MERGER ANTITRUST LAW

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Georgetown University Law Center
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Tuesdays and Thursdays, 3:30-5:30 pm

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CLASS 14 WRITTEN ASSIGNMENT—INSTRUCTOR'S ANSWER

Instructions

Submit by email by 3:30 pm on Tuesday, October 22
Send to dale.collins@shearman.com
Subject line: Merger Antitrust Law: Assignment for Class 14

Assignment

Part A. Calls for a memorandum to a partner (which may be sent to a client). I anticipate that this will take only a couple of paragraphs.

John Clark, a partner in Able & Baker LLP with whom you work, has asked you to prepare a short memorandum explaining the role of the *Brown Shoe* factors in product market definition. He is planning to send to the memorandum to the general counsel of a client, so he would like the memorandum to address why courts define markets in Section 7 cases, what is the judicial test for product market definition, and how the *Brown Shoe* factors are used in applying this test.

This memorandum is limited to the *Brown Shoe* factors. You do not have to address the use of the hypothetical monopolist test under the Horizontal Merger Guidelines (although you can anticipate that this assignment is coming).

Part B. Calls for answers to the following problems. Show your work.[1]

There are red cars, blue cars and green cars. The cars are essentially homogenous except for their color. There are several manufacturers of each color of car. Consumers have preferences for colors, which are captured by the residual demand curve for various product groups. Blue cars are the closest substitute for red cars and green cars are the second closest substitute. Here are the variables for current market conditions:

[1] Feel free to submit an Excel worksheet if you like.

	Blue cars	Red cars	Green cars
Price per car	1000	1000	1000
Current sales	2500	3000	1000
Fixed costs	0	0	0
Marginal costs (constant)	700	700	700

The residual demand curves (assuming the price of other cars do not change) are:

$$q_{blue} = 8500 - 6p_{blue}$$
$$q_{red} = 8000 - 5p_{red}$$
$$q_{green} = 4000 - 3p_{green}$$
$$q_{blue+red} = 9500 - 4p_{blue+red}$$

Each hypothetical describes an independent scenario:

1. Two blue car manufacturers are going to merge. Are blue cars a relevant market under the hypothetical monopolist test using a 5% SSNIP?
2. Two red car blue car manufacturers are going to merge. Are red cars a relevant market under the hypothetical monopolist test using a 5% SSNIP?
3. Two green car blue car manufacturers are going to merge. Are green cars a relevant market under the hypothetical monopolist test using a 5% SSNIP?
4. A blue car and a red car manufacturer are going to merge. Are blue cars and red cars a relevant market under the hypothetical monopolist test using a 5% SSNIP? [2]

If you have any questions, send me an e-mail. See you in class.

[2] As we will discuss, the hypothetical monopolist test comes in two varieties: (1) whether the hypothetical monopolist *could* profitably raise its price by a SSNIP (profitability), and (2) whether the hypothetical monopolist *would* raise its price by a least a SSNIP (profit maximization). It is possible that a hypothetical monopolist could increase its profits by raising its price by a SSNIP, but that the profit-maximizing price increase is least that a SSNIP. In this situation, the HMT would be satisfied under the profitability standard, but would fail under the profit-maximizing standard. The 1982 and 1992 Merger Guidelines and most courts use profitability; the 2010 Merger Guidelines uses profit maximization. For this problem, use the profitability standard.

Part A. Legal memorandum

ABLE & BAKER LLP

TO: John Clark

FROM: Dale Collins

Brown Shoe Market Definition Tests

You have asked me to prepare a short memorandum explaining the role of the *Brown Shoe* factors in product market definition.

There are two complementary judicial "tests" for whether a product grouping—a "candidate" or "provisional" market is a relevant product market for the purpose of merger antitrust analysis under Section 7: the "outer boundaries" and "practical indicia" criteria set forth by the Supreme Court in *Brown Shoe Co. v. United States*[1] and the hypothetical monopolist test under the Merger Guidelines.[2] Modern courts typically apply both tests in analyzing market definition. The DOJ and FTC, not surprisingly, look primarily to the hypothetical monopolist test when making prosecutorial decisions, but if they have to prove their case in court they will also invoke the *Brown Shoe* criteria.

Under *Brown Shoe*, the "outer boundaries" of the relevant product market "are determined by the reasonable interchangeability of use or the cross-elasticity of demand between the product itself and substitutes for it."[3] Moreover, "within this broad market, well-defined submarkets may exist which, in themselves, constitute product markets for antitrust purposes. The boundaries of such a submarket may be determined by examining such practical indicia as industry or public recognition of the submarket as a separate economic entity, the product's peculiar characteristics and uses, unique production facilities, distinct customers, distinct prices, sensitivity to price changes, and specialized vendors."[4] This list is not exhaustive and courts may use any factors that may be qualitatively probative of high cross-elasticity of demand (or its absence). Court, for example, have used the reputation of a supplier or the product where it is important to customer choice.

The original purpose of the *Brown Shoe* "practical indicia" was to enable the finding of relevant (sub)markets within larger markets defined by the "outer boundaries" test. Modern courts, however, do not view submarkets as any different from markets and regard the *Brown Shoe* "practical indicia" as factors probative of reasonable interchangeability of use and high cross-elasticity of demand.

If you need more on this or would like to discuss it further, please let me know.

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[1] 370 U.S. 294, 325 (1962).

[2] U.S. Dep't of Justice & Fed. Trade Comm'n, Horizontal Merger Guidelines § 4 (rev. Aug. 19, 2010).

[3] *Brown Shoe*, 370 U.S. at 325.

[4] *Id*. (internal citations and footnotes omitted).

Part B. Hypotheticals

The hypotheticals call for the application of the profitability version of the hypothetical monopolist test for relevant market identification. This version of the hypothetical asks whether a hypothetical profit-maximizing firm, not subject to price regulation, that was the only present and future seller of those products (the "hypothetical monopolist") could impose at least a small but significant and non-transitory increase in price ("SSNIP") on at least one product in the market, including at least one product sold by one of the merging firms."[5] A hypothetical monopolist could profitably impose a SSNIP if the amount of profits it gained from the increase in price to the sales that would continue to be made (the "inframarginal sales" (q_2)) exceeds the loss of profits on the sales that would have been made at the lower price but would not be made at the higher price (the "marginal sales" (Δq)).

So if p_1 and q_1 are the current price and aggregate output in the candidate market, %Δp is the SSNIP (as a percentage of the p_1), p_2 and q_2 are the price and aggregate output in the candidate market when price is increased by a SSNIP, Δp and Δq are the resulting changes (in units) in price and output, mc is the (constant) marginal cost of production for all manufacturers of the product, and m_1 is the gross marginal on unit sales at the original prices, then:

Gain in profits on inframarginal sales: $\Delta p(q_1 - \Delta q)$ $(= \Delta p q_2)$

Loss in profits on the marginal sales: $\Delta q(p_1 - mc)$ $(= m_1 \Delta q)$

1. Two blue car manufacturers are going to merge. Are blue cars a relevant market under the hypothetical monopolist test using a 5% SSNIP?

   The demand curve for blue cars is $q_{blue} = 8500 - 6p_{blue}$.

   The parameters of the candidate market are:

   $p_1 = 1000$

   $q_1 = 2500$

   $mc = 700$

   So $\Delta p = 50$ (a 5% increase in the 1000 price)

   $p_2 = 1050$ (= 1000 + 50)

   $q_2 = 2200$ (from the demand curve)

   $\Delta q = -300$

   $m_1 = 300$ (1000 – 700)

Gain in profits on inframarginal sales: $\Delta p q_2 = (50)(2200) = 110{,}000$

Loss in profits on the marginal sales: $m_1 \Delta q = (300)(-300) = -90{,}000$

Net gain = 20,00

[5] See U.S. Dep't of Justice & Fed. Trade Comm'n, Horizontal Merger Guidelines § 4.1.1 (rev. Aug. 19, 2010). Technically, the 2010 Merger Guidelines ask whether a hypothetical monopolist "likely would" increase price by at least a SSNIP. This formulation describes the profit-maximization version of the hypothetical monopolist test.

Blue cars are a relevant product market under the profitability version of the hypothetical monopolist test using a 5% SSNIP.

2. Two red car manufacturers are going to merge. Are red cars a relevant market under the hypothetical monopolist test using a 5% SSNIP?

   The demand curve for red cars is $q_{red} = 8000 - 5p_{red}$.

   The parameters of the candidate market are:

   $p_1 = 1000$

   $q_1 = 3000$

   $mc = 700$

   So $\Delta p = 50$ (a 5% increase in the 1000 price)

   $p_2 = 1050$ (= 1000 + 50)

   $q_2 = 2750$ (from the demand curve)

   $\Delta q = -250$

   $m_1 = 300$ (1000 – 700)

   Gain in profits on inframarginal sales: $\Delta p q_2 = (50)(2750) = 137{,}500$

   Loss in profits on the marginal sales: $m_1 \Delta q = (300)(-250) = -75{,}000$

   Net gain = 62,500

   Red cars are a relevant product market under the profitability version of the hypothetical monopolist test using a 5% SSNIP.

3. Two green car manufacturers are going to merge. Are green cars a relevant market under the hypothetical monopolist test using a 5% SSNIP?

   The demand curve for green cars is $q_{green} = 4000 - 3p_{green}$.

   The parameters of the candidate market are:

   $p_1 = 1000$

   $q_1 = 1000$

   $mc = 700$

   So $\Delta p = 50$ (a 5% increase in the 1000 price)

   $p_2 = 1050$ (= 1000 + 50)

   $q_2 = 850$ (from the demand curve)

   $\Delta q = -150$

   $m_1 = 300$ (1000 – 700)

Gain in profits on inframarginal sales: $\Delta pq_2 = (50)(850) = 42{,}500$

Loss in profits on the marginal sales: $m_1\Delta q = (300)(-150) = -45{,}000$

Net gain = -2,500

Green cars are not a relevant product market under the profitability version of the hypothetical monopolist test using a 5% SSNIP.

4. A blue car and a red car manufacturer are going to merge. Are blue cars plus red cars a relevant market under the hypothetical monopolist test using a 5% SSNIP?

   The demand curve for blue cars and red cars is $q_{blue+red} = 9500 - 4p_{blue+red}$.

   The parameters of the candidate market are:

   $p_1 = 1000$

   $q_1 = 5500$

   $mc = 700$

   So $\Delta p = 50$ (a 5% increase in the 1000 price)

   $p_2 = 1050$ (= 1000 + 50)

   $q_2 = 5300$ (from the demand curve)

   $\Delta q = 200$

   $m_1 = 300$ (1000 – 700)

   Gain in profits on inframarginal sales: $\Delta pq_2 = (50)(5300) = 365{,}000$

   Loss in profits on the marginal sales: $m_1\Delta q = (300)(-200) = -60{,}000$

   Net gain = 205,000

   Blue cars and red cars are a relevant product market under the profitability version of the hypothetical monopolist test using a 5% SSNIP.