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COMPETING THROUGH INNOVATION: IMPLICATIONS FOR MARKET DEFINITION

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Hay, Hilke, and Nelson (hereinafter Hay et al.)¹ provide a useful survey, as well as some extensions, on current thinking with respect to geographic market definition in an international context. Clearly, as the authors recognize, foreign competition is extremely important in most U.S. industries, and the manner in which it is taken into account in performing antitrust analysis can have a dramatic impact on the legal or policy considerations that are reached in a particular instance. Since market power plays such a key role, the authors remind us that it is important "to have both a proper conceptual understanding and a workable empirical means of identifying market power."² The authors believe that the first of these is relatively straightforward, the second more difficult. We contend that neither are straightforward and that the authors have erred with respect to how they have conceptualized market power, at least for an important class of industries.

First, let us consider first the conceptual issues, and then the empirical. Conceptually, Hay et al. argue, following the mainstream literature, that market power can be defined as "the ability of a firm or group of firms' profitability to raise prices significantly above competitive levels for a sustained period."³ This definition, they claim, is fully consistent with a consumer welfare orientation for antitrust.

Yet, for an important class of situations, namely, where technological change is important, some period of market power may be required in order to encourage and enable firms to invest in research, development, and commercialization activities. In many circumstances, particularly where the spillover benefits of innovation are high and imitation is easy, the exercise of market power by producers may be consistent with en-

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1. Hay, Hilke, & Nelson, *Geographic Market Definition in an International Context*, 64 *CHI.-KENT L. REV.* 711 (1989) (Messrs. Hay, Hilke & Nelson's article appears in this symposium issue).

2. *Id.* at 714.

3. *Id.*

hanced consumer welfare. Moreover, in markets characterized by rapid technological progress, competition often takes place on the basis of performance features and not price. Given the importance of technological change to economic progress, and the importance of trade in high technology goods in the total international trading picture, the conceptual approach offered by Hay et al. to the measurement of market power often needs to be modified if consumer welfare is to be improved rather than harmed by antitrust interventions.⁴

The second step is to arrive at a workable empirical means to measure market power. The authors correctly observe that the tradition in antitrust analysis, despite the lack of an unambiguous supportive evidence, has been to associate market power with market concentration.⁵ Of course, it is in deciding the relevant market and in computing shares that the most antitrust torment lies. Whether the courts believe that the market is domestic or in some fashion global is likely to have huge implications for market share determination and for conclusions about market power. Hence, the need to define correctly the geographic scope of the market becomes crucial.

Hay et al. recognize that while foreign producers can affect the market power of domestic firms even when foreign producers make no sales in the U.S., the most obvious way that foreign firms can limit the market power of domestic firms is when foreign firms actually sell some or all of their output in the U.S., or are capable of doing so if U.S. prices rise above competitive levels.⁶ The authors embark on a review of how traditional merger analysis accounts for such foreign competition. They point out that analysts usually decide to expand the geographic market to include foreign production when (1) there are no significant import barriers into the U.S., (2) domestic and foreign prices for the relevant product move together, and (3) shipments into the U.S. are an actuality or a possibility. With respect to the latter, there is considerable debate as to which foreign shipments should be included in the relevant geographic market. Landes and Posner have argued that all foreign production should be included.⁷ Others, including Harris and Jorde, have argued that only actual sales into the U.S. plus some portion of excess capacity should be included.⁸ Hay et al. point out that whether foreign producers

4. *Id.* at 714.

5. *Id.* at 714-15.

6. *Id.* at 718.

7. Landes & Posner, *Market Power in Antitrust Cases*, 94 HARV. L. REV. 937 (1981).

8. Harris & Jorde, *Antitrust Market Definition: An Integrated Approach*, 72 CALIF. L. REV. 1, 57-59, 62-64 (1984).

have a greater supply responsiveness than domestic firms is essentially an empirical question that cannot be settled theoretically.⁹ Nevertheless, they suggest two approaches for ascertaining whether imports limit the market power of domestic firms. One relies upon estimating import demand elasticities;¹⁰ the other uses historical data to explore whether exchange rate changes, which supposedly proxy for changes in import prices, impact market shares.¹¹ Their empirical work along these lines is quite helpful, and is the most original part of the paper. Because the estimates obtained are generally quite low, it leads the authors to be cautious with respect to incorporating foreign production or capacity in amounts substantially greater than the actual amount of imports that have entered the U.S.

Hay et al. have crafted a nice piece which implicitly employs the standard microeconomic analysis of markets to address the role of foreign competition. However, like a good deal of other work in this tradition, it is insensitive to a number of the realities of international competition today. For instance, in many industries it is, in our view, important to ask what is the nature of the competition which comes from abroad?¹² Is competition primarily on the basis of price, or on the basis of product performance? If it is the latter, import price elasticities may not be all that interesting. Foreign competition may surge forward without a price advantage if product innovation abroad is on a faster trajectory than it is in the U.S. Also, questions of long-term corporate strategy come into play. If foreign firms are committed to a strategy of entering the U.S. market, as evidenced by their expenditures on market entry activities and other factors, then one might weigh imports differently than if they were simply taking advantage of short-term arbitrage opportunities. Also, foreign industrial policies impact the nature of competition in the U.S., and these factors sometimes ought loom larger in market definition analysis than the best point estimates of import demand elasticities or exchange rate elasticities. In short, because the authors' analysis is based on a very simple market model and a very simple model of the firm, much that is important with respect to competition never comes into focus.

The business strategy literature, which provides many insights into

9. Hay, Hilke & Nelson, *supra* note 1, at 729.

10. *Id.* at 729-31.

11. *Id.* at 731-34.

12. Jorde & Teece, Product Market Definition in the Context of Innovation: An Exploration (February, 1988) (University of California Berkeley Business School, Business & Public Policy Working Paper No. BPP-29).

the nature of competition and competitive responses, is not, unfortunately, utilized in this paper or in the antitrust literature more generally. When economists begin to utilize richer models of the firm and of markets, they will begin informing the courts and Congress in a meaningful way about the competitive process. Hay et al. have made a start in at least highlighting relevant data which might help assist one in assessing the strengths of competition. But the literature has a long way to go before it can provide the foundation for an antitrust policy which effectively comes to grips with the new forms of competition coming from abroad.