
Unit 7. U.S. Sugar/Imperial Sugar

Supply-Side Switching

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Supply-Side Switching

Special case: Supply-side switching

■ Introduction

- In a footnote, *Brown Shoe* suggested that “cross-elasticity of production facilities” may be an important factor in defining markets¹
 - But because the lower court made only limited findings on the feasibility of interchanging equipment in the production of different types of shoes, the Court did not explore it
 - Supply-side switching is often called supply-side substitutability
- Supply-side switching can constrain prices by encouraging producers to shift production toward a product that has experienced a relative price increase
 - The additional supply can constrain the price increase. Its competitive significance depends on how quickly firms can respond, how much they would supply, and whether switching would be profitable.
 - When a price increase induces incumbent firms to expand production or new firms to enter the market, aggregate supply increases over what it would have been otherwise, which in turn may mitigate or eliminate the original price increase
 - Supply-side responses, therefore, can be as important to the analysis of price-constraining forces as demand-side responses

¹ *Brown Shoe Co. v. United States*, 370 U.S. 294, 325 n.42 (1962).

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■ Introduction

- Many courts have used supply-side switching as a factor in market definition¹
 - Since 1982, the Merger Guidelines have used only demand-side substitution to define markets
 - The Merger Guidelines account for supply-side switching when identifying firms and their market shares in the relevant market and *not* as part of market definition

¹ Besides *Brown Shoe Co. v. United States*, 370 U.S. 294, 325 n.42 (1962), see, for example, *Twin City Sportservice, Inc. v. Charles O'Finley & Co., Inc.*, 512 F.2d 1264, 1271 (9th Cir. 1975) (“While the majority of the decided cases in which the rule of reasonable interchangeability is employed deal with the ‘use’ side of the market, the courts have not been unaware of the importance of substitutability on the ‘production’ side as well.”); *FTC v. Meta Platforms Inc.*, No. 5:22-CV-04325-EJD, 2023 WL 2346238, at *13 (N.D. Cal. Feb. 3, 2023) (“Although relevant markets are generally defined by demand-side substitutability, supply-side substitution also informs whether alternative products may be counted in the relevant market.”).

Where supply responses enter the analysis

■ The Merger Guidelines framework¹

- ❑ *Market definition*: Demand-side substitution solely determines which products and geographic areas belong in the relevant market
- ❑ *Market participants*: Include current suppliers, firms committed to entering in the near future, and firms that qualify as rapid entrants
- ❑ *Market shares*: Use a measure that reliably reflects competitive significance. For homogeneous products, economically available capacity may be more informative than historical sales
- ❑ *Competitive effects and entry*: Evaluate additional supply responses, including expansion and entry requiring more time or significant sunk costs
- ❑ A supply response can constrain a merger's effects without requiring a broader market definition

¹ See 2010 Horizontal Merger Guidelines §§ 4, 5.1-5.2, 9; 2023 Merger Guidelines §§ 4.3, 4.4, 3.2.

Rapid entrants and market shares

■ Qualifying as a rapid entrant

- ❑ A firm need not currently sell in the market to constrain competition
- ❑ It qualifies as a rapid entrant when it would very likely respond rapidly to a small but significant change in competitive conditions, have a direct competitive impact, and incur no significant sunk costs
- ❑ Efficient idle capacity or capacity used for another product may support a response. Possessing that capacity alone is insufficient

■ Measuring competitive significance

- ❑ Participation and share measurement are separate questions. Recognizing a rapid entrant does not determine its share
- ❑ The measure should reflect the ability and incentive to serve the market and permit a meaningful comparison with incumbents
- ❑ Capacity committed elsewhere, too costly to use, or more profitably employed in another market may be unavailable

¹ See 2010 Horizontal Merger Guidelines §§ 5.1-5.2; 2023 Merger Guidelines § 4.4.

The pencil example¹

■ The Merger Guidelines approach

- Pencil-making firms can make both No. 2 pencils (the common type) and No. 4 pencils (used in architectural drawings) on the same machine by changing the graphite mixture in the pencil's core
- Changing the production mix on a given machine can be accomplished rapidly, with relatively low switching costs and no other sunk costs
- Ace Pencil and Benny Pencil, currently the only two manufacturers of No. 4 pencils, have announced their merger
- Customers do not regard the two types as substitutes. Assume that using the demand-side considerations of the Merger Guidelines, the relevant product market in which to analyze the merger is No. 4 pencils
- The following chart gives the premerger production levels of No. 2 and No. 4 pencils:

	Current Production	
	No. 2	No. 4
Ace	300	400
Benny	400	300
Cavalier	2500	
Delta	2500	
Enterprise	300	
Funny	2500	
Gabriel	2500	

¹ Thanks to Professor Salop for this example. I have modified it slightly.

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■ The Merger Guidelines approach—Example (con't)

□ Additional facts

- Enterprise has a 5-year contract to supply No. 2 pencils to the American Accountants Association that commits all of Enterprise's production capacity
- The other four third-party manufacturers of No. 2 would each shift 10% of their No. 2 production to No. 4 pencils in response to a 5% SSNIP in the price of No. 4 pencils

□ Under the Merger Guidelines, what are the firms in the No. 4 pencil market and what are their respective market shares?

	Current Production		Assumed available No. 4 supply		
	No. 2	No. 4	Quantity	Shares	HHI
Ace	300	400	400	23.53%	554
Benny	400	300	300	17.65%	311
Cavalier	2500		250	14.71%	216
Delta	2500		250	14.71%	216
Enterprise	300				
Funny	2500		250	14.71%	216
Gabriel	2500		250	14.71%	216
			1700	100.00%	1730
			Delta		830
			Post-merger HHI		2561

Notes: In the event of a 5% SSNIP in No. 4 pencils—

1. The quantities represent the available supply assumed under the supply-side switching model.
2. Cavalier, Delta, Funny, and Gabriel would each shift 10% of their production of No. 2 pencils into No. 4 pencils (facts in the hypothetical).
3. Enterprise would not shift production into No. 4 pencils because all its capacity is committed to No. 2 pencils for the next five years.
4. Ace's and Benny's No. 4 output is held constant. The extent of their switching is an empirical question.

Special case: Supply-side switching

■ The Merger Guidelines approach—Example

- Counting only current No. 4 sales produces a two-to-one merger. Recognizing the four rapid entrants produces six participants before the merger and five afterward.
- Under the assumed available-supply calculation, the merging firms' combined share is 41.18%, the postmerger HHI is 2,561, and the increase is 830.
- These figures trigger the structural presumption under both the 2010 and 2023 Merger Guidelines.
- *PNB* implications
 - The calculation already credits the four rapid entrants with their assumed switching quantities
 - On these assumptions, the additional supply is insufficient to reduce the merging firms' shares and the concentration measures below the presumption thresholds
 - The merger therefore remains presumptively anticompetitive despite the supply-side switching

Judicial treatment of supply substitution

■ Different analytical approaches

- Judicial decisions do not use a single approach to supply-side substitution
 - Some courts follow the Merger Guidelines approach
 - Or at least hold that defining market boundaries using demand-side considerations and using supply-side responses to determine participants and their market shares is an acceptable legal alternative¹
 - Other courts allow supply-side considerations to be taken into account when defining the boundaries of the relevant market²
 - Brown Shoe suggested that supply-side switching may be relevant to defining a market³
- Recognizing a supply constraint does not establish that all production of another product should receive equal weight
- The following example illustrates how counting production that would not switch can overstate the competitive constraint

¹ See *United States v. Bazaarvoice, Inc.*, No. 13-CV-00133-WHO, 2014 WL 203966, at *31-*32, *37, *67 (N.D. Cal. Jan. 8, 2014).

² *FTC v. Lab. Corp. of Am.*, No. SACV 10-1873 AG MLGX, 2011 WL 3100372, at *17 (C.D. Cal. Feb. 22, 2011) (“Courts place products in the same product market where there is either effective demand-side substitution or effective supply-side substitution.”).

³ See *Brown Shoe Co. v. United States*, 370 U.S. 294, 325 n.42 (1962) (discussing cross-elasticity of production facilities).

Special case: Supply-side switching

■ Counting production of both grades

□ The economic criticism

- Counting all production of participating firms can overstate the supply constraint. The broader calculation below counts both grades but continues to exclude Enterprise's committed capacity.

■ Example:

- Use the same production figures and assumptions as before: a 10% switching response, Enterprise's committed capacity, and unchanged No. 4 output from Ace and Benny.

	Current Production		Assumed available supply			Broader production count		
			No. 4 quantities			No. 2 + No. 4		
	No. 2	No. 4	Quantity	Shares	HHI	Quantity	Shares	HHI
Ace	300	400	400	23.53%	554	700	6.14%	38
Benny	400	300	300	17.65%	311	700	6.14%	38
Cavalier	2500		250	14.71%	216	2500	21.93%	481
Delta	2500		250	14.71%	216	2500	21.93%	481
Enterprise	300							
Funny	2500		250	14.71%	216	2500	21.93%	481
Gabriel	2500		250	14.71%	216	2500	21.93%	481
	11000	700	1700	100.00%	1730	11400	100.00%	1999
			Delta		830			75
			Post-HHI		2561			2074

- The available-supply calculation clearly triggers the PNB presumption. Counting both grades instead makes the merger appear nonproblematic: the combined share falls from 41.2% to 12.3%, and the HHI increase from 830 to 75.

Special case: Supply-side switching

■ Why the production measure matters

□ The economic criticism (con't)

■ The same production facts produce sharply different concentration measures

- Each of the four outside producers makes 2,500 No. 2 pencils but would switch only 250 units to No. 4 pencils in response to a 5% SSNIP. Their assumed available supply is 1,000 units in total.
- The broader calculation counts all 10,000 units of those firms' No. 2 production—ten times their assumed available supply. It also counts Ace's and Benny's No. 2 production, although their No. 4 output is held constant. Enterprise remains excluded in both calculations.
- Using assumed available supply, Ace and Benny have a combined share of 41.2%; the postmerger HHI is 2,561 and the increase is 830. These figures clearly trigger the *PNB* presumption.
- Counting all production of both grades reduces the combined share to 12.3% and the HHI increase to 75, making the merger appear nonproblematic. Counting production that would not switch overstates the outside firms' competitive significance and understates that of the merging firms.

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■ Supply switching in practice

□ Production switching

- Some courts treat effective supply-side substitution as a basis for grouping products in the same market even when customers do not regard them as substitutes
- The same production equipment, for example, with only a slight change in tooling, could manufacture glass milk bottles and glass baby food jars. This supply-side substitutability can support grouping the products in the same relevant market even though customers do not regard them as substitutes.

□ Barriers to switching

- To the extent that supply-side switching is considered, it is important to examine not only the ease of switching production but also the ability to sell the resulting product
- For some products, the lack of access to distribution channels, reputation, or post-sale service can be greater impediments to successful participation in the market than the need for sophisticated or capital-intensive production technology
- Such a lack of access can significantly dampen cross-elasticity of supply even when it is technologically easy to switch existing production equipment to manufacture the product under scrutiny

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- Supply switching in practice

- Incentive to switch

- In addition, for supply-side switching to be competitively meaningful, there must be an incentive for firms to switch their production mix in response to a price increase in the putative relevant market
 - If manufacturing and selling in the putative market would be unprofitable even at the higher price, firms with the requisite technology will not switch. The calculation must include additional production and selling costs and the profits forgone on the displaced product. Positive accounting profits alone do not establish an incentive to switch