Winter 1989

Does Exposure to International Trade Justify Relaxed Antitrust Treatment of Mergers

William James Adams

Does Exposure to International Trade Justify Relaxed Antitrust Treatment of Mergers?

William James Adams*

When industries are exposed to foreign competition, relaxation of antitrust law in general, and of antimerger law in particular, may be justified in two ways. First, it may be argued that the ability to compete with foreigners requires possession of market power. One variant of this argument stresses the desirability of market power itself. Domestic enterprises must neutralize restrictive practices abroad—whether they are inspired by foreign governments or merely tolerated by them—if such enterprises are to enjoy their "natural" comparative advantages. A second variant of the argument emphasizes the growth of minimum efficient scale in manufacturing, due in no small measure to the rising importance of invention and innovation. In this variant, the market power acquired by domestic firms, through merger or restrictive practices, is thought to be an unfortunate, but necessary, by-product of achieving productive and dynamic efficiency. Several recent studies,[1] including one published in this Journal,[2] have questioned the wisdom of this first argument, and

---

[1] *See* Caves, *Effects of Mergers and Acquistions on the Economy: An Industrial Organization Perspective,* in THE MERGER BOOM (L. Browne & E. Rosengren eds. 1988); W. ADAMS & J. BROCK, THE BIGNESS COMPLEX (1987).

[2] Adams & Brock, *The Bigness Mystique and the Merger Policy Debate: An International Perspective,* 9 NW. J. INT'L L. & BUS. 1 (1988). Adams and Brock argue as follows: the governments of several rich market economies have tolerated and even promoted major mergers since World War II; retrospective evidence suggests that these mergers failed to augment the profitability or the productivity of the combining enterprises; as a result, the foreign experience does not contradict the wisdom of restoring stringency to American regulation of mergers—of returning to the treatment that existed before the implementation of the Reagan guidelines.

consequently I shall ignore it here. Instead, I shall focus on a second argument: that the existence of foreign competition eliminates both actual and potential reduction of competition that might otherwise result from market conduct, or from market positions, challenged by antitrust authorities. In this view, competition remains a desirable policy objective; yet it is achieved not through antitrust intervention but through the market mechanism of international trade.

To what extent does failure to take account of foreign competition result in overestimation of the anticompetitive consequences of domestic mergers? Many studies suggest that across manufacturing industries, market power (measured by long-run profitability) varies negatively with exposure to imports.[3] Studies of particular industries also suggest that across industrialized nations, seller-concentration varies negatively with exposure to imports.[4] As a result, the thoughtful framer of antitrust policy must ascertain whether foreign sellers account for major fractions of American markets, and whether American producers sell considerable fractions of their output in foreign markets which they fail to dominate. If the findings in each case are affirmative, then American levels of producer-concentration may systematically and substantially overestimate the levels of seller-concentration in markets supplied by American enterprises. For this and other reasons, they may overestimate the anticompetitive consequences of mergers.

To calibrate the exposure of American industries to foreign trade, I shall compare the American situation with the situation in France. Among industrialized nations, France is often considered to be relatively protectionist in matters of international trade. Hence, my interest is in determining how exposed American enterprises are to international trade in comparison with their French counterparts.

Using information gathered by the Organization for Economic Cooperation and Development ("OECD"),[5] it is possible to examine the ratio of imports to consumption, and the ratio of exports to output, in identically-defined French and American industries. The information reported herein relates to 1982, the year the first Reagan merger guidelines

---

[3] *See* Jacquemin, de Ghellinck & Huveneers, *Concentration and Profitability in a Small Open Economy*, 29 J. INDUS. ECON. 131 (1980); Pugel, *Foreign Trade and US Market Performance*, 29 J. INDUS. ECON. 119 (1980); and Jenny & Weber, *Profit Rates and Structural Variables in French Manufacturing Industries*, 7 EUR. ECON. REV. 187 (1976).

[4] *See* Adams, *Producer-Concentration as a Proxy for Seller-Concentration: Some Evidence from the World Automotive Industry*, 29 J. INDUS. ECON. 185 (1980).

[5] ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT, INDUSTRIAL STRUCTURE STATISTICS, 1984 (1986).

took effect.[6] In manufacturing as a whole, the ratio of imports to domestic consumption ("import ratio") was 25% in France and 9% in the United States. The ratio of exports to production ("export ratio") was 26% in France and 8% in the United States. In other words, the incidence of international trade on domestic manufacturers was three times as great in France as in the United States.

The importance of trade can vary, of course, among industries within the manufacturing sector. To what extent do figures on the entire manufacturing sector represent accurately the situation in particular industries? The OECD data permit decomposition of manufacturing into twenty-eight industries, a level of aggregation lying between the two- and three-digit levels of the United States Standard Industrial Classification ("SIC").[7]

Looking first at imports, in twenty-seven of the twenty-eight industries,[8] the French import ratio exceeds its American counterpart. The average gap between the two ratios is eighteen percentage points.[9] Table 1 shows the distribution of value-added among manufacturing industries classified according to import-exposure. Nearly two-thirds of American value-added, but less than one-tenth of French value-added, is generated in industries with import ratios below 10%. On the other hand, nearly half of French value-added, but only one-hundredth of American value-added, is generated in industries with import ratios of 30% or more. Clearly, the French exposure to imports is as pervasive as it is intense.

Turning to exports, the French export ratio exceeds that of the

---

6 During 1982, the United States dollar tended to be strong, while the French franc tended to be weak. As a result, ratios of imports to consumption may be abnormally high in the United States. Similarly, ratios of exports to output may be abnormally low in France and abnormally high in France and abnormally low in the United States. The Merger Guidelines adopted by the Department of Justice in 1982 and 1984 are set forth in 4 Trade Reg. Rep. (CCH) ¶¶ 13,102-13,103.

7 In order to facilitate the classification of establishments by economic activity, and to promote the collection, presentation and comparability of data from those establishments, the SIC was formulated as the statistical classification standard underlying all establishment-based economic statistics classified by industry in the United States. The SIC covers the entire field of economic activity and defines industries according to the composition and structure of the economy, and it is used to promote the comparability of establishment data describing various facets of the United States economy. *See* OFFICE OF MANAGEMENT & BUDGET, STANDARD INDUSTRIAL CLASSIFICATION MANUAL (1987). Similarly, the International Standard Industrial Classification of All Economic Activities ("ISIC") was adopted by the United Nations to provide a framework for the international comparison of national statistics classifying establishments based upon economic activity. *See* U.N. DEP'T OF ECONOMIC & SOCIAL AFFAIRS, INTERNATIONAL STANDARD INDUSTRIAL CLASSIFICATION OF ALL ECONOMIC ACTIVITIES, U.N. Doc. ST/STAT/SER.M/4/Rev. 2, U.N. Sales No. E. 68, XVII.8 (1968).

8 All save footwear (ISIC 324).

9 The average import ratio was 28% in France and 11% in the United States. The gap differs positively from 0 at the .001 level of statistical significance in a two-tail t-test.

United States in twenty-seven of the twenty-eight industries.[10] On aver-
age, the export ratio is 26% in France but only 7% in the United
States.[11] Table 2 shows the distribution of value-added among manufac-
turing industries, classified according to export-exposure. Only one
French industry, but twelve American industries, display export ratios of
less than 5%. On the other hand, eighteen French industries, but only
one American industry, display export ratios of 20% or more. Unlike
their French counterparts, most American industries sell the overwhelm-
ing bulk of their output at home. Even if foreign markets function com-
petitively, their relevance to American enterprises is too tenuous to affect
the degree of competitive pressure they experience.

French industries are heavily exposed to international trade, while
American industries are not. Nevertheless, it is interesting to note that
industries with relatively high import ratios in France (by French stan-
dards) tend also to show relatively high import ratios in the United States
(by American standards). For example, the printing and publishing in-
dustry (International Standard Industrial Classification ["ISIC"] 342)
exhibits a relatively low import ratio in both countries, while the foot-
wear industry (ISIC 324) exhibits a relatively high import ratio in both
countries. Exceptions to this synchrony do exist—the textile industry
(ISIC 321) shows relatively great exposure to imports in France but not
in the United States—but, statistically speaking, French and American
import ratios are positively correlated.[12] French and American export
ratios are also positively correlated.[13] Furniture and fixtures (ISIC 332)
illustrates a relatively low export ratio in both countries; machinery
(ISIC 382) illustrates a relatively high export ratio in both countries; and
miscellaneous petroleum and coal products (ISIC 354) illustrates the oc-
casional discrepancy of ratios (relatively high in France, average to low
in the United States).

In Tables 1 and 2, industries are defined very broadly. Each indus-
try contains many economically distinct lines of business. If industries
are defined more narrowly, does one observe greater variation among in-
dustries in import and export ratios? To answer this question, one must
rely on data reported at the national level. The disadvantage of these
data is the incongruity of French and American schemes of industrial
classification. Unlike the OECD information, reported according to
ISIC for both countries, the national information cannot be compared at

---

[10] All save tobacco (ISIC 314).

[11] The gap differs positively from 0 at the .001 level of statistical significance in a two-tail t-test.

[12] At the .05 level of statistical significance in a one-tail t-test.

[13] At the .01 level of statistical significance in a one-tail t-test.

the industry level. On the other hand, the OECD's information is derived from these national data; the national figures are certainly of higher quality.

Table 3 shows the distribution of American manufacturing industries, narrowly defined, by exposure to imports and exports. Although several such industries are heavily exposed to imports (see Table 4), and others sell heavily in foreign markets (see Table 5), the numbers in each case are small in relation to the total number of industries observed. Furthermore, the industries included in these tables are not, by and large, the targets of strict merger regulation;[14] nor would they be under the pre-Reagan guidelines. International trade does not obviously tend to impinge heavily on industries especially prone to major mergers. In most instances, recalculation of concentration ratios to account for foreign competition, at home and abroad, would not alter the apparent wisdom of curbing a major American merger.[15]

If international trade should be taken into account in the regulation of mergers, the place to do it is in countries like France where exports and imports impinge heavily and pervasively on manufacturing industries.[16] In fact, it is more than possible that the failure of major mergers in Europe can be attributed to the persistent impact of market forces, transmitted through international trade, on European producers. After all, productive inefficiency would not have resulted in negative profits had the European national champions enjoyed substantial amounts of market power. It is precisely because so many American producers are

---

[14] It is beyond the scope of this article to correlate across American four-digit manufacturing industries the frequency of merger activity and the exposure to either imports or exports. On the other hand, it is interesting to examine the number of indictments for criminal violation of the Sherman Act in industries heavily exposed to international trade, as identified in Tables 4 and 5. (Data on indictments taken from J. CLABAULT & M. BLOCH, 1 & 2 SHERMAN ACT INDICTMENTS 1955-1980, at 688, 1053-70 (1981). Between 1955 and 1980, 617 such cases were brought. Of these, just seven concerned the 23 industries of Table 4; and just another seven concerned the 12 industries of Table 5. These results are not surprising: most Sherman Act indictments involve conspiracies to fix prices in a domestic market, and such conspiracies are unlikely to develop where potential conspirators face substantial import competition in the domestic market or sell large fractions of their output in foreign markets.

[15] Although it involved prosecution for monopolization rather than for merger, United States v. Aluminum Co. of America (Alcoa), 148 F.2d 416 (1945), illustrates the point. Assuming the relevant product market was primary aluminum ingot, Alcoa was a literal monopolist if imports were excluded by definition from the market; with imports included, Alcoa's market share remained above 90 percent.

[16] Import and export ratios for narrowly defined French industries, confirming the broad impact of international trade on French manufacturing, appear in W. ADAMS, RESTRUCTURING THE FRENCH ECONOMY: GOVERNMENT AND THE RISE OF MARKET COMPETITION SINCE WORLD WAR II ch. 4 (1989).

naturally or artificially protected from competition through international trade that vigor must be restored to United States regulation of mergers.

Table 1:   Distribution of Value-Added in Manufacturing by Exposure
           to Imports, France and the United States, 1982

Import ratio	Number of industries		Percent of value-added	
	France	USA	France	USA
0 to 4	0	9	0.0	35.8
5 to 9	3	9	7.4	29.9
10 to 19	4	6	22.5	31.9
20 to 29	9	2	21.2	1.8
30 to 39	6	2	39.2	0.5
40 to 49	5	0	9.7	0.0
50 or more	1	0	0.1	0.0
0 or more	28	28	100.0	100.0

     Source: ORGANIZATION   FOR   ECONOMIC   COOPERATION   AND
DEVELOPMENT, INDUSTRIAL STRUCTURE STATISTICS, 1984 (1986).
     Note: Import ratio is $(100)(M)/(Q-X+M)$, where M is imports, Q is production, and X is exports.

Table 2: Distribution of Value-Added in Manufacturing by Exposure to Exports, France and the United States, 1982

Export ratio	Number of industries		Percent of value-added	
	France	USA	France	USA
0 to 4	1	12	1.2	32.7
5 to 9	3	10	5.9	24.4
10 to 19	6	5	25.3	29.9
20 to 29	6	1	12.7	12.9
30 to 39	9	0	37.0	0.0
40 to 49	2	0	17.8	0.0
50 or more	1	0	0.1	0.0
0 or more	28	28	100.0	100.0

Source: ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT, INDUSTRIAL STRUCTURE STATISTICS, 1984 (1986).

Note: Export ratio is $(100)(X)/(Q)$, where X is exports and Q is production.

Table 3:   Distribution of American Manufacturing Industries by
            Exposure to International Trade, 1982

Import ratio	Number of industries	Export ratio	Number of industries
0 to 9	94	0 to 9	114
10 to 19	60	10 to 19	80
20 to 29	30	20 to 29	31
30 to 39	7	30 to 39	4
40 to 49	8	40 to 49	5
50 or more	8	50 or more	3
0 or more	207	0 or more	237

Source: U.S. Department of Commerce, Bureau of the Census. U.S. Commodity Exports and Imports as Related to Output: 1982 and 1981, tables 1A and 1B.

Note: Four-digit manufacturing industries importing (column 1) or exporting (column 2) $10 million or more of merchandise during 1982. Import ratio is imports c.i.f. as percent of new supply (domestic output plus imports). Export ratio is exports f.o.b. as percent of domestic output.

Table 4: American Manufacturing Industries Heavily Exposed to
Imports, 1982

Code	Industry	Import Ratio
2294	Textile goods nec	32
23851	Raincoats, waterproof outer garments	32
3253	Ceramic wall and floor tile	32
3143	Men's footwear, except athletic	33
3313	Electrometallurgical products	35
2292	Lace and net goods	37
3161	Luggage	37
2381	Gloves nec	40
3552	Textile machinery	40
2429	Shingles, shakes, cooperage stock nec	42
3144	Women's footwear, except athletic	42
3269	Pottery products nec	43
3171	Women's handbags and purses	46
3262	Vitreous china table and kitchen articles	47
3873	Watches, clocks, and watchcases	47
3651	Radio receivers, TV sets, phonographs, etc.	50
3942	Dolls and stuffed toy animals	50
3636	Sewing machines and parts	51
2279	Carpets and rugs nec	53
3751	Motorcycles, bicycles, and parts	55
2386	Leather and sheep lined clothing	56
3263	Fine earthenware food utensils	70
3339	Nonferrous smelting/refining products nec	77

Source: U.S. Department of Commerce, Bureau of the Census. U.S. Commodity Exports and Imports as Related to Output: 1982 and 1981, table 1B.

Notes: Four-digit manufacturing industries for which (1) the import ratio (imports c.i.f. as percent of new supply, where new supply is domestic output plus imports) was 30 percent or more, and (2) imports were $10 million or more. As in source, some listed industries contain parts of certain unlisted industries.

Table 5:   American Manufacturing Industries Especially Prone to
           Exports, 1982

Code	Industry	Export Ratio
3511	Turbines and turbine generator sets	33
2292	Lace and net goods	34
2833	Medicinals and botanicals	34
3721	Aircraft	34
2611	Pulp mill products	41
3728	Aircraft parts and auxiliary equipment	41
3531	Construction machinery	46
3636	Sewing machines and parts	47
3829	Measuring and controlling devices nec	47
2999	Petroleum and coal products nec	51
2044	Milled rice and by-products	52
3533	Oil-field machinery	54

Source: U.S. Department of Commerce, Bureau of the Census. U.S. Commodity Exports and Imports as Related to Output: 1982 and 1981, table 1A.

Notes: Four-digit manufacturing industries for which (1) the export ratio (exports f.o.b. as percent of domestic output) was 30 percent or more, and (2) exports were $10 million or more. Industry 3829 includes industry 38244.