capacity under their control
    - *Implication 1:* Coordination targets capacity, not price
    - *Implication 2:* But for the merger, the fringe would (continue to) defeat coordination among the big three
- *Plausible:* Focus on capacity
    - Expansion is easy to detect and to deter (before it makes any money)
    - The court misses this point entirely and remains focused on price
- *Implausible:* Acquisition of North Rochelle by Arch moves *meaningful* capacity from fringe to big three
    - North Rochelle is a high cost mine (affects only "last resort" price)
    - Kiewit appears to be *better* able to expand lower-cost Buckskin mine

Coordinated effects cases require *microfoundations*

- *Step 1:* What constrains the firms from coordinating their actions pre-merger?
- *Step 2: How exactly* does the merger make coordination more likely or more successful?
  - Unless the structural presumption is very strong, pointing to abstract principles (e.g., Posner/Stiger checklist) won't be sufficient
  - A highly fact specific explanation of the mechanisms by which the merger will facilitate collusion is required (*microfoundations*)

How mergers affect coordination *constraints*

Key constraints	How the constraint works	Effect of merger on constraint
Presence of multiple rivals	• Agreement on price, quantity, etc. becomes more difficult • Smaller shares results in weaker interest in promoting the cartel • Detection/punishment more difficult	• A horizontal merger (almost) always reduces the number of rivals • Effect of merger on constraints depends on absolute number of rivals • Strong effect (mostly?) in 3-2 merger
Asymmetries among rivals	• Product asymmetries: rivals must make cross-product comparisons • Cost asymmetries: low variable cost firms seek lower prices, higher cost firms can't punish effectively	• Ambiguous: Merger may make firms more or less symmetrical (e.g., *less symmetry* if two out of five 20% firms merge) • Policy problem: Efficiencies may create more symmetrical (lower cost) rivals
Concealed actions by mavericks	• Maverick has different incentives and the ability for surprise actions • Innovation has great disruptive potential and it *shortens the time horizon* for coordination payoffs • R&D is easy to conceal from rivals	• Eliminating the maverick may make market more predictable and transparent • Buy & bury technological threat (but buying may also provide *platform* for even more meaningful innovation)

Class 9: Unilateral Effects after *US v. Oracle* (2004)

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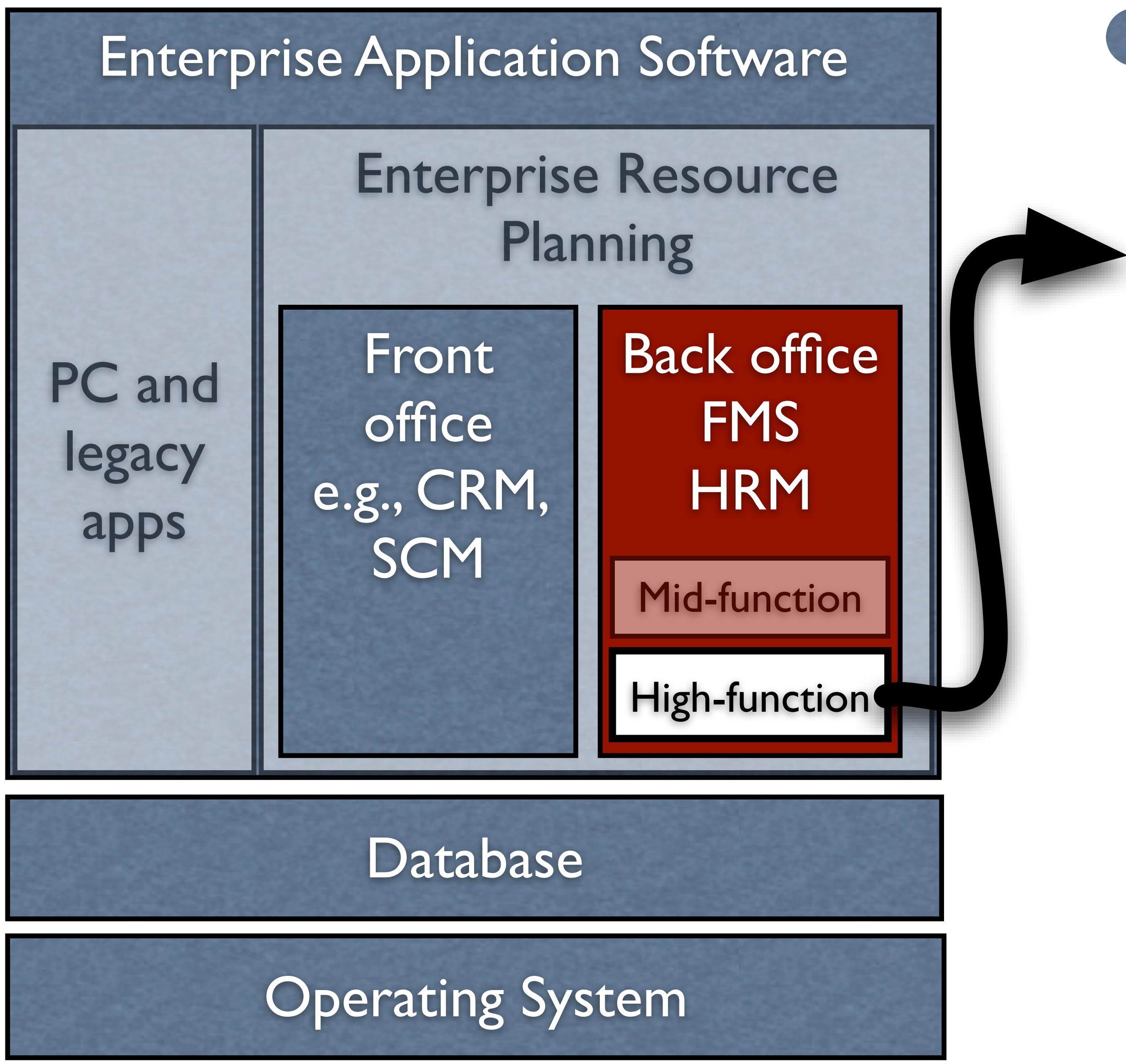
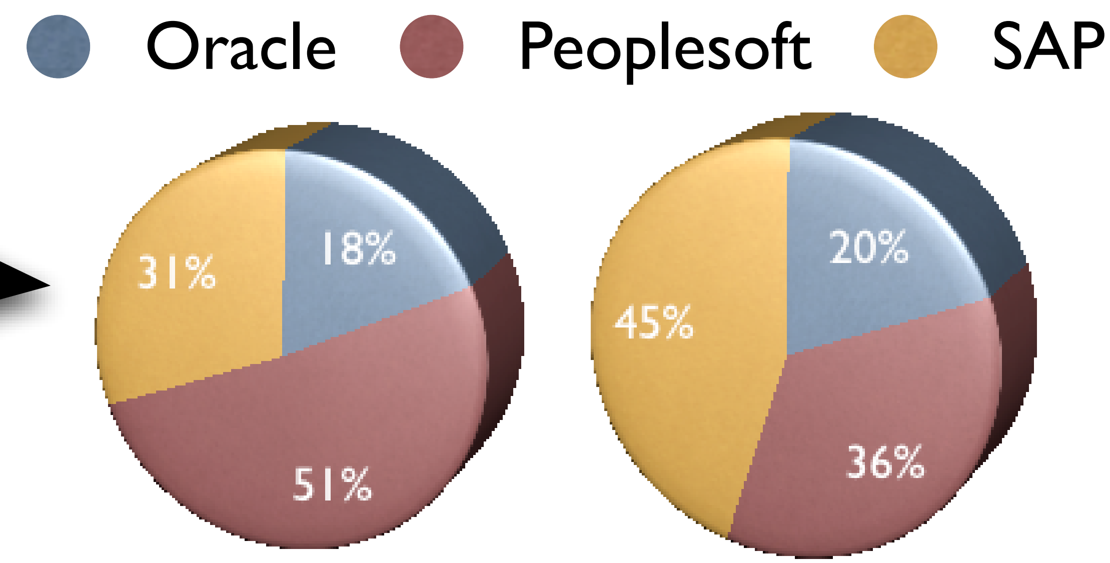
As always, the opinions expressed in these slides are mine alone.

The backdrop of the *US v. Oracle* case

- Oracle launches hostile bid for Peoplesoft (6/03)
  - In a hostile bid antitrust case, the target is on the side of the plaintiffs
- Investigations by DOJ, 10 states, and the EC. In 6/04, DOJ sues to enjoin the merger
- DOJ trial strategy
  - Define narrow markets with high post-merger concentration to trigger structural presumption
  - If need be, prove unilateral theory of competitive effects with
    - Customer testimony
    - Economic expert testimony

The products at issue and the DOJ's market definition





69% of US
High Function
HRM market
HHI 5700
(Δ2900)

56% of US
High Function
FMS market
HHI 3800
(Δ1000)

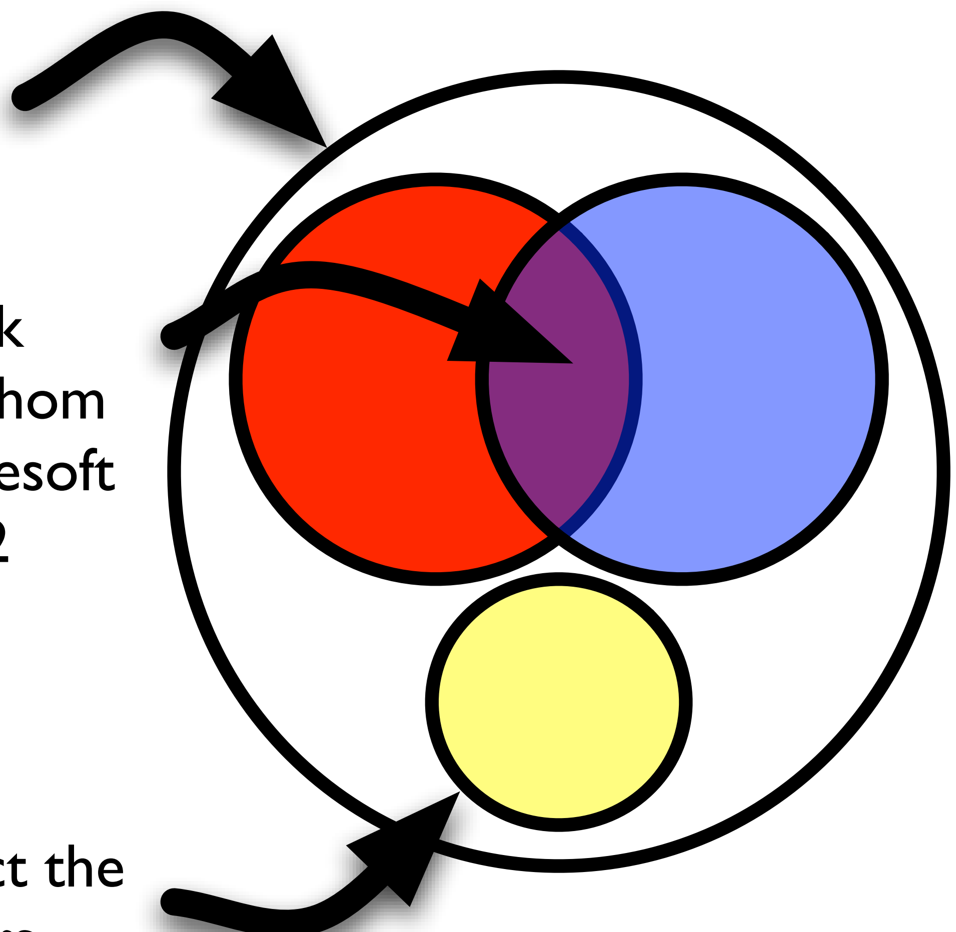
"3-2 merger"

The DOJ's case: *Narrow market, localized competition*

Narrow relevant market

Node with "at risk customers" for whom Oracle and Peoplesoft are the #1 and #2 choices.

SAP, Lawson, and others don't adequately protect the "at risk" customers within the node

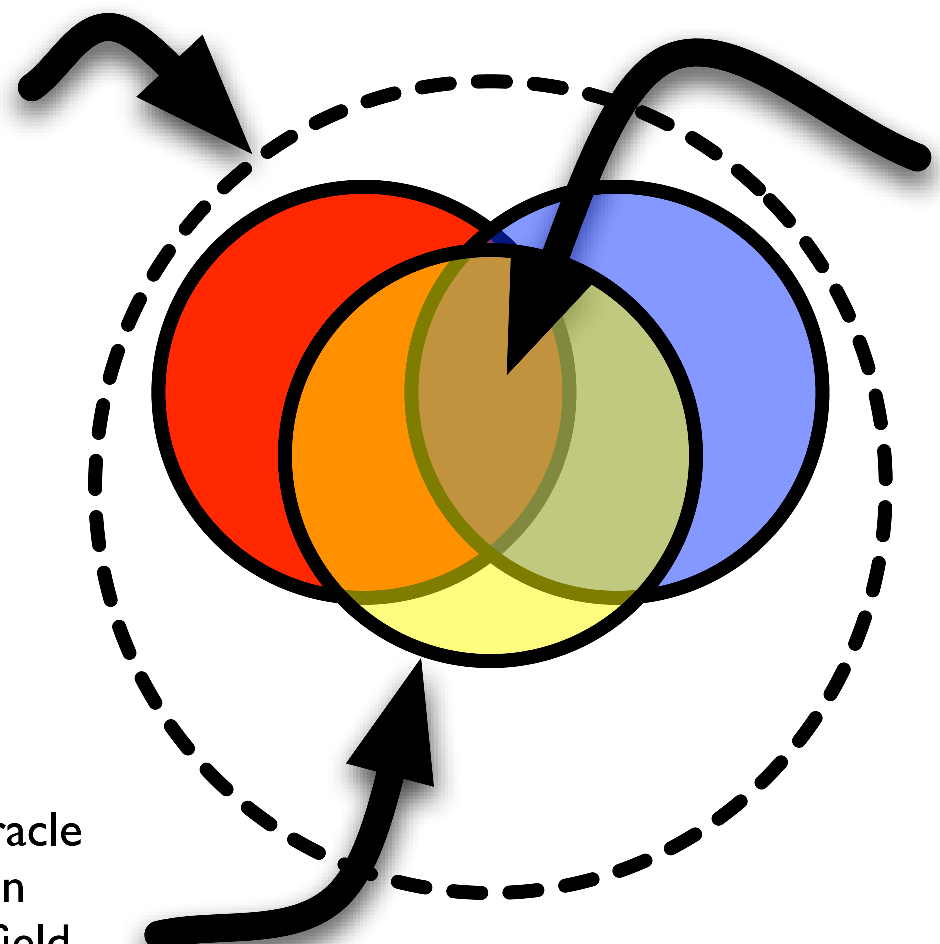


Underlying assumptions of DOJ's theory of harm / market definition

- No new entry (e.g., Microsoft)
- No deferral of purchases (e.g., legacy systems)
- No product repositioning by SAP, Lawson, etc.
- No product repositioning by the merging parties
- The ability of Oracle and Peoplesoft to identify the "at risk" customers (*price discrimination*)

The court's decision: *Broad market, tough standards*

Broad relevant *global* market, including "at least: (1) ERP sold by Oracle, Peoplesoft, Lawson, AMS and Microsoft; (2) outsourcing solutions; and (3) best of breed solutions."



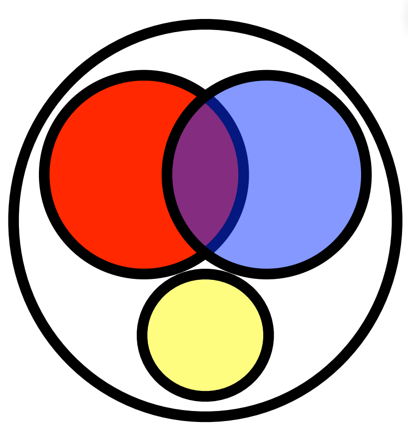
"A plaintiff must demonstrate that the merging parties would enjoy a post-merger monopoly or dominant position, at least in a 'localized competition' space."

"Simply because Oracle and Peoplesoft often meet on the battlefield and fight aggressively does not lead to the conclusion that they do so in the absence of SAP."

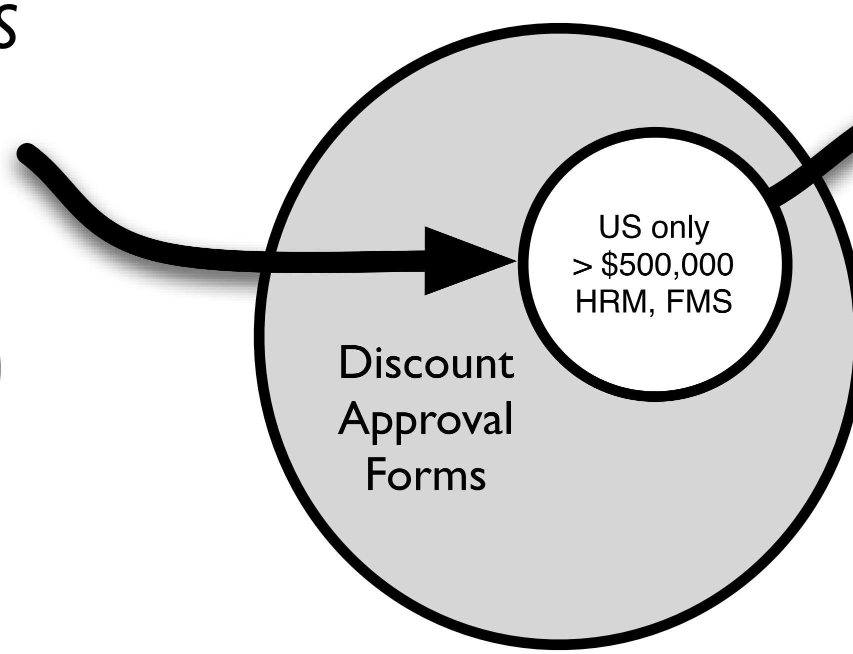
What if there are only very few customers for whom the merging firms' products are the #1 and #2 choices? ("insubstantial amount of commerce")

Why the court rejected key economic evidence

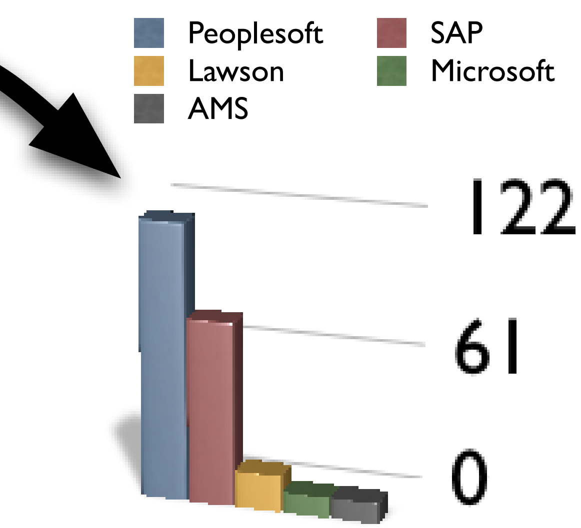
#1 Market definition hypothesis:
"High function US HRM and FMS"



#2 Highly selective choice of data subset



#3 Market definition "evidence"



- The DOJ's tabulation assumed the narrow market that it purported to prove (*petitio principii*)

Two controversial holdings of the *Oracle* court

- Tough standard for competitive effects in unilateral merger cases involving differentiated products
  - The "post-merger dominant position or monopoly" standard is closer to §2 (monopolization) than to §7 (substantial lessening of competition)
- Discounting of customer testimony
  - In *FTC v. Arch Coal*, the customers testified as to post-merger *supplier* conduct, which suppliers and expert economists are far better positioned to predict
  - In *US v. Oracle* the customers testified as to *their own* predicted post-merger conduct

Class 10: Private Actions and Antitrust Injury

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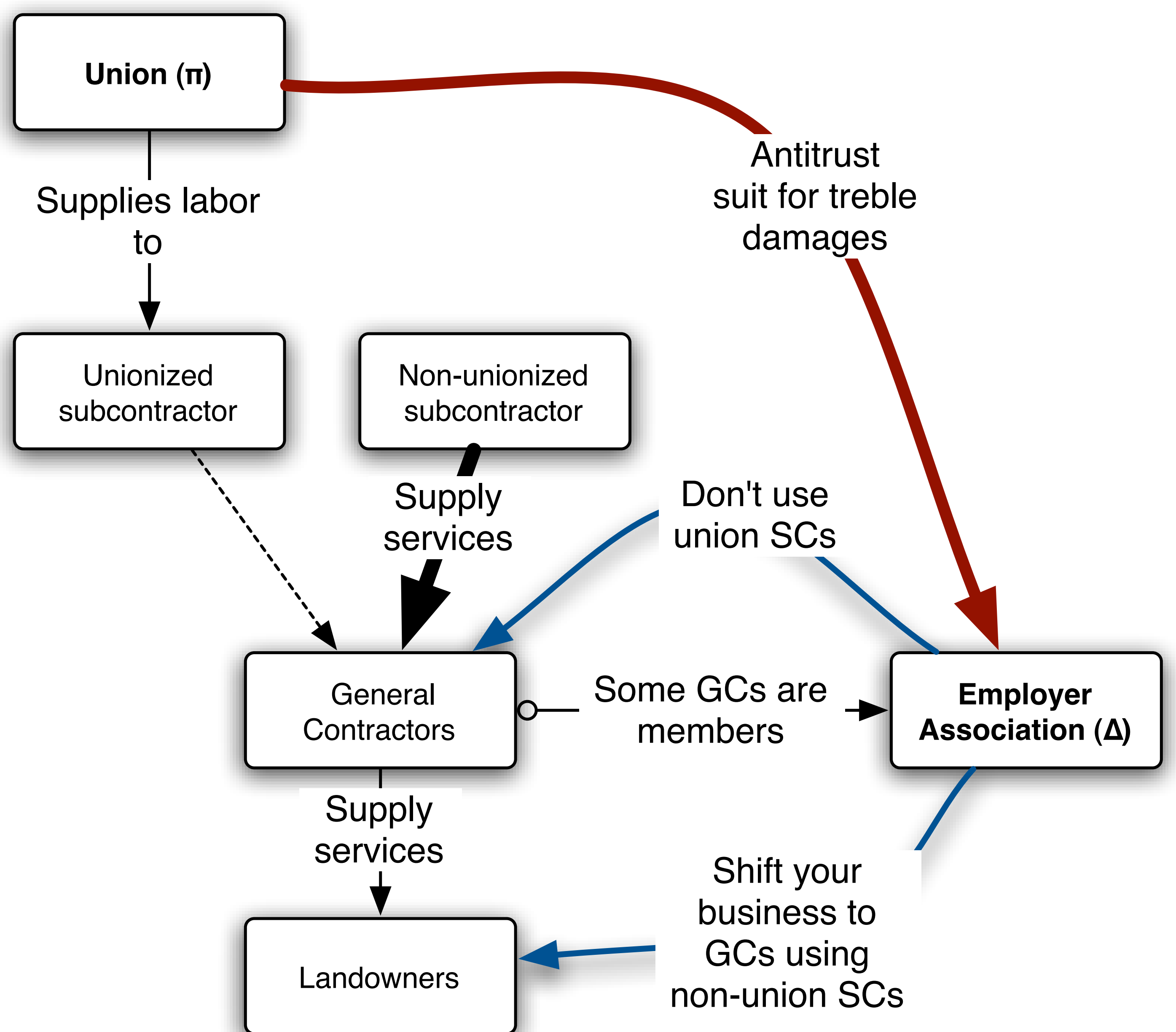
No cause of action against *too much* competition

- On its face, §4 of the Clayton Act only requires
  - a violation of the antitrust laws; and
  - actual injury
- The injury must be caused by a potential *lessening* of competition, not by an *increase* in competition. *Brunswick v. Pueblo Bowl-O-Mat*, 429 U.S. 477 (1977)
  - Also, no claim for losses from "economic readjustments," that is, *pecuniary externalities*
- Further limiting principles: proximate cause, direct purchaser rule

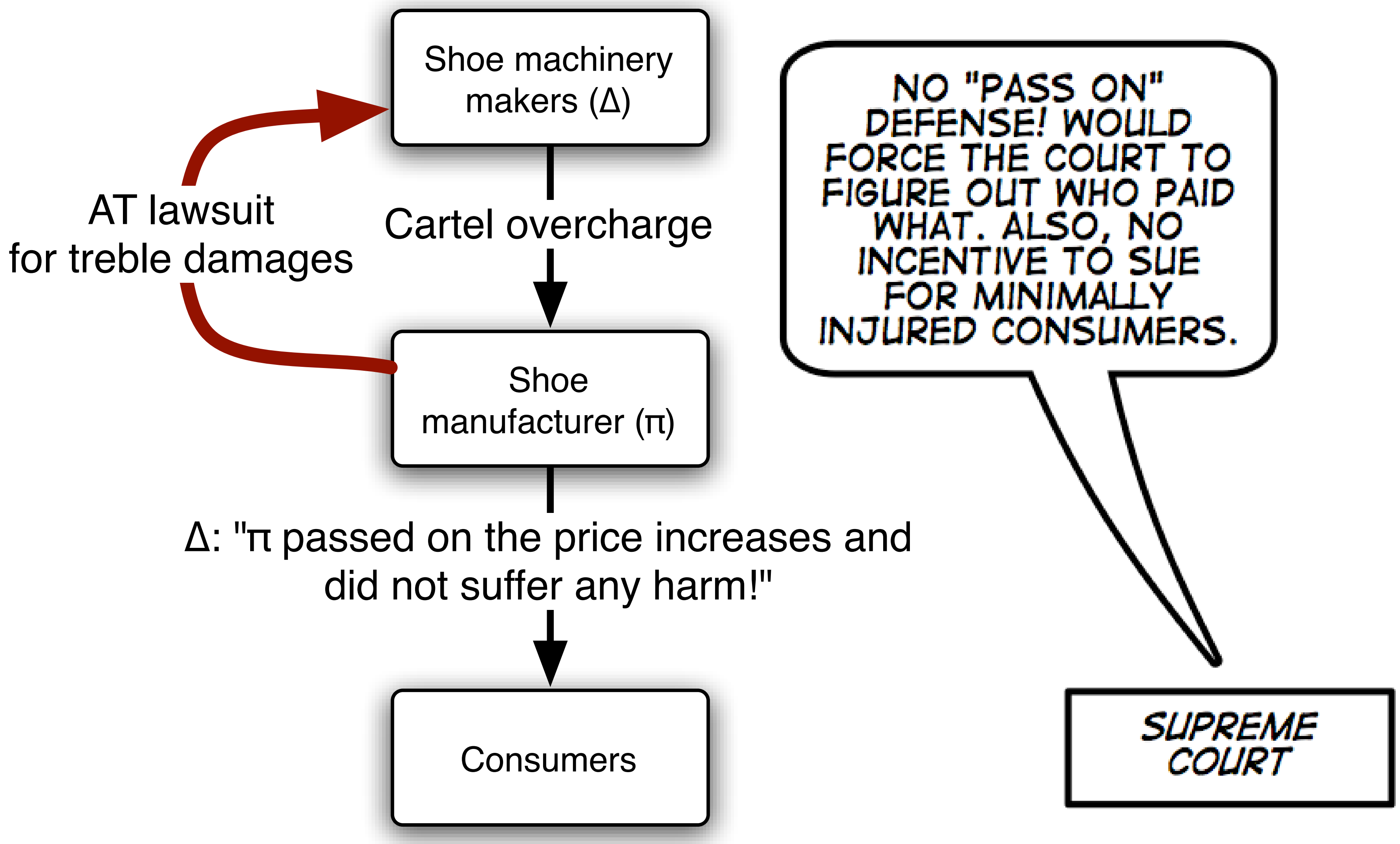
Proximate cause

Assoc Gen. Contractors of Cal, In. v. Cal State Council of Carpenters, 459 U.S. 519 (1983)



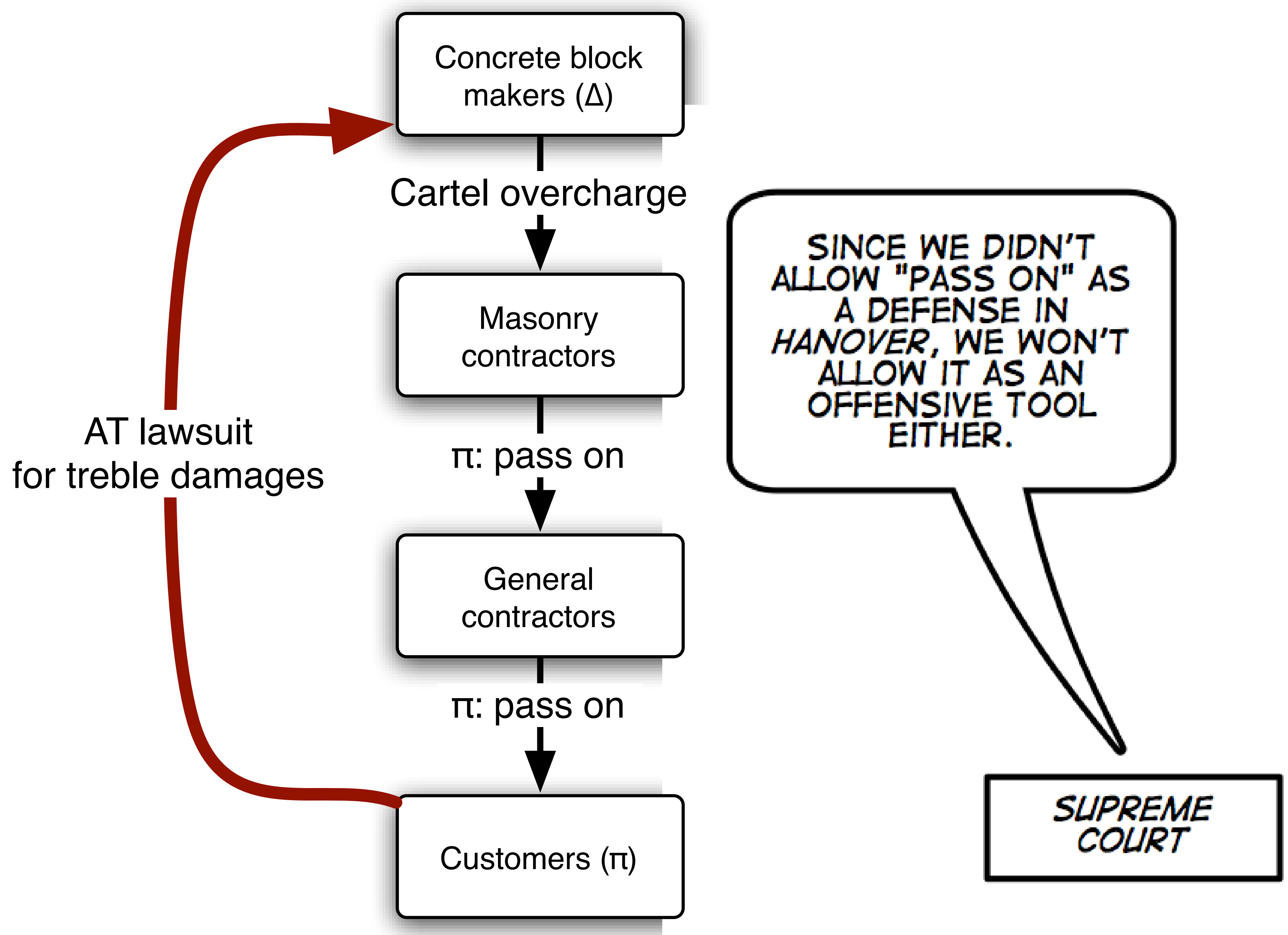
No “*pass on defense*”

Hanover Shoe Inc., v. U.S. Machinery Corp, 392 U.S. 481 (1968)



No “*pass on offense*”

Illinois Brick Co. v. Illinois, 431 U.S. 720 (1977)



A concept-driven antitrust standing inquiry

	π must show	Consumer π	Competitor π
1	Δ's conduct violates the antitrust laws		
2	Actual harm to π	Overcharge	Lost profits
3	Potential harm to consumers (*)	Implied in (2)	No injury from *too much* competition (*Brunswick*)
4	Proximate connection between (2) and (3)	Implied in (2)	π's harm = means to harm consumers (*McCready, AGC*)
5	No prudential limitations	Direct purchaser (*Illinois Brick*)	More direct victims; judicial administrability (*AGC*)

* Assumes that consumer exploitation is a necessary condition for violating the antitrust laws and that exclusionary conduct is a purely derivative offense. This is a controversial position. Some courts hold that violations of a competitor's "economic freedom" can be an offense, even in the absence of consumer exploitation.