

Complaint

98 F.T.C.

IN THE MATTER OF

TENNECO, INC.

FINAL ORDER, OPINION, ETC., IN REGARD TO ALLEGED
VIOLATION OF SEC. 5 OF THE FEDERAL TRADE COMMISSION ACT
AND SEC. 7 OF THE CLAYTON ACT

Docket 9097. Complaint, March 15, 1977—Final Order, Sept. 23, 1981

This order requires, among other things, a Houston, Texas, corporation to timely divest, in accordance with the terms of the order, all assets and properties constituting the Monroe Auto Equipment Company. The order also prohibits the company from acquiring, for a period of ten years, any enterprise engaged in the manufacture or sale of shock absorbers, without prior Commission approval; and bars any corporate officer or employee owning or controlling more than 1 per cent of Tenneco's assets from acquiring any of the divested stock or assets.

Appearances

For the Commission: *K. Keith Thurman, Layn R. Phillips, and Linda C. Martin.*

For the respondent: *John L. Jeffers, Alan Gover, and Henry Kollenberg, Baker & Botts, Houston, Texas, and David C. Murchison, John DeQ. Briggs III, and Bernard Cooney, Howrey & Simon, Washington, D.C.*

COMPLAINT

The Federal Trade Commission, having reason to believe that respondents, Tenneco Inc. (hereinafter "Tenneco") and Monroe Auto Equipment Company (hereinafter "Monroe"), corporations subject to the jurisdiction of the Commission, through taking steps to combine Tenneco and Monroe, have violated Section 5 of the Federal Trade Commission Act, as amended (15 U.S.C. 45); the proposed acquisition by Tenneco of the stock of Monroe, if consummated, would violate Section 7 of the Clayton Act, as amended (15 U.S.C. 18) and Section 5 of the Federal Trade Commission Act, as amended (15 U.S.C. 45); and it appearing that a proceeding by the Commission in respect thereof would be in the public interest; the Commission hereby issues its complaint, pursuant to Section 11 of the Clayton Act (15 U.S.C.21) and Section 5(b) of the Federal Trade Commission Act (15 U.S.C.45(b)) and states its charges as follows:

I. Definitions

1. For the purposes of this Complaint, the following definitions shall apply:

(a) *Exhaust system parts* (hereinafter "ESP") are all exhaust pipes, connecting pipes, tail pipes, mufflers (including "sports" mufflers), resonators and attaching parts for application on automobiles, trucks, buses and farm equipment. [2]

(b) *Shock absorbers* are McPherson strut assemblies, cartridges, and shock absorber kits; steering dampers; and direct-acting, air-adjustable, and spring-assisted shock absorbers for application on automobiles, trucks and buses.

(c) The *replacement market* includes all sales by manufacturers of automotive parts for use as replacement of original equipment parts or of previously replaced parts.

II. Tenneco

2. Tenneco is a corporation organized and doing business under the laws of Delaware, with its principal office at the Tenneco Building, Houston, Texas.

3. In 1975, Tenneco's consolidated operating revenues were \$5,630,338,000 and its net income was \$342,936,000. As of December 31, 1975, Tenneco had total assets of \$6,584,204,000.

4. Tenneco's automotive parts operations are carried on by its Walker Manufacturing Company division (hereinafter "Walker"), which manufactures and distributes a full line of ESP, hydraulic and air jacks, steering dampers (a form of shock absorber), and other parts for passenger cars, light trucks, and heavy duty vehicles in the U.S.

5. In 1975, Walker's worldwide revenues amounted to \$303 million with net operating income before taxes of \$52.1 million. In 1975, Walker's domestic ESP operations had gross sales of \$209.7 million, operating income before taxes of \$38.6 million, and a pretax return on investment of 38.7 percent. Walker operated thirteen plants located in the U.S., eleven of which manufactured ESP, and served domestic customers from twenty-two distribution centers.

6. At all times relevant hereto, Tenneco sold and shipped products throughout the U.S. and engaged in commerce within the meaning of the Clayton Act, as amended; and engaged in or affected commerce within the meaning of the Federal Trade Commission Act, as amended. [3]

III. Monroe

7. Monroe is a corporation organized and doing business under the laws of Michigan, with its principal office at International Drive, Monroe, Michigan.

8. Through its fiscal year ended June 30, 1976 ("fiscal 1976") Monroe's business consisted mostly of the manufacture and distribution of shock absorbers, primarily for automotive use. Monroe produces and sells shock absorbers for use on virtually all domestic, and many foreign, makes and models of automobiles. Monroe offers the most complete coverage of truck (light, medium and heavy) and bus shock absorbers. Monroe operates three domestic production facilities which, along with Monroe's corporate headquarters, function as distribution points for its independent aftermarket customers.

9. For fiscal 1976 Monroe had net sales of \$174,346,000 and net income of \$5,411,000. As of June 30, 1976, Monroe had total assets of \$185,854,000. Monroe has experienced a rate of return on its stockholder's equity averaging 21.9 percent after taxes for the ten year period 1965-74. For fiscal 1976, \$123.8 million of Monroe's total sales and all of its profits derived from its domestic operations.

10. Monroe is a leading manufacturer and distributor of shock absorbers in the U.S. and worldwide, especially in the replacement markets. Eighty-one percent of its sales in the latest fiscal year were made to the replacement markets. In 1976, Monroe ranked second in the U.S. replacement shock absorber market. Monroe's sales of shock absorbers domestically are made primarily to warehouse distributors (hereinafter "WDs"), but it also sells to chain stores and other private brand accounts and various vehicle producers for resale. Monroe is the largest seller of shock absorbers to WDs. Monroe has a quality product, a known brand name, and a competent force of field salesmen.

11. At all times relevant hereto, Monroe sold and shipped its products throughout the United States, and engaged in or affected commerce within the meaning of the Federal Trade Commission Act, as amended. [4]

IV. Agreement Between Tenneco and Monroe

12. On December 20, 1976, Tenneco announced an agreement in principle to acquire Monroe. On December 22, 1976, the Boards of Directors of Tenneco and Monroe approved a proposal for the combination of the two companies to be effected by an exchange of Tenneco common stock for Monroe common stock. Under the

exchange proposal Tenneco would seek to acquire not less than 80 percent of Monroe's common stock. It is anticipated that the proposed acquisition of Monroe by Tenneco will be consummated in March 1977.

V. Nature of Trade and Commerce

A. Market Definitions

13. The relevant geographic market is the U.S. as a whole.

14. The relevant product markets are:

(a) The manufacture and sale of shock absorbers to (1) the U.S. replacement market and (2) the U.S. independent aftermarket.

(b) The manufacture and sale of ESP to (1) the U.S. replacement market and (2) the U.S. independent aftermarket.

15. No practical alternatives exist for shock absorbers and ESP in automotive use.

16. Shock absorbers are an integral part of automotive suspensions. They are responsible to a large degree for the handling characteristics, roadability, safety and comfort of the car. They help to hold a car under control, reduce sway and roll on curves, reduce bottoming, control wheel hop, and smooth the ride.

17. Shock absorbers take three basic forms: McPherson units; steering dampers; and heavy duty, air-adjustable and spring-assisted shock absorbers. Monroe and its principal competitors offer all three forms as a complete shock absorber line. All forms of shock absorbers (1) involve the same basic design and manufacturing technologies; (2) are sold through the same channels of distribution to the same customers; (3) are manufactured by the leading producers of shock absorbers; (4) are installed by the same people; (5) are priced within the same range; and (6) perform the same basic function, to aid in stabilizing the vehicle. [5]

18. ESP serve to dissipate engine exhaust fumes and to provide an acceptable noise level.

19. Both shock absorbers and ESP are sold for incorporation into new vehicles during their assembly (original equipment installation, hereinafter "OE") and for replacement of worn out or damaged units on existing vehicles. The replacement market is distinct from the OE market. Prices of parts sold to the OE market are significantly lower than those sold to the replacement market. There is no cross elasticity of demand between the OE and replacement markets. Demand for OE parts is a function of vehicle production; demand for

replacement parts varies with a number of factors, including wear, failure, and desired upkeep by users.

20. The replacement markets for shock absorbers and ESP are divisible into two submarkets: the service market; and the independent aftermarket. The service market consists of sales made to vehicle producers for resale to their dealers, plus sales by vehicle producers of parts of their own manufacture to their dealers. The independent aftermarket encompasses all other replacement sales, but excludes those sales made to other manufacturers of the same product.

21. Manufacturers of shock absorbers and ESP recognize that the service market and the independent aftermarket are distinct submarkets, utilizing separate sales forces and distinct sales programs. To serve the independent aftermarket for shock absorbers and ESP, it is necessary to have a stock of parts at various distribution points around the country. Such distribution facilities are not necessary to supply the service market inasmuch as the customers themselves already possess a distribution system for parts.

B. Market Structure

(i) Shock Absorbers

22. Sales of shock absorbers to the replacement market in 1975 totalled approximately 51.6 million units, having a value of \$312 million. Sales of shock absorbers to the independent aftermarket in 1975 were 47.5 million units, with an approximate value of \$288 million. [6]

23. Monroe's total sales of shock absorbers to the replacement market during fiscal 1976 exceeded 18.3 million units with a value in excess of \$102 million, and accounted for 33 percent of total industry shipments to that market. Monroe's fiscal 1976 shipments of 17.5 million units represented 34 percent of the 51.7 million units (valued at approximately \$301 million) shipped to the independent aftermarket.

24. In calendar 1976 Walker sold \$2.5 million or approximately 0.8 percent of total industry sales of shock absorbers to the replacement market.

25. Concentration in the sale of shock absorbers to the replacement market and the independent aftermarket is extremely high.

(ii) Exhaust System Parts

26. In 1975, gross sales of ESP totalled approximately \$525

million to the replacement market and \$473 million to the independent aftermarket.

27. Walker's sales of ESP to the replacement market in 1975 were approximately \$188 million, which represented 36 percent of industry sales. Walker's sales of ESP to the independent aftermarket in 1975 were approximately \$184.4 million, which represented a 39 percent share of such sales.

28. Concentration in the sale of ESP to the replacement market and the independent aftermarket is extremely high.

(iii) Barriers to Entry

29. The barriers to entry into the sale of shock absorbers and ESP to the replacement market and the independent aftermarket are very high.

30. To enter into the sale of shock absorbers or ESP to the replacement market, a firm must make a substantial investment in plant and equipment. To enter the independent aftermarket portion of the replacement market, a firm also needs warehousing facilities and inventory; sufficient financial resources to meet seasonal requirements; a substantial marketing organization, including a large national sales force; and the ability to grant a variety of extended payment terms to customers. [7]

31. There are large economies of scale in the production both of shock absorbers and of ESP.

32. Holdings of U.S. and foreign patents provide current producers of shock absorbers and ESP with an absolute cost advantage over potential entrants. Monroe, in particular, benefits from its patent rights in shock absorbers. As of December 29, 1976, Tenneco held 194 unexpired patents including design patents on exhaust system items or their manufacture.

33. The leading sellers of shock absorbers and ESP to the replacement market and the independent aftermarket have developed a high degree of product differentiation. This differentiation has resulted from the use of extensive field sales forces to promote the products at all levels of distribution and substantial advertising and promotional expenditures.

34. To compete successfully in the independent aftermarkets, it is necessary to offer a full line of shock absorbers or of ESP, fitting most vehicles sold in the U.S. A firm must distribute nationally, and be able to fill orders in a relatively short period of time. As of 1974, it took more than 5,000 shock absorber part numbers and a like number of ESP part numbers to fulfill the needs of the replacement market for most vehicles made or sold in the U.S.

C. Compatibility of Shock Absorbers With Walker Product Lines

35. The sale of shock absorbers in conjunction with ESP offers advantages from marketing and manufacturing viewpoints. Such advantages arise from an identity of marketing channels and methods, and from common manufacturing methods. Tenneco and Walker have recognized shock absorbers to be the product line most compatible with ESP.

36. Shock absorbers are distributed through the same channels as ESP, from manufacturer to consumer. Shock absorbers are typically installed in exhaust system repair shops. The two products represent "under-the-car" service items, subject to the same environmental and repair conditions. Both ESP and shock absorbers are sold to the same customers by utilizing similar selling programs, discount structures, and financing arrangements. [8]

37. Shock absorbers and ESP can be combined in one distribution and delivery system. They have been marketed together by Walker, Maremont, and Questor to retail and mass merchandiser marketing channels. Both products are stored jointly by their manufacturers, including Walker, in regional warehouses. If the acquisition of Monroe is consummated, Walker proposes a unified distribution system for both shock absorbers and ESP.

38. Technological similarities exist in the manufacture of shock absorbers, and ESP and jacks. Most shock absorber components could be made by Walker's jack and exhaust system manufacturing equipment.

39. The manufacture of shock absorbers requires a knowledge of hydraulics. Walker possesses a knowledge of hydraulics, both fluid and air, from its experience in manufacturing jacks. There are also similarities in research and development technology between shock absorbers, and ESP and jacks.

VI. Walker's Entry Into Shock Absorbers

40. Starting as early as 1967, Walker has sought toehold acquisition entry into the manufacture and sale of shock absorbers to the replacement market. At that time, Walker had acquisition talks with Armstrong Equipment Ltd. (hereinafter "Armstrong"), a British manufacturer of shock absorbers for both the OE and replacement markets. Armstrong had shock absorber manufacturing subsidiaries in Australia, Canada, and South Africa, and a marketing organization for shock absorbers in the U.S.

41. Early in 1973, Walker considered acquiring Tropic Industries, a company which produced a self-adjusting shock absorber.

42. In May 1974 Walker commenced acquisition talks with Triple S Industries (hereinafter "Triple S"), a manufacturer of steering dampers. [9]

43. In May 1974 Triple S was experimenting with the Terramatic principle, which allows consolidation and reduction of the number of different shock absorbers required to serve the replacement market. Major automakers and Walker believed the Terramatic principle had great potential.

44. On October 15, 1974, Walker acquired Triple S and rights to use the Terramatic principle. Throughout their consideration of the Triple S purchase, Walker and Tenneco anticipated that this acquisition would provide a significant entry into the replacement shock absorber market. Subsequent to its acquisition of Triple S, Walker has continued to expand in the replacement shock absorber market.

45. Additional toehold acquisitions to assist Walker's expansion in the shock absorber replacement market have been and are available. Even subsequent to the purchase of Triple S, Walker has had discussions regarding the possible acquisition of leading European shock absorber manufacturers, including Armstrong and De Carbon.

46. Tenneco and Walker have made a significant commitment at their decisional levels to effect entry, either *de novo* or by toehold acquisition, to the manufacture and sale of shock absorbers for the domestic replacement market and the domestic independent aftermarket. Walker is one of the few firms likely to become a major factor in the U.S. replacement shock absorber market either by internal development or by additional toehold acquisitions. It is probable that such expansion by Walker would have a procompetitive effect and would result in deconcentration of the shock absorber replacement market and independent aftermarket.

47. Tenneco and Walker have been perceived as potential entrants into the shock absorber replacement market and independent aftermarket. It is probable that this perception has prompted a procompetitive effect in that market.

VII. Monroe Is One Of Few Likely Entrants Into ESP

48. Monroe has sought to expand into other automotive products sold in the replacement market to capitalize on its distribution channels and experience. ESP met or exceeded all of Monroe's developed criteria for diversification. [10]

49. One means Monroe considered for diversification into ESP

was through acquisition. In 1974 Monroe sought to acquire Arvin Industries, Inc. (hereinafter "Arvin"), a small producer of replacement ESP.

50. Monroe has the ability to expand a toehold ESP producer into a significant factor in the ESP replacement market and the independent aftermarket.

51. Of the major shock absorber sellers to the replacement market only Monroe does not currently manufacture or sell ESP. Common manufacturing and distribution of shock absorbers and ESP, make shock absorber producers the most likely entrants into the replacement ESP market.

52. It is probable that entry by Monroe into the production and sale of ESP would result in deconcentration of the ESP replacement market and independent aftermarket.

VIII. Effects

53. The effects of the steps taken by Tenneco to acquire Monroe constitute an unfair method of competition in or affecting commerce in violation of Section 5 of the Federal Trade Commission Act, as amended; and the proposed acquisition by Tenneco of Monroe, if consummated, may be substantially to lessen competition or tend to create a monopoly in violation of Section 7 of the Clayton Act, as amended, and constitute an unfair act and practice in or affecting commerce, in violation of Section 5 of the Federal Trade Commission Act, as amended, in the following ways, among others:

(a) Actual competition between Tenneco and Monroe and between Tenneco and other producers of shock absorbers for domestic sale to the replacement market and the independent aftermarket will be eliminated.

(b) Potential competition between Tenneco and Monroe and between Tenneco and other producers of shock absorbers for domestic sale to the replacement market and the independent aftermarket will be eliminated; furthermore, the potential for substantial deconcentration as a result of Tenneco's independent expansion into those markets will be eliminated. [11]

(c) Potential competition between Monroe and Tenneco and between Monroe and other producers of ESP for domestic sale to the replacement market and the independent aftermarket will be eliminated; furthermore, the potential for substantial deconcentration as a result of Monroe's independent or toehold entry into those markets will be eliminated.

(d) The dominant position of Monroe in the domestic sale of shock

absorbers to the replacement market and the independent aftermarket will be strengthened.

(e) The dominant position of Tenneco in the domestic sale of ESP to the replacement market and the independent aftermarket will be strengthened.

IX. Violations Charged

54. The steps taken by Tenneco and Monroe to combine the two companies constitute a violation of Section 5 of the Federal Trade Commission Act, as amended (15 U.S.C. 45).

55. The proposed acquisition by Tenneco of Monroe, if consummated, would constitute a violation of Section 7 of the Clayton Act, as amended (15 U.S.C. 18) and of Section 5 of the Federal Trade Commission Act, as amended (15 U.S.C. 45).

INITIAL DECISION BY

THOMAS F. HOWDER, ADMINISTRATIVE LAW JUDGE

MAY 27, 1980

PRELIMINARY STATEMENT

The Commission's complaint in this case, issued March 15, 1977, charges respondent Tenneco Inc. ("Tenneco") with violating Section 7 of the Clayton Act by acquiring Monroe Auto [2]Equipment Company ("Monroe").¹ Specifically, it was alleged that by virtue of the merger:

(1) Actual competition between Tenneco and Monroe and between Tenneco and other producers of shock absorbers for domestic sale to the replacement market and the independent aftermarket has been eliminated;

(2) Potential competition between Tenneco and Monroe and between Tenneco and other producers of shock absorbers for domestic sale to the replacement market and the independent aftermarket has been eliminated; furthermore, the potential for substantial deconcentration as a result of Tenneco's independent expansion into those markets has been eliminated;

(3) Potential competition between Monroe and Tenneco and between Monroe and other producers of exhaust system parts ["ESP"] for domestic sale to the replacement market and the

¹ Violation of Section 5 of the FTC Act was also alleged.

independent aftermarket has been eliminated; furthermore, the potential for substantial deconcentration as a result of Monroe's independent or toehold entry into those markets has been eliminated;

(4) The dominant position of Monroe in the domestic sale of shock absorbers to the replacement market and the independent aftermarket will be strengthened; and

(5) The dominant position of Tenneco in the domestic sale of ESP to the replacement market and the independent aftermarket will be strengthened.

The complaint was issued prior to the actual merger. Upon its issuance, the Commission initiated an action for injunctive relief in the U.S. District Court for the District of Columbia. Based on its consideration of the parties' papers, various depositions and oral arguments of counsel, the court denied the Commission's application. 433 F.Supp. 105 (D.D.C. 1977) (18-page opinion). The merger was thereafter consummated in July 1977 (*See Finding 24, infra*). Later, by order of February 7, 1978, issued by then-assigned ALJ Needelman, the complaint was amended to reflect the fact of the merger.²

[3]

Prehearing conferences were held in Washington, D. C. on May 18, 1977, January 4, 1978 and April 25, 1978. Following the completion of discovery and exchange of trial briefs, hearings were commenced in Washington, D. C., on June 12, 1978. Trial of this case lasted from June 12, 1978, until August 29, 1979, and consumed almost 120 hearing days. A transcript of over 13,300 pages was created, and several hundred exhibits were received in evidence. In their case-in-chief, presented from June 12 through June 23, 1978, complaint counsel called 10 witnesses; respondent's defense presented from July 10, 1978, through February 2, 1979, included 36 witnesses; the rebuttal case of complaint counsel lasted from February 12 through April 30, 1979, and included the testimony of 11 witnesses; and respondent's surrebuttal was presented from April 30 through August 9, 1979, and included the testimony of six witnesses.³

The record was closed on November 23, 1979, following the resolution of a number of problems regarding exhibits, *in camera* materials and extensive transcript corrections. Proposed findings were simultaneously filed by the parties on December 21, 1979, and reply findings on January 31, 1980.

Any motions not heretofore or herein specifically ruled upon,

² The amended complaint does not include Monroe as a named respondent.

³ Appendix A to respondent's proposed findings contains a list of the witnesses and indicates the location of their testimony in the transcript.

either directly or by the necessary effect of the conclusions in this decision, are hereby denied.

This proceeding is before me upon the complaint, answer, testimony and other evidence, and the proposed findings of fact and conclusions of law filed by counsel supporting the complaint and by counsel for respondent. The proposed findings of fact, conclusions and arguments of the parties have been considered, and those findings not adopted either in the form proposed or in substance are rejected as not supported by the evidence or as involving immaterial issues not necessary for this decision.

Certain abbreviations, including the following, are used in this decision:

- Tr. - Transcript of testimony.
- CX - Commission's exhibit.
- CPX - Commission's physical exhibit.[4]
- CPF - Complaint counsel's proposed finding.
- CRPF - Complaint counsel's reply proposed finding.
- RX - Respondent's exhibit.
- RPX - Respondent's physical exhibit.
- RPF - Respondent's proposed finding.
- RRPF - Respondent's reply proposed finding.

The transcript of testimony is usually referred to with the last name of the witness and the page number or numbers upon which the testimony appears.

Having heard and observed the witnesses, and after having reviewed the entire record in this proceeding, I make the following findings:

FINDINGS OF FACT

I. Tenneco

1. Respondent Tenneco Inc. ["Tenneco"] is a corporation organized and doing business under the laws of Delaware. Its principal office is The Tenneco Building, Houston, Texas (Complaint and Answer, ¶2; CX 106).

2. Tenneco is a conglomerate company with diversified manufacturing and distributing operations in farm and construction equipment, shipbuilding, petroleum, chemicals, packaging and automotive parts. Tenneco also has interests in agriculture and in land development (CX 2A-C; CX 2 pp.8-9, 12-20).

3. In 1975, Tenneco was the 15th largest industrial corporation in the United States with total assets of \$6,584,204,000.⁴ Tenneco's 1975 net income of \$342,936,000 was 18th largest and its consolidated operating revenues of \$5,630,330,000 were 22nd largest among industrial corporations in the United States (Complaint and Answer ¶3, CX 192B).

4. Until 1977, Tenneco's automotive parts operations [5] were carried on by its Walker Manufacturing Division ["Walker"], which manufactured and distributed a full line of exhaust system parts⁵ for passenger cars, light trucks, and heavy-duty vehicles in the United States. The production and sale of ESP accounted for and still accounts for a majority of Walker's revenues (Complaint and Answer, ¶4; Cook 1570-72, 1646; RPF 9).

5. The Mechanex Corporation ["Mechanex"] was part of Walker and a Tenneco subsidiary before the Monroe acquisition. Mechanex distributed steering stabilizers or dampers under the brand name of Steerline, as well as other automotive products for application on passenger cars, light trucks and heavy-duty vehicles (CX 43A-H; CX 44A-F; CX 173A; CX 208K, Admission No. 24; CX 339A-B; Prescott 11,281).

6. Walker began business as a jack and lifting device manufacturer in approximately 1912 and currently manufactures a wide variety of jack products including jack stands, hydraulic and air jacks, mechanical scissors jacks and various other associated accessories and components (Complaint and Answer, ¶4; CX 27R; CX 140; Uhen 1866). In recent years Walker has also manufactured and distributed a line of automotive filters, including air, oil and gasoline filters (CX 106B).

7. In 1975, Walker's worldwide revenues were \$303 million, with net operating income before taxes of \$52.1 million (Complaint and Answer ¶5).

8. In 1975, Walker's domestic ESP operations had gross sales of \$209.7 million, operating income before taxes of \$38.6 million, and a pretax return on investment of 38.7%. Walker documents project similar rates of return through 1981 (CX 26B).

9. In 1975, Walker operated 13 manufacturing and/or distribution facilities in the United States (Complaint and Answer, ¶5; CX 208I, Admission No. 19; RX 233; Schultz 1791-92). Of these, ten were ESP facilities:

⁴ This ranking is measured in terms of total assets as of December 31, 1975.

⁵ ESP is defined in Finding 55, *infra*.

Location of Walker ESP Manufacturing Facilities

- (1) Walker Mississippi Division Aberdeen, Mississippi
- (2) Walker North Carolina Division Arden, North Carolina [6]
- (3) Walker Texas Division Greenville, Texas
- (4) Walker Virginia Division Harrisonburg, Virginia
- (5) Walker Michigan Division Jackson, Michigan
- (6) Walker Ohio Division Hebron, Ohio
- (7) Walker Wisconsin Division (manufacturing only) Racine, Wisconsin
- (8) Walker Nebraska Division Seward, Nebraska

(CX 208I, Admission No. 19; RX 233).

Location of Walker ESP Distribution Centers (no manufacturing)

- (1) Walker Mid-West Distribution Center Batavia, Illinois
- (2) Walker Western Distribution Center Salt Lake City, Utah

(CX 208J-K, Admission No. 21).

10. At the time of Monroe's acquisition by Tenneco, Walker also distributed ESP from 22 field warehouses located throughout the U.S.

- (1) Atlanta, Georgia
- (2) Baltimore, Maryland
- (3) Buffalo, New York
- (4) Chicago, Illinois
- (5) Dallas, Texas
- (6) Denver, Colorado
- (7) Elizabeth, New Jersey
- (8) Hayward, California
- (9) Indianapolis, Indiana
- (10) Los Angeles, California
- (11) Medford, Massachusetts
- (12) Minneapolis, Minnesota
- (13) Monroeville, Pennsylvania
- (14) Omaha, Nebraska
- (15) Philadelphia, Pennsylvania
- (16) Phoenix, Arizona
- (17) Portland, Oregon
- (18) Riverside, Missouri
- (19) St. Louis, Missouri [7]
- (20) Seattle, Washington
- (21) Springfield, Massachusetts
- (22) Warren, Michigan.

(CX 208I-J, Admission No. 20).

11. During 1975, in addition to ESP, Walker stocked shock absorbers in the Buffalo, New York; Chicago, Illinois; and Indianapolis, Indiana field warehouses and certain distribution centers in the U.S. for resale to muffler installation shops (CX 208K, Admission Nos. 22-23).

12. Before it purchased Monroe, Tenneco acquired and presently operates various muffler shops which install ESP and sometimes shock absorbers in Canada and in Europe (CX 4I; CX 27P; Cook 1698-99; Fleuelling 5815-17; Ashford 11,511). In 1962, Walker acquired Speedy Muffler King, Inc., a chain of four or five muffler installation shops in Canada (Putman 1140, 1211; Cook 1654). By 1975, Walker had expanded Speedy Muffler King's market area from Montreal and Toronto west to Vancouver, British Columbia (CX 2C; Putman 1211). By 1978 there were 70-75 Speedy Muffler King outlets operating in Canada⁶ (CX 2; CX 25K; Putman 1140, 1145; Cook 1653-54). Walker plans substantial expansion in the number of

⁶ By December 31, 1978, there were six Speedy Muffler King outlets in the northeastern United States (CX 349 p.16).

its muffler shops, particularly in the U.S. market (Nelson 9861-65 *in camera*, 9866; Cook 1651-52 *in camera*).

II. Monroe

13. Prior to being acquired by Tenneco, Monroe was a corporation organized and doing business under the laws of Michigan with its principal office at International Drive, Monroe, Michigan 48161 (Complaint and Answer ¶7).

14. In fiscal 1976 (July 1, 1975—June 30, 1976) Monroe had net sales of \$174,346,000, net income of \$5,411,000, and total assets of \$185,854,000 (Complaint and Answer ¶9).⁷ [8]

15. In fiscal 1976, \$128.8 million of Monroe's total sales and virtually all of its profits were derived from its domestic operations; the company's foreign shock absorber operations taken as a whole were not profitable (CX 141C-D; CX 151E; *see* CX 3K; CX 4S; CX 21B; CX 22).⁸

16. Monroe, which has traditionally been a one product company,⁹ began to manufacture shock absorbers before World War II (RPF 13). It became and presently remains a leading manufacturer and distributor of shock absorbers in the United States and worldwide. Monroe is considered to have a high quality product, a known brand name, and a competent force of salesmen.

17. Monroe sells shock absorbers for use on virtually all domestic and many foreign makes of automobiles. (CX 4Q; CX 143K). Monroe's domestic sales of shock absorbers are made primarily to warehouse distributors ["WDs"], but it also sells to chain stores, other private brand accounts and various vehicle producers for resale (Complaint and Answer ¶10). In fiscal 1976, 81% of Monroe's sales worldwide were to the replacement market (Complaint and Answer ¶10).

18. Overseas, Monroe and its affiliates operated shock absorber plants in Belgium, Brazil, Argentina, Spain and Canada (CX 208F, Admission No. 14; Barbeau 4695). Domestically, the company operated three shock absorber plants, which also functioned as distribution facilities:

1. Hartwell, Georgia

⁷ In fiscal 1972 (July 1, 1971—June 30, 1972), Monroe was the 683rd largest industrial corporation in the United States in terms of net sales, with consolidated net sales of \$127,521,954 (CX 144 p.6 *citing* Fortune Magazine Directory of the 1,000 largest U.S. industrial companies; CX 145 p.8). It ranked 255th largest in terms of net income with only six industrial corporations surpassing Monroe in net income as a percent of sales (CX 144 p.6 *citing* Fortune Magazine Directory of the 1,000 largest U.S. industrial companies).

⁸ Monroe experienced a rate of return on its stockholder's equity averaging 21.9% after taxes for the ten year period 1965-74 (Complaint and Answer ¶9). In 1976, Monroe's earnings had dropped from the 1973 levels of 12.4% of revenues and 15.3% of equity to 3.1% of revenues and 4.3% of equity (CX 4D).

⁹ Monroe introduced an oil filter in 1975 to diversify its product line (CX 141 p.9; CX 141F; CX 142E).

2. Cozad, Nebraska
3. Paragould, Arkansas

(Complaint and Answer, ¶8; CX 208E, Admission No. 8; Hegel 1975).

19. Monroe distributed shock absorber products, including steering dampers, from its Reno, Nevada, Hartwell, Georgia and Cozad, Nebraska facilities. Automotive oil filters were distributed from all of the above except the Reno, Nevada facility (CX 171A-B). [9]

III. Jurisdiction

20. It is not disputed that, since at least 1975, both Monroe and Tenneco sold and shipped products throughout the United States and engaged in commerce within the meaning of the Clayton Act, as amended; and engaged in or affected commerce within the meaning of the Federal Trade Commission Act, as amended (Complaint and Answer, ¶¶6, 11).

IV. Acquisition of Monroe

21. On December 20, 1976, following negotiations, Tenneco announced an agreement in principle to acquire Monroe.¹⁰ On December 22, 1976, The Board of Directors of Tenneco approved a proposal for the combination of the two companies to be effected by an exchange of Tenneco common stock for Monroe common stock. Under the exchange proposal, Tenneco sought to acquire not less than 80% of Monroe's common stock (Complaint and Answer ¶12).

22. The merger was consummated on July 29, 1977 through an exchange of one share of Tenneco common stock for each 2.6 shares of Monroe¹¹ (CX 106A; CX 202 p.2).

23. Following the merger, Monroe Auto Equipment and Walker Manufacturing became operating units of Tenneco Automotive, which now oversees the activities of Walker, Monroe and the Speedy Muffler King unit for U.S. operations (CX 202, p.2; CX 349 p.16).

V. Relevant Geographic Markets

24. There is no dispute that the relevant geographic market for both ESP and shock absorbers is the United States as a whole¹² (Complaint ¶13; RPF n.6; See Nelson 9663, 10,716). [10]

¹⁰ Tenneco's prior interest in Monroe is discussed in Findings 385-87, *infra*.

¹¹ On July 29, 1977, Monroe was merged into the wholly owned subsidiary of Tenneco which held the shares of Monroe stock acquired pursuant to the offer (Respondent's Trial Brief p.5).

¹² There are no regional variations in the prices of replacement shock absorbers or ESP (CX 208N, Admission No. 43; Kalupa 3654, 4190, 4196; Robison 3691; Luyckx 3746; Fleuelling 4115, 5159-60; Foster 5105-06 *in camera*, 7233-35 *in camera*; see Nelson 9633, 10,561, 10,716-17).

VI. Relevant Product Markets

A. Shock Absorbers

25. Shock absorbers are products that have virtually no substitutes for use on motorized vehicles (CX 208“O”, Admission No. 44).

26. Shock absorbers are an integral part of automotive suspension systems and are responsible to a large degree for the handling characteristics, roadability, safety and comfort of vehicles (Complaint and Answer ¶16; CX 15A; CX 309B). The specific function of a shock absorber is “. . . to diminish or hopefully, eliminate any of the subsequent movements of the [vehicle’s] body after the tire or tires have negotiated the bump in the road” (Hegel 1931). Shock absorbers fulfill their function by converting mechanical energy to thermal energy and then releasing it to the atmosphere (Hegel 1932; see CX 220Z-8). Thus, shock absorbers help hold a car under control at all times by keeping the wheels on the road, reducing sway and roll on curves, reducing bottoming, dampening vibrations, controlling wheel hop, as well as smoothing the ride (CX 15A, CX 208 “O”, Admission No. 47; CX 220Z-8-10; Hegel 1931; Tompkins 2316).

27. In order to meet specific requirements, shock absorbers take various forms, including direct-acting or conventional shocks,¹³ air-adjustable, spring-assisted, steering dampers and MacPherson struts¹⁴ (CX 15A-C; CX 99; CX 168A-B; CX 169A-G; CX 175; CX 189; Hegel 1943-44; Diggelman 2525; Fleuelling 4104, 4118; Nelson 9665, 9729).

28. Shock absorbers have been recognized as distinct products by the Census of Manufacturers (CX 190G-H). The Motor Equipment Manufacturers’ Association [“M.E.M.A.”] *Quarterly Product Trend Report* breaks down unit replacement sales of shock absorber manufacturers into the following categories; direct acting, air-adjustable, spring-assisted and MacPherson struts and cartridges (CX 162A; Fleuelling 1404-05). Employees or agents of Monroe participated in the formation of M.E.M.A. shock absorber reporting categories and Monroe relies on M.E.M.A. data (CX 208Z-13, Admission No. 173; Kalupa 3560-61; Fleuelling 4098-5105). [11]

29. A MacPherson strut¹⁵ is considered as and referred to as a form of shock absorber by members of the industry (Givens 429-30; Hegel 1943-44, 1950-51; Diggelman 2525, 2555; Robison 3761; Fleuelling 4104, 4118; Joines 9115; Garfinkel 9105; Stewart 9243-44).

¹³ Shock absorbers come in a range of sizes including the most common 1" and 1 1/8". See, e.g., RX 52 A-D.

¹⁴ MacPherson struts and steering dampers are discussed in greater detail in Findings 29-41 and 42-47 *infra*.

¹⁵ Named after a certain Mr. Earl S. MacPherson, a former employee of GM and Ford in the 1940's and 1950's, who first conceived the idea of and obtained a patent "on a suspension arrangement similar to what we now call a MacPherson strut" (Hegel 1960).

30. A MacPherson strut¹⁶ may be characterized as a shock absorber which also incorporates some structural components of the suspension system (RX 555A-C, *in camera*; Givens 429-30; Hegel 1953-54; H. Wright 3815, 3838; Cox 4408-09; *but see* N. Wright 11,805).

31. MacPherson strut units perform the same damping¹⁷ function for automotive suspensions as does a conventional shock absorber (RX 555A *in camera*; Givens 429-30; Hegel 1950-53; H. Wright 3815; Cox 4408-09; Garfinkel 9205).

32. The strut assembly consists of a hydraulic cartridge plus attaching and positioning parts (Givens 439-40; Hegel 1950-52). The hydraulic cartridge of a MacPherson strut is similar in its design, basic parts, and function to other types of shock absorbers (CX 189; Hegel 1952-53, 1955, 1961-62, 2104; H. Wright 3779, 3815; Cox 4408-09).

33. Both conventional shock absorbers and MacPherson struts use pressure chambers and piston rods (CX 189; Hegel 1950-52). In the case of Monroe and Woodhead, for example, the same sized pressure chamber and piston rod are used in the MacPherson strut cartridges these companies produce as in the 1 $\frac{3}{16}$ " conventional shock absorber. MacPherson strut units involve much of the same manufacturing technology as is used in producing shock absorbers (CX 208P, Admission No. 51).

34. There was testimony that a firm which manufactures hydraulic cartridges for MacPherson struts would not find it [12] technically difficult to produce the remainder of the strut components (Cox 4409-10).

35. MacPherson units are designed for use on smaller automobiles, and have become original equipment on such makes as Volkswagen, Toyota, Datsun, Capri, Colt, Mazda, Honda, Porsche, BMW as well as certain GM, Ford and Chrysler cars (CX 172A-B, L; CX 280"O"-P, Admission No. 48; RX 555B-C *in camera*; Hegel 1947, 1961; H. Wright 3779). While conventional direct-acting shocks are still standard or original equipment on most American cars, there was evidence that vehicle manufacturers may use MacPherson assemblies on the smaller new cars of the future, where space is a prime consideration (CX 98F; RX 555A-C *in camera*; H. Wright 3779, 3842; Bracken 4312; Garfinkel 9205).

36. Consequently, there is a trend toward increased use of MacPherson struts in cars manufactured in the United States (Pond

¹⁶ See CX 243, which is a marked copy of RX 381, for a diagram of a MacPherson strut. See CX 242, which is a marked copy of RX 380, for a diagram of Ford's Hybrid strut. For purposes of this case the Hybrid will be considered a type of MacPherson strut.

¹⁷ See Finding 26, *supra*.

862; Hegel 7270; *Compare* Hegel 2120, 2122-23 with Freeman 8863 *in camera* and H. Wright 3823 *in camera*).

37. The same engineers at Monroe, GM, Bilstein and Woodhead are responsible for both MacPherson strut and shock absorber design (RX 555B *in camera*; Hegel 2104; Petzsch 2466; Cox 4416). Some U.S. shock absorber manufacturers have developed the in-house ability to design and produce MacPherson strut assemblies, or at least prototypes.¹⁸

38. MacPherson units can be serviced in one of three ways: using MacPherson shock absorber repair kits, inserting MacPherson cartridges or replacing entire strut assemblies (CX 44D; CX 169C; CX 172A; CX 223Z-55; Hegel 1961-63).

39. Firms which manufacture both conventional shock absorbers and MacPherson units or cartridges include: Monroe, Maremont, Delco Division of General Motors, Questor, Ford, Armstrong, Kaya-ba, Tokiko, ITT, Boge, Woodhead, Fichtel & Sachs, [13]Cofab and Bilstein.¹⁹

40. Manufacturers that sell MacPherson struts or replacement cartridges to the U.S. replacement market generally also sell at least one other type of shock absorber.²⁰

41. Monroe began marketing MacPherson strut cartridges to the U.S. replacement market in approximately 1973 (CX 145E; CX 144D; Hegel 1961).

42. A steering damper,²¹ like a shock absorber, is a hydraulic device (CX 282A; CX 294B-C). Steering dampers are, however, installed in a horizontal position while shock absorbers are generally installed vertically.

43. A steering damper is considered and referred to as a form of shock absorber by members of the industry.²²

¹⁸ For example, GM designed and produces its MacPherson strut in-house (RX 555B *in camera*). Monroe has designed, and made prototypes of MacPherson struts and recently won a contract to supply strut assemblies without the spring on the top to Chrysler (DeLisle 11,267-68; Ashford 11,540). Maremont has produced MacPherson struts in the United States since 1975 (Stewart 9264). Ford has more than ten years of experience with MacPherson struts in their German made cars and presently manufactures Hybrid strut assemblies in the U.S. (Tompkins 2319; H. Wright 3807, 3836).

¹⁹ CX 84C; CX 143G; CX 144D; CX 151A-B; CX 154A-C; CX 172B-E; CX 175; CX 189; CX 208R, Admission Nos. 58-59; RX 555A-B *in camera*; Givens 429; Pond 745, 862-63; Putman 1149, 1174; Moore 1243; Hegel 1947-48, 1961, 2122, 7259; Petzsch 2446; Diggelman 2503, 2515, 2525, 2532, 2586-87; Hooper 2613; Bekin 2867; Robison 3671; H. Wright 3778-79; Cox 4389-90, 4407-08; Freeman 8856 *in camera*; Stewart 9264, 9274-75; Nelson 9822-23; DeLisle 11,267; see CX 208R, Admission No. 61.

²⁰ *E.g.*, Maremont (Givens 429); Questor (Putman 1149); KYB (Moore 1243); Monroe (Hegel 1947); Delco Division of General Motors (Hegel 1961); Bilstein (Petzsch 2446, 2452).

²¹ See RX 643 p.30 for a diagram of a steering damper, and RX 643, for diagrams of various types of shock absorbers. One witness described a steering damper as a standard shock absorber with specially tailored valving (Kody 9296). Only one steering damper is installed in each vehicle while four vertically mounted shock absorbers are required per vehicle (Pond 1491). Monroe's 1976 catalog lists steering damper applications for Volkswagens (CX 175). Other present applications for steering dampers include off-the-road, and recreational vehicles, Oldsmobile Toronado, and Cadillac Eldorado (CX 239, CX 338C; Nelson 9741).

²² CX 239; Givens 404-05; Petzsch 2446; Robison 3686-3689; Kody 9296, 9309, 9317-18, 9338.

44. Walker and Monroe officials categorize steering [14]dampers as horizontal shock absorbers.²³

45. The steering damper functions as a stabilizing and ride control device that acts to absorb and dampen lateral shocks, vibrations and oscillations to the steering system (CX 43B; CX 44D-E; CX 54A; Kody 9334). The function of the steering damper complements and is similar to the function of a vertically applied shock absorber which dampens the vertical oscillations of the vehicle after it has negotiated a bump in the road (CX 220Z8-10; Hegel 1931).

46. The engineering, technology and design requirements of steering dampers are similar to those of other forms of shock absorbers (Pond 768; Hegel 1938, 1941-42, 2114-15). Monroe and Maremont use the same engineers to develop specifications for both steering dampers and vertical applications (Givens 403-04; Hegel 1938, 1941-42). The testing parts and procedures for steering dampers and shock absorbers are likewise similar (Prescott 11,317-19; Bethell 11,354-55, 11,375; *See, e.g.*, RXs 635-639, RX 642).

47. The component parts²⁴ as well as the manufacturing and assembly processes for steering dampers and shock absorbers are similar (CX 69D; Givens 405; Tompkins 2409; Kody 9309; Nelson 11,046; *see* Pond 1942-43).

48. The various forms of shock absorbers, including MacPherson struts and steering dampers, are distributed by suppliers through the same channels to the same customers (CX 208Q, Admission No. 54; *see, e.g.*, CX 54A; CX 62B; CX 69N; CX 337C; CX 338B; Kody 9325; Nelson 9737-39).

49. Shock absorbers, including MacPherson cartridges and steering dampers, are basically hydraulic dampening mechanisms which reduce the transmission of road imperfections into the vehicle's passenger compartment by converting mechanical energy to heat (Finding 26, *supra*).

50. Monroe and its competitors manufacture and sell a full line of shock absorbers consisting of direct acting, air-[15]adjustable, spring assisted, steering dampers and MacPherson struts and cartridges.²⁵

²³ CX 15B; CX 51D; CX 282A; Diggelman 2555, 2590; Kody 9354; Prescott 11,319; Bethell 11,354-55, 11,375; Ashford 11,494.

²⁴ The basic component of a steering damper is often a shock absorber cylinder (CX 69D). Walker and Heckethorne use a shock absorber unit purchased from the Gabriel division of Maremont as the basic component of its steering dampers (Pond 770, 798; Schultz 1746, 1831; Nelson 11,071; Prescott 11,295).

²⁵ CX 99; CX 151A-E; CX 154A-E; CX 173A; CX 208T-U, Admission Nos. 71, 72, 74; Givens 429; Pond 767; Moore 1243; Cook 1715; Hegel 1938, 1941, 1947 2118-20; Petzsch 2446; Diggelman 2503, 2515, 2525, 2532, 2555, 2587, 2590; Robinson 3670-71, 3686, 3689-90, 3703, 3705; Cox 4389; Barbeau 4638-39; DeLisle 11,243; Hohman 4905; Nelson 9729-30, 9736-37, 9743-44, 11,060-61, 11,063; *see, e.g.*, CX 172H.

51. A full line²⁶ of shock absorbers is included in manufacturers' current shock absorber catalogues.²⁷ Warehouse distributors and many nontraditional accounts, such as mass merchants and muffler installation shops, purchase a full line of shock absorbers.²⁸

52. From the manufacturing standpoint, shock absorbers, including steering dampers and MacPherson struts, constitute a relevant shock absorber product market. The basic engineering, design and manufacturing technologies pertaining to all of these products are substantially similar or the same.²⁹

53. From the marketing or distributing perspective, shock absorbers including steering dampers and MacPherson struts constitute a relevant shock absorber product market. Manufacturers distribute shock absorbers, including MacPherson struts and steering dampers through the same channels of distribution to the same customers.³⁰ Retailers consider their shock absorber line to include steering dampers and MacPherson struts along with the other forms of shock absorbers.³¹

54. Accordingly, it is found that the shock absorber [16]product market consists of conventional direct-acting, air-adjustable, spring-assisted, steering dampers and MacPherson struts and cartridges.

B. Exhaust System Parts

55. Exhaust system parts ["ESP"] are products installed on motorized vehicles which have no substitutes. ESP consists of mufflers (including "sports" mufflers), resonators, and all exhaust pipes, connecting pipes, tail pipes, clamps and attaching parts for use on automobiles, trucks, buses, farm equipment and other vehicles (Complaint and Answer ¶1(a); Schultz 1753). As Walker's engineering vice president testified:

The function of an exhaust system is to conduct exhaust gases from the engine to some exit point at the rear of the vehicle. It also is—performs a function of quieting engine noises and on vehicles where catalytic converters are part of the exhaust system, it also converts hydrocarbons and carbon monoxide to water vapor and carbon dioxide.

(Schultz 1742)

²⁶ See Finding 50, *supra*.

²⁷ *E.g.*, Monroe CX 175; Gabriel CX 189; Bilstein CX 220A-Z-18; CX 221C-F; Armstrong CX 224A-Z-62; CX 225; Delco CX 239; DeCarbon CX 314I, Q.

²⁸ CX 151A-E; CX 154A-E; CX 337B-C; CX 338B-C; Glasman 1062; Moore 1243; Robison 3691; Garfinkel 9204-05; Nelson 9737-39, 9972; *see* Nelson 9850-51.

²⁹ Finding 46, *supra*.

³⁰ Findings 19, 40, *supra*.

³¹ *See, e.g.*, CX 338C.

VII. Original Equipment and Replacement Submarkets for Shock Absorbers and Exhaust System Parts

56. Automotive parts manufactured and sold for incorporation into new vehicles during assembly are regarded and referred to as being original equipment installation ["OE"] parts (Pond 730).

57. Replacement or aftermarket parts are produced as replacements for damaged or worn out parts on vehicles already in use. The replacement portion of the automotive parts market includes the OE service segment, which consists of "those parts sold to the original equipment manufacturer that, instead of being placed on the vehicle as it's originally produced, go through the warehousing operation to the car dealer and become installed as either service warranty parts or as replacement parts" (Pond 739-40; *see, e.g.*, CX 15E; CX 39B-F; *but see* N. Wright 6343-44).

58. The market for replacement parts includes the traditional aftermarket, which consists of WDs and jobbers who resell to customers such as garages and service stations, as well as the non-traditional channel containing such customers as mass merchandisers and muffler installation shops which resell directly to consumers (Pond 739).

A. Shock Absorbers

59. Shock absorber manufacturers, including Monroe, report shipments of shock absorbers to the Bureau of Census separately for replacement and OE installation (CX 190G-H). [17]

60. The shock absorber industry³² and its trade association report and analyze sales and competitive conditions separately for the OE and replacement shock absorber markets (CX 51K; CX 25D, H; CX 191B; Baker 537; Pond 744, 828; Putman 1192; Fleuelling 4098-99, 4100-02).

61. Before the merger, both Walker and Monroe separately analyzed Monroe's market share in the U.S. replacement market and in the U.S. original equipment market (CX 7; CX 20A, C-E; CX 51K, Z-6; CX 141B).

62. Monroe has separate engineering and sales departments for its OE and replacement sales (Hegel 2096-97; Hohman 4811; Bethell 11,333).

1. OE Shock Absorbers

63. The parties agree that there is a lack of cross-elasticity of

³² Concerning the OE and replacement segments of the shock absorber industry, *e.g.*, Mr. Freeman of ITT testified that "yes, we see them as different businesses" (Freeman 8875).

demand between the OE and replacement markets for shock absorbers. That is, a shock absorber produced for the original equipment segment would not be sold as a replacement shock absorber (N. Wright 6465; Nelson 9666, 10,647).

64. Demand for shock absorbers for original equipment use is primarily a function of new vehicle production (CX 208W, Admission No. 87).

65. Shock absorbers made for OE installation are of primarily a single grade (Bracken 4362). Generally, 1" shock absorbers³³ are the standard size used in new car production (RX 423A-D; RX 424A-F; Hegel 2127, 2130; H. Wright 3804-05; Fleuelling 3907; Nelson 10,433-34).

66. Shock absorbers produced for the OE market are supplied to OE manufacturers in bulk without mountings (Hegel 2133-34; Fleuelling 3908, 4170; Buck 9401; Nelson 9797-98; DeLisle 11,256-58). [18]

67. A shock absorber manufacturer can successfully complete in the OE market with a limited line³⁴ of shock absorbers because OE sales are geared to one or a few specific shock absorber applications (CX 208X, Admission No. 95; Pond 757-58; see Nelson 9685-87, 9692-94, 10, 414).

68. Shock absorbers produced for the OE installation market may have different performance and durability specifications than those produced for replacement use on the same model because the new vehicle manufacturers establish their own OE specifications (CX 208W, Admission Nos. 91, 93-94; Pond 871; Hegel 1983-84; Tompkins 2237; Fleuelling 4171; DeLisle 4868; Freeman 8877 *in camera*).

69. In the OE market shock absorbers are sold in an engineering competition where the emphasis is on the product and whether the product meets certain engineering specifications, as well as meeting subjective and objective ride requirements for a given application (Pond 757; Tompkins 2237; Petzsch 2467; H. Wright 3836; Cox 4415 Hegel 7256-60; Freeman 8876; Buck 9425).

70. Buyers of shock absorbers for OE use are generally professional, technically qualified persons who are responsible for seeing that the product they select meets the vehicle manufacturer's technical specifications (Tompkins 2237; Hegel 7256-57; Buck 9425; Nelson 10,675). The OE buyer is basically an analyst, interested in

³³ There was testimony that the somewhat larger 1- $\frac{3}{8}$ " size shock absorbers are installed by vehicle manufacturers on police cars and cars designated to be equipped with a handling option package (Hegel 2131).

³⁴ At the time of trial both Questor and ITT were selling only a single part number to the domestic OE market (Putman 1120-21; see Nelson 9692, 10,414-15). In contrast, Monroe supplied approximately 100 OE part numbers for the 1978 model year passenger car production (Hegel 2132-33).

product specification compliance, delivery ability and costs, including freight costs (Pond 794).

71. An OE shock absorber manufacturer must have an OE sales staff which can competently service OE buyer needs in purchasing, engineering and product planning (Freeman 8876-77).

72. OE customers receive few services other than the actual production and delivery of shock absorbers (Pond 793). A shock absorber manufacturer producing for the OE market does not incur costs to provide other services, such as promotional efforts, advertising or catalog service to the OE buyer (Pond 764-65; Cox 4405-07; Freeman 8875; Nelson 9716, 11,680-81). The OE market buyer assumes a significant portion of the production [19]risks including those incurred for raw materials, components and finished goods inventory (Pond 793).

73. The OE shock absorber market "is very cost oriented, relatively short margin, and fairly fixed anticipation of business" (Pond 758, 792-93; see Barna 1368-69; Nelson 10,625-26; DeLisle 11,275).

74. Sales of shock absorbers to the OE market have a lower profit margin than sales to the aftermarket (Barna 1369; N. Wright 8694 *in camera*; Nelson 9725-26; see Freeman 4173-74).

75. Production of shock absorbers for the OE market generally requires a high volume assembly line designed to produce the size and type of shock absorber for which a firm has an OE contract (Pond 800-01; DeLisle 4866; Nelson 9691-98, 9700-03; see H. Wright 3803-04).

76. A shock absorber manufacturer selling only in the OE market would have very limited requirements for low volume production facilities (Pond 801; Barbeau 4650).

77. The production run³⁵ for an OE shock absorber contract is fairly high, from 1,000 to 20,000 units (Hegel 1978; H. Wright 3805; DeLisle 4865; Stewart 9259-60; see Freeman 8845 *in camera*).

78. The location of a given shock absorber plant is a competitive consideration in the OE market because location affects freight costs to the OE vehicle manufacturer (See Pond 794; Nelson 9708-09, 10,711, 10,714-15, 10,749-50).

79. OE shock absorber supply does not require extensive warehousing facilities or inventory investment, because OE demand is anticipated several weeks in advance and shipment is made in bulk from the factory directly to the OE vehicle assembly lines (Pond 755-57; Freeman 8889 *in camera*; see Freeman 8875; Nelson 11,126).

³⁵ A "run" is defined as "[t]he number of identical parts that would be made on a particular assembly line without changing to any other part numbers in the meantime" (Hegel 1979).

80. OE shock absorber contracts extend from one to five years at a set price established by bid (Fleuelling 4013; Hegel 7270-71 Freeman 8842-43 *in camera*, 8891-92 *in camera*; Stewart 9260; Nelson 9678-80, 9724-25, 10,424-25; DeLisle 11,267). The set price can vary only if certain events occur, such as significant increases in costs for labor or material, or [20]large changes in the quantity of shocks needed (Fleuelling 3908-14; Hegel 7261, 7270-71; Freeman 8891-92 *in camera*; Nelson 10,424-26).

81. A lead time of from nine to twelve months is generally required to seek and obtain an OE contract for shock absorbers (Freeman 8855 *in camera*; Nelson 9678-79; *see* Stewart 9260).

82. Prices obtained by producers of shock absorbers sold in the OE market tend to be lower than for those sold in the replacement market (Fleuelling 4173-74; Buck 9416; *see* Nelson 9725, 10,0585 *in camera*).

83. In 1975, Monroe adopted a price cutting strategy to increase its share of the OE market.³⁶

2. Replacement Shock Absorbers

84. Demand for shock absorbers sold for replacement purposes depends upon the number of cars on the road, miles traveled, and overall economic conditions (CX 5G). It is affected by incidences of failure of a vehicle's shock absorbers, vehicle owner upkeep and wear on the vehicle's shock absorbers.³⁷

85. Shock absorber manufacturers determine the specifications for shock absorbers manufactured for sale in the replacement market (CX 208X, Admission No. 94).

86. Shock absorbers made for the replacement market are generally of three grades, *i.e.*, good, better and best (Bracken 4362; *see* Kalupa 4208, 4210-12).

87. Replacement market customers require a broad range [21]of types,³⁸ sizes³⁹ and grades⁴⁰ of shock absorbers for full coverage.⁴¹

³⁶ "Corporate wide use will capture increased share of the OE market by *selective price decreases* relative to the market price at that time" (CX 181B, *emphasis added*).

³⁷ Replacement frequency for various types of shock absorbers is summarized in Dr. Nelson's testimony (Nelson 9794-9821). There were estimates that struts lasted longer than conventional shock absorbers, and also that they lasted about as long as conventional shocks (Moore 1237, 1404-05; Bush 3288; H. Wright 3841-42 *in camera*; N. Wright 8703-06; Nelson 9794-9821; *see* CX 337, CX 338).

³⁸ The leading producers and sellers of shock absorbers for the replacement market offer a full line of air and spring-assisted shock absorbers. These shocks are not standard equipment on new cars but may be ordered as optional equipment (Putman 1123, 1168; Hegel 2092, 2137; Robison 3670, 3703; Barbeau 4638-39; Borick 4740; Buck 9377; Nelson 9691-94).

³⁹ Different diameters of shock absorbers, *e.g.*, the 1 $\frac{1}{8}$ " or 1 $\frac{1}{16}$ " may be offered for application on the same car.

⁴⁰ *See* Finding 84, *supra*.

⁴¹ "It [coverage] goes to whether or not you have a specialty large bore shock absorber for an off-the-road vehicle, whether or not you have a spring assisted shock absorber for older cars, whether or not you have an air shock absorber for station wagons or performance vehicles" (Pond 759; Robison 3691).

88. While there is a strong customer preference in the WD channel for suppliers who can provide a full line of replacement shock absorbers, some customers in the replacement market tend to purchase from multiple suppliers (Pond 827-28; Barna 1349-50; Bush 3259, 3306).

89. The $1\frac{3}{16}$ " shock absorbers are the most popular size for replacement use (RX 424A-F; Fleuelling 4168; Kalupa 4210-12; Nelson 9689, 9694; see Hegel 2132; Kalupa 4205-07).

90. Shock absorbers produced for the replacement market are packaged and shipped with the mounting parts (Fleuelling 3908, 4170; Buck 9401; Nelson 9707-08; DeLisle 11,256-58).

91. A shock absorber manufacturer producing for the replacement market incurs substantial costs to provide services, promotional efforts, advertising and catalogs to the replacement buyer (Moore 1260; Fleuelling 3960; Cox 4406-08; Freeman 8875; Stewart 9279; Nelson 9716-17, 11,680-81). The manufacturer generally assumes almost all of the risks to produce shock absorbers for the replacement market.⁴² [22]

92. Replacement buyers are more service and market oriented than product and application oriented (Pond 757-58; Buck 9372, 9381). Increased sales and penetration of the replacement shock absorber market are the focus of a strong marketing program in the replacement market rather than changes in design, quality⁴³ or other factors (Buck 9372).

93. Purchasers in the replacement market are generally merchants concerned with their suppliers' ability to provide sales and distribution services, including an extensive field sales force, as well as to supply adequate coverage for all makes and models of vehicles on the road (Pond 758, 794-95, 833; Schubert 8504-05 *in camera*; Freeman 8875; Stewart 9257, 9279, 9288-89; Buck 9372, 9374, 9381; Kornafel 9449-50; Nelson 11,115-16; Ashford 11,518).

94. Replacement customers in the traditional channel do not buy on bid or have set price contracts (Fleuelling 4173-74).

95. Air-assisted and spring assisted shock absorbers are important⁴⁴ to compete successfully in the aftermarket (Pond 778; Buck 9375, 9377; Nelson 9690-94).

96. Prices for shock absorbers sold in the replacement market

⁴² The only exception noted in the record was Sears, which assumes some but not all of the risks that OE buyers assume (Pond 863). Mr. Pond of Maremont characterized Sears as somewhere between the OE purchaser and typical aftermarket customer (Pond 793).

⁴³ Technical competence alone will not insure success in the replacement market (Freeman 8877; Nelson 10,422, 11,154-56).

⁴⁴ M.E.M.A. *Quarterly Product Trend Reports* indicated that air adjustable and spring assisted shocks taken together accounted for approximately 10% (0.097) of reporting companies' replacement sales in 1976, and 9% (0.094) of replacement sales in 1976 and 1977 respectively (RX 31A-B). See RX 29B-F, RX 30A-H for prior years.

tend to be higher than for those sold in the OE market (Fleuelling 4173-74; Buck 9416; *See* Nelson 9725, 10,585 *in camera*).

97. Monroe has attempted to increase its share in the replacement market through non-price stratagems, *e.g.*, increased promotions, rather than price decreases (Nelson 10,493; *cf.* CX 181B (OE price strategy)). [23]

3. Supply Flexibility

98. A shock absorber manufacturer selling only in the OE market would have very limited requirements for low volume production facilities (Pond 801; Barbeau 4650).

99. Lead time for entry into the replacement business is substantial (Stewart 9259). Some replacement accounts in the nontraditional market, *i.e.*, Sears, have long term supply arrangements which are similar to OE accounts (Buck 9410-11, 9420-21; Schubert 8541 *in camera*).

100. In general, a run⁴⁵ for an OE shock absorber contract is fairly high, from 1,000 to 20,000 units (Hegel 1978; H. Wright 3805; DeLisle 4865; Stewart 9259-60; *see* Freeman 8845 *in camera*).

101. A shock absorber manufacturer producing for the replacement market must be able to produce a wide variety of grades, types and sizes of shock absorbers.⁴⁶ Various types of shock absorbers such as spring-assisted, air shocks and struts require additional manufacturing equipment⁴⁷ and may, in some cases, be most efficiently produced on low volume low speed lines (short lines).⁴⁸

102. The production of spring-assisted shock absorbers requires a spring assembly process, involving hand assembly of a spring over a conventional shock absorber⁴⁹ (DeLisle 11,254). Separate assembly equipment is required to assemble these units also (DeLisle 11,254-55). The springs may be manufactured in-house⁵⁰ by the shock absorber manufacturer or sourced outside (Barna 1341; DeLisle 11,254-55, 11,271). [24]

103. The production of air-assisted shock absorbers⁵¹ requires a

⁴⁵ "The number of identical parts that would be made on a particular assembly line without changing to any other part numbers in the meantime" (Hegel 1979).

⁴⁶ Finding 87, *supra*.

⁴⁷ Findings 102-03, 105, *infra*.

⁴⁸ Findings, 103-05, *infra*.

⁴⁹ Chrysler, which produces in-house conventional 1" for OE installation, purchases its spring-assisted shocks for OE use from Monroe, as well as other shocks for Chrysler's replacement Mopar line (Fleuelling 3896, 3898; Hohman 4890).

⁵⁰ Monroe has manufactured its own springs from purchased coil since 1964 at its Hartwell, Ga. plant. The cost of the special machinery was slightly over \$101,000 and \$230,000 for the Hartwell and Paragould plants, respectively (DeLisle 11,254-55).

⁵¹ Monroe's Paragould, Ark. plant is the only Monroe facility tooled for air-assisted shocks. While the basic shock absorber component can be manufactured on the automated line with extensive retooling, the unit cannot,

(Continued)

specialized separate line and equipment to place the boot, or air containing component, on a standard shock absorber (CX 168B; Barna 1341-42; DeLisle 4865, 11,247-52, 11,270; Nelson 9692-93).

104. The aggregate cost of tooling and equipment for the production of specialized units and for packaging equipment is insignificant⁵² when compared with the cost of the tens of millions of dollars for equipment required for the production of standard shock absorbers (Hegel 1999-2061 *in camera*).

105. Strut production requires additional equipment which is different from that used in the production of other types of shock absorbers⁵³ (H. Wright 3782-83 *in camera*, 3784 *in camera*, 3836-38; Bracken 4287-89; Freeman 8846, 8887-89 *in camera*, Nelson 9912-13, 9918, 10,144; DeLisle 11,268-69; *see generally*, N. Wright 11,805-21).

106. To be an effective factor in the replacement [25]market, a shock absorber producer needs both high volume, high speed assembly lines and low speed assembly lines (Pond 800-01; H. Wright 3803-05; Nelson 9700-01).

107. The production of low volume specialty items is important to the traditional channel customers, and, to a lesser extent, to the nontraditional customers in the replacement market (Pond 801-02; Nelson 9701-02). Low speed assembly lines (short, or hand lines) are necessary to produce efficiently low volume or specialty units made in production runs of 100-500 units (Pond 801; H. Wright 3803-04; DeLisle 4829, 4862-63, 4871, 4874-75, 11,270).

108. While, as noted, OE production is generally of high volume, there are nevertheless some low volume OE shock absorbers which, because of the low volume demand, are most efficiently produced on short lines (*See, e.g.*, RX 431C, G, I; RX 432B-N; RX 433B-O). However, the record shows that both Questor and ITT compete in the OE shock absorber market with only high volume shock absorbers (Putman 1120-21; *see* Nelson 9692, 10,414-15).

109. The use of a high volume line to produce low volume specialty items results in inefficiencies caused by long changeover times (H. Wright 3803-04; Nelson 9701-03; DeLisle 11,276). The changeover time and retooling costs are much lower to run a new

however, be finished on the automated line (DeLisle 4865). In 1975, to increase efficiency, Monroe added separate welding facilities to the air shock line at a cost of over \$44,000 (DeLisle 11,249, 11,270). Other special equipment for the air shocks cost approximately \$60,000 (DeLisle 11,255).

⁵² The total cost for this equipment is less than 5% of the replacement cost of the standard tooling in Monroe's Paragould, Ark. plant alone (*See* Hegel 2061 *in camera* and Findings 102-03, *supra*).

⁵³ *E.g.*, Chrysler, which produced *only* conventional shock absorbers, contracted out the production of its struts (Bracken 4312; DeLisle 11,267). Although Ford was able to use some of the equipment it had previously employed to produce conventional shock absorbers in its new hybrid strut (which is similar to a MacPherson strut), most of the equipment in that strut line is new (Bracken 4287-89; Nelson 9695-96; N. Wright 11,635-36).

part number on a short line than on lines designated for longer production runs (H. Wright 3803-04; DeLisle 4829-30, 4862-63, 4871, 11,275; Nelson 9701).

110. Shock absorber assembly lines are most efficient⁵⁴ when specialized according to size. Because a line changeover from 1" to 1- $\frac{3}{8}$ " or 1- $\frac{3}{16}$ " shock absorbers requires a change in almost every component in the assembly line, such specialization can eliminate "duplication and [26]triplication of downtime resulting to model changeovers which would affect the efficiencies not only of the manufacturing processes, but the assembly processes" (Cook 1624; Hegel 1981-82; DeLisle 4864-65; Hegel 7268; Nelson 9694-96, 9698-99, 10,601; DeLisle 11,275).

111. Special packaging machinery⁵⁵ required for shock absorbers produced for the replacement market is not required for OE shock absorbers which are sold in bulk (Buck 9401; Nelson 9707-08).

112. Manufacturers are obligated to meet their OE contracts and to be prepared to deliver the specified quantity of shock absorbers, as well as to meet the order requirements of their replacement customers (Pond 794-95; Freeman 8888-91 *in camera*; Buck 9374; Nelson 10,622-23; DeLisle 11,273-74).

113. Even though both OE and replacement demand can fluctuate within a given time period, shock absorber manufacturers cannot simply shift from OE to replacement customers unless there is excess capacity available⁵⁶ (N. Wright 11,666-68, 11,681-82). The record shows no evidence of abandonment by shock absorber manufacturers of any customers in order to serve other customers (Nelson 10,682-83, 10,686, 10,669-70).

114. An abrupt attempt to shift production from OE installation to replacement products might damage ongoing relationships with OE customers. Likewise, an abrupt shift in production from replacement to OE (unlikely because of the lead time required for OE contracts) could harm relationships in the replacement market (*see*

⁵⁴ Monroe's shock absorber assembly lines are currently specialized according to size (Cook 1624; DeLisle 4865, 11,275). Monroe has, in the past, produced multiple sizes of shock absorbers on the same line but has realized savings of \$4.2 million and increased capacity by switching to a system of specialized lines (Cook 1624-25, 1631; Nelson 9695-96, 10,601; DeLisle 11,275). Respondent's lengthy argument regarding the production flexibility of shock absorbers is discussed more fully in Finding 116, *infra*. Respondent's presentation on this issue was extremely thorough. However, its persuasiveness was diluted by the fact that Monroe does not currently produce shock absorbers in a manner which involves switching production lines from one size to another because it is not economically efficient (*See* Finding 116, *infra*).

⁵⁵ Packaging machinery at a cost of over \$35,000 per plant is available for use at each Monroe Plant (DeLisle 11,256-57).

⁵⁶ In 1975, when Monroe experienced demand for its replacement shock absorbers exceeding its domestic capacity, it did not shift production away from its OE installation customers (RX 52A-D; RX 423A-D; RX 424A-F; Nelson 9681-82, 10,683, 11,143, 11,188). Monroe purchased shock absorbers from other manufacturers and its foreign plant, incurring higher costs than if Monroe itself had produced the shock absorbers in its own domestic plants (CX 5Z-14; Cook 1627-28; Barbeau 5965-70; Nelson 9681-82, 11,143).

Findings 80-81, *supra*; Pond 794; Freeman 8888-89 *in camera*; Nelson 9681-82, 10,456-57, 10,670-73; *see* N. Wright 11,666-68, 11,681-82). [27]

115. Complaint counsel's economic expert testified that, in an oligopolistic market,⁵⁷ such shifts might upset market equilibrium, thus making manufacturers reluctant to challenge the status quo (Nelson 10,686-88).

116. Monroe production data for 1976, as presented by respondent, indicate that at that time there was shifting of production lines between OE and replacement, as well as lines operating for joint production (RPF 38-49; RPF pp. 14-19, Tables I-V). This evidence supports the proposition that production flexibility between OE and replacement shock absorbers is possible. On the other hand, complaint counsel presented evidence that after 1976 Monroe changed its production lines, so that these lines are now specializing in the production of one size of shock absorber. As a result, Monroe realized cost savings of \$4.2 million (CRPF p.50; Finding 110, *supra*).

B. ESP

117. Exhaust System Parts constitute a separate overall market distinct from other automotive parts (Nelson 10,305).

118. The parties agree that there is no cross-elasticity of demand between the OE and replacement market for ESP (Nelson 10,306, 10,647; *see* N. Wright 6465).

119. ESP is sold for two basic uses: incorporation into new vehicles during assembly (OE installation) and replacement of worn out or damaged units on existing vehicles (Pond 739, 744).

120. The ESP industry separately reports and analyzes sales and competitive conditions in the OE and replacement markets (CX 106B-C; CX 120E; CX 191; Baker 535, 537; Putman 1116). Walker analyzes conditions separately in the OE and replacement markets (CX 27D, F, N-"O"; CX 31A). Mr. Putman of Questor, a significant ESP producer, characterized the distinction between selling to the OE and replacement markets: "There is a world of difference. It's like two different activities completely" (Putman 1116).

121. Walker and other ESP producers report shipments of [28] ESP separately for replacement and OE use to the Bureau of Census (CX 190G-H).

122. Pricing of ESP differs between the OE and replacement markets. The OE market is sold primarily on a bid basis while the replacement market price is based on price lists⁵⁸ (Putman 1162;

⁵⁷ See Findings 185-86, *infra*, concerning replacement market concentration.

⁵⁸ Respondent and complaint counsel agree that in both the shock absorber and exhaust system parts

Moore 1323; Ince 4950; Foster 5049-50; Nelson 10,350, 10,352; Ashford 11,403-04). [29]

123. Taken as a whole, sales to the OE market are less profitable than are those to the replacement market (CX 244A-E *in camera*; CX 246 *in camera*; Nelson 10,353-54, 10,355 *in camera*).

124. Warehousing and distribution facilities are generally more extensive for a manufacturer supplying ESP for the replacement market than for a manufacturer supplying ESP for OE installation use (CX 25Z-4-N; CX 27N; CX 208Z-21, Admission Nos. 217, 219; Baker 552-53; Pond 755-58; Putman 1116-18).

1. OE Exhaust System Parts

125. Demand for ESP sold for OE installation use is a function of new vehicle production (CX 106B; CX 208Z Admission No. 107; *see* CX 27E).

126. To serve the ESP market for OE installation, a manufacturer must produce ESP for the current year, but may choose to produce only for a limited number of applications⁵⁹ (CX 27D; CX 208Z-1, Admission No. 114; Baker 551; Pond 757-59; Putman 1116, 1119).

127. In the OE market, the same firm may not supply all of the ESP components for a given application (Baker 553; Schultz 1760). For example, a firm may bid to supply an exhaust pipe-muffler combination, but not the tail pipe (Putman).

128. Aluminized mufflers, stainless steel pipes and resonators

industries it appears that pricing in the original equipment service market and independent aftermarket were related: "If the vehicle producers were to lower their price to the car dealers, that would definitely have some impact on the decision making process of the manufacturers who are supplying the replacement market other than through the OE service channel" (RPF 151; CRPF p.53; Nelson 10,785; *see also* N. Wright 11,726). Mr. Pond of Maremont testified that:

[I]n the exhaust system business historically the aftermarket has followed changes in the original equipment pricing, at list.

If General Motors, Ford, and Chrysler have increased their component prices over a period of several months, then typically following that there would be an aftermarket price change by whomever the price leader might be in the aftermarket.

In the shock absorber business, the pricing probably tends to be a little bit more geared toward what occurs in the aftermarket, because there is a—shock absorbers tend to be a one price product line. Whereas exhaust is typically priced by application, shock absorbers are typically priced by type of shock absorber.

(Pond 760).

Mr. Putman of Questor agreed:

Back when I first came in the business and got on the AP sales force, there was almost a blind following of precisely the car factory prices and, that is, the list prices. And then the whole prices were figured on the basis of what price the vehicle manufacturer charged his dealers. And then there had evolved a discount structure there from that to arrive at the final blue sheet price. And it just stayed that way with minor modifications for 25 years now.

(Putman 1172). Respondent argues that this pricing link as well as other differences are sufficient to remove OES from the replacement market altogether (RPF 156; RRPf n.18).

⁵⁹ Arvin and Walker, two leading OE producers for OE have a range of 225 to 289 part numbers for OE use and produce approximately 2,500 part numbers for the replacement market (CX 325A-B; Baker 551, 672-73; Schultz 1759-60; Bush 303).

are used for OE installation ESP (Baker 559-62, 634-35; Pond 871; Schultz 1811, 11,232).

129. Mufflers shipped for OE installation use are generally in the form of a welded exhaust pipe-muffler combination with some tail pipes occasionally included in the assembly (Putman 1117-18, 1165; Schultz 1809; Saker 5002-03, 7599-7602). [30]

130. ESP products for the OE installation market are shipped in bulk (Baker 552, 685-86; Putman 1117; Saker 7581, Nelson 10,329).

131. ESP sold for OE use are produced to specifications established primarily by the vehicle manufacturer (CX 208Z-1, Admission No. 111; Baker 550; Putman 1100 *in camera*, 1102-03, 1162-63; Moore 1322-23; Schultz 1771-74, 1808, 1810-11, 1848-49, 1855-59; Tompkins 2237).

132. In the OE market for ESP, the product is sold in an engineering competition with every part being thoroughly tested by the buyers (CX 25S; CX 27D; Baker 552, 562, 566; Pond 757-59; Moore 1322; Putman 1100 *in camera*; Schultz 1772, 1778; Tompkins 2237; *see* Nelson 10,351-52). The OE customer supplies the ESP manufacturer with the space constraints in which the ESP system will fit, the location and type of silencing devices to be used, the objective and subjective noise levels, the back pressure and the durability requirements (Schultz 1771-72; Nelson 11,068). The ESP OE design engineers work closely with the vehicle manufacturer to develop workable designs (Schultz 1855-56). Their designs must then be submitted to the OE customer's engineers for final evaluation and approval (Schultz 1771-72, 1778-79, 1855-56; Nelson 11,068).

133. The primary ability required for success in the OE market is the ability to design and manufacture a product which meets the manufacturer's specifications at low unit cost (CX 25E, S; Baker 551-55, 644, 648; Pond 757-59).

134. In the OE market the most significant elements of cost are the basic engineering and manufacturing expenses (Baker 553-55, 588-89, 648-49, 685-86).

135. The ESP manufacturer's use of advertising for OE installation ESP is minimal or non-existent (Baker 565-68; Pond 764).

136. Buyers in the OE market for ESP are technically knowledgeable professionals (Baker 551-52; Tompkins 2237).

137. Geographic plant location is a factor in securing OE installation business. Producers with plants located closer than competitors to vehicle assembly plants have an advantage in obtaining OE business (Pond 794; Bracken 4348; Saker 5005, 7598-99; Nelson 10,340, 10,755; Schultz 11,210-11; *see* N. Wright 11,778-79).

138. Warehousing facilities for ESP producers are not much needed for the OE market. Operating under an agreed-to schedule, a producer can anticipate a customer's demand several [31]weeks in advance and arrange for prompt shipment of the manufactured products (Baker 552-53, 623, 671-72; Pond 755-59; Putman 1117-18; Saker 7611-12). Manufacturers may, however, carry a very small amount of inventory as "float." (Saker 7611-13).

139. The method of setting prices for ESP sales to the OE market is not the same as for the replacement market⁶⁰ (Foster 7322-36 *in camera*; Ashford 11,403).

2. Replacement Exhaust System Parts

140. Demand for ESP for replacement purposes results primarily from the failure of a vehicle's exhaust system. Overall replacement demand is influenced by the number of vehicles in use, the number of miles driven, the average age of the vehicle population and the useful life of the exhaust product (CX 106B; CX 208Z-Z-1, Admission Nos. 108, *see* 109; *see* CX 27H).

141. Specifications for ESP for replacement purposes are established primarily by the ESP manufacturer (Baker 550; Putman 1100 *in camera*, 1102-03; Moore 1322-23; Schultz 1773, 1781, 1808, 1810-11, 1848-49, 1855-59).

142. Engineering for the replacement market focuses on the consolidation of part number offerings (Baker 551, 644-45; Putman 1100 *in camera*; Schultz 1810, 1844-45; 1852-53). The relationship between the product engineers and the replacement buyers differs from the OE market in that most WDs and mass merchandisers have neither design engineers nor engineering expertise in ESP⁶¹ (Schultz 1856-59).

143. In the ESP replacement market a supplier generally offers all ESP components (*e.g.*, exhaust pipe, muffler and tail pipe) for a given application (Schultz 1760).

144. Manufacturers of replacement ESP need a broad line of all the ESP components fitting various makes, models and model years (CX 24G-H, CX 25Z-3; CX 208Z-21, Admission No. 221; Baker 537-38, 540, 636-38, 658; Pond 757-59; Putman 1119, 1167; Kittridge 1404; Schultz 1759-60, 1844; Bush 3303-05).

145. ESP sold to the replacement market differs from [32]that sold to the OE market in specifications, materials and, in the case of resonators, some elimination of that part from the ESP "package" (Baker 559-61; Pond 811-12, 870-71; Putman 1100-01 *in camera*;

⁶⁰ See *Findings* 202-203, *infra* regarding profitability.

⁶¹ Walker has a separate engineering department for its OE and replacement sales (CX 37B).

Moore 1241; Nelson 10,764). Manufacturers of replacement mufflers may cut corners on acoustics and back pressure specifications (Baker 559-60, 650; Pond 870-71; Putman 1100-01 *in camera*). Aluminized mufflers are used for OE production, while galvanized mufflers are common in the replacement market (Baker 559-62; Pond 871; Schultz 1811). Stainless steel pipe which is used for OE is not used for replacement (Baker 634; Schultz 11,232). Generally, pipes are used in lieu of resonators in the aftermarket (Baker 634; *but see* Moore 1241).

146. "Universal" muffler lines, which achieve the maximum market coverage with the fewest possible part numbers, are sold primarily to muffler installation shops and mass merchandiser accounts (Verner 890; Nedell 969-71; Putman 1096-98, 1166; Moore 1313; Kittridge 1403, 1437; Schultz 1844; McAdams 8994; Goodman 9090-91). These "universal" mufflers differ in size and basic design from mufflers sold for OE installation use and are thus not used on cars as OE (Verner 890; Nedell 969-71, 988; Putman 1096-98, 1166; Kittridge 1403, 1434, 1437; Schultz 1844; Luyckx 3748; McAdams 8994; Goodman 9090-91).

147. ESP manufacturers, including the leading firms, also produce "performance" or "sports" mufflers for replacement customers⁶² desiring higher noise levels. "Sports"-type mufflers have a different type of construction from other mufflers.⁶³

148. Exhaust systems components are individually packaged (mufflers) or are specially coated and labeled (pipes) for the replacement market (Baker 552, 559-60, 624; Putman 1108-09, 1118; Schultz 1798, 1814, 1848-49; Nelson 10,329-31).

149. An ESP manufacturer for the replacement market incurs, in addition to the basic manufacturing costs, sales [33]expenses, warehousing costs and merchandising expenses such as advertising, which are either much smaller or nonexistent in the OE market (CX 5R; CX 246; Baker 553-55, 564-66, 588-89, 685-86; Pond 764).

150. ESP buyers in the replacement market are generally nonprofessionals with a merchandising orientation⁶⁴ (Baker 551-52; Tompkins 2237).

151. Generally, in the replacement market sales are made in separate parts for exhaust pipes, mufflers and tail pipes (Baker 557; Putman 1117-18, 1165; Schultz 1809; Saker 5002-03, 7599-7601, 11,234).

⁶² Sports mufflers rarely are used in OE (Schultz 1854; *see* Luyckx 3748).

⁶³ (Putman 1166; Kittridge 1403, 1430-31, 1437; Schultz 1851, 1853-54). A sports muffler has a straight through design and is filled with fiberglass, whereas a standard muffler has a series of tubes and baffles and relies on the principle of cancellation rather than absorption to control the noise level (RPX 2; Schultz 1800-02, 1853-54).

⁶⁴ However, purchasing agents of mass marketers may have, as in the case of Sears, certain technical familiarity and financial sophistication approaching that of some OE purchasers (*See, e.g.*, Buck 9409-12, 9420-22).

152. Warehousing, packaging, cataloging and delivery are stressed in merchandising efforts for ESP in the replacement market (Baker 552-53, 565-67, 648-49, 661-63; Pond 757-59, 811-12; Verner 908-09; Putman 1116-17; Nelson 10,332-33, 10,336-38; Ashford 11,518, 11,531). Thus, sales merchandising, distribution, availability and brand name recognition are considered important, if not the most important, ingredients for success in the ESP replacement market (CX 5R; CX 25Z-3; Baker 553-55, 567, 660-61-, 663; Pond 757-59, 811-12; Verner 908-09; Putman 1116-17; Nelson 10,336-38).

153. An efficient warehousing and distribution system with a large investment in inventory is necessary to adequately serve the ESP replacement market. Such a warehousing system⁶⁵ is necessary because replacement ESP manufacturers are expected to have a large number of low volume part numbers available for replacement customers, who generally purchase relatively small quantities of each part number (Baker 552-53, 671-73; Pond 755-59; Putman 1118; Nelson 10,333; Ashford 11,531).

154. Geographically dispersed plants are a competitive advantage in the ESP replacement market (Ashford 11,535-36).

155. Prices for replacement ESP are based on established price lists with variances accounted for by cost justified discounts (Moore 1323; Foster 7233-35 *in camera*; Ashford 11,403). [34]

3. Supply Flexibility

156. Mufflers are designated by "cross section" or external dimension.⁶⁶ Cross sections are determined by the configuration of vehicles. Basic design parameters for cross sections are established when the vehicle is first engineered and are thereafter carried through the specifications of both original equipment and replacement mufflers (RPF 75; Schultz 1765, 1779-80; *see* Putman 1164; Moore 1241, 1271; Schultz 1858).

157. A crimp type enclosure is used on mufflers made for the replacement market whereas a spun type enclosure is used for mufflers manufactured for the OE market (Moore 1222-23, 1328-29). A substantial capital investment would be required for a producer of crimp type mufflers, such as Midas, to shift over to the spun type (Moore 1322-23, 1328-29; Nelson 10,415-16).

158. The record does not reveal the total number of muffler cross sections in use by all manufacturers for original equipment or

⁶⁵ Approximately two-thirds of an ESP plant may be devoted to warehousing and distribution functions (Schultz 1795).

⁶⁶ Muffler cross section is the manufacturer's method of defining the size of the muffler. For example, on a muffler cross section designated as 5 by 9- $\frac{1}{4}$ inches, the 5 indicates the minor radius on either end and the 9- $\frac{1}{4}$ indicates the major radius of the muffler shape (Saker 7573).

replacement use. Evidence presented in a Walker "1976 Original Equipment Competitive Analysis" indicated that at least seventeen cross sections were produced by the industry for OE use in passenger cars in 1976 (CX 325A-B; Nelson 10,320; N. Wright 12,542-44). All but one of the eleven cross sections produced by Walker for the OE market have replacement applications (RX 325B; Schultz 11,222-23).

159. The machinery necessary to package replacement mufflers costs between \$40,000 and \$100,000 depending on its degree of automation (Schultz 11,214-16).

160. All mufflers are produced from some of the same basic equipment regardless of cross section (Baker 628-30; Saker 7581). However, muffler assembly lines individually tooled for the manufacture of specific cross sections achieve the greatest efficiencies in production.⁶⁷

161. In order to produce mufflers of different cross sections a change in tooling on the assembly line is required (Saker 5005, 7578-80, 7612-13). The time required for these [35]tooling changes varies from thirty minutes to two days (Saker 7580; Schultz 1845-46, 11,205). For example, a changeover from one cross section to another at Walker's Greenville, Texas plant requires fifty man-hours of labor during which the assembly line is idle for four hours (Saker 7580-81).

162. Walker seeks to minimize changeovers in its manufacturing operations, and to use the equipment as efficiently as possible (Schultz 11,229). It is not economically feasible to changeover the tooling on an assembly line if only a few mufflers of a given cross section are to be made (Schultz 1846).

163. Generally, the production lines for mufflers are set up to produce one or, at most, a few muffler cross sections.⁶⁸ Once a line is set up for a given cross section it can produce several part numbers (including both OE and replacement mufflers), provided that the units have the same shape when viewed endwise (Saker 7577; Nelson 10,738).

164. ESP production runs for OE installation are generally of a higher volume than those for the replacement market (Bracken 4348-49; Saker 5010-11). Thus, production facilities for the two markets may differ, with the higher volume, more automated lines serving the OE market, while the more flexible but less automated

⁶⁷ (See Findings 161-63, *infra*; Baker 628; Saker 7676-78.)

⁶⁸ (Baker 632-33; Saker 7573, 7577; Nelson 10,322-23, 10,346, 10,758; Schultz 11,238; see Saker 5006, 5008; Ashford 11,534.) Walker tends to assign the production of a given cross section to a single plant and, generally, to a single line within that plant (Saker 5005, 5008). At Walker's Greenville, Texas plant, only replacement mufflers are produced on one assembly line because there are no OE orders for the cross section(s) which that line makes (Saker 7570, 7573). At this plant, other than in an emergency, there has been no production shift from line one, which produces cross sections required by the aftermarket only, and line two, which produces those cross sections needed for OE or OE and replacement (Saker 7570, 7614).

lines primarily producing ESP for the replacement market (Bracken 4348-49; Saker 5010-11; *see* Baker 628).

165. Walker's Jackson, Michigan plant produces primarily for the OE market. However, testimony and exhibits indicate that four out of five plants supplying the OE market also produce at least some ESP for the replacement [36]market. The fifth, the plant located at Newark, Ohio formerly produced catalytic converters, and pipe for the OE Market only. That plant has been rebuilt for another purpose. There are seven Walker plants supplying the replacement market, of which three also supply original equipment (CX 39B-F; CX 244 *in camera*; CX 290; Bracken 4348; Foster 5072, 5074; Nelson 10,342-43, 10,744-46; Schultz 11,214).

166. To compete successfully in the OE market, an ESP producer need produce only a few muffler cross sections, whereas to compete successfully in the replacement market the ESP manufacturer needs to produce all or nearly all of the 17 or 18 muffler cross sections sold for that market.⁶⁹ Further, the OE manufacturer need not produce all of the cross sections used for original equipment installation to be a significant competitor.⁷⁰

167. There was testimony that tooling considerations, *e.g.*, downtime, cost of duplicate machinery, diminish the ability of an ESP manufacturer to switch production lines from cross section sizes used for OE or OE and replacement to those cross section sizes manufactured solely for replacement. As a result, ESP producers are generally required to have enough production lines devoted solely to those cross sections peculiar to the replacement market, thus diminishing production flexibility (Saker 7573; Schultz 11,202; Ashford 11,534; *see* Saker 7570).

168. Midas, one of the top four ESP manufacturers for the replacement market does not sell ESP to the domestic OE market⁷¹ (Moore 1319).

169. Production flexibility between the ESP replacement and OE markets may be somewhat diminished by the contractual constraints on the ability of an ESP producer for the OE market to shift production from OE to replacement customers (Nelson 10,419-21). The OE producer is required to [37]meet his commitments, which generally run in three year terms, to the OE customer and also be mindful of the development time necessary to sell a new ESP

⁶⁹ (Nelson 10,317, 10,322-23, 10,345-46; Schultz 11,221; Ashford 11,534.)

⁷⁰ No ESP producer for the OE market manufactures all of the cross sections used for OE (CX 325A-B; Baker 627-28m 632-33; Nelson 10,345-46). Walker, the second largest OE supplier, as of April 1979 made only nine cross sections for the OE market while at the same time it made 17 or 18 cross sections for the replacement market (Schultz 11,221-22).

⁷¹ "There are some sales to original equipment manufacturers in Canada" (Moore 1319).

application to an OE customer (Schultz 1856, 11,234; Saker 7601; Nelson 10,338).

C. OE Service and Independent Aftermarket Submarkets for Shock Absorbers and ESP

170. The OE service market consists of sales made by shock absorber and ESP manufacturers to vehicle manufacturers for resale to their dealer outlets while the aftermarket encompasses all other replacement sales (Pond 744; *but see* N. Wright 6336-43, 11,732-33).⁷²

171. M.E.M.A. reports both ESP and shock absorber sales separately for OE service and the aftermarket (CX 120-B-C; CX 162A-D; Fleuelling 4131; Nelson 10,307).⁷³ Walker relies on such statistics for business planning purposes and for filing public documents (CX 208Z, Z-4, Admission Nos. 180-181).

172. Walker separately analyzes its sales, market share and competitive conditions in the domestic ESP aftermarket specifically excluding OE service (CX 29I).

173. Both Monroe and Walker have described sales of shock absorbers and ESP to new vehicle manufacturers for resale to car dealers as the OE service channel of distribution (CX 24G; CX 31B; CX 208Z, Z-4, Admission Nos. 104, 124; Baker 546-47; Barbeau 4648, 4650; Hohman 4811; Saker 4992-94).

174. Manufacturers use separate sales forces and distinct sales programs to serve the OE service and independent aftermarket⁷⁴ (Baker 547; Putman 1100 *in camera*; Fleuelling 3848, 4154; Kalupa 4230; Hohman 4811). Monroe, Walker and their leading competitors in the sale of shock absorbers and ESP employ small, technically oriented sales forces to sell to the service market, while devoting extensive promotion and marketing [38]oriented field sales forces to sell to the independent aftermarket (CX 39M; CX 143I-J; CX 208Z-22, Admission No. 223; Baker 545-46; Pond 744-45, 747, 754, 757-58; Putman 1100 *in camera*, 1116-18; *see* CX 39G-L).

175. The OE sales forces of leading producers of shock absorbers and ESP sell those products to the vehicle manufacturers for both OE service and OE installation purposes (CX 31B; CX 208Z-3, Admission Nos. 118-120; Baker 545-47; Pond 744-45, 754; Putman

⁷² Under this breakdown, sales from one manufacturer of ESP or shock absorbers to another manufacturer of the same product are excluded (e.g., CX 120A-B).

⁷³ However, it should be noted that M.E.M.A. reports sales to OE installation and OE service in a single category without differentiating between the two.

⁷⁴ Some companies also have different sales forces for traditional and nontraditional customers within the aftermarket (*see*, RRF 47; Nelson 10,678-79).

1117-18). Generally, ESP producers do not make direct sales to vehicle dealers (Putman 1118).

176. GM uses separate divisions to serve the OE service market and the independent aftermarket (Robison 3692-93; Fleuelling 4131).

177. Orders in the OE service market, particularly for a current model year, are awarded to one or more of the shock absorber or ESP producers who furnish a given vehicle manufacturer's OE production requirements (Baker 548-49; Pond 760-61; Putman 1119; Luyckx 3748; Nelson 10,314).

178. Geographically dispersed warehouse stocks of parts are necessary to serve the aftermarket effectively whereas the vehicle manufacturers have their own independent distribution system for OE service (Baker 547, 671; Pond 739-40, 755-56; Nedell 946, 968; Glassman 1027; Nelson 10,314, 10,405-06).

179. Services⁷⁵ provided by shock absorber and ESP manufacturers to customers in the independent aftermarket are performed by the vehicle manufacturer in the OE service market (Baker 566-67; Verner 908-09; Nelson 10,405-06).

180. A firm selling to the independent aftermarket must have a broader range of parts for all recent years' makes and models (*i.e.*, greater coverage) to compete effectively than is necessary to compete successfully in the OE service market (CX 24H; Baker 547, 556-57; Robison 3691, 3694; Nelson 10,781). [39]

181. If Arvin's experience is typical,⁷⁶ then the existence of OE service as a submarket of the replacement market is bolstered by the difficulties which Arvin has encountered in its efforts to enter and become a significant factor in the ESP independent aftermarket.

182. The above-described factors are sufficient to make the finding that OE service sales should be included in a submarket separate from other replacement sales of shock absorbers and ESP.

VIII. Market Structure

A. Shock Absorbers

183. The total net dollar sales of replacement shock absorbers in

⁷⁵ *E.g.*, catalogues and merchandising programs.

⁷⁶ Arvin sold only to OE installation and service customers for many years before 1959 (Baker 649, 677, 682-83; Pond 811; Putman 1183; Nelson 10,310). Although Arvin had expertise in engineering and manufacturing ESP, Arvin found such abilities to be of little importance in winning customers in the independent aftermarket and encountered severe problems (Baker 559, 655; Pond 811-12; Nelson 10,310-11, 10,420-21). Arvin's reputation as a successful ESP producer for the OE market did not insure automatic acceptance in the aftermarket (Baker 559). Consequently, Arvin was forced to acquire new skills in merchandising, promotion and advertising. Fourteen years after its entry, Arvin believed itself to be in fourth place in the aftermarket behind Walker, Maremont and Questor (AP) (Baker 578-79; Pond 811-12).

the United States by manufacturers in 1975 were over \$250 million, and in 1976 were over \$290 million (CX 261 *in camera*).

184. The great bulk of these sales were made by four companies: Maremont, Monroe, Questor and General Motors.⁷⁷ The remainder were accounted for by over a dozen other domestic [40] and foreign shock absorber and vehicle manufacturers.⁷⁸

185. Concentration in the manufacture and sale of replacement shock absorbers in the United States is very high, with the top two firms accounting for 77.6% in 1976. The top four firms accounted for 91.4% of such sales in 1975 and 92.9% in 1976 (Nelson 10,145 *in camera*, 10,147, 10,152-53).⁷⁹

186. With respect to shock absorbers sales to the independent aftermarket, concentration is likewise high, with the two leading companies having 81.9% of this market in 1975, and 80.9% in 1976. The top four figures were 94.4% in 1975, and 95% in 1976. Dollar sales to the independent aftermarket in 1975 totalled almost \$235 million, and in 1976 were over \$275 million (*see* CX 262 *in camera*).

187. In 1976, there were 13 manufacturers which had sales of shock absorbers in the United States in excess of \$100,000 (CX 261 *in camera*; *see* CX 4R; CX 20E; CX 191D). Of these, Maremont, Monroe, Questor and General Motors were recognized as being major suppliers (CX 3E; CX 15I; Pond 829; Nedell 942; Putman 1130; Stapleton 3429; H. Wright 3833; Fleuelling 4043, 4138; Nelson 11,027 *in camera*).

188. These same four firms have dominated the U.S. shock absorber replacement market since the late 1960's. During this period, concentration has remained very high (Pond 742; Barna 1359-60; Stapleton 3471-72; Kalupa 3638, 3657-58; Borick 4755; Buck 9378; Nelson 10,154). Tenneco's Corporate Development Department recognized this high concentration, stating as follows in its 1976 examination of the shock absorber replacement market:

There are four principal suppliers of shock absorbers for vehicles in the United States who supply both the [41] original equipment (OE) market and the aftermarket and CA/M. Delco Products Division of General Motors, Maremont Corporation, and

⁷⁷ Maremont manufactures Gabriel, as well as private label shocks (Pond 756). Monroe manufactures under its Monroe brand name, private label for Midas and Montgomery Wards (CX 202). Questor manufactures shock absorbers under the Columbus, Goerlich and Thruway brands, and also private labels (CX 205; Putman 1104). General Motors manufactures shock absorbers for the replacement market under its AC-Delco brand name (CX 240; Robison 3666, 3670).

⁷⁸ The list includes: Ford, ITT, Armstrong Hyd., Bilstein, Arolmex, Blackstone, Kayaba, Chrysler, Boge, Spax, Girling, and Corte & Cosso.

⁷⁹ The top two firm concentration figures are from *in camera* data in the record. However, Rule 3.45(a) specifically reserves the right of the ALJ to disclose *in camera* data to the extent necessary for the proper disposition of a case. There was some discussion regarding whether dollars or units more accurately reflected concentration in the relevant markets. In Dr. Nelson's opinion, dollars were more accurate, while Dr. Wright, respondent's economist, believed units to be more representative (N. Wright 6940-52, 12,287-93; Nelson 10,138-0).

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Initial Decision

Monroe Auto Equipment Company controlled 83% of the aftermarket in 1967, and have probably increased that percentage since then.

(CX 3E; see CX 15I; CX 20E)

189. Since at least 1960 Monroe has been one of the two leading suppliers (Pond 742; Kalupa 3638; Borick 4755).

190. Other than the acquisition of shock absorber companies by ESP producers, there were no new entrants into shock absorber manufacturing in the United States between 1958 and 1978 (Putman 1109, 1203; Moore 1326; Nelson 10,214).

191. Exits from the business evidence a trend toward even greater concentration in the shock absorber replacement market (Nelson 10,154). In 1975-76, Chrysler exited as a manufacturer of replacement shock absorbers (CX 261 *in camera*; Nelson 10,158; see Pond 791-92; Thompkins 2429; Steward 9280; Nelson 10,707). Immediately prior thereto, Moog essentially exited the market as a reboxer (Nelson 9789, 11,073). In 1978, Armstrong closed its North American (Canadian) shock absorber manufacturing facility (Steward 9524; Nelson 9929, 10,158-59).

192. In June 1977, Ford began to discontinue the manufacture of conventional shock absorbers, and plans to manufacture only a portion of its future MacPherson strut needs (Pond 791, 862; Luyckx 3730; H. Wright 3778-79; Fleuelling 3880, 3942; Bracken 4280; Stewart 4280; Stewart 9280; Nelson 9912-13, 10,158). As a result, Ford has significantly curtailed its manufacture of shock absorbers (H. Wright 3778-79; Fleuelling 3942-43; Stewart 9820; Nelson 9912-13). Moreover, Blackstone, a small manufacturer of replacement shock absorbers in the U.S., is attempting to exit the market (see Finding 411, *infra*).

193. In addition to the 17 companies which manufactured replacement shock absorbers for sale in the United States in 1975 and 1976, eight companies (including Midas, TRW and Arvin) were engaged in the purchase of replacement shock absorbers for resale by them to wholesalers and direct-buying retailers in competition with shock absorber manufacturers (CX 263 *in camera*; Putman 1131; Nelson 9785-86, 10,210). Such resellers are known in the trade as reboxers.⁸⁰ (Nelson 9782-84).[42]

194. Total sales by reboxers of shock absorbers in 1975 were over \$9.5 million, and in 1976 were approximately \$12 million (CX 263 *in camera*).⁸¹

⁸⁰ The other reboxer firms were Interpart, AGM, Roka, RRS Engineering, and Mickey Thompson (CX 263 *in camera*).

⁸¹ Monroe itself in 1975 purchased a quantity of shocks from Questor which it resold as a reboxer (see n.57, *supra*). Walker also performed a reboxer role in 1975 and 1976, purchasing shock absorbers from Monroe for resale to muffler installation shops (Cook 1635).

195. In 1975, Monroe's sales of shock absorbers in the United States for replacement use amounted to \$90.54 million, which accounted for 35.9% of the market. In 1976, the figures were \$110.07 million and 37.7%, respectively (CX 261A *in camera*).

196. Until the past few years, Monroe was recognized by itself and the industry as the undisputed price leader in the shock absorber replacement market (CX 5M; CX 181B; Putman 1132; Nelson 10,522-23).

197. Since approximately 1975, Maremont and Monroe have acted as the leading firms in the pricing of replacement shock absorbers (CX 5M; Pond 843; Putman 1132; Robison 3684; Luyckx 3748-49; Nelson 10,522-23, 11,097, 11,119; *see* Luyckx 3731-32). There was testimony that other replacement shock absorber producers cannot sell at higher prices than those charged by Maremont or Monroe (Putman 1132; *see* Luyckx 3731-32, 3748-49). Questor and GM look to Monroe and Maremont in setting their replacement shock absorber prices (Putman 1132; Robison 3684, 3721-22). Ford looks to Monroe, Maremont, Questor and GM in setting its replacement shock absorber prices (Luyckx 3731-32).

198. Walker's operational relationship to shock absorbers began in 1974 with its purchase of Triple S Industries⁸² (Complaint and Tenneco's Answer, Section 44, *see* Finding 379, *infra*). In 1976, sales of Walker's steering dampers, a form of shock absorber, and other shock absorbers accounted for 0.3% of the shipments of shock absorbers in the U.S. replacement market (CPF 124 *in camera*; CX 29H; CX 197; CX 263 *in camera*; Nelson 9792). Walker's sales of shock absorbers which it "manufactured"⁸³ represented 0.2% of the total sales in the U.S. replacement market. As a reboxer, Walker had shock absorber sales of \$184,000 in 1975 and \$236,000 in 1976, [43] representing approximately 0.1% of the total U.S. replacement sales in these years (Nelson 9784, 9792).

199. Historically, the replacement shock absorber business has been markedly profitable (CX 144; CX 145F-G; Pond 777-78, 856-57; Borick 4754; Nelson 10,590-91). Over the years, Monroe has earned a high rate of return on its stockholders' equity and assets (Nelson 10,591).

200. The record shows that Monroe's profitability declined in the middle 1970's. There were two reasons for this: (1) strong competition from Maremont and (2) the existence of factors not normally associated with the historic profitability of the U.S. replacement market (CX 3J; CX 4C; CX 5Z-12; CX 21B; CX 146A; Nelson 10,591).

⁸² See Findings 369-83, *infra*.

⁸³ See Finding 381, *infra*.

In the eyes of Walker, one such factor was Monroe's costly, inefficient and inattentive management. (Cook 1581-84, 1593-94, 1599-1600, 1620; Nelson 10,600; Ashford 11,453-54, 11,541). Another factor was the losses and start up expenditures experienced by Monroe's expanding foreign operations (CX 5Z-12; CX 21B; CX 160B; Cook 1620; Nelson 10,591, 10,599-10,600). An additional factor was the substantial premium incurred by Monroe in purchasing shock absorbers from its competition, and from its Brazilian plant (CX 256A-B; CX 257A-B; CX 270A-B; Cook 1627; Ashford 11,464-65). By 1976, prior to the merger, these adverse problems were, or were in the process of being corrected (Cook 1581, 1583, 1615, 1620, 1624-25, 1631; Nelson 10,592).

201. As for the competitive activity of Maremont, and Monroe's response thereto in recent years, the effect has been to make the shock absorber business more competitive and less attractive to potential entrants than it otherwise would have been (Pond 858-59; see Cook 1581, 1593-94; Nelson 10,591-91A).

202. In the present litigation, respondent portrays the shock absorber industry as one of deteriorating profitability (see RPF 191-210). Respondent's economist, Dr. Neal Wright, prepared calculations concerning rates of profitability for Maremont,⁸⁴ Questor,⁸⁵ and [44]Monroe.⁸⁶ According to Dr. Wright's calculations (which are disputed by complaint counsel),⁸⁷ the rates of return for these companies were less than the average return on stockholders' equity for all manufacturers.

203. The data upon which Dr. Wright based his calculations regarding Monroe's profitability appearing in RX 573 are found in RX 278A. (These exhibits are reprinted in RPF Appendix B). Mr. Barbeau, Monroe's domestic comptroller, constructed RX 278A from the internal accounting records of Monroe (RPF 198-99). The exhibit was designed to present a clear picture of Monroe's earnings from which Dr. Wright could calculate profitability figures (RPF 198-210). Complaint counsel continue to claim that these exhibits are unreliable (CRPF pp.61-63).⁸⁸ Whatever the dispute, the record shows Walker's perception of the shock absorber market as an attractive

⁸⁴ (RPF 195-97; Dr. Wright converted Maremont's 9.9% pre-tax return on assets found on RX 187 pp.12.16 to a return on stockholders' equity of 22.1%, which was less than the 22.7% average return on stockholders' equity for all manufacturing concerns in 1976, as reported in the FTC's Quarterly Financial Report for the first quarter of 1978 (RX 38; RX 512; N. Wright 6809-11 *in camera*, 6817-19 *in camera*, 8649, 1249-51).

⁸⁵ The documentation for Questor was less specific. Dr. Wright's conclusion that Questor has not achieved a satisfactory rate of return for either its shock absorbers or exhaust replacement sales in recent years is based on RXs 161-63; Putman 1198-1200; N. Wright 6809-11 *in camera*, 6817-19 *in camera*; see N. Wright 12.254-55).

⁸⁶ See Finding 207, *infra*.

⁸⁷ See CRPF pp.60-63.

⁸⁸ Complaint counsel view respondent's accounting data as flawed, and complain, *inter alia*, of improper adjustments and allocations leading to distortions in Monroe's profitability (CRPF pp.61-63).

one from a profitability standpoint, particularly as to Monroe's ability to enhance Walker's (and thus Tenneco's) overall profitability.

It is clear from internal documents that Walker believed Monroe's reduced earnings to be a "temporary problem" (CX 10C). Increased earnings were projected for Monroe in 1976 and 1977 over those experienced in 1974-76, even without Monroe's acquisition (CX 4C, Z1-Z2; CX 5D, Z-12; CX 11; see CX 4, pp.35-36; CX 5, pp.2-4, 64-66; Cook 1583-85, 1594, 1613-14, 1618-19, 1622, 1625; Nelson 4A-B; CX 5, p.77; CX 6B; Cook 1594; Ashford 11,455).

204. The question of the existence of "buyer [45]power"⁸⁹ in the shock absorber replacement market, and its bearing upon the profitability of that market was pursued at great length in the record by respondent (RPF 221-58). The buyer power theory as a defense is based upon the premise that the presence of dominant buyers in a market insures that the market will function competitively.

205. While Walker believed that the state of competition in the replacement market would prevent Monroe from returning to its historic high profitability, Walker nevertheless, held of the opinion, prior to the merger, that Monroe's profits would rebound to where it "can reasonably be expected to return to better than average rates," either on its own or with the assistance of Walker (CX 10B; Cook 1594). "[S]igns of turnaround at Monroe," detected by Walker prior to the merger, were "coming to pass" at the time of trial, according to Mr. Cook, president of Tenneco Automotive (CX 10A; Cook 1638).

B. ESP

206. The total net dollar sales of replacement ESP in the United States by manufacturers in 1975 were over \$467 million, and in 1976 were over \$494 million (CX 264 *in camera*).

207. The bulk of those sales were made by five companies: Tenneco's Walker, Maremont, Questor, Arvin and Midas. The remainder were accounted for by approximately 18 of the domestic and foreign ESP or vehicle manufacturers.⁹⁰ [46]

⁸⁹ Buyer power was described as an economic phenomenon in which the dominance of large purchasers results in intensified price competition and diminished profitability for the sellers in that industry. Respondent relies on buyer power in its effort to explain the competitive state of the shock absorber business. (Nelson 11,193; see N. Wright 12,230-31).

⁹⁰ The list includes: Hooker, Muffler Dynamics, GM, Tampco, Exzostic, Mitchell, Mercury Tube, Arnold Haviland, Everco, Superior, ITT, American Muffler, Carlson Industries, Hayes-Albion (through Eagle), Fenton, Ford and Eagle. (CX 264 *in camera*) Walker produces Walker and private label ESP (CX 27K). Questor produces AP mufflers, Goerlich mufflers and private label ESP (Putman 1095). Arvin manufactures ESP under the Arvin and Supreme labels as well as private labels (Baker 539). Midas manufactures ESP under the Midas and IPC labels (Moore 1220). Maremont manufacture Maremont and private label ESP.

208. Concentration in the manufacture and sale of replacement ESP in the United States is high, with the four leading companies having 73% of this market in 1975, and 73.5% in 1976 (CX 264 *in camera*).

209. All five of the companies named in Finding 207, *supra*, including Midas, are recognized as significant competitors in the U.S. replacement market (CX 27N; Baker 537, 551, 638, 641-42, 715, 725; Pond 829; Putman 1123, 1127; Ince 4936-38; Ashford 11,529-31).

210. Walker is by far the leading manufacturer and seller of U.S. replacement ESP. In 1975 and 1976 its market share was approximately 31% (CX 264 *in camera*). Its sales in those years were almost twice that of the second leading firm; more than twice that of the third; and roughly three times those of the remaining significant suppliers (CX 264 *in camera*).

211. While the same companies have continued to play a major role in replacement ESP for several years, the market share of Walker has been on the increase (Buck 9389; Nelson 10,934-35 *in camera*, 11,024; Ashford 11,528-31; CX 27N). According to Walker's 1976 Five Year Plan presentation, the company expected further market share increases in the immediate years to come (CX 27N).

212. There has been no new entry of any significance in the replacement ESP market for the past several years (Nelson 10,385, 11,027-28 *in camera*). During that time certain companies, minor factors, exited from that market. Named in the record were McCord, Grand Safeguard and Hayes-Albion (Putman 1184, 1203; Kittridge 1411; Stapleton 3457; Nelson 10,380, 10,385, 10,739, 11,074-75).

213. Walker is recognized by its competitors and others as being the price leader in replacement ESP (Baker 602-05; Nedell 944; Putman 1127; *see* Nelson 10,470-71, 10,513-14, 11,099; *but see* N. Wright 8320-21). The record sets forth a notable example of Walker's pricing ability: Following the Monroe merger, Walker initiated a 4% decrease in ESP prices, a move each of its major competitors felt compelled to respond to (Baker 595-97, 603-04; Pond 830; Nedell 944; Putman 1128-29; Stapleton 3428-29; Ince 4973-78). When, some months later Walker raised its prices, its competitors moved in a similar direction (Stapleton 3491; Ince 4976-77).

214. According to internal documents and reports, Walker regards itself as the dominant supplier of ESP to the replacement market (CX 13A; CX 27B, E; CX 107A; CX 288). Walker's studies concerning the acceptability of its products and preferences of jobbers and dealers reinforce this view (CX 104; CX 105). [47]

215. As attested to by complaint counsel's economic analyst, Walker in 1975 and 1976 earned a very high rate of return on its

assets employed in replacement ESP (Nelson 10,553-54 *in camera*, 10,610, 11,102-05; analyzing CX 26A-B; CX 244; CX 246).

216. Among vehicle manufacturers, GM produces the largest quantity of replacement ESP (CX 264 *in camera*). But its ESP product line is not broad enough to supply customers other than its dealers. Thus, its replacement ESP sales, together with those of other vehicle manufacturers such as Ford, are confined to the OE service segment of the business rather than the independent aftermarket (Baker 569-73; Robison 3695; Luyckx 3747; Fleuelling 4168; Bracken 4280-81, 4305; Nelson 10,307, 10,456, 10,497-98).

217. The percentage of the ESP replacement market represented by OE service sales has been declining steadily for the past several years. In 1976 the OE service share of the market stood at only 8% (CX 264 *in camera*; read in conjunction with CX 265 *in camera*; CX 15G; CX 28D; Cook 1658 *in camera*, interpreting RX 232C *in camera*).

218. The total net dollar sales by manufacturers of ESP direct to the independent aftermarket in the United States were \$427.9 million in 1975 and \$458.3 million in 1976 (CX 265 *in camera*).

219. Concentration in the sale by manufacturers of ESP direct to the independent aftermarket in the United States is high, with the top four firms accounting for 78.9% and 78.7% of such sales in 1975 and 1976 respectively (CX 265 *in camera*).

220. As in the case of the entire replacement market Walker is by far the largest supplier of ESP to the independent aftermarket (CX 27N; CX 227A; Steward 9270). Walker's share of the independent market in both 1975 and 1976 was approximately 33% (CX 265 *in camera*).

IX. Barriers to Entry

221. There is little disagreement between the parties that barriers to entry in this case are high for both shock absorbers and ESP.

A. Shock Absorbers

222. There are significant economies of scale in the production of shock absorbers (Moore 1288; Poe 8958; Stewart 9285-86; Nelson 10,132, 10,795). A single shock absorber plant of the minimum efficient scale must be able to produce annually in excess of 6 million shock absorbers, [48]representing in excess of 10% of the U.S. replacement market for shock absorbers (CX 208Z-15, Admission No. 186; Nelson 9914, 10,125, 10,795). Thus, according to complaint counsel's economic witness, there is a very high economy of scale

barrier present in the replacement shock absorber market (Nelson 11,015-16).

223. A substantial investment in plant and equipment is required to enter into the sale and manufacture of shock absorbers for replacement purposes (CX 4T; CX 5Z-15; CX 143L; CX 144B, E; Thompkins 2295; Borick 4753; Poe 8958). Dr. Nelson, testifying in support of the complaint, while recognizing the lack of precise figures indicating the present day cost of duplicating a shock absorber plant, placed the figure in the next-to-highest level of capital cost barrier classification (Nelson 10,127-28).

224. Substantial lead time is necessary to enter shock absorber manufacturing *de novo* (Petzsch 2443; Bracken 4291; Cox 4408, 4415; Freeman 8847, 8856 *in camera*). Witnesses estimated that lead time at eighteen months or more (H. Wright 3786; Bracken 4289-93; Freeman 8847 *in camera*; Nelson 9678-79).

225. Entry into the sale of shock absorbers to the independent aftermarket requires a substantial investment in warehousing facilities and inventory; a substantial marketing organization, including a large national sales force; and the financial ability to grant a variety of extended payment terms to customers (CX 144E; CX 191B-C; CX 205; CX 208Z-19, Admission Nos. 208-211; Pond 747, 755, 777, 779-80; Verner 908-09, 914; Nedell 946; Glassman 1027; Putman 1108; Cook 1597-1600, 1704; Bush 3287; Robison 3677-78; Luyckx 3736, 3746; Borick 4753; Freeman 8875; Stewart 9256-57, 9279, 9281, 9283-84; Kornafel 9433, 9436; Fouty 9483, 9488; Nelson 9690-91, 9709-11, 10,128-30, 10,198, 10,255, 11,115-16).

226. To compete successfully in the sale of shock absorbers to the independent aftermarket, a company must offer several different basic sizes, types and quality levels of shock absorbers, and a full line of shock absorbers fitting most vehicles made or sold in the U.S. (CX 144E; CX 208A-15, Admission No. 187; Verner 908-09; Nedell 946; Bush 3306; Robison 3670-71, 3677, 3691; Luyckx 3745; Kalupa 4205-07; Buck 9374; Schubert 8504-05 *in camera*; Kornafel 9436; Nelson 9685-87, 9918, 10,128-29). A firm must distribute nationally, must be able to supply the products in a relatively short period of time, and must be able to supply nearly 100% order fill (CX 4F; CX 208Z-19, Admission No. 192; Pond 777-79; Verner 908-09; Nedell 946, 968; Glassman 1027; Cook 1600, 1627-28, 1630-32, 1704; Stapleton 3477; Robison 3695; Luyckx 3745-46; Buck 9374; Kornafel 9436-38; Fouty 9487-88; Nelson 9713-14, 10,128-29, 10,193; Ashford 11,497-98). As of 1974, to meet the needs of the domestic vehicle [49]market alone, more than 5,000 shock absorber part numbers were required (CX 143L; see CX 208A, Admission No. 2).

227. The practice by major producers of providing consigned inventory to customers, along with dating terms, constitutes another barrier to entry into the sale of replacement shock absorbers to the wholesale and retail channels (Nelson 10,128-30). Monroe and Maremont promote their products by extensively consigning inventory, thereby enhancing product availability and thus sales volume (CX 4N; CX 21C; CX 191C). While Monroe supported these consignments with extensive advertising, the real incentive to the dealer to agree to accept these inventories has been a promotional program offering attractive dealer premiums such as low cost trips (CX 4N; CX 5L; Cook 1599-1600). This program "enabled the dealer and his wife to travel virtually any place in the world for a modest out-of-pocket cost." (CX 5L) The program boosted Monroe's sales and gained Monroe such a strong dealer allegiance that many wholesalers felt compelled to carry the Monroe line (CX 5L).

228. In 1975 and 1976, Monroe, Maremont, Questor, and GM granted a variety of extended payment terms to their replacement shock absorber customers (CX 208Z-19, Admission Nos. 208-11; Robison 3677-78; Kalupa 4203, 4240).

229. Suppliers of shock absorbers to muffler installation chains have furnished various forms of financial assistance to such chains to enable them to increase their number of outlets (Verner 908-09; Nedell 961-64 *in camera*). Such support can be of substantial importance, especially for a rapidly growing retail installation chain (Verner 909-10; Nedell 961-66 *in camera*).

230. There is a moderate absolute cost barrier to entry into the replacement shock absorber market presented by the technical requirements for entry, including in-house production of machinery, and the existence of patents (Nelson 10,165, 10,843, 10,845).

231. The current major producers of shock absorbers are long established firms (Putman 1192-93; Robison 3701; Bracken 4280; Fleuelling 5795). These companies enjoy an absolute cost advantage over potential entrants by virtue of the ownership or control of numerous U.S. and foreign patents (CX 168A-B; CX 169A-G; CX 224Z-59; Petzsch 2452, 2465). Monroe believes that its shock absorber patents have afforded it valuable property rights and it is its policy to enforce its patent rights in the courts (CX 4V). These patents are important in the manufacture of shock absorbers, especially advanced design shock absorbers which require two or more years to develop and perfect (Givens 397). The significance of the shock absorber patents, however, should not be overstated; as observed by Walker prior to the merger: [50]

Monroe believes that while its ride control patents have afforded valuable proprietary

rights . . . its engineering and manufacturing, and particularly its marketing capabilities are the principal factors in maintaining its position in the market.

(CX 4V)

232. Monroe designs much of the tooling and some of the equipment used in its shock absorber plants (Hegel 2167, 2169-70, 2176, 2186, 2201). Monroe also manufactures in-house some of its plant equipment (Hegel 2169-70, 2188, 2193; DeLisle 11,250).

233. The major producers of shock absorbers for the replacement market have developed a high degree of product differentiation for their products, particularly regarding sales to the traditional wholesale channel (CX 4N; CX 5"O"; CX 21C; Bush 3312-13; Freeman 8875; Stewart 9256-57, 9278-79; Buck 9372; Nelson 10,132, 10,193, 10,795). It would be a difficult matter for a new entrant to overcome these preferences, according to the record (Putman 1152-54; Barna 1348-50; Stewart 9256-57, 9278-79; Nelson 10,048).

234. While brand name loyalty is of less significance in private label sales, there was some testimony that the reputation of quality possessed by the major producers was important to private label purchasers who installed shock absorbers (Glassman 1028-32).

235. Another factor important in establishing and maintaining buyer preferences in the sale of shock absorbers is the use of an extensive field sales force which calls not only on WDs but also calls directly on the WDs' direct and indirect customers, jobbers and retail outlets, to assist them in the sale and promotion of shock absorbers at the retail level (CX 21C; CX 145C; CX 191B; CX 208Z-18, Admission No. 203; Verner 908-09; Cook 1597-99; Bush 3305-06; Stapleton 3477, 3479-80; Robison 3667; Freeman 8875; Stewart 9257, 9279; Kornafel 9434-35; Nelson 9718-19, 10,048, 10,128-30, 10,193; Ashford 11,438). As of 1976, Monroe had more than 250 such field representatives promoting its replacement shock absorbers, the largest sales organization specializing exclusively in the shock absorber replacement market (CX 141G; CX 143I).

236. In addition, a separate sales and service force is needed to perform the somewhat more sophisticated servicing program required to successfully sell to nontraditional replacement shock absorber accounts (Stewart 9283-85, 9288-89).

237. Advertising and promotional expenditures also have helped replacement shock absorber manufacturers that sell to the wholesale channel and certain mass merchants to achieve and maintain a high degree of product differentiation (CX 3C; [51]CX 5"O"; 143I; CX 144E; Pond 765; Putman 1153; Cook 1597; Bush 3306-07; Stapleton 3473-74; Robison 3677-78, 3706; Luyckx 3746; Fleuelling 3960; Cox 4379, 4406; Freeman 8875; Goodman 9070, 9074; Stewart 9256-57,

9279; Nelson 9690-91, 9717-19, 10,048, 10,128-31, 10,193; Ashford 11,438). Monroe has recognized the importance of these marketing efforts to its success in the replacement market, as evidenced by the following Monroe advertising representations:

Monroe is first in shocks because we are first in brand awareness and preference. We've enjoyed that leadership because of our national advertising efforts over the past 50 years.

(CX 319B, CX 332D)

238. Shock absorber manufacturers have made extensive use of consumer advertising, often on television or radio as well as using cooperative advertising programs directed at the installers (CX 143I; CX 144E; 167; Pond 765; Putman 1153; Stapleton 3473, 3480; Robison 3677, 3706-08; Nelson 10,206; Ashford 11,438). Monroe has for years engaged in extensive consumer advertising and promotional programs for the replacement market, with the claimed result that consumer awareness of the Monroe brand is greater than that of any other brand of shock absorber (CX 143I; CX 144E).

239. Monroe began consumer advertising for replacement shock absorbers in 1956 (Fleuelling 3940). Since then its advertising program has continued to grow, as has that of its leading competitors (Robison 3677, 3706-08). By 1974, Monroe emphasized network television sports programs, resulting in an estimated 1.4 billion adult impressions across the United States. Monroe credited its advertising "for the fact that among car owners who would specify brand, the preference for Monroe [in 1974] was almost two and one half times greater than for the closest competition" (CX 143I; see CX 144E). As of 1974, Monroe's Chairman announced that Monroe was "currently launching a new advertising campaign, concentrated on top-rated television sports programs, and supplemented by product and marketing messages in automotive trade and consumer publications. During the remainder of calendar 1974 it is anticipated that your company's products will be viewed over 460 million times" (CX 146B). Following this campaign, Monroe made the following representations to the replacement market in 1975: "That's advertising muscle. The kind that keeps Monroe a leader in brand awareness and preference. A 1975 survey supported that position with an awareness score for Monroe that is 106% above its nearest traditional distribution competitor" (CX 330D).

240. Monroe and its subsidiaries in fiscal 1975 incurred advertising costs of \$12.7 million, and in fiscal 1976 \$13.1 million (CX 191E). Monroe also maintains an unlimited cooperative advertising program for its branded accounts (Stapleton 3480). Under this program,

Monroe pays 50% of all [52]Monroe product advertising done by such accounts (Stapleton 3480; Kalupa 4200).

241. As mentioned in Finding 240, *supra*, Monroe renders service and assistance to private label accounts. In the instance of Midas, Monroe helps in developing sales promotion programs, and provides catalog assistance and funds for cooperative advertising (Moore 1260).

B. ESP

242. There are significant economies of scale in the production of ESP. The plant or plants of minimum efficient scale necessary to produce a full line of replacement ESP would account for in excess of 10% of the unit shipment in the U.S. replacement market (CX 25X; Bracken 4349; Ashford 11,534-35).

243. Entry into the manufacture and sale of replacement ESP is very expensive (Baker 694; Ashford 11,534-35). Manufacturing facilities of minimum efficient scale necessary to produce a full line of replacement ESP would cost a total of \$35-40 million, in the judgment of Monroe's current president (Ashford 11,535).

244. To enter the independent ESP aftermarket on a major basis, a firm would have to make substantial investments in warehousing facilities and inventory, establish a substantial marketing organization, including a large national sales force; and have the ability to grant a variety of extended payment terms to customers (CX 27K; CX 205; Baker 663; Verner 914; Glassman 1026; Kittridge 1407; Schultz 1795; Jaffe 2806-07; Stapleton 3477; Foster 5107; Ashford 11,438, 11,531; *see* CX 208Z-20, Admission No. 215).

245. In order to compete successfully in the sale of ESP to the independent aftermarket, a producer must offer a full line of ESP fitting most vehicles made or sold in the U.S., including foreign made vehicles (CX 2B; CX 25Z-3; CX 27M, Q; Baker 537-38, 540, 544-45, 636-37, 658; Verner 901-02, 908-09; Kittridge 1404; Bush 3303-05; Kornafel 9433). A firm must also distribute nationally, must be able to supply ESP products in a relatively short period of time, and must have the ability to supply nearly 100% order fill (CX 4F; CX 208Z-20-Z-21, Admission Nos. 216-217, 219; Baker 544-45, 660, 672; Verner 908-09; Nedell 968-69; Cook 1597-98, 1630; Bush 3317; Stapleton 3456, 3473-74; Kornafel 9433, 9437, 9449-50; Fouty 9487; Ashford 11,438). Walker attributes its gain in market share over the last two years, in part, to its ability to deliver 98% complete orders of ESP within five working days (CX 25Z-3, 4; CX 27N; *see* Kornafel 9434, 9437, 9449-50).

246. The practice by the major ESP producers of providing dating

terms, advancement of advertising funds, [53]capital expansion funds and loan guarantees for customers constitutes another barrier to entry into the sale of ESP (Baker 663; Verner 908-09; Nedell 938, 958; Jaffe 2793-94, 2806-07; Stapleton 3477, 3490; Fouty 9491; Ashford 11,532).⁹¹

247. At the close of the year 1976, the record shows that Walker was the owner of approximately 150 unexpired ESP patents, with about a dozen applications pending (CX 40A-W).

248. Walker also possesses extensive proprietary ESP manufacturing knowledge and techniques. Traditionally, Walker has built internally of its tooling and specialized processing equipment, and some of its test equipment (CX 25Z-7; Schultz 1738, 1787-88, 1804-06, 1846-47; Bracken 4350).

249. The leading replacement ESP producers have been long established in that business (Baker 649; Pond 743-44; Putman 1109). These companies have developed a significant degree of product differentiation for their products, particularly on sales to the wholesale channel (Baker 553-54, 558-59, 567, 642, 668; Glassman 1026; Putman 1152-54; Foster 5107; see CX 27M; CX 104A-H. Witness Putman of Questor, speaking of the significance of brand name recognition, regarded this as "very important". "In other words, had it not been for that, some of these lesser companies like the Havilands and Hayes-Albions would have made a big penetration" (Putman 1154).

250. Another obstacle to success in selling ESP in the traditional replacement channel is the usual practice of WDs to stock only one manufacturer's line of ESP products at a given location (Baker 592-95, 921; Putman 1129-30; Bush 3303; Stapleton 3475; Nelson 10,490).

251. The witnesses mentioned a number of reasons, among others, for this WD practice: the large physical space [54]needed to warehouse two ESP lines; problems generated by the necessity of having to use more than one ESP catalog by the WD and his customers; purchase order confusion; uncertainty in meeting truck-load freight requirements; lack of part interchangeability in competitive product lines (Putman 1130; Bush 3303-04; Stapleton 3475-76; Nelson 10,490-91, 10,771).

252. For an ESP supplier to obtain new WD business, a total "changeover" is the standard procedure. Under this arrangement, a

⁹¹ A prime deterrent to the growth of a retail muffler installation chain is the acquisition of real property for new locations (Nedell 939, 961 *in camera*; Jaffe 2793-94). Growing, small chains often lack the funds necessary for such property acquisitions (Nedell 939; Jaffe 2793-94). Thus, such firms become dependent for their growth on their ESP suppliers' ability to provide the requisite property acquisition funds (Nedell 938-40, 961-62 *in camera*; Jaffe 2793-94). One method by which such chains may be helped is to have the supplier guarantee the mortgage for the outlet locations (Nedell 939-40; Jaffe 2807). For example, Walker provided capital expansion funds to Car-X, a leading chain of muffler installation shops (CX 27K; CX 110A-B; Nedell 938; Jaffe 2793-94, 2806-07).

supplier must physically remove all of the WDs' old ESP inventory, and replace it with a full line of the new supplier's ESP brand ("stock lifting"). Since this is done at no cost to the WD, it is an expensive measure for the supplier (Baker 597; Pond 867-68; Bush 3306-07; Stapleton 3475).

253. The major ESP producers, including Walker, maintain a large number of field sales personnel who call upon not only WDs, but also upon the direct and indirect customers of the WDs, *i.e.*, jobbers and retail outlets to assist in the sale and promotion of ESP (CX 24C-D; CX 27M; CX 104C; CX 208Z-22, Admission No. 223; Baker 663; Verner 909; Bush 3305-06; Stapleton 3477; Kornafel 9434-35; Ashford 11,438, 11,507, 11,531-32). Walker, as of 1976, had a sales force of approximately 290, which it held in high regard (CX 24B, H; CX 39; CX 104C; CX 208Z-22, Admission No. 223).

254. Advertising and promotional expenditures have also assisted ESP suppliers selling to the traditional channel to achieve and maintain a high degree of product differentiation and brand name loyalty (CX 38A; CX 104C-D, G; Baker 567-68, 661, 668-69; Glassman 1026; Putman 1152-53; Moore 1276-77; Stapleton 3477; Foster 510 *in camera*; Nelson 10,201-04, 10,337; Ashford 11,506-07, 11,531). While Walker's promotional efforts, in the past have been geared towards the use of premiums and trips for wholesalers and installers, there has been significant recent advertising by the company (CX 38A; CX 316B; CX 318C; CX 329A-D; Baker 668-70; Cook 1704-04; Stapleton 3477; Foster 5107; Nelson 10,200-03, 10,920, 10,924-26, 10,964; Ashford 11,503-04, 11,506-07, 11,532).

255. In 1976, Walker's point of sale and trade journal advertising expenditures were approximately \$1.5 million, more than double the 1975 amount (CX 38A). In 1976, Walker also spent an additional \$2.1 million for other advertising and promotional purposes (CX 38A-B). Included in these latter expenses was \$1.1 million for "promotional support funds for distribution systems" (CX 38B). Walker's "initial objective" in such advertising and promotional efforts is to "support the dealer and thereby increase his exhaust volume," while its "prime objective is to bind the dealer's loyalty to the Walker product since an established brand loyalty by the dealer can be a deterrent to the jobber and the warehouse distributor in changing exhaust lines" (CX 27J; Nelson 10,965; *see* CX 24C-D). [55]Walker declared that "competition cannot match the size and scope of our current wholesaler marketing activities. . . . We do not believe our competitors have the financial strength to match the strategy" (CX 27J; *see* CX 24C-D).

256. Walker has recently increased its consumer advertising of

ESP since brand awareness on the part of consumers has been on the rise, especially with the increase in self-repair among automobile owners (CX 24D; CX 321; CX 349, p. 18; Cook 1657 *in camera*, 1712). With respect to consumer advertising, Tenneco's 1979 Annual Report stated:

A major development in Walker Manufacturing Company's approach to its market was inaugurated in early 1979 when the unit became the first manufacturer of aftermarket exhaust systems to advertise in national media. The Walker campaign, which was successfully test marketed in 1978, will appear on national television and radio as well as in national magazines and leading newspapers and trade publications.

(CX 349, p. 18)

During 1979, Walker used extensive TV advertising for its Walker brand ESP (Nelson 10,205, 10,920, 10,964-65; Ashford 11,503-04). Walker also maintains a cooperative advertising program with its customers to promote ESP sales (Nelson 10,205, 10,965-66; Ashford 11,503).

257. By 1978, Midas was also engaged in a national advertising for its outlets, using television, and supplementing this with radio and print advertisements (Moore 1277; Nelson 10,966). Walker's consumer advertising program was in part in response to this Midas effort, according to complaint counsel's economic witness (Nelson 10,966).

258. In its five year marketing plan, 1976-81, Walker states that its ". . . aftermarket strength is a result of our superior engineering expertise, our manufacturing and distribution network, our sales force, our product services, and the greater financial strength afforded by our profitability and our relationship with Tenneco" (CX 24B; see CX 104C-D, G).

X. Compatibility Factors Respecting Shock Absorbers and ESP

259. Much evidence was adduced in this case concerning the existence of commonalities in the production and sale of shock absorbers and ESP. This evidence concerns marketing [56]channels and methods, common competitors and customers, as well as similarities in manufacturing, engineering and other technical steps involved in research and development.

260. In the opinion of witness Baker of Arvin, shock absorbers are "very compatible" with ESP in the area of distribution and sales. So are other automotive products sold in the aftermarket, such as spark plugs. And there are other replacement products, such as tires and batteries that are not as compatible (Baker 664-68).

261. It was the testimony of witness Glassman, a purchasing

agent for independent automotive service centers, and a man of long experience in the automotive aftermarket, that, in general, "everybody that installs exhausts will install shocks. It is the next item after exhaust as an add-on selling feature. It is almost one and the same" (Glassman 1009; *see* 992-97).

262. Witness Moore, a high official of Midas, testified at 1248: "Well, again, I believe that the two product lines are compatible all the way through the process, from manufacturing, distribution, to the sale to the ultimate enduser [sic]. And I think that there are advantages as I say at each level" (*See also* Moore 1235-37, 1246-49, 1286-90).

263. Prior to the merger, Walker's president, Mr. Cook, stated in an office memorandum discussing the proposed acquisition:

During the past reviews of Walker's five year plans, we have had discussions with the Tenneco Planning Department regarding potential new product lines that would most closely fit with our present exhaust business, and the answer has been collectively agreed to be shock absorbers. As is detailed in the preliminary background attached, the product line is the most compatible and is significant enough to justify pursuing.

(CX 10A; *see* CX5P; CX 13A; *see also* CX 4E-G; CX 20G; CX 21A, C-D)

264. A report prepared in July and November 1976 by Tenneco's Corporate Development Department, summarizing its view of the shock absorber business and focusing on Monroe, stated:

An acquisition of a shock absorber manufacturer would be advantageous to Walker in a number of ways. As pointed out before, shock absorbers are sold through the same channels of distribution that exhaust systems are sold. Additionally, shock absorbers would support the approved move into the U.S. retail market by Walker.

(CX 3C) [57]

265. In a series of three documents, each entitled "Proposal to Acquire Monroe Auto Equipment Co.," company officials discussed the various compatibility factors existing between shock absorbers and ESP, and as respects Walker and Monroe in particular, in manufacturing and distribution as well as in marketing (CX 4A-Z-5; CX 5A-Z-22; CX 6A-C).

266. In his presentation to the Tenneco Board of Directors requesting authorization to acquire Monroe, Walker's president pointed out the compatibility between Monroe shock absorbers and Walker ESP in their manufacture, distribution, sales engineering and research and development, and the fact that both Walker and Monroe have common competitors and customers (CX 20A, G-H; CX 21C-F; CX 187A).

267. In 1978, following the merger, Tenneco established the

Tenneco Automotive division to oversee the operations of Walker, Monroe and the Speedy Muffler King retail specialty unit that was recently formed for U.S. operations (CX 349, p. 127; Cook 1570-72, 1646; Kalupa 3534; Fleuelling 5784; Ashford 11,401, 11,481-82). In particular, Tenneco Automotive performs market research, personnel hiring, accounting and finance functions for the three operating divisions, and is expected to perform purchasing for them (Kalupa 3534, 3537-38; 3558; Ashford 11,649). Furthermore, subsequent to the Monroe acquisition, Tenneco designated Mr. James Ashford, the Executive Vice President of Walker, as President and chief executive officer of Monroe (Cook 1608; Ashford 11,480-82).

A. Manufacturing

268. Respondent presented elaborate evidence, including slide shows and physical exhibits, demonstrating the differences between the production of shock absorbers and ESP (*see, e.g.*, Hegel 1926-98, 1999-2061 *in camera*, 2067-2226; Schultz 1793-1818, 1825-60; RX 243, RX 244, RX 248; RPXs 2, 6, 9, 13, 15, 16, 17, 18). Nevertheless, there is evidence of the existence of certain features common to the production of both products.

269. Prior to the merger, respondent's Corporate Development Department reported:

The manufacturing process for exhaust and shocks are very similar, with both products starting from sheet steel that is welded into tubing. This probably is the most important common manufacturing process and one in which Walker has a great deal of proprietary knowledge. Other metal components are fabricated by machining, forming or shaping, and are assembled or attached together. The [58]exhaust systems probably require more forming and welding, whereas the shock requires more machining, some wire processing, and some hydraulic work. Regardless of the detail process, both products are metal fabricated products with very similar technology and production skill requirements.

(*See* CX 4F; CX 5Z; CX 21D; CX 20G; CX 21D; CX 142F-G; Givens 438-39, 484-85; Baker 712-13)

270. Both shock absorbers and all major ESP components (mufflers and exhaust, connecting and tail pipes) require the use of a pipe or tube mill as a basic manufacturing unit (CX 4F; CX 8; CX 15J; CX 142F; CX 208Z-24-Z-25, Z-37-Z-28, Admission Nos. 237, 240, 254, 257; RPX 2; RX 244; Givens 408-10, 438, 480-81, 539; Pond 755; Putman 1134; Moore 1289; Schultz 1795, 1799-1800, 1834-35; Buck 9383-84; Nelson 10,169-70).

271. Tube mill production represents 25-30% of the material value cost of a shock absorber (Givens 410, 438; Pond 775; Buck 9384;

Nelson 10,169). Of the total cost of a shock absorber, tubing represents approximately 13-14% (Hegel 2067-68, 2070).

272. The tubing in exhaust pipes, connecting pipes and tail pipes constitutes virtually the entire material value of those components (Givens 410; Schultz 1795-99; Buck 9384). In the case of mufflers, which consist of a combination of tubing sections, small stamped parts, and a formed shell and which are assembled by use of welding techniques and in some cases, metal-forming closure techniques,⁹² tubing constitutes approximately 25% of the material value (Givens 410, 438).

273. It is possible for the same tube mill to produce tubing for both shock absorbers and the pipe portion of ESP (CX 4F; CX 8; CX 21D; Putman 1134; Hegel 2211-12; Nelson 10,169). For a period of one and one-half to two years, Questor utilized a common facility to produce both some of its ESP pipe and all of its shock absorbers (CX 42B; Putman 1134, 1156-57). Subsequent to the acquisition, as of July 1, 1978, a Walker tube mill was in the process of being physically transported to Monroe's Paragould, Arkansas plant, for attempted use in shock absorber manufacture (Hegel 2211-12).

274. The manufacture of both ESP and shock absorbers requires tube cutting and minor stamping operations (RX 244; [59]Givens 401, 409-10, 484; Schultz 1802-04, 1807, 1817-18, 1826, 1836; Hegel 2138-39). Both also require the extensive use of welding, and both also use drawing, swedging and chrome plating operations in their manufacture (CX 15J; CX 208Z-25-Z-26, Admission Nos. 244-45, 248; Givens 409-10, 424-25, 479, 484; Moore 1289; see Schultz 1797, 1804, 1825-26; Hegel 2145).

275. Such minor stampings are produced on standard type punch presses or stamping presses (Givens 401; Schultz 1817-18). Both shock absorber and ESP producers commonly manufacture the required minor stampings in-house (RX 244; Givens 401-02; Schultz 1802-04, 1817-18, 1830, 1836).

276. On the other hand, respondent argues that merely because the above operations for making shock absorbers and ESP may be described by the same "generic names," this is not determinative of whether they are technologically similar as a practical matter. The testimony put forth by respondent's technical witnesses was that a great deal more precision and sophistication was required in the manufacture of shock absorbers.⁹³ Three of the areas identified, for

⁹² (RPX 2; Givens, 409; Pond 775; Schultz 1754-55, 1800, 1802-06, 1836).

⁹³ RRPf 109: "... [M]onroe's minor stamping operations are of a completely different nature. For example, the spring disc is made to a thickness of .0012 inches with precision diameter and holes. It is made on a high speed automated press which turns out the parts at the rate of three or four a second (Hegel 2022). Another precision stamping is the rebound valve spring seat" (Hegel 2032).

example, by Monroe's chief engineer (for advanced engineering and research), Mr. Hegel, were welding (2069-70),⁹⁴ tolerances in testing (2038; *see* Tompkins 2358), as well as the precision stamping described in the first footnote in this finding (Hegel 2022-23, 2032, 2039-41, *in camera*).

277. There are at least some commonalities in research and development technology regarding shock absorbers and ESP (CX 5-A; Givens 484-85).⁹⁵ A Walker study states: "Walker exhaust system research utilizes dynamics of sound dampening, which is quite similar to theory of motion vibration utilized in shock absorber research" (CX 15J; Givens 484). Walker's [60]President, Mr. Tom Cook, cited compatibility in research and development for the two products in his presentation to the Tenneco Board seeking authorization to acquire Monroe (CX 20G; CX 21D). Commonality in research and development is shown in the instance of Maremont's engineering and product development staff, whose services are expected to, and do encompass both shock absorbers and ESP (Givens 395-96, 484-85; *see* Buck 9424).

B. Distribution

278. Shock absorbers and ESP are distributed through identical channels from the manufacturer to the consumer (CX 4G; CX 5P-R; CX 15D-E; CX 20G; CX 21D; Baker 589, 664; Moore 1248; Cook 1586; Bush 3259-60; Fleuelling 5774-75; *see* flow chart, CX 5Q).

279. In the traditional wholesale channel of the independent aftermarket, shock absorbers and ESP are sold by manufacturers to WDs, who in turn distribute these products to jobbers for resale to garages, service stations, etc., for installation on the vehicles of ultimate consumers (Baker 664; Moore 1248; Cook 1586; Bush 3259-60; Fleuelling 5774-75).

280. In the retail channel of the independent aftermarket, both products are sold directly to mass merchandisers, chain stores, tire companies, and muffler specialty installation chains (CX 3C; CX 5P-Y; CX 15D-F; Moore 1248; Kittridge 1415-16; Jaffe 2804; McAdams 8988; Fleuelling 5780-81; Garfinkel 9206).

281. Shock absorbers and ESP are products of major importance carried by WDs, certain mass chain merchandisers such as Sears, and muffler installation shops (Baker 540-41; Verner 883; Nedell 929; Glassman 1019, 1034, 1068; Bush 3297, 3315; Terry 4451).

282. However, as respondent points out, shock absorbers and ESP

⁹⁴ Witness Givens, formerly vice president in charge of research and engineering at Maremont described the welding processes for ESP and shock absorbers as "in general, similar" (Givens 410).

⁹⁵ Respondent's witness Mr. Hegel, however, saw "very little" in common (Hegel 1937).

are not sold to all classes of customers in equal amounts. For example, the M.E.M.A. data for 1975 shows that, as between warehouse distributors and nontraditional national accounts, more than 67% of all mufflers and 83% of all pipes were sold to traditional customers (CX 121C). In the same time period, M.E.M.A. data shows that less than 38% of all shock absorbers were sold to warehouse distributors (RX 30E-H). In the nontraditional channel, ESP sales are largely to muffler shops, while in excess of 90% of nontraditional shock absorber sales are to mass merchandisers (RX 232; RX 550D; RX 551A-C *in camera*; RPF 315). [61]

283. There was testimony by certain WDs⁹⁶ that, on an inventory average, ESP ranked at or near the top of all automotive products in terms of total WD sales, at or around 10%, whereas shock absorbers accounted for but 3-5% of sales (Bush 3297, 3315; Stapleton 3476-79).

284. Successful competition in replacement sales of both shock absorbers and ESP requires the ability to supply in a relatively short period of time; an order fill of close to 100%; and national distribution (CX 4F-G; CX 15D-E; CX 27N; Baker 544-45, Pond 777-79; Moore 1235-36, 1248; Cook 1627-28, 1630-32; Stapleton 3477).

285. There is testimony and documentary evidence in the record that shock absorbers and ESP can sometimes be effectively combined in one distribution and delivery system (CX 4F-G, CX 5P-R; CX 13A-B; CX 15D-E; CX 205; Baker 589-90, 666-67; Glassman 1036-37; Moore 1218-19, 1234-36; Cook 1625-26, *but see* 1635; Nelson 10,247, *et seq.*).

286. Witnesses attested to similarities in warehousing and handling both products (Baker 589; Pond 756; Moore 1218, 1234, 1236; *see* CX 13A. With respect to this, Midas' Mr. Moore stated:

They [are] relatively easy to handle. In fact, shock absorbers and mufflers are not dissimilar. They are both boxed, palletized, and can be moved by forklifts, and are relatively easy to handle from a material handling standpoint. The warehousing technique would be very similar. Shock absorbers and mufflers would both go into—can be stacked very high, good cubing utilization out of them.

Their out processing from the standpoint of order picking and loading back onto a trailer for a customer order are similar.

(Moore 1236)

287. Both shock absorbers and ESP can be and are stored by manufacturers in regional warehouses (CX 13A; CX 205; Pond 756; Verner 886-87; Nedell 935; Putman 1104-05, 1108, 1118; Moore

⁹⁶ Only four WDs testified in this case, Messrs. Bush, Stapleton, Kornafel and Fauty (See Appendix A to RPF).

1218-19). Prior to the Monroe acquisition, three of Walker's regional warehouses handled and shipped together both shock absorbers and ESP (CX 13A; CX 208K, Admission No. 22; Cook [62]1635; Jaffe 2804; Teryl 4467; Nelson 10,197; Ashford 11,538). In addition, Walker was considering the use of its ESP distribution facilities to distribute Monroe shock absorbers (CX 4F; CX 208Z-30, Admission Nos. 271-72). A single distribution system for both shock absorbers and ESP was proposed by transferring a portion of Monroe's warehousing and physical distribution functions for shock absorbers to Walker's existing ESP distribution facilities (CX 5V; CX 208Z-30, Admission Nos. 271-272; Ashford 11,460, 11,466). It was recognized by Walker that Monroe's three production facilities "are reasonably close to our existing shipping and manufacturing facilities, and it is proposed to warehouse and ship their products from our distribution points" (CX 4G, K; CX 5V, Y, Z-14-Z-16). Subsequent to the acquisition of Monroe, a major portion of the warehousing and shipping function for Monroe shock absorbers was transferred to the Walker distribution centers "with very little additional fixed cost" (Cook 1625-26; Fleuelling 5786-87; Nelson 10,197; Ashford 11,460). Thus, currently all Walker distribution centers contain both ESP and shock absorbers (Cook 1625-26; Fouty 9475, 9492-93).

288. Walker, by warehousing and distributing all aftermarket shocks sold by Monroe, projected annual cost savings from lower freight costs to be \$495,000, and annual savings of \$100,000 by combining Walker's and Monroe's traffic departments (CX 208Z-31, Admission Nos. 275-277; see CX 5X, Z-14; Ashford 11466).

289. All of Maremont's field warehouses store and ship ESP and shock absorbers together (Pond 756, 762; Nedell 935-36; Glassman 1037; Stewart 9281). Maremont makes combined shipments of shock absorbers and ESP to its nontraditional accounts and combined shipments of its shock absorbers and its World Parts line, which includes ESP to WDs (Pond 762; Nedell 935-36; Glassman 1037; Kornafel 9431; Fouty 9475-76; Nelson 10943-44). Arvin's replacement warehouses handle both shock absorbers and ESP and ship them together to the nontraditional channel of distribution (Verner 887, 892, 921; Glassman 1037; Cook 1635; Nelson 9857). Questor has nine distribution centers which warehouse and combine shipments of both shock absorbers and ESP (CX 205; Glassman 1037; Putman 1104-05, 1108, 1118; Teryl 4433-34, 4465; Garfinkel 9207). Midas operates eight warehouse locations which serve both its muffler installation shop franchisees and its WD customers (Moore 1234-35). Each of these locations warehouse both shock absorbers and ESP and ship them to all of Midas' customers (Moore 1234-35; Nelson 10,960).

290. There was testimony that on shipments of shock absorbers and ESP, these products are generally received on the same dock, warehoused in the same facility, handled by similar personnel in the warehouse and, in the case of WDs, reshipped together from the same dock to jobbers or retail outlets (Goodman 9077-79; Kornafel 9441-43; Fouty 9493-94, 9500). [63]

291. Use of common shipments of ESP and shock absorbers can result in outbound freight savings, as shock absorbers can be added to an ESP shipment for virtually no additional cost (Baker 576, 589-90, 666-67; Nedell 936, 955-56; Moore 1236; Kittridge 1416-17; Cook 1634; Teryl 4466; Nelson 10257 *et seq.*; Ashford 11,466-68). If only ESP are shipped, a manufacturer may pay for a full weight load (24,000-30,000 lbs.), even though a van filled with these bulky parts may weigh less than the maximum truck load weight (CX 208Z-32, Admission No. 281; Kittridge 1416-17; Cook 1634; Teryl 4466; Nelson 10,257-61; Ashford 11,466). If both shock absorbers and ESP are combined in a single load, the high weight density of the shock absorbers in comparison to ESP would operate to raise the load weight up to the legal limit with little sacrifice of carrying capacity for ESP, thereby achieving several thousand pounds of additional freight at no additional cost (CX 4G; CX 5V, X; CX 13A; CX 77; Baker 576; Moore 1235-36; Kittridge 1415-17; Cook 1634; Teryl 4466; Kornafel 9436; Nelson 10,257-61; Ashford 11,466).

292. Combining shipments of ESP and shock absorbers to mass merchandisers and muffler installation shops, even for "LTL" (less-than-trailerload) shipments, enables customers to place orders more frequently, resulting in a reduction in inventory, and hence costs, and in obtaining more complete order fill (CX 4G, P; CX 5X, Z-13-Z-14; Verner 919-20, 922; Nedell 956; Glassman 1021; Cook 1632; Garfinkel 9207; Nelson 9853-54, 10,257; Ashford 11,537). The ability to obtain combined shipments of LTL lots is especially important to a muffler installation shop in its first few months of business operation where merchandise is frequently ordered in small amounts (Nedell 956; Nelson 10,628-29).

293. There was testimony that the ability to offer combined ESP and shock absorber shipments is of some advantage to the manufacturer in obtaining new customers in the nontraditional channel and in retaining old ones (Pond 763-64; Kittridge 1415-18; Jaffe 2805-06; Teryl 4433-34, 4466; Nelson 9977, 10,198, 10,262). Many buyers of shock absorbers prefer to buy both shock absorbers and ESP from the same source (Verner 887; Nedell 936; Glassman 1020-21, 1027; Kittridge 1415-18; Jaffee 2805-06; Nelson 9977). In purchasing shock absorbers and ESP from a single source, a firm can save

administrative expense by having only one order to place, one invoice and freight bill to check, and the ability to qualify more easily for maximum discounts and prepaid freight (Pond 763; Verner 887; Nedell 936; Glassman 1021, 1037-38; Moore 1246-47; Kittridge 1415-17; Jaffe 2805-06; Teryl 4466; Garfinkel 9207; Nelson 9853-54, 9977, 10,257-58; Ashford 11,537). There was evidence that the lack of facilities for combined distribution and shipment of ESP and shock absorbers cost Monroe the J.C. Penney account (CX 5X; CX 21E; *but see* Ashford 11,544-45). [64]

294. As noted, purchasing combined shipments of ESP and shock absorbers could result in a lowering of costs for a customer buying in trailerload lots in a number of ways (Fleuelling 3966, 5789; Teryl 4465-66; Nelson 10,271-72; Ashford 11,537). WD witnesses testified that, on payment terms for shipments of Walker's ESP, a WD receives a 15-16% discount and no dating for LTL shipments, but discounts of 22% to 25% and extended dating terms for full trailer load shipments (Kornafel 9436; Fouty 9490-91). Monroe also offers WDs extended discounts and dating terms on truckload shipments (Stapleton 3496; Kornafel 9437; Fouty 9491-92; Ashford 11,498). A full load truck also requires less time in transit, inasmuch as intermediate stops are eliminated (CX 5Z-14; Nelson 10,272).

295. Prior to the merger, Walker considered combined order processing for shock absorbers and Walker ESP, and incorporating shock absorbers into its computer system (AIMS) with ESP, "which would also result in better customer service and in turn should result in greater market penetration" (CX 4G).

C. Marketing

296. The record demonstrates the existence of similarities and compatibilities in the marketing of shock absorbers and ESP to the replacement market (CX 4E; CX 5P; CX 7; CX 20G; Bush 3305-06; Stapleton 3477; Buck 9385-86). Prior to the merger, Walker's management was of the opinion that shock absorbers would be the product most likely to enhance Walker's "superior distribution and marketing system used for exhaust systems" (CX 3B). A Walker study stated:

Marketing

Monroe and Walker sell to many of the same customers, and we feel there could be some plusses if there was one merged company. In addition, our selling programs, discount structure, and customer financing philosophy are very similar and would require little or no change in order to fit together. Walker's marketing programs stress customer service, while Monroe is promotion oriented. These differences are

due to the nature of the two products. Both companies can benefit by sharing these respective strengths in the future.

(CX 4E)

Walker's president, Mr. Cook referred to this marketing similarity in his presentation to the Tenneco Board seeking authorization to acquire Monroe (CX 20G; CX 5). [65]

297. Both replacement shock absorbers and replacement ESP are sold to many of the same customers (CX 4E; Buck 9385; Nelson 10,199; Ashford 11,466). Prior to acquiring Monroe, Walker and Monroe had a number of customers in common (CX 4E; Ashford 11,466). In fact, Walker planning officials compiled a listing of Walker's 50 largest ESP wholesale accounts, indicating the shock line that each carried. Of the 50, 37 are shown as carrying Monroe shocks (CX 4E, Z-2-Z-4). Similarly, a list of Monroe's major wholesale brand accounts was drawn up, indicating the ESP line that each carried. Of the 29 companies named, 15 were identified as Walker customers in whole or in part, nine carried no Walker ESP, and five handled no ESP line (CX 5Z-10; see CX 100A-G "Walker Customers Without Monroe Shock Line" and CX 101A-G, a list of Monroe Warehouse Distributors purchasing over \$100,000 from Walker as of November 1976).

298. Replacement shock absorbers and ESP are marketed to the wholesale trade through similar selling programs, discount structures and customer financing arrangements (CX 4E, CX 5R; Baker 589-90; Bush 3305-06; Stapleton 3477; Fleuelling 5773-74; Buck 9385; Nelson 10,200-02, 10,298-300, 10,921; see Baker 713; Barna 1353). Cultivation of accounts by manufacturers is important in the sale of both ESP and shock absorbers, as is inventory availability and service (Baker 544-45, 553-55, 567-68; Nelson 10,921, 10,950-51). Prior to acquiring Monroe, Walker envisioned the consolidation of Walker and Monroe's promotional efforts, including advertising departments, market research departments, as well as the two firms' NAPA and national accounts sales forces (CX 5E; CX 5Z-16-17).

299. Prior to the acquisition, Walker and Monroe advertised their respective replacement lines in trade journals such as Jobler Topics, Motor and Motor Age (CX 316A-D; CX 317A-C; CX 318A-D; CX 319A-C; CX 328A-C; CX 329A-D; CX 330A-D; CX 331A-D; CX 333A-C).

300. Neither Questor nor Maremont, the two firms in addition to Tenneco which manufacture both shock absorbers and ESP, presently employ a joint sales force in the traditional wholesale channel⁹⁷

⁹⁷ Maremont has been doing this, however, in Hawaii on a test basis "for some period of time." At the time of the hearings, Maremont was also using a combined wholesale sales force in Montana (Pond 754, 819).

(Pond 752-54; Putman 1158-60). In the early 1960's, following its acquisition of Gabriel, Maremont unsuccessfully attempted to service this channel with a combined sales force (Pond 819). The effort was abandoned when it did not result in an increased market penetration in shock absorbers [66](Buck 9408).⁹⁸

301. Walker employs the same sales personnel to sell both jacks and ESP to traditional aftermarket customers. This arrangement was described in Walker's 1976-81 Five Year Plan as having "served as an entree for gaining new exhaust customers" by affording "an opportunity for a Walker salesman to promote the Walker exhaust line when making a jack sales call" (CX 27R; Nelson 10,196).

302. In the nontraditional channel, both Maremont and Questor utilize a single sales force to sell both ESP and shock absorbers to their mass merchandiser accounts (Putman 1158; [67]Schubert 8545 *in camera*; Stewart 9284, 9288; Nelson 10,198-99).

303. ESP and shock absorbers, along with other automotive products, are often advertised jointly in promotions by retailers such as Sears, K-Mart, Goodyear and Montgomery Ward (CX 195; CX 196; CX 275; CX 320; CX 340; CX 341; CX 348).

304. ESP and shock absorbers are compatible from the standpoint of replacement installation (Moore 1287; Jaffe 2794, 2806; Buck 9385-86; Nelson 10,122. Both ESP and shock absorbers can be categorized as "under-the-car" service parts, which are subject to the same environmental and repair conditions, and which are replaced by the same person, whether a service station mechanic, a mass merchandiser employee, a specialist installer or a "do-it-yourselfer" (CX 5P, Q; CX 15J; Baker 667; Verner 884; Nedell 930-31; Glassman 1009; Moore 1235; Kittridge 1449-50; Jaffe 2794-95, 2806; Fleuelling 5768-69; Buck 9385-86; Goodman 9068-70). Among "under-the-car" type parts are ESP, shock absorbers, brakes, and front-end items such as suspension parts (Moore 1293; Glassman 1000, Teryl 4430, 4435, 4437, 4486; Fleuelling 5768-69). Of these products, according to

⁹⁸ Under the arrangement, Maremont ESP and Gabriel shock absorbers, together with brake linings and rebuilt parts, were sold by one sales force under the brand name "Maremont". Mr. Buck explained:

THE WITNESS: It was difficult to try to sell them together. In other words, no one had ever heard of a Maremont shock absorber. And there wasn't any public acceptance of that, per se.

And just because Maremont made exhaust system parts didn't excite the aftermarket about the fact that they had a shock absorber available.

So as a result, nothing happened. It just—things went along as they were. We didn't have any good shock absorber accounts at the beginning, and we didn't get any more by using the name Maremont.

BY MR. JEFFERS:

Q. So you went back to the name, Gabriel?

A. Right.

(Buck 9408)

Thereafter separate sales forces were used to sell the two brands, and Mr. Buck testified that he believed this to be the more successful marketing method. It should be noted that no attempt was made during this time to use one sales force to sell under both the Gabriel and Maremont brand names (Buck 9406-09).

the record, only ESP and shock absorbers can be and are installed by persons who do not possess any special mechanical skills, but are willing to do dirty work (Pond 822; Verner 884; Nedell 930-31; Glassman 1001, 1005-06; Moore 1244; Jaffe 2806, 2808-09; Garfinkel 9209; Buck 9386).⁹⁹ The main tools used to install ESP and shock absorbers are identical, namely air guns, torches and socket wrenches (Verner 883-84, 913; Glassman 1000-01, 1010; Teryl 4473). For a shop installing ESP, shock absorbers can represent an "add on" sale that increases revenues (CX 109L-M; Verner 883; Nedell 930; Glassman 1009; Moore 1304; Cook 1665; Jaffe 2806). Shock absorbers and ESP have a similar life expectancy, and thus tend to need [68]replacement at the same time (Verner 883, 915-16; Glassman 1014).¹⁰⁰ Once a car is on a lift for ESP work, the mechanic can easily determine visually whether the shock absorbers need replacement, can demonstrate that need to the customer, and can often expect a sale (Verner 883-84, 886; Nedell 982; Glassman 999-1000, 1013; Putman 1147-48; Moore 1236-37, 1304; Jaffe 2788-89, 2794-95; Teryl 4437-38; Fleuelling 5769).¹⁰¹

305. Walker believed that due to the compatibility of the product lines, offering a combination of ESP and shock absorbers would enhance its penetration of the wholesale and retail channels of distribution, but particularly of the faster growing retail segment of the replacement market (CX 4L). Maremont previously had used its ESP contacts in the retail segment to enhance its sale of shock absorbers to that segment of the replacement market (Buck 9419).

306. Muffler installation shops represent the fastest growing retail segment of the replacement ESP market (CX 103E, G; CX 349, p.18; RX 232A-D *in camera*; Pond 822-25; Verner 887; Nedell 928-29, 973; Glassman 1086; Cook 1656 *in camera*; Jaffe 2785, 2807; Nelson 9849, 10,997-98; Ashford 11,420). As of 1966, such shops represented 14% of all ESP installations; by 1977 this figure had grown to 16.2% (CX 27H; RX 232C *in camera*; Nedell 937; Cook 1656 *in camera*; Nelson 9846-48 *in camera*, 9871; *see* Fleuelling 3970). Muffler shop chains such as Midas, Tuffy and Meineke have

⁹⁹ Compared to other "under-the-car" work, the installation of shock absorbers and ESP are not labor intensive (Verner 894; Glassman 1003, 1010). In contrast, brake work, transmission work and front-end work are considerably more labor intensive and require more highly skilled and higher paid mechanics, as well as a good deal of specialized equipment (Verner 895; Moore 1244; Jaffe 2808-09; Teryl 4473, 4475, 4478-79, 4494; Bryant 4777, 4796; Garfinkel 9209; *see* Teryl 4444-45). In many states brake mechanics are required to be certified because of the fact that brakes are vital to the safe operation of a vehicle (Glassman 1004-06).

¹⁰⁰ In contrast to ESP and shock absorbers, suspension parts have a much longer expected life, so a shop would expect to replace fewer of these on cars that come in for service (Glassman 1015).

¹⁰¹ At muffler installation shops, most shock absorbers are sold to customers who originally come in for ESP work, since it is generally difficult for car owners to determine whether or not new shock absorbers are needed, in contrast with audibly-detected ESP defects (Verner 886; Nedell 932; Glassman 1012; Moore 1236-37, 1304-05; Jaffe 2794-95, 2798).

experienced rapid growth since 1970 and they, along with Walker (Cook 1596-97, 1654), project continued growth (Verner 888; Nedell 928-29; Moore 1222; Cook 1662). In part such growth has been at the expense of other installers, such as service stations, many of which have either closed or ceased performing ESP services (CX 27H; CX 103E, H, K; RX 232C *in camera*; Verner 887-88; Nedell 937; Glassman 1086; Cook 1657-58 *in camera*; Ashford 11,420; *see* Jaffe 2807-08).

307. The marketing methods and experiences of muffler specialty shops such as Midas, Tuffy, Car-X, Meineke, Rayco and Walker's own Speedy Muffler King demonstrate the compatibility [69] between shock absorbers and ESP (Verner 889; Nedell 937-38; Glassman 1010; Moore 1235; Jaffe 2788-94; Buck 9386; Nelson 9850-52, 11,004). Shock absorbers are normally the first products to be taken on following ESP, and are the only products other than ESP that are universally installed in muffler specialty shops (CX 4I; CX 5P; CX 113B; Baker 667-68; Glassman 1009-10, 1044; Putman 1145, 1177; Moore 1233, 1235, 1249; Jaffe 2788, 2794, 2797; Teryl 4430, 4432; Nelson 9850, 10,122; *see* CX 109M, R).

308. Walker has recognized this compatibility by stocking shock absorbers along with ESP in its distribution centers for sale to Speedy King and Car-X muffler shops (CX 13A; Jaffe 2804; Teryl 4433-34; Nelson 9857). Walker's Speedy Muffler King operation has advertised the availability of all types of shock absorbers, including MacPherson struts (CX 207).

309. As of June 1976, Walker's Speedy Muffler King installation shops were to offer only ESP, shock absorbers and cargo coils (CX 111; CX 113B; CX 207; Ashford 11,511). Specific written permission for an outlet to perform other automotive work or sell other automotive parts was needed from the President of Speedy Muffler King (CX 113B).

310. Since at least 1974, Walker has been considering entry into the muffler shop business in the United States (Cook 1651 *in camera*). Such consideration was generated by the increasing share of ESP work performed in such outlets (Cook 1659 *in camera*; Nelson 0,997-98; Ashford 11,420, 11,424).

311. In 1976, Walker determined that it ". . . must enter the muffler shop segment of the muffler replacement market," and had *enneco's* approval to enter (CX 108N, P; Ashford 11,507-10). When Walker was considering the purchase of Monroe, belief was expressed that shock absorbers would support this approved move into the U.S. retail market (CX 3C; CX 4I). In 1976, Walker purchased shock absorbers from Monroe for resale through Walker's ware-

houses to Speedy Muffler King shops in Canada, and also for sale to Car-X in the U.S. (CPF 79, 81; CX 166; Nedell 942-43; Jaffe 2804-05; see Putman 1140).

312. Prior to acquiring Monroe, Walker sought to acquire Car-X, a chain of 60 muffler specialty shops operating in 10 states, which Walker planned to expand into a national chain (CX 4I; CX 108C, P; CX 109C; Jaffe 2782). In addition to ESP, each Car-X shop sells shock absorbers (Jaffe 2788, 2803). Approximately 15% of the inventory of a mature Car-X shop consists of shock absorbers while shock absorbers constitute 7.5%-10% of a shop's initial inventory (RX 269; Jaffe 2796, 2803-04). Car-X originally purchased ESP and shock absorbers from Arvin, but in mid-1974 switched its source of supply of ESP to Walker (Jaffe 2793, 2805). Since 1974, Walker has remained Car-X's supplier of ESP and shock absorbers (Jaffe 2793-94, 2804-05). Shock absorbers, the only product other than ESP sold by [70]Car-X, account for approximately 7% of Car-X installation shop sales (CX 108"O"; CX 110A; Jaffe 2788; see CX 109R).

313. At the time of trial, Walker had begun an operation to open a network of company-owned Speedy Muffler King muffler installation shops in the United States. It plans to sell only two principal products in these outlets: ESP and shock absorbers (CX 27L; CX 349; Verner 891; Nedell 942-43; Putman 1137; Moore 1222; Cook 1571, 1649-50, 1662-63, 1669; Nelson 9858-59, 9866, 9868, 10,997; Ashford 11,510). Walker has had one Speedy Muffler King shop in the United States for several years (CPF 11; Moore 1223; Cook 1651 *in camera*). In 1978, Walker started to open more Speedy Muffler King shops in the United States (CX 207; Moore 1225; Cook 1651 *in camera*; Teryl 4495; Ashford 11,510).

314. Midas is the largest franchisor of muffler specialty shops, having approximately 911 locations throughout the U.S. (Verner 889; Moore 1221-22; Nelson 10,994 *in camera*). For many years all Midas shops have installed shock absorbers as well as ESP (Moore 1233). Less than one half the Midas shops have sold a limited amount of brake parts (Moore 1243, 1272). Approximately 20% of the Midas shops perform front-end work (Moore 1243-72). Midas sells virtually nothing in the way of brake parts and chassis parts to its shops, but has very substantial sales of shock absorbers to them (Moore 1243, 1245, 1272; Poe 8949). Midas has tried to promote brake and front-end work at its shops, but has met only limited success in brakes and no success in front-end work (Moore 1245). Midas shops prefer to concentrate on ESP and shock absorber replacement rather than brake and front-end work as those items generate twice as much revenue per hour as would brake or front-end work (Moore 1245).

315. Tuffy Service Centers, Inc. (hereinafter "Tuffy") began business in 1970 (Verner 879). By 1978, Tuffy had 82 outlets, all of which installed both ESP and shock absorbers (Verner 878-79, 882, 889; Moore 1281). The opening inventory of a Tuffy franchise consists of \$18,000 worth of ESP and \$2,000 worth of shock absorbers (Verner 879). Although some Tuffy franchisees perform other automotive work, the only products Tuffy supplies are ESP and shock absorbers (Verner 879, 882, 896). Tuffy attempted and failed to sell brake parts to its franchisees (Verner 895). It attributes such failure to the unwillingness of its franchisees to stock brake parts because of the cost of such inventory, the easy availability of these parts from jobbers, and the relatively small portion of the shops' total work represented by brake work (Verner 895-96). In addition to installing shock absorbers and ESP, a number of Tuffy shops offer brake services and some offer various other types of automotive services (Berner 882). Within the Tuffy franchise system, ESP accounts for 85% of service sales, shock absorbers for 10%, and the remainder, primarily brake work, accounts for 5% (Verner 883, 885-86, 914, 881 *in camera*; [71]Nelson 9856). For the Tuffy company itself, 9% of its sales of merchandise to its franchisees in 1976 consisted of shock absorber sales (Verner 88A *in camera*).

316. Meineke Discount Muffler Shops (hereinafter "Meineke") commenced its operations in 1972 (Nedell 925). By 1978, Meineke had almost 90 franchisees throughout the country (Nedell 925). The only products installed by these franchisees to any extent are shock absorbers and ESP (Nedell 929, 954). All franchisees sell and install both products (Nedell 929). Meineke promotes both ESP and shock absorbers in all its newspaper ads, yellow page ads and in most of its radio commercials (CX 204A-B; Nedell 933-35, 980-81). Ads that feature shock absorbers represent 35-40% of Meineke's total advertising budget (Nedell 983). The opening inventory of a Meineke franchise consists of \$7,500-7,600 for ESP and \$1,200 for shock absorbers and hardware items (Nedell 929-30, 980). For 1977, shock absorber installation represented 6.5% of the average Meineke franchisee's sales (Nedell 929, 978). However, established Meineke franchisees average 12% or 13% in sales in shock absorbers (Nedell 982; Nelson 9856-57).

317. Meineke considered and rejected selling brake parts (Nedell 931). One reason for the rejection was the higher skill and consequent higher level of payment required for brake mechanics (Nedell 931). Meineke's franchise currently prohibits its shops from doing brake work (Nedell 955). Meineke shops do not do any work that requires oil or transmission fluid such as filter changes or

transmission repair, as these are a "different business altogether" (Nedell 932; *see* Glassman 1002). One reason for this is that to perform such work would require the franchisees to carry more inventory. The second reason is that the buildings housing the franchisees are unsuitable and not zoned for handling fluid (Nedell 932). Fluid handling would require expensive drainage traps in the ground. These traps are lacking in the buildings of Meineke's franchisees (Nedell 932).

318. Rayco shops installed basically ESP and shock absorbers. ESP accounted for an estimated 70-75% of these shops' mechanical work, with shock absorbers accounting for approximately 20% (Glassman 1019). These shops almost never did transmission work, because of the higher profits and turnover in ESP (Glassman 1017). Likewise, Rayco shops do not replace oil filters because of danger from torches used in ESP and shock absorber installation (Glassman 1017-18).

D. Common Competitors and Customers

319. The compatibility existing between ESP and shock absorbers is further demonstrated by the fact that all significant ESP producers manufacture and/or market shock absorbers (CX 208Z-34Z-35, Nos. 290, 292, 294, 296; Givens 438-39; [72]Baker 535, 537, 575, 590; Moore 1248; Barna 1353). As one producer stated:

Obviously it [the combined sale of ESP and shock absorbers] is compatible. The economic history tells us it is compatible. Why did Maremont do it, why did Arvin do it, why did AP [Questor] do it, why now has Walker done it?

Companies don't just consistently make bad decisions. There is [sic] four companies that have all done the same thing in a little different way.

(Baker 590)

In the same vein, another producer stated:

I think the marriage of shock absorbers and [exhaust] systems as being compatible lines is already established, because certainly, the AP, with their Columbus line, Maremont with their Gabriel line, did this for good, sound business reasons.

(Moore 1247-48)

320. Two leading firms, Maremont and Questor, which rank in the top four in the sale of shock absorbers and ESP to the replacement market, began as ESP producers, and subsequently acquired shock absorber companies (CPF 183, 257-58, 266; Givens 458, 461-62; Baker 715; Pond 741-44, 804; Putman 1095, 1109; Barna 1357; Teryl 4433). In both instances, the acquisition of a smaller

company was the starting point for such expansion (Pond 742; Putman 1109-1113; Nelson 10,214).

321. Prior to 1962, Maremont had examined several options for entering the replacement shock absorber market, including obtaining a license, or the purchase of a small company, Heckethorne (Buck 9384-85). Maremont management believed that entry into the replacement shock absorber market "was a logical adjunct to the Maremont exhaust system parts line due to the fact that it would be sold through the same types of outlets, and would require the same type of expertise for installation. And as a result, the same marketing approaches could be used for both products." (Buck 9385)

322. In 1960, Maremont acquired a 50% interest in the Gabriel Company ["Gabriel"], a producer of shock absorbers, and in 1962 acquired the company's remaining stock (Putman 1110-11, 1190; Buck 9369-70; Nelson 10,222; see Givens 461-62). Gabriel in 1962 ranked third in the replacement market, significantly behind the leading seller Monroe (Buck 9378; Pond 742, 805-07; Putman 1193; Barna 1359-60; Borick 4755-56; Nelson 10,223-24). [73] Prior to the Maremont acquisition, Gabriel was in financial straits, and its affairs were being administered by a CPA (Pond 804-05; Putman 1110, 1963; Buck 9381-82; Nelson 10,231-34, 11,166; see Borick 4757).

323. Gabriel shock absorbers have gained significant market share since the Maremont acquisition, in the sale of replacement shock absorbers (Pond 743, 857-58; Putman 1193; Fleuelling 4123; Nelson 10,235, 10,238, 11,092). Such gain has occurred both with respect to sales to the traditional channel of distribution, as well as to the nontraditional channel (Pond 743; Nelson 10,565, 10696, 10,947).¹⁰²

324. As noted earlier, the ability to market is an indispensable factor to success in the sale of shock absorbers to the traditional channel (Buck 9372). At the time of its acquisition, Gabriel's marketing effort was considered by Maremont to be in "very poor" condition (Buck 9373, 9381). Gabriel was viewed as having "practically walked away" from selling shock absorbers to the traditional channel, in that it had only "a few WD customers" (Buck 9372-73, 9378; Nelson 10,222-23, 10,693-94). Indeed, Gabriel prior to the acquisition, had just lost its largest WD account, NAPA, to Monroe (Buck 9373-74, 9376, 9400; Nelson 10,232, 10,693).

325. At the time of the Maremont acquisition, Gabriel had already lost its Montgomery Ward business, but still retained the

¹⁰² Sales of Gabriel shock absorbers to the nontraditional channel in 1976 constituted 55% of Maremont's shock absorber sales, in fact, a lower percentage than at the time Maremont acquired Gabriel (Pond 820; Buck 9372-73, 9417).

private label business of Goodyear and Goodrich (Buck 9373-74; Nelson 10,232). However, these two remaining accounts were threatening termination, and, in the opinion of a Maremont official then at Gabriel, would have left if Gabriel "would have continued to service the customers as they had been in the two or three years prior to Maremont's acquisition" (Buck 9373-74, 9378-79; Nelson 10,191-92, 10,233). Furthermore, prior to acquisition, Gabriel did not have the Sears Roebuck account (Pond 835; Putman 1110-11; Buck 9383; Nelson 10,567, 10,946-47).

326. Under Maremont's management, Gabriel became the leading supplier of replacement shock absorbers to the nontraditional channel (Nelson 10,192). Among its current customers is the Sears Roebuck account (Pond 793; Buck 9383; Nelson 10,567, 10,946-47). There was testimony that Maremont was able to achieve this increase in Gabriel's sales of shock absorbers to such accounts in part due to Maremont's contacts [74]with its ESP customers (Buck 9383, 9419; Nelson 10,191-92, 10,236-37).

327. The record shows that at the time Maremont was increasing its share of the U.S. replacement shock absorber market, it was also increasing its share of the U.S. replacement ESP market (CX 353; Moore 1275; Buck 9389; Nelson 11,023). Such increase has occurred in both the traditional channel and the nontraditional channels (Moore 1275). As to the latter, Maremont acquired Sears' ESP business in the early 1970s (Putman 1195; Nelson 10,946, 11,156).

328. The record likewise shows that Maremont, after acquiring Gabriel, expanded its manufacturing facilities substantially (Buck 9372, 9413, 9423; Nelson 10,234-35). The only shock absorber plant operated by Gabriel prior to its acquisition was its Cleveland facility (Buck 9383; Nelson 10,234). The Gabriel Pulaski shock absorber plant under construction at the time of acquisition was completed by Maremont (Buck 9371; Nelson 10,234-35). Neither Gabriel's Cleveland plant nor that at Pulaski was envisioned by Gabriel as having tube mills (Buck 9383; Nelson 10,234). Subsequently, Maremont added tube mills to the Pulaski plant to reduce production costs (Buck 9383-84; Nelson 10,234).

329. The replacement shock absorber product line of Gabriel was substantially expanded under Maremont's ownership (Nelson 9690-91, 10,236). Prior to acquisition, Gabriel did not offer a line of spring-assisted shock absorbers, nor an adequate line of air shock absorbers (Buck 9375-77; Nelson 9690-91, 9693, 10,234). Since Gabriel's replacement customers desired a line of spring-assisted shock absorbers, Maremont added such products (Buck 9377; Nelson 9674, 9690-91; 9693, 10,236). Maremont also helped Gabriel reengineer

and develop a satisfactory line of air shock absorbers (Pond 778; Buck 9377; Nelson 9690-91, 10,236).

330. Following the acquisition, in an effort to improve Gabriel's operations, Maremont installed as officers of Gabriel members of its own top management (Buck 9365-67, 9370-71; Nelson 9674, 10,192). Two of Gabriel's new chief officers, Mr. Comar and Mr. Buck, were designated as senior Maremont officials (Buck 9370-71). Mr. Buck, with an extensive background in ESP design, testing, production and warehousing, was placed in charge of Gabriel's marketing, engineering and manufacturing operations (Buck 9365-67, 9370-72). Maremont's Marketing Vice President, Mr. Klaus, reorganized Gabriel's marketing efforts (Buck 9380; Nelson 9674). Mr. Klaus placed Mr. Carlton, whose background was in ESP sales, as the official in charge of Gabriel's marketing to the traditional channel of the replacement market (Buck 9380; Nelson 9674).

331. In 1958-59, Questor's predecessor, AP Parts, acquired Heckethorne Manufacturing and Supply ("Heckethorne") [75](Putman 1109, 1180; Barna 1357; Teryl 4433; Buck 9384; Nelson 10,214). AP Parts decided to expand its product market into auto parts lines, specifically "under-the-car" type parts, to reduce its dependence on ESP, which then accounted for 95% of its business (Putman 1111-12). After much investigation and customer research, AP Parts decided to acquire a shock absorber manufacturer, as the next logical step in its expansion (Putman 1111-12).

332. At the time of its acquisition, Heckethorne sold only through WDs and jobbers (Putman 1112, 1186 *in camera*; Nelson 10,216). Heckethorne accounted for less than 5% of shock absorber sales to WDs and jobbers, and a much smaller percentage of total replacement shock absorber sales (Putman 1113, 1180; Barna 1358; Nelson 10,214-15, 10,933-34 *in camera*, 11,027 *in camera*).

333. Heckethorne not only had a small market share, but it also lacked capital, lacked a minimum efficient scale plant, had little trade acceptance and had a product design that was then unacceptable to most customers (Nelson 10,219-20).

334. For three to five years following its acquisition, Heckethorne's market penetration in the replacement shock absorber market remained essentially unchanged (Putman 1114, 1181; Nelson 10,936 *in camera*). According to Questor's Mr. Putman, the company then decided that if it wished to become a significant factor in the replacement shock absorber market, it would have to completely redesign its shock absorbers (Putman 1114-15; Nelson 10,218). Thereafter, Questor did completely engineer a new type shock absorber "from scratch", bought new equipment for its manufacture,

and built up the necessary inventories (Putman 1115; Nelson 10,220). With its new design of shock absorber, Questor was able to promptly increase its penetration in the replacement market, by switching over several of its good nontraditional channel customers (Putman 1115; Teryl 4433; Nelson 10,936 *in camera*, 11,027 *in camera*).

335. Midas, a competitor of Walker in ESP, determined that shock absorbers were a necessary addition to its wholesale ESP line in order to better compete with its competitors, Maremont and Questor. Therefore, Midas entered the replacement shock absorber market as a reboxer (Nelson 9785). Shock absorbers are the only automotive product Midas sells to the wholesale channel, other than ESP (Moore 1220, 1245).

336. In early 1973, Arvin began its efforts to enter shock absorber marketing (Baker 576, 708). Since then, Arvin has been a reboxer, selling shock absorbers purchased from Monroe, but merchandised under an Arvin label (Baker 575, 708; Pond 771, 779-800; Nelson 9786, 9857, 10,210). All of Arvin's sales of shock absorbers have been to customers other than WDs [76](Baker 575-76; Nelson 9874). Some of these sales have been to muffler installation shops (Verner 886-87; Nelson 9857, 9875, 9877-78).

337. Arvin added shock absorbers to its product line because they were "a very natural product for us [Arvin] to add to our line." (Baker 576; *see* Jaffe 2805). Arvin's Mr. Baker believes that shock absorbers "certainly" are compatible with ESP in the replacement market, because of "good freight savings," the availability of combined shipments, sales to the same customers, and use of the same kind of warehousing and advertising (Baker 576, 589). Arvin also added shock absorbers because its leading ESP competitors already offered them, and its customers wanted them (Baker 576; Jaffe 2805).

338. Muffler Dynamics, a replacement ESP producer, made overtures to Blackstone, a replacement shock absorber producer, to establish a joint marketing program for the two firms (Barna 1353-54; Kittridge 1497). Muffler Dynamics also considered offering a line of private label shock absorbers along with its replacement ESP, but rejected the idea because the cost of the requisite inventory was too substantial (Kittridge 1447-48). If it were to add any product line, Muffler Dynamics would wish to add replacement shock absorbers (Kittridge 1449-50).

339. A prime consideration in Walker's decision to purchase Monroe was that its major ESP competitors, Questor and Maremont, were selling both lines to the independent aftermarket (CX 4E, J; CX 5E; CX 7; CX 10B; CX 11; CX 17; CX 20G; *see* Cook 1594-95). Walker

documents have recognized the advantages that flow to Maremont and Questor from selling both shock absorbers and ESP to the independent aftermarket, stating that a defensive entry into shock absorbers is necessary to decrease the possibility of loss of ESP accounts to firms which offer both shock absorbers and ESP (CX 5E; CX 10A-B; CX 11; CX 17; CX 21E; CX 77). Walker believed that "the ability to sell and distribute a dual line of shocks and exhaust is of real benefit in the mass merchandiser and specialist market, which is the fastest growing segment of the market" (CX 10B). Walker recognized that a major benefit to it from acquiring Monroe is that "we would have one company competing with the other major competition in the market who already supply shocks and exhaust systems" (CX 4J; see CX 21E). Walker's president, Mr. Cook, stressed this factor in his presentation to the Tenneco Board in seeking authorization to acquire Monroe (CX 11; CX 20G; CX 21C).

E. Synergistic Savings

340. Prior to the merger, Walker officials envisioned significant cost savings by combining certain operations of Monroe with Walker (CX 4E, G; CX 5C-D; CX 7; Cook 1615-16; Nelson 10,164). These cost savings were quantified by top Walker officials, with the assistance of top Monroe officials, at the insistence of Tenneco's executive vice president, and were [77]presented to the Tenneco Board of Directors (CX 21A, F; Cook 1612-13, 1615-16, 1628, 1639-40, 1683; Ashford 11,444-46). In describing these figures to the Tenneco Board, Mr. Cook, then president of Walker, "advised them that the earnings or the potential savings and cost savings may not appear exactly in the accounts as we had forecast or exactly in the time frame that we had forecast, but overall that the totals were still obtainable" (Cook 1640; see Ashford 11,451). Walker foresaw cost savings resulting from combined warehousing, order processing, shipping, manufacturing, purchasing, market research, production engineering and also from combined NAPA and national account field sales forces (CX 5Z-2, Z-22; Cook 1616, 1708; see CX 208Z-33-Z-34, Admission No. 287; Ashford 11,460, 11,466, 11,469, 11,471). Walker expected that savings from these combined operations would be translatable into profits (CX 5Z-2; Cook 1615-16). Walker also anticipated that these synergies would result in increased replacement market penetration for both Walker and Monroe (CX 4G; CX 5Z-13, Z-19-Z-20). Walker recognized that "the combination of Monroe's operations with Walker will undoubtedly be questioned by the FTC. However, we feel the potential profits of this combination are sufficiently worthwhile to pursue this acquisition" (CX 5D).

341. The synergistic savings projected by Walker resulting from combining Monroe and Walker "are attainable and . . . there is potential well beyond that projected" (CX 6B, CX 21A; Cook 1616). By 1980, Walker projected these synergistic savings to be \$12,145,000 for cost of goods sold (CX 21F; Cook 1623), \$2,075,000 in the marketing area, \$1,395,000 in administration, and \$1,000,000 in interest expense (CX 20B; Cook 1629). Of the projected \$12.1 million in savings of cost of goods sold, \$4.6 million represented savings resulting from the transfer of inventory and distribution function from Monroe's plants to the Walker distribution center (Cook 1625-26; Ashford 11,460). At the time of trial, this transfer had been accomplished and the productive capacity of Monroe for shock absorbers was expanded by 10.4 million units annually "without adding any bricks and mortar, or without duplicating a lot of the fixed charge that apply to any manufacturing plant, such as plant management, maintenance, et cetera" (Cook 1625-26; Ashford 11,460).

342. Walker informed Tenneco's Board of Directors that the ability to offer Monroe shock absorbers and Walker ESP under one operation and the shipping of combined loads would within five years improve Walker's penetration of the wholesale segment of the replacement ESP market by 1%, and its penetration of the retail segment of the replacement market by 3% (CX 20H; Cook 1641-42; Nelson 1014). In addition, Walker told the Tenneco Board of Directors that Monroe, over the same time frame, should increase its traditional market share by 2%, and its nontraditional share by 6% (CX 5R; Cook 1631-32, 1641-42; Nelson 10,164). [78]

343. The 2% increase in Monroe's penetration of the traditional market was expected to generate revenues of \$3,010,000, and profit before taxes of \$630,000; while Monroe's 6% increased penetration of the nontraditional market was estimated to yield 10% in a three to four year period, additional revenues of \$10,500,000, and profits before taxes of \$1,575,000 (CX 5Z-13).

344. Walker projected that its increased ESP penetration resulting from the combination would yield a 1.6% overall increase in market share, bringing added revenues to Walker of \$7,400,000, and profit before taxes of \$3,200,000 (CX 5Z-19).

345. Respondent's basic response to this pre-merger evidence has been to denigrate their own planning documents, asserting that the projected savings for the most part did not occur, and that the projections were simply erroneous. Two of their top officials, Mr. Cook and Mr. Ashford, testified to that effect (see RPF 369-91; RRP 152-54).

XI. Compatibility of Hydraulic Jacks and Shock Absorbers

346. In addition to other skills, the manufacture of shock absorbers also involves a knowledge of hydraulics (CX 4F, CX 5Z-1, CX 15J; Nelson 9887-88; see CX 208Z-26, Nos. 246-247). Walker possesses certain technical knowledge in this area, both fluid and air, by virtue of its position as a major U.S. manufacturer of hydraulic jacks and lifting equipment (CX 5Z-1, CX 15J, CX 21D; CX 58A, CX 208Z-28, Admission No. 261; Uhen 1866, 1912; Nelson 9887; Ashford 11,513). Walker has been manufacturing jacks since 1912, and since 1971 has been manufacturing air and hydraulic jacks at its Jonesboro, Arkansas plant (CX 208Z-28, Admission Nos. 262-263; Uhen 1866; Thompkins 2253). Walker also maintains a jack engineering facility in Racine, Wisconsin (Foster 5139). Prior to the Monroe merger, a Walker document stated that "much of the shock absorber components could be made by Walker's jack and exhaust system manufacturing equipment." (CX 15J) In addition, hydraulic technology is used at Tenneco's J.I. Case and other Tenneco subsidiaries (CX 208Z-26, Admission No. 249).

347. While there are significant differences in the functioning of hydraulic jacks and shock absorbers, both do employ certain similar technology and engineering, and use similar parts made in a similar manner as low-volume shock absorbers (CX 15J; Givens 413-15, 420, 491, 508-09; Uhen 1867-70, 1914-15; DeLisle 4829, 4863). The manufacture of shock absorbers also requires the use of hydraulic oil or fluid, a product also used in hydraulic jacks (Givens 400, 420; Hegel [79]1724; Uhen 1876-77). Walker has the hydraulic oil for its jacks compounded to its specifications (Uhen 1912; see Foster 5033). Walker's President, Mr. Cook, outlined the production similarities between jacks and shock absorbers in his presentation to the Tenneco Board when he sought authorization to acquire Monroe (CX 21D).

348. To amplify, the piston rod parts and the intermediate cylinder head in a MacPherson strut are essentially the same size as those required in a hydraulic jack made by Walker, and the strut contains a seal fashioned in a similar manner to that of a hydraulic jack (Givens 426-27, 430, 436, 508-09; Nelson 9888-89, 9895). Both jacks and shock absorbers contain rubber seals, springs, bearings, tubing, check valves, screw machine parts and machine rods, and chrome plated parts (CP X3A-L; Givens 400-02, 413-15, 420).

349. Walker manufactures a number of items for jack production which are similar to the components of a shock absorber, including the tube or outer reservoir, some ram assemblies (called pistons on

shock absorbers), and stampings and screw machine parts (Givens 413-15, 420; Uhen 1881-82; see CX 208Z-30, Nos. 269-70). In the instance of the outer tube, Walker purchases the bulk tubing, made to its specifications, cuts it to length and domes it in a sheet metal press (CX 245G; Uhen 1881-82). Subsequently, Walker finishes the end of the tubing, and taps an oil fill hole in it (CX 245H-J; Uhen 1882-83). Both shock absorber manufacturers and jack producers purchase many common-type items from outside suppliers, including rubber seals, bushings, springs, some screw machine parts, hydraulic oil, and centered components (Givens 400-02, 413-15; Uhen 1867, 1874, 1876). These purchased parts are fabricated to the manufacturer's specifications (Uhen 1906).

350. There are certain similarities in engineering and research and development regarding hydraulic jacks and shock absorbers (CX 15J; Nelson 9893-94). For example, Walker's jack operation employs a research and development unit that seeks out better seals, and other types of materials to use to improve its jacks (Uhen 1891). Walker's jack operation also produces prototypes and tests these in its laboratory (Givens 420; Uhen 1894). A Walker document in evidence states that "Walker jack research and development technology is similar to shock absorber design technology in that both products embody hydraulics and air principles" (CX 15J). Both Walker's air jacks and Monroe's air shocks require combined application of hydraulic and pneumatic principles (CX 5Z-1). The Terramatic principle discussed *supra*, which Walker was considering for shock absorbers, was applicable to other hydraulic products, including jacks (CX 67B; see CX 3C).

351. Walker possesses several patents in hydraulic processes and devices (Uhen 1913; CX 40A-V). Technical [80]similarity is also reflected in the fact that a Walker document analyzing the proposed acquisition of Triple S stated that "our jack engineering department can give technical support to their products" (CX58A).

352. The record shows that some producers of hydraulic shock absorbers also manufacture hydraulic jacks and lifting equipment, namely Armstrong, Bilstein and Fichtel & Sachs (CX 84C; CX 981, K; CX 222A-B; Petzsch 2444; Diggleman 2590; Cox 4373; Nelson 9886-87). Indeed, Bilstein originally began as a jack producer; subsequently it obtained a license and then developed a line of high quality shock absorbers (Petzsch 2442-44, 2446-47; Nelson 9886, 9887, 10,090). Prior to producing shock absorbers, Bilstein made no precision-assembly products (Petzsch 2482-83). There was testimony that Bilstein and Armstrong have produced jacks and shock absorb-

ers in the same plant (Petzsch 2445, 2476; Hooper 2635-36; Nelson 9889).

353. It should also be noted that Walker possesses an affinity for shock absorber production not only due to its manufacture of ESP and jacks, but also due to its production of oil seals (Schultz 1740, 1854; Uhen 187). Mechanex, a Walker division, has supplied seals for use in the production of Walker's hydraulic jacks (Uhen 1875). At least one industry witness was of the belief that a shock absorber manufacturer would benefit from having the knowledge and capability to manufacture oil seals in two ways: (1) control of its supply and cost of seals; and (2) possible development of new shock absorber products (Givens 420-21).

XII. Respondent's Interest in and the Extent of Its Entry into Shock Absorbers Prior to Its Acquisition of Monroe

354. Basically a one product company (ESP), Walker has sought repeatedly to diversify its product line since its acquisition by Tenneco in 1967 (Cook 1585). Walker also sought diversification as a method for increasing its total sales (Cook 1585-86).

355. As previously indicated, shock absorbers were of more than passing interest in regard to Walker's diversification goals. *See generally* Finding 263 *supra*. In addition, Walker's discussions with Armstrong Equipment Ltd.,¹⁰³ its negotiations with Tropic Industries¹⁰⁴ and its acquisition of [81]Triple S Industries¹⁰⁵ demonstrate this interest in the consequent steps taken to expand operations into the shock absorber business (Nelson 10,212-14, 11,040-41).

356. The evidence shows that in July 1970, Walker's Financial Planning staff conducted a study which identified those automotive parts most attractive in terms of profitability and growth as possible new products for the company (CX 41C). The study, "Profit and Growth Characteristics of Selected Auto Replacement Parts", was limited to the traditional aftermarket (CX 41A, C). The study concluded that "two product categories seem especially deserving of further market research: front suspension parts, which would include shock absorbers, and filters. These two categories are not only outstanding in terms of apparent profitability, but they have experienced exceptional market growth as well" (CX 41F).

357. For some time prior to the merger, Walker had been requested by Tenneco's Planning Department to identify potential new product lines that would fit most closely with Walker's

¹⁰³ Findings 359-64, *infra*.

¹⁰⁴ Findings 365-68, *infra*.

¹⁰⁵ Findings 369-81, *infra*.

distribution and marketing system (CX 3B). Walker's consistent answer was that shock absorbers were the most compatible product with Walker's ESP business (CX 3B).

358. From 1967 on, Walker believed it desirable to enter the U.S. replacement shock absorber market, because it perceived itself to be at a relative disadvantage to its competitors Maremont and Questor, which offered both shock absorbers and ESP.¹⁰⁶ As one Walker official stated:

[Our] initial reason for wanting to buy a shock absorber line is to broaden our base in the exhaust specialty market. As we discussed, in competing with, particularly, Goerlich [Questor] who can utilize the Columbus Shock Absorber Line . . . we find we are at a disadvantage due to Goerlich's ability to combine the two product lines, exhaust systems and shock absorbers, for freight savings and also the ability to supply specialists both lines from one source, plus the ability to accumulate truck load discount orders more readily.

(CX 77) [82]

A. Armstrong Equipment Ltd.

359. Armstrong Equipment Ltd. ["Armstrong"], a manufacturer of shock absorbers for both the OE installation and replacement markets, has its principal manufacturing facilities in Great Britain, and shock absorber manufacturing subsidiaries in Australia, Canada and South Africa, as well as a marketing organization selling shock absorbers in the United States (CX 81A).

360. During 1966-1968 Walker had inconclusive discussions with Armstrong concerning various arrangements by which Walker could use that company as a vehicle to enter the U.S. replacement shock absorber market (CX 83A). Walker and Armstrong also discussed, *inter alia*, the possibility of Walker marketing shock absorbers manufactured by Armstrong, or of Walker manufacturing shock absorbers in the U.S. under a license from Armstrong (CX 72; CX 73; CX 74; CX 76; CX 77; CX 78; CX 79; CX 208Z-40, Admission Nos. 320-21).

361. Walker considered paying Armstrong a royalty for the use of that company's patents and know how in the manufacture of shock absorbers (CX 74; CX 76; Hooper 2619, 2637-38). However, Walker's interest in and willingness to pay such royalties was limited by profit margin considerations, balanced against the cost to Walker of engineering shock absorbers in-house (CX 75; Hooper 2619).

362. In August 1967, Armstrong proposed to supply shock

¹⁰⁶ See Findings 184-207 *supra*.

absorbers to Walker for sale in the U.S. and "as volume increases to assist you [Walker] in setting up manufacturing facilities in the United States" (CX 73; CX 76; CX 208Z-40, Admission No. 322; Hooper 2619).

363. During 1968 these discussions continued. In February 1968, Armstrong's president informed Walker's president that "I am now awaiting your 3 year marketing forecast and am hopeful that we shall be able to quote satisfactorily for your first 3-4 years requirement [for shock absorbers] and then assist you in getting into the manufacturing end of the business" (CX 79; CX 78).

364. In April 1968, Walker informed Armstrong that it had decided to purchase and resell domestic Monroe-made shock absorbers rather than imported Armstrong products (CX 122; see Hooper 2620). Thereafter, Walker began to market Monroe-made shock absorbers to muffler shops, using Walker's existing distribution facilities (Teryl 4433-44; Ince 4981, 4985; Nelson 9744).

B. Tropic Industries

365. In 1973, according to record documents, Walker considered acquiring Tropic Industries, a small company which [83] possessed a shock absorber prototype (CX 45B-C; CX 45J; CX 46; CX 47; CX 48). A Walker study analyzing this proposal stated that such an acquisition would enable Walker to compete successfully against the entrenched shock absorber companies, *i.e.*, Maremont and Questor (CX 45N-"O"). The study also examined the possibility of Walker licensing shock absorber technology from Tropic, as well as the possibility of Walker entering into a development contract with an option to purchase Tropic at a later date (CX 45N-"O"). A Walker official, Mr. Fairchild, believed this acquisition to be a "rare opportunity for Walker to enter a new field within the automotive parts industries" (CX 46A).

366. Tropic Industries had a patent on and produced a prototype called a "Loadamatic self adjusting shock absorber" (CX 45A; CX 46A; CX 47; CX 208Z-39, Admission No. 313). The Loadamatic was designed to adjust the level of the car or truck chassis automatically when the size of the vehicle's load was changed (CX 45A-B; CX 46A). It was envisioned that this device would compete directly with the spring or air-adjustable type shock absorbers offered by the major shock absorber manufacturers such as Monroe and Maremont (CX 45A).

367. On March 8, 1973, based upon his evaluation of Tropic Industries, Mr. Fairchild stated:

I am recommending that Walker begin negotiations with Tropic Industries for an option to buy the company and interim rights to guide product development and testing through a loan or equity participation. During the option period, Walker could also proceed with marketing research and other planning to confirm the market and profit potential to its satisfaction. Alternatively, by the time negotiations are in progress we may want to buy the product rights or the company outright.

(CX 46B)

In Mr. Fairchild's estimation, "an initial investment of \$2.5 million to buy rights and start up production and marketing will generate \$10 million in sales within five years and return nearly 35% on the investment" (CX 46A).

368. Following further discussions, and subsequent search of shock absorber patents, it was concluded that Tropic's Loadamatic had an insufficient degree of patent protection (CX 48; CX 49). On the basis of this, Walker's interest in Tropic Industries terminated (CX 48B; CX 49).

C. Triple S Industries

369. In early 1974 Walker and Triple S Industries [84] ["Triple S"], whose products included steering dampers,¹⁰⁷ began correspondence regarding licensing arrangements or the possible acquisition of Triple S by Walker (CX 52A-D; CX 51; CX 53A-B; CX 54A-C).

370. Walker was particularly interested in the design Triple S had developed for its "Terramatic" shock absorber¹⁰⁸ (CX 51H; CX 52A-D; CX 54A-C; CX 63C; CX 69I-J).

371. The Terramatic shock absorber was seen as offering certain advantages over existing shock absorbers, because the product was designed to permit the consolidation of part numbers for replacement shock absorbers; to have variable automatic compensation for differing driving conditions; and to require half the number of parts of existing shock absorbers, making it easier and less expensive to manufacture (CX 69I-K). Mr. David B. Prescott, the same Walker official who had conducted a technical analysis of Tropic's Loadamatic,¹⁰⁹ declared in favor of the acquisition of Triple S (at the right price),¹¹⁰ notwithstanding some misgivings concerning [85] the value

¹⁰⁷ Among Triple S' steering damper customers were NAPA, other WDs and Montgomery Ward (CX 51D; CX 55A; CX 62B; CX 69N). Triple S also sold a steering damper unit to Ford for OE and OE service use on truck and bus chassis (Kody 9325-26).

¹⁰⁸ See Finding 371, *infra*.

¹⁰⁹ CX 49.

¹¹⁰

Terramatic. This is the original item which caused our interest in the company—and is the one farthest out in the time frame. Patent has been applied for and a "couple of its features" have been tried in a Steerline unit. In my opinion, the features of this unit are technically sound—with one misgiving. Leakage path flows will become percentage of the flow through his control configuration—I do not know what percentage. Success

(Continued)

of the Terramatic patent.¹¹¹

372. Although a testing prototype of the Terramatic shock absorber had not been produced as of July 1974,¹¹² Walker documents in the record reflect some confidence that the Terramatic principle would prove adaptable to both regular and heavy duty shock absorbers, as well as to steering stabilizers—Triple S' principal product line (CX 51D; CX 53A-B; CX 54B; CX 69D).

373. As of 1974, Triple S controlled the production of the damping unit in its steering dampers by requiring the manufacturer, Maremont, to produce the unit in accordance with Triple S engineering specifications (CX 54A; CX 280; CX 282A-C; CX 283A-C; CX 284A-B; CX 292A-D). Triple S "gave us [Maremont] nearly all the design parameters¹¹³ that normally are involved [86] on a shock absorber" (Kody 9309, 9315; CX 280; CX 281A-B; CX 282A-C; CX 283A-C; CX 284A-B).

374. A marketing analysis of Triple S' products¹¹⁴ conducted by Mechanex (a Walker subsidiary)¹¹⁵ calculated a market potential for replacement steering dampers applicable to passenger cars of \$21.4 million and a market potential for replacement steering dampers applicable to heavy-duty vehicles of \$3.4 million (CX 56C). This analysis recommended that Walker's sales force be used to sell Triple S steering dampers to both the OE market and replacement market (CX 56C). The analysis estimated Triple S' share of sales of replacement steering dampers to all customers to be 50% of the market (CX 56C). The analysis concluded that "the greatest potential, of course, which is not included in these projections, is the Terramatic principle as applied to shock absorbers" (CX 56A).

375. One of the reasons cited to Walker's President, in support of

depends on that percentage, and the selected manufacturing process would largely determine it. No complete prototype has been built.

I am enthusiastic as to the possibilities of this product, first in Steerline (particularly heavy duty) and later some manufacturing experience, very probably for heavy duty shock absorbers—and even automobile shock absorbers. I emphasize that this is not production ready. Dollars and time must be invested in development. I do feel there is a reasonable chance of success.

When this success is achieved, there is good opportunity (as Harry [Petrak] claims) for consolidation of slow movers into faster movers. There would then be definite marketing advantages as well as the technical (control) advantages he claims in his report.

(CX 54B)

¹¹¹ While CX 53A-B, dated February 15, 1974, expresses some reservations about the Terramatic patent, Mr. Prescott's overall support for the acquisition was expressed in a letter dated May 15, 1974 which is CX 54A-B. Ultimately, these reservations were borne out by an investigation of the patent, and expressed by Mr. Shaff in a July 15, 1974 memorandum to Mr. Tom Cook which is RX 7 (See RX 8; RX 11).

¹¹² (CX 63A; CX 67C).

¹¹³ These design parameters covered such technical matters as "valving or the resistant values in both the compression and extension direction; the stroke; the length; the mountings; the bore size; the outside diameter; the type of fluid; the paint; the type of marking" (Kody 9309). Maremont supplied Triple S with a take-apart shock absorber to assist it in the design of the valving (Kody 9318). Triple S directed Maremont's Gabriel to make improvements in resistance values and internal construction of the shock absorber unit (Kody 9316, 9354).

¹¹⁴ As of July 2, 1974.

¹¹⁵ See Finding 5, *supra*.

the Triple S acquisition, was to obtain Mr. Harry Petrak, the President of Triple S, for the Walker "team" (CX 58B; CX 64A). Mr. Petrak, who did not possess an engineering degree (Prescott 11, 310-11), was described variously as "a good salesman rather than a technical man," and "an individual talented in hydraulics and other skills that could be utilized by Walker." After the Triple S acquisition he became a Tenneco employee, and remained one at the time of trial (CX 58B; CX 64A; Hegel 2103-04; Kody 9299; 9319-21; 9350; 9354-55).

376. Following a July 1974 analysis of Triple S prepared by Walker's Mr. A. E. Robinson, it was reported to top management that:

I would definitely recommend we make a purchase offer for Triple S Industries. The present products [steering stabilizers] are competitive in the market place, the new products (Autolok and Terramatic) represent promising but unknown quantities, and should [87]be considered as frosting on the cake if they live up to their potential. In this regard, I have attached a directive from the DOT which was just issued and outlines their program for testing of heavy duty vehicles for front end stability. This has to be construed as a major plus for the use of steering stabilizers.

Estimating product profitability is hazardous because of the tremendous growth we would expect from the Triple S products. However, because they are well engineered, have been accepted by the marketplace where marketed, and are designed to meet a definite and growing need of vehicle manufacturers, I would expect to achieve significantly better than average profitability. ***

(CX 62E)

377. In August 1974, a further review of Triple S by Mr. Robinson forecast other benefits to Walker in obtaining Triple S, including an increased demand for tubing (CX 64B see CX 51D). Another potential benefit would be an "initial step in product diversification to reduce dependency on exhaust systems as outlined in [Walker's] five year presentation to Tenneco" (CX 64B; see CX 51B-C). An earlier report by Walker's Mr. Prescott identified the immediate benefits to Walker flowing from Triple S' current, as well as future, products (CX 54C).

378. In its formal proposal to Tenneco requesting authorization to acquire Triple S, Walker stated that "[s]ales and earnings have been outstanding but the vulnerability associated with heavy reliance on a single product line has been recognized by management and an acquisition program undertaken to expand product lines and reduce our vulnerability" (CX 51B-C). The proposal continued:

Triple S fits well with the goals desired by Walker in its acquisition efforts. Its products are well received in the marketplace, are in markets that have excellent

growth potential, and can be highly profitable with adequate working capital and management support. Triple S has many of the same customers as Walker in the automotive marketplace with the potential of adding major customers in both aftermarket and original equipment markets with working capital and management strength the sole deterrents. Future products could provide Walker with a toehold in the vast shock [88]absorber market both domestic and international.¹¹⁶

(CX 51C) Mr. Robinson's analysis describes the prospects of Triple S regarding shock absorber sales and profit potential as "outstanding" (CX 51B).

379. On October 15, 1974 Walker acquired Triple S, its steering damper business, and the rights to the use of the Terramatic principle (Complaint and Answer ¶44; CX 57A-J; CX 58B; CX 66A-B; Nelson 9744-46; Prescott 11,291-92; Ashford 11,492-93).

380. According to the acquisition agreement, the patent rights to the Terramatic and to another device, the Autolok,¹¹⁷ would revert to Triple S in the event that Walker failed to take affirmative action in regard to using them in producing a product within a period of four years from the effective date of the agreement. Although Walker acquired Monroe before having actually produced a Terramatic shock absorber, as late as August 12, 1976, Mr. Cook, Walker's president, expressed concern that Walker's Triple S patent rights be preserved (CX 70).

381. At the time of its acquisition, Triple S possessed machining, warehousing and packaging facilities (Kody 9298). While Triple S did not have the physical facilities to actually manufacture shock absorbers, the cylinder of its steering dampers being supplied by Maremont, it did manufacture the brackets or attaching parts (Kody 9298-99, 9351).

382. According to witness Tompkins, one of respondent's experts in automotive manufacture, the role of a manufacturer is generally to design, engineer and develop a product, to make and assemble it, and to sell it (Tompkins 2302). Triple S, later Mechanex, performed some of [89]the functions of a manufacturer in that it designed its steering dampers, supplied specifications for the damper unit, modified some of the damper units received from Maremont before sale, designed and manufactured some of the attaching components, packaged and labelled the steering dampers and sold them in competition with other manufacturers to WDs, mass merchants and an OE account (the OE account was for busses and truck chassis) (CX

¹¹⁶ The Terramatic device was described as "the product with the greatest risk and development time required and also the greatest potential. At the very least it could be the unit we would manufacture for the Steerline and Trailiner devices and at the most it would provide the possible entrance into the billion dollar shock market" (CX 51G).

¹¹⁷ The Autolok was a patented automatic version of Easylok, which permits free wheeling for the front drive of four wheel drive vehicles (CX 51E, G).

54A; CX 69G; CX 280; CX 281A-B; CX 282A-C; CX 283A-C; CX 284A-B; RX 635A-B; RX 636A-B; RX 637A-B; RX 638A-B; RX 639A-B; Schultz 1746, 1831-32; Kody 9298-99, 9309, 9314-16, 9318, 9325-26, 9351, 9354; Prescott 11,284-86, 11,290, 11,195-96, 11,329).

383. Triple S, later Mechanex, held itself out to the trade and to the public as a manufacturer (CX 43A-G; CX 44; CX 51L; CX 339A-B; CPX 15; CPX 16H). Triple S advertisements to the replacement market represented that the company's steering stabilizer was "manufactured by Triple S Industries" and that the company had "been in the business of developing and manufacturing hydraulic steering stabilizers for over 20 years" (CX 43B; CX 339A-B). Later, Mechanex advertisements stated that the company offered steering stabilizers "developed for all types and sizes of vehicles, from small cars to largest trucks" (CX 43B-C, G).

384. There was evidence that companies such as Ford, International Harvester, AMC, Moog and Cofap regarded Triple S as a steering damper manufacturer (CX 51G; CX 62D; CX 173A; Nelson 9764-67, 10,165-66, 11,048-50).

385. The November 1976 Walker proposals to acquire Monroe regarded steering dampers as an expanding portion of the shock absorber business, particularly due to their use on recreational four wheel drive vehicles (*see* Kody 9333-34). Walker felt that its steering damper "was a product with significant growth potential. Walker has certain patents in this area and the embryo of an organization to launch this product. Because of its product components (shock absorber cylinders) and the market served, steering stabilizers are a natural fit with shock absorbers" (CX 5Z-3).

386. Shortly before the proposed acquisition of Monroe, Walker documents indicated an intention to use the Terramatic design concept in the manufacture of steering dampers.¹¹⁸ Plans to expand the use of the Terramatic [90]principle to other types of shock absorbers were set forth in Walker's 1977-81 Five-Year Plan.¹¹⁹

¹¹⁸ In a "Proposal to Acquire Monroe Auto Equipment Co.," it was stated that "we also hold patents through our acquisition of Triple S Industries of some advanced shock absorption principles which we presently plan to use in our steering stabilizer" (CX 4F).

¹¹⁹ During 1976, we will be working on a new concept in shock absorption called Terramatic. The Terramatic unit, which is patented, came to Mechanex through the purchase of Triple S Industries in 1974. If the Terramatic principle proves successful it could be extended to automotive and heavy duty shock absorbers, opening up a tremendous new market for Mechanex. However, this plan does not reflect any sales of Terramatic because of development and testing still to be done.
(CX 25Z-9; *see* CX 3C; Kody 9318)

Respondent presented testimony that Triple S was not acquired for its Terramatic shock absorber design alone (Cook 1676-77). And, in the opinion of the witness Hegel, the Terramatic shock absorber could not be manufactured at an efficient cost (Hegel 2088-90). Walker paid \$150,000 for Triple S, nothing for the patent, which was described before the acquisition by Walker's staff as "very narrow and has very little chance of having a major effect in the industry" (Cook 1676-77; RX 7). Walker's patent attorney Thomas Torphy concluded "there is not

387. Walker predicted that the Triple S acquisition would provide Walker with a significant entry vehicle into the replacement shock absorber market through sales of steering dampers. Walker's identical projections of July 15, 1974 and July 24, 1974 forecast that replacement steering damper sales would start at \$4.6 million in the year following acquisition and increase to \$31.4 million in the fifth year following acquisition, with most of the sales to the automotive aftermarket (CX 59B; CX 62B, E). Walker's calculations predicted that the Steerline steering damper would have a market penetration of 15% in the first post-acquisition year, which would increase to a figure of 27% for the fifth post-acquisition year (CX 59A). These predictions applied only to steering dampers (CX 59A). The sales potential for Terramatic was described as "huge" (CX 59A). However, there were no actual predictions of sales volume made for the Terramatic (CX 59A). [91]

388. Walker expressed an interest in a significant expansion into the replacement shock absorber market both before and after its acquisition of Triple S.¹²⁰ Mr. Cook, then Walker's president had followed the business history of Monroe for several years despite his knowledge that the company was not for sale (Cook 1575-76, 1580). In Mr. Cook's opinion, during the period immediately preceding 1976, Monroe had a "seemingly lack of concern for the customers' wants and desires" (Cook 1581, 1593-94). Mr. Cook also felt that Monroe's policies and pricing practices invited competition (CX 4; Cook 1593-94). Discussion between Walker and Monroe spanned several years prior to the acquisition (CX 4C; CX 5D).

XIII. Availability of Toehold Acquisitions

389. As noted in Finding 184, *supra*, a number of foreign manufacturers were engaged in the sale of shock absorbers in the U.S. replacement market in 1976.

390. In September 1975, an examination of the Western European shock absorber market was conducted for Walker Europe. The study reported the size of the market in each country as well as the ownership of each manufacturer. Among the firms studied were those which sold shock absorbers in the U.S. replacement market (CX 98A-K; CX 187B).

A. Armstrong

much patentable subject matter in the subject application [Terramatic] and that any patent which might issue could not prevent competition from producing a shock absorber having identical functions" (RX 8).

¹²⁰ See generally, Findings 354-58, *supra*.

391. The British Company Armstrong,¹²¹ one of the leading European manufacturers of shock absorbers, produced a full line of replacement shocks for the United Kingdom and had plants in Great Britain, Australia, South Africa and Canada (CX 84C, E; CX 97E; CX 208Z-6-7; Admission Nos. 141, 143; Moore 1250; Diggelman 2530-31, 2589; Hooper 2613, 2615). In addition to its manufacturing plants, Armstrong also had licensing arrangements in several countries (Diggelman 2585; Hooper 2628). In the United States, Armstrong marketed shock absorbers from its warehousing facility in Chicago, Illinois (Hooper 2613-14). [92]

392. Armstrong possessed the technological expertise and proficiency to engineer and design shock absorbers (Moore 1250-52; Hooper 2613, 2618; see CX 208Z-6, Admission No. 142). At the time of the hearings, its shock absorber line included the following types: double tube, single tube, spring assisted, MacPherson struts and cartridges, steering dampers and a special lever type shock absorber used on a few British cars (Diggelman 2587, 2590, 2603; Hooper 2613, 2615; Freeman 8856 *in camera*).

393. In 1974, Armstrong had plans to expand shock absorber production in its (now closed) Canadian plant, in part to reduce the dependence of Armstrong's Canadian sales operation on shock absorbers made in the United Kingdom, and in part to serve as a better source of supply for its United States distribution facility (CX 84E). Walker estimated Armstrong's replacement shock absorber sales for 1974 to be approximately one million British pounds or \$2.2 million (CX 84F).

394. A May 1974 analysis of Armstrong by Walker's investment banker in London recommended the firm's acquisition by Walker (See CX 82; CX 84). In July 1974 Walker Europe's President, Mr. Padget, reported to Walker that he had heard that "circumstances could be ripe for a takeover" of Armstrong (CX 80).

395. Walker was informed that an acquisition of Armstrong would reduce Walker Europe's reliance on a one product base and also provide a means for Walker's entry into the U.S. shock absorber market (CX 81B; CX 208Z-43, Admission No. 335). Additionally, Walker would be enabled to sell ESP through Armstrong's European channels of distribution, while Armstrong could sell shock absorbers through Walker's U.S. and foreign channels (CX 83B). Mr. Padget of Walker Europe also reported that it might be possible for Walker to make shock absorbers in Walker factories and close Armstrong's Canadian assembly operations (CX 208Z-44, Admission No. 341).

¹²¹ Armstrong is a publicly held corporation whose stock is traded on the London Stock Exchange (CX 208Z-6, Admission No. 140).

396. Mr. Padget met at least twice with Armstrong's Chairman of the Board, Mr. Hooper, who indicated lack of interest on Armstrong's part (CX 208Z-43, Admission 336; Hooper 2622-23).

397. Mr. Padget relayed this intelligence to Walker also communicating his feeling that Armstrong "might respond to a specific offer," especially if it were sufficiently above [93]Armstrong's quotation on the London Stock Exchange¹²² (CX 83A; CX 208Z-43, Admission No. 338).

398. On October 14, 1974, Walker's President, Mr. Cook, instructed Walker Europe to maintain its "contact and relationship" with Armstrong, but pending instructions from Tenneco, to take no further action. Mr. Cook further suggested that Walker Europe include the possible acquisition of Armstrong in its five year plan, and to explain fully why such an acquisition made sense (CX 85).

399. In 1976 Armstrong supplied OE shock absorbers for foreign-made vehicles sold in the U.S. (CX 208Z-7, Admission No. 144). It also offered a broad line of replacement shock absorbers for these cars in the U.S. market (CX 84B; Givens 467; Fleuelling 3980; see Diggelman 2526). In 1976 Armstrong was the leading foreign shock absorber producer selling in the United States with sales of over 400,000 units (RX 550A *in camera*).

400. Walker Europe continued to maintain its interest in Armstrong through 1976 (CX 87A; CX 88).

B. DeCarbon

401. The DeCarbon Shock Absorber Company ["DeCarbon"] is one of two significant shock absorber manufacturers in France, the other company being Allinquant (CX 97C; CX 98A; Bellot 2882-84; see also Diggelman 2567).

402. DeCarbon shock absorbers are of a unique, patent-protected, single-tube design which employs oil and nitrogen gas. They can be produced in several hundred different models and applications, but most sales are for approximately 40 models (CX 92C; Bellot 2885; Stewart 9240).¹²³

403. Gas pressurized shock absorbers, such as the DeCarbon models, are considered to be of a superior, refined design. There is some replacement market demand for this type of shock absorber in the U.S. (Bellot 2884-85; Petzsch 2467). [94]

404. As of 1976, DeCarbon's production capacity was approxi-

¹²² The report contained calculations based on several different prices, all well above current market value, which might be offered for Armstrong's stock (CX 83D).

¹²³ DeCarbon supplies OE shocks for Renault, Porsche, Mercedes-Benz, Jaguar and some Japanese made cars (CX 92D, E; Bellot 2882, 2884, 2919; Stewart 9240). In Europe, approximately 15% of all vehicles sold use gas pressurized shock absorbers (Diggelman 2509).

mately 3 million units (Bellot 2883, 2919). Its French facilities manufactured approximately 12,000 shock absorbers per day, of which 50% were purchased by Renault to meet about 15-18% of that firm's requirements (CX 92C; Bellot 2844, 2919). Thus, the majority of DeCarbon's sales are in France (Diggelman 2563, 2580-81; Stewart 9241).

405. DeCarbon licenses the technology necessary to manufacture its shock absorbers in 12 countries (CX 92E; Diggelman 2585-86; Bekin 2846, 2864; Bellot 2920-21; Stewart 9265; see CX 208Z-8, Admission No. 151). Monroe recently has become a DeCarbon licensee (Bellot 2920-21).

406. In March 1976, a broker, Mr. Gibbons, brought DeCarbon to Walker's attention as a possible acquisition candidate (CX 89; CX 90; CX 92A-B). Thereafter, Walker authorized Walker Europe to pursue the acquisition of DeCarbon (CX 90; CX 91). The broker was authorized to inform DeCarbon that Tenneco has "a five year growth plan which would easily permit, and very quickly, purchase of DeCarbon Shock Absorber Company, *providing* the asking price was justified by its recent net profit after taxes, plus future probable tax profits" (CX 93A).

407. The record shows that while broker Gibbons and DeCarbon had some preliminary discussion, the matter of price blocked a possible acquisition from the outset (CX 95B).

408. In November 1976, Walker Europe wrote the broker, acknowledging the impasse, and requesting that he stay in contact with the situation (CX 96).

409. At the trial, there was testimony given by Mr. Marcel Bellot, a former chief purchasing agent for Renault, that the French Ministry of Industry had certain control over the acquisition of French firms by foreign companies. Further, he testified that in two instances in 1972 and 1973 where American companies, ITT and Federal Mogul, sought to acquire Alliquant, the French government refused to permit this (Bellot 2885-2890).

C. Blackstone

410. Blackstone is a small¹²⁴ privately owned shock absorber manufacturer whose products are distributed throughout [95]the U.S., primarily to chain stores (Moore 1270; Barna 1343-44, 1369-70; Fleuelling 3918, 4124). In 1976 Blackstone produced a standard 1" size shock absorber and a heavy duty 1- $\frac{3}{16}$ " size shock absorber

¹²⁴ In 1972, with its facility operating to capacity, running one shift, Blackstone produced approximately 800,000 shock absorbers (Barna 1389 *in camera*). Mr. Barna testified in 1978 that with two shifts Blackstone could probably produce 2.5 million units annually (Barna 1344).

(Barna 1338). While Blackstone has not produced either air-assisted or spring-assisted shocks, its president testified that they had the technical knowledge to do so, and had, in fact, built prototypes (Barna 1338-39, 1341).

411. Blackstone, which entered the shock absorber business by acquiring the equipment of a defunct producer,¹²⁵ has been for sale since 1974 (Moore 1256-57 *in camera*; Barna 1336-37, 1351-52 *in camera*, 1373 *in camera*, 1394 *in camera*; Nelson 10,177, 10,188-89). Blackstone has actively sought buyers¹²⁶ for this business, which offers manufacturing equipment,¹²⁷ specifications technology,¹²⁸ raw material and finished goods inventory for \$2 million or less (Moore 1256-57 *in camera*; Barna 1351-52 *in camera*, 1355 *in camera*).

412. Blackstone's market share has been declining since at least 1974, and it does not enjoy brand name recognition, or a particularly good name in the replacement market (Barna 1346-49); Borick 4725-31; Nelson 10,952-53). In addition, there was testimony that Blackstone's equipment was outdated and poorly maintained (Putman 1173). [96]

413. The record does not support the proposition that Blackstone would be a viable toehold acquisition for Walker's entry into the U.S. shock absorber replacement market (*See* N. Wright 7204-05, 7213-18 *in camera*).

D. Other Firms

414. Allinquant, a family-owned corporation, and the leading supplier of shock absorbers to Renault (Diggelman 2603; Bellot 2882, 2901, 2919; *see* Stewart 9241; Buck 9393), manufactures both gas pressurized and standard dual tube shock absorbers, and has also developed prototypes of MacPherson struts (Diggelman 2512; Bellot 2885, 2904; Stewart 9241).

415. There was testimony that in 1972 the father of the family which owned Allinquant wished to sell the firm (Bellot 2901, 2905-06). However, as noted in Finding 409, *supra*, two acquisition attempts by non-French companies were thwarted by the French government.

416. Fichtel & Sachs, a German firm 75% owned by two or three

¹²⁵ Blackstone acquired its shock absorber machinery from Houdaille in 1958, and moved the equipment to its Chicago plant (Barna 1337, 1389).

¹²⁶ Blackstone believed that the most likely purchaser of its shock absorber operation would be an ESP producer (Barna 1353). Thus, all but one of the buyers approached by Blackstone were replacement ESP producers (Moore 1257 *in camera*; Barna 1355 *in camera*, 1373-75 *in camera*).

¹²⁷ The equipment was described as old and poorly maintained (Putman 1173; Borick 4734; Bracken 4298-99 *in camera*).

¹²⁸ The technology would include that for Blackstone's conventional shocks and presumably the prototypes for its air-assisted and spring-assisted designs (Barna 1336-42).

members of the Sachs family, is the second or third largest shock absorber manufacturer in Europe (Diggelman 2557-58, 2589, 2591; Stewart 9246). Fichtel & Sachs produces conventional shock absorbers, gas pressurized shock absorbers, spring assisted shock absorbers, steering dampers and MacPherson struts and cartridges (Diggelman 2555, 2587; Cox 4408; Freeman 8856 *in camera*). It is a major supplier of shock absorbers to the German automotive industry, including Volkswagen, Mercedes-Benz, BMW and Ford of Germany, and a major supplier of replacement shock absorbers in West Germany (CX 97D, H; CX 98A, D, J-K; CX 208Z-9, Admission Nos. 155-156; Petzsch 2470 *in camera*; Diggelman 2556-57; Fleuelling 3980). It supplies shock absorbers to the U.S. replacement market through the car dealer channel of Volkswagen and others.

417. In 1975 or early 1976, the Sachs family agreed to sell their 75% holdings in Fichtel & Sachs to GKN, a British company (Diggelman 2582-83; Stewart 9247). This action resulted in an antitrust suit in Germany which blocked the sale (Diggelman 2582-83, 2608-09; Stewart 9247-48).

418. The record contains no plans by Fichtel & Sachs to manufacture shock absorbers in the United States, nor does the company make direct sales of shock absorbers in the U.S. (Diggelman 2555, 2587, 2596, 2604; Cox 4408; Fleuelling 5796-97; Freeman 8856 *in camera*; Nelson 9937-38, 10,417).

419. Boge, which is 100% owned by the Boge family, is the leading German manufacturer of replacement shock absorbers, with licensees in Brazil and Mexico (CX 97D, H; CX 98A, D, I-J; [97]CX 208Z-10, Admission No. 159; Diggelman 2585, 2589; Bekin 2846, 2863; Stewart 9236-37, 9276). In 1976 Boge supplied replacement shock absorbers direct to the U.S. replacement market and was also a major supplier of OE shock absorbers, including MacPherson struts and steering dampers, to Volkswagen, Ford of Germany, BMW, Fiat and Renault (Bellot 2882; Diggelman 2587, 2590; Cox 4408; Freeman 8856 *in camera*; Stewart 9243, 9253; *see* CX 208Z-10, Admission No. 160; Fleuelling 3980).

420. The record reveals no plans by Boge to enter the manufacture of shock absorbers in the United States (Diggelman 2596, 2604; Fleuelling 5796; Nelson 10,418). Indeed, in the opinion of a knowledgeable Maremont official, Boge lacks "the financial strength to build a unit in the United States" (Stewart 9276).

421. August Bilstein KG is a wholly privately owned German manufacturer of high quality pressurized shock absorbers originally produced under a license from DeCarbon (CX 97D, H; CX 98D, I; CX 208Z-10, Admission No. 162; Petzsch 2442, 2454 *in camera*; Diggel-

man 2512, 2531; Stewart 9244; Nelson 10,140, 10,847). Bilstein is a significant OE supplier of shock absorbers in Europe for such firms as Mercedes-Benz, as well as a line of high quality, high performance replacement shock absorbers, including steering dampers and MacPherson struts, for almost all European cars as well as many American and Japanese made cars (Petzsch 2446-47, 2452-53, 2470 *in camera*; Fleuelling 3980; Stewart 9244-46). Bilstein sold a limited number of replacement shock absorbers in the U.S. in 1975 and 1976 through a distributing subsidiary (Petzsch 2445, 2452; Diggelman 2582; Stewart 9253).

422. The record reveals no plans by Bilstein to enter the manufacture of shock absorbers in the United States (Fleuelling 5796; Nelson 9937-38, 10,417).

423. A division of Jonas Woodhead & Sons, Ltd.¹²⁹ ["Woodhead"] manufactures shock absorbers in the United Kingdom (Cox 4375-77). The shock absorber plant operated by Woodhead is not fully automated and does not have a tube mill (Cox 4401). The product line of Woodhead consists of applications for a major portion of European and certain Japanese vehicles, including struts, steering dampers and conventional shock absorbers. These were sold to all OE producers in the United Kingdom, and were also sold for U.K. replacement use [98](Diggelman 2563-64, 2590; Cox 4376, 4404-05). Outside the United Kingdom, Woodhead's shock absorber sales are primarily made in Europe, although, according to testimony, "a little bit" was sold for U.S. replacement use (Cox 4376, 4402; Stewart 9253). Woodhead had only a limited line of shock absorbers applicable to cars sold in the United States (Cox 4379, 4384, 4403). Furthermore, Woodhead's former chief executive testified that the firm, was "not a large enough company" to promote the sale of its own branded shock absorbers in the United States (Cox 4379).

424. In 1976, Woodhead's total shock absorber sales were \$12.4 million and its total sales were \$56.6 million. Thus, Woodhead lacks the financial strength to build a plant in the United States (Stewart 9276). Woodhead had never considered nor intended to set up a shock absorber plant in the United States or to acquire a small U.S. shock absorber producer (Cox 4401, 4403; Nelson 9937-38, 10,417; *see* Diggelman 2604). Furthermore, Woodhead had no intention to have a "major launch of the Woodhead brand" in the United States (Cox 4419).

425. The only foreign shock absorber producer who has built a

¹²⁹ Woodhead is a widely-held company whose stock is publicly traded on the London Stock Exchange (Diggelman 2603; Cox 4411; Nelson 10,179).

manufacturing facility in the United States is ITT (Stewart 9274). ITT owns two foreign shock absorber producers, Koni¹³⁰ and Wayassauto¹³¹ (Freeman 8833; Nelson 9677). Based upon the technology of Wayassauto and ITT's extensive domestic marketing ability in the OE market, ITT has secured a contract for the production of struts for Ford's domestic operations (Freeman 8838, 8850-51, 8853 *in camera*, 8869-71, 8874, 8884; Nelson 9829, 10,869-70 *in camera*). Such struts are to be built at a new plant erected solely for such production in Macon, Georgia (Freeman 8894 *in camera*). The Ford struts to be built at Macon and any others produced there are to be solely for OE sale. (Freeman 8885 *in camera*, 8897; Nelson 9677).

426. The record does not disclose any other foreign shock absorber producer, other than ITT, which has any interest [99] in establishing a plant in the United States or in acquiring a toehold producer in this country (Nelson 9937-38, 10,417).

427. Shock absorbers are an easily imported item which are readily containerized for low cost ocean transport (CX 208Z-46, Admission No. 357). Ocean freight, insurance costs and tariffs are small factors in the cost of importing shock absorbers (CX 208Z-46-Z-47, Admission Nos. 358-359; Fleuelling 3984). Currently, the U.S. tariff for imported shock absorbers is approximately 4-½% *ad valorem* (CX 208Z-47, Admission No. 360; Fleuelling 3983-84). Foreign manufactured shock absorbers are currently sold in the U.S. (See RX 550A *in camera*). In the period 1968-1976, imports accounted for approximately 4% of the U.S. replacement shock absorber market (Fleuelling 4111; Nelson 9928; see Stewart 9253-54).

XIV. Other Possible Entrants in the Shock Absorber Market

428. Midas examined the possibility of manufacturing shock absorbers before Tenneco acquired Monroe (Moore 1288; Nelson 10,089, 10,998). Midas and the management of its parent, Illinois Central Industries ["IC Industries"], surveyed the manufacturing capabilities of IC Industries including Abex, which produced brake linings (Moore 1285-86, 1288; Nelson 10,090). Midas felt that it possessed the requisite ability to produce the tubing components of a shock absorber, as an extension of the company's ESP production

¹³⁰ Koni, a Japanese company, is a manufacturer of specialty, high performance shock absorbers sold in limited quantities for racing and similar special non-OE applications in the United States (Freeman 8834-35, 8878; Stewart 9242, 9253; Nelson 9677-78, 9940, 10,140). Koni has recently opened a facility at Culpepper, Virginia to produce its specialty shock absorbers (Freeman 8837; Nelson 10,880-81 *in camera*). This facility engages in only limited processing and "is not a major manufacturing facility" (Freeman 8881).

¹³¹ Wayassauto, located in Italy, is primarily an OE supplier of shock absorbers, including struts (Freeman 8833-34).

(Moore 1289; Nelson 10,089). However, neither Midas nor Abex possessed the ability to produce rods, nor did they have the necessary design and engineering personnel (Moore 1289). After some consideration, Midas decided against such an expansion "because we felt that before we departed into a secondary manufacturing effort, that we ought to become more expertise [sic] in our primary effort" (Moore 1289). Midas has plans to review entry into the manufacture of replacement shock absorbers from time to time (Moore 1256 *in camera*).

429. After Midas discovered that Blackstone's shock absorber business was for sale, Midas sent four officials "over to Blackstone to see whether or not it would be to our [Midas'] advantage to consider its purchase" (Moore 1257 *in camera*). Later, Midas' President, its Director of Operations for the Automotive Group, along with the President of IC Industries, visited Blackstone to consider the purchase of its shock absorber business (Moore 1257 *in camera*, 1265-68 *in camera*).

430. As of 1976, Arvin considered itself far behind Walker in customer acceptance and merchandising skill (Baker 578; Pond 864-65; Nelson 10,088). Likewise, Arvin was less able or willing to provide financial assistance to its muffler installation shop customers to promote their expansion (Verner 909-10; Nedell 940-41, 974). In fact, Arvin has stopped providing real estate assistance to its muffler installation [100]shop customers (Verner 910). Arvin did reject *de novo* entry in 1973, but, according to its chief official, if its program of selling shock absorbers had been as successful as anticipated, Arvin would have by now reconsidered *de novo* entry into shock absorber production (Baker 710-11, 728; Nelson 10,099).

431. Complaint counsel's economist, Dr. Nelson, who is also accepted as an automotive expert, testified that brake parts manufacturers are not considered as likely entrants into the domestic manufacture and sale of replacement shock absorbers (Nelson 9661, 10,105-10, 10,929-31). This statement is supported by the following: Maremont sold its brake friction material business; IC Industries made a decision not to combine Midas and Abex; DBA's¹³² lack of success in handling shock absorbers along with its brake line; and the lack of interest and incentive for Bendix, one of the leading manufacturers of brake parts to enter the manufacture of shock absorbers (RX 187Q; Stewart 9270; Nelson 10,105-07, 10,603, 10,929-31).

432. Bendix is a major domestic manufacturer of braking compo-

¹³² DBA is a French subsidiary of Bendix (Joines 9111-12; Nelson 10,105).

nents, including hydraulic components, power steering units, universal joints, electronic fuel injection systems, oil filters and spark plugs (Joines 9100, 9102, 9142). Bendix has entered into the domestic sale of antiskid braking systems, electronic fuel injection systems and wiper blades on a *de novo* basis (Joines 9103-04). Outside the United States, Bendix has extensive foreign automotive parts operations producing primarily brake components (Joines 9109-11). Two of Bendix's foreign operations involve shock absorbers, DBA, and LIPMESA. In 1973 Bendiberica, Bendix's Spanish subsidiary, acquired LIPMESA,¹³³ a Spanish company whose only product was shock absorbers (Joines 9112-14, 9164). LIPMESA and Bendix have no plans to enter the manufacture and/or sale of shock absorbers in the United States (Joines 9119, 9122, 9133; Nelson 10,104). Bendix considered importing LIPMESA shock absorbers into the United States, but did not feel it could be successful in such an effort, in part, because Bendix considers shock absorbers as "a separate product line from our current product lines" (Joines 9137, 9139, 9169-70, 9193; Nelson 11,036-37).

433. Bendix has never sold shock absorbers in the United States, either as a reboxer or as an installer [101](Joines 9148). A major consideration at Bendix, in determining whether it can successfully introduce a new product line, is whether Bendix can market that product successfully (Joines 9148-49; Nelson 10,039-40). Bendix concluded it could not successfully market LIPMESA shock absorbers in the United States (Joines 9189-90; Nelson 10,039-40).

434. Bendix possesses little, if any incentive to enter the domestic sale of replacement shock absorbers. Bendix owns no retail outlets which install shock absorbers (Joines 9148; Nelson 10,105-06, 10,111). Bendix has no defensive motive to enter the market because none of its major parts competitors are in the replacement shock absorber market (Joines 9146; Nelson 10,105-06, 10,109). Shock absorbers are not considered compatible with Bendix's major product line of replacement brake parts (Joines 9137; Nelson 10,105-06, 10,110).

435. TRW, a major domestic manufacturer of automotive engine parts¹³⁴ and replacement chassis parts, has been in the replacement shock absorber market since 1955 (Poe 8927-29; Nelson 9786, 9790, 10,112). Questor supplies TRW's shock absorber requirements (Poe

¹³³ Bendix acquired LIPMESA when Bendiberica was approached to acquire LIPMESA "to keep the business going" (Joines 9117). LIPMESA, a licensee of Allinquant, sells almost all of its output in Spain and none in the United States (Joines 9115-17).

¹³⁴ In addition, TRW's Replacement Division sells WDs and jobbers engine and chassis parts which it does not manufacture, as well as a general service line, timing gears and chains and shock absorbers, all of which it does not produce (Stapleton 3485; Poe 8928-29; Nelson 10,112-13).

8930-31). TRW's shock absorber line has not had any appreciable growth in sales, and has not achieved any significant market penetration (Poe 8932-35; Nelson 9787). TRW has not been making a substantial effort to promote and sell replacement shock absorbers (Bush 3294, 3320; Poe 8933; Nelson 10,114-15). TRW lacks marketing skills including the sales force and promotional programs, necessary to become a successful, significant seller of replacement shock absorbers, as TRW's primary business is the sale of engine and chassis parts which are not highly promotable items (Stapleton 3466-67; Poe 8933; Nelson 9789-90, 10,039-40, 10,929, 10,971). TRW also lacks substantial sales to mass merchandisers (Poe 8938; Nelson 10,112-13).

436. TRW has no plans to enter the manufacture of shock absorbers, and has never seriously considered such a move (Poe 8971-72). One of TRW's replacement market officials recommended that "it get out of the shock absorber business" (Poe 8935-36, 8957; Nelson 11,036-37). TRW's volume of shock absorbers business simply would not be sufficient to justify the investment in a shock absorber plant (Poe 8957-58). [102]Furthermore, TRW lacks the "background, patents, desire, factories, [and] pooled resources" necessary to produce shock absorbers (Poe 8957). TRW also lacks tube mills and shock absorber engineers (Nelson 10,049).

437. Moog, a leading seller of replacement chassis parts, unsuccessfully attempted to sell replacement shock absorbers as a reboxer and subsequently withdrew from being a reboxer of most types of shock absorbers (Bush 3259; Stapleton 3469; Nelson 9789, 10,115, 11,073). Like TRW, Moog lacks the skills necessary to successfully market replacement shock absorbers (Nelson 9789-90, 10,929).

438. Suppliers of tune-up parts are not likely potential entrants in the manufacture of shock absorbers. Tune-up shops do not install shock absorbers (Nedell 926). Tune-up mechanics are more skilled and more highly paid than those who install shock absorbers and ESP (Nedell 930-31; Glassman 1005-06). There was testimony that such tune-up mechanics would not be generally willing to install shock absorbers or ESP (Nedell 930-31).

439. Suppliers of transmission parts would not be considered likely potential entrants into shock absorbers. Transmission work is far more labor intensive than is the replacement of ESP or shock absorbers (Glassman 1003-04). Transmission repair shops generally do not install shock absorbers (Nedell 926). The mechanics who work in transmission shops are more skilled and more highly paid than those who install shock absorbers and ESP (Nedell 930-31; Glassman

1002). In general, transmission mechanics would not be willing to install shock absorbers or ESP (Nedell 930-31).

440. The leading tire companies sell few if any parts to WDS (McAdams 8988; Goodman 9067; Garfinkel 9201; Nelson 9790-92). B.F. Goodrich and Firestone manufacture no automotive parts sold to retail outlets although they sell a wide range of automotive parts, including shock absorbers and ESP, to their stores and franchised retail outlets, (Goodman 9068-69, 9074; Garfinkel 9203; Nelson 9944, 10,014, 10,020). Firestone once manufactured brake friction materials, as well as fan belts and hoses, but has ceased such activity (Goodman 9076; Nelson 9944, 10,021). Goodyear likewise sells a wide range of automotive parts, including shock absorbers and ESP to its stores and franchised retail outlets (McAdams 8988). The only automotive parts sold by Goodyear which it manufactures are fan belts and hoses, both rubber products (McAdams 8993; Nelson 9944, 10,014, 10,016). With respect to its line of fan belts, Goodyear is a small factor (Nelson 10,016).

441. Specifically, B.F. Goodrich, Firestone and Goodyear do not manufacture either shock absorbers or ESP (McAdams 8993; Goodman 9075; Garfinkel 9203). These firms have [103]no technological input into the shock absorbers which they purchase and have no technical expertise with regard to the design and production of shock absorbers (Garfinkel 9206; Nelson 9944-45, 10,013-14, 11,010). No tire company has been shown to have any intentions or plans to enter into the manufacture of shock absorbers (McAdams 8995; Goodman 9076; Garfinkel 9204; Nelson 10,013-14).

442. Mass merchants and tire companies would not be considered likely entrants into the manufacture of shock absorbers (Pond 866; Putman 1133; Buck 9422; Nelson 9940-45, 9975-76, 10,007-17, 10,021-24). Such firms lack design and manufacturing skills and, as a rule, do not manufacture any automobile parts (Kody 9350, 9355; Nelson 9791, 9943, 9976, 9983-84). Mass merchants do not have the warehouse organization or a suitable brand to sell to other wholesalers or retailers, and might encounter problems selling to their retail competitors as well (Nelson 9791, 9976, 9985, 9999, 10,001-04, 11,011). Mass merchants also lack the experience necessary to promote automotive products through the traditional channel of distribution (Nelson 10,003, 10,005). There is no showing in the record of any interest in entering the manufacture of shock absorbers on the part of any mass merchant or tire company (Nelson 9976). These firms have no incentive to enter the manufacture of shock absorbers, other than whatever is provided by their own purchases (Nelson 9977, 10,006).

443. As one muffler chain stated concerning such entry: "it would sort of keep the other manufacturers on their toes" (Nedell 944).

XV. The Perception of Walker as the Firm Most Likely To Deconcentrate the Shock Absorber Replacement Market

444. Walker was perceived as one of the few most likely entrants into the manufacture and sale of replacement shock absorbers by other producers of shock absorbers and ESP (Givens 480-84; Pond 771-73; Putman 1145; Moore 1248-49, 1325; Barna 1356; Nelson 11,128-29).

445. In the last ten years, Maremont considered Walker, Midas, Arvin and TRW as likely candidates to enter the replacement shock absorber business as manufacturers on a significant basis (Pond 771-73, 799-800; Nelson 10,591A, 11,129). This business judgment was based on the fact that Maremont and Questor already were in that market as manufacturers and Arvin and TRW were already reboxing shock absorbers (Pond 771-73, 799-800).

446. Maremont and Midas perceived Walker as the most likely and capable firm to enter the manufacture and sale of replacement shock absorbers because of Walker's dominant market position in the ESP aftermarket; its ability to manufacture [104]tubing for shock absorbers; its hydraulic know-how and manufacturing capability derived from Walker's hydraulic jack business; the compatibility of ESP and shock absorbers in their distribution, warehousing, and point of sale; the fact that Walker already markets and distributes shock absorbers; Tenneco's strong financial capabilities; and because of the fact that Walker's major ESP competitors were already in the replacement shock absorber market (Givens 480-84; Pond 771-76, 864-65; Moore 1247-49; Putman 1145-46).

447. Maremont regarded Walker as a highly efficient manufacturer of ESP, with extremely good technical credentials (Givens 482). Thus, Maremont perceived Walker as one of few if, not the most likely, entrant into shock absorbers from the standpoint of engineering and manufacturing capabilities (Givens 438-40, 480-84, 520-22; Pond 775-76). Walker was also perceived to be as likely as TRW to enter into the manufacture of replacement shock absorbers on a significant basis, based on Walker's marketing expertise; the fact that a number of its chief competitors had already entered; and because of its experience in dealing with under-the-car parts and comparable types of service items (Pond 773-75).

448. Because of its high level of historic profitability, Maremont

felt that the replacement shock absorber business "would be an enticing one to be in" (Pond 777, 856-57). The attractive nature of the replacement shock absorber business caused Maremont to invest very heavily in that business from 1968 to 1978, not only because of the business opportunity for Maremont, but also because "if we didn't invest, someone else would," and "to make that a less exciting or less, desirable business for competitors to expand in" (Pond 777-78, 857; Nelson 11,128; see Fleuelling 4022). Thus, Maremont expanded its plant and equipment as well as its inventory levels to provide a very high degree of availability (Pond 777-78; see Cook 1581). Maremont also invested in research and development on new replacement shock absorbers (Pond 778). Over the past eight or nine years, but more particularly over the three to four years prior to 1978, Maremont embarked on a "very aggressive cost reduction" program for its replacement shock absorber business (Pond 778-79, 855; see Cook 1581).

449. The ultimate consumer has been the chief beneficiary of Maremont's efforts in the replacement shock absorber market (Pond 779). Maremont's cost reductions have been passed on in the form of lower prices and, indeed, Maremont and also Monroe have been increasing their selling prices less rapidly than costs have been increasing (RX 58; RX 215; Pond 779, 854; Fleuelling 4071-72). The consumer also has benefitted by Maremont's enhanced availability of product (Pond 779-80).

450. The lower prices charged by Maremont have become industry wide prices (Pond 858-59; Putman 1132). The effect of [105] Maremont's pricing actions as well as those of Monroe have served to make the replacement shock absorber business both more competitive and less attractive to potential entrants than it otherwise would have been (Pond 858-59).

451. Based upon its own past history, Questor believed that Walker had the ability to become a significant manufacturer of replacement shock absorbers (Putman 1145).¹³⁵

452. Midas and Blackstone officials were of the opinion that if Walker had acquired Blackstone instead of acquiring Monroe,

¹³⁵ Questor's chairman testified as follows:

Q In your opinion, Mr. Putman, did Walker or TENNECO have the ability to enter into manufacture and sale of shock absorbers without acquiring Monroe?

A Yes, sir. We did it, in our second phase of getting into the two-tube shock.

Q In your opinion, how could TENNECO or Walker have penetrated the replacement with shock absorbers?

A In my judgment, they could have done the same thing we did in our second phase. They could have set up a facility and hired the proper technical people and the production people and marketing people, to set up an organization and go out to some of the national accounts where their contacts are as good as ours and offer them a quality product at a fair price, and I think they would have gotten their share of business, same as we did.

(Putman 1145-46).

Walker could have become a significant seller of replacement shock absorbers in the United States (Moore 1325-26; Barna 1356). Blackstone believed that Walker's reputation in the traditional segment of the aftermarket would have assisted Walker in becoming a significant supplier of replacement shock absorbers in the United States (Barna 1360-61, *but see* Finding 413, *supra*). [106]

453. Blackstone does not consider TRW a likely entrant into the manufacture of shock absorbers because of their lack of success as a reboxer of shock absorbers serving the replacement market over an extended period (Barna 1367). Furthermore, TRW had informed Blackstone that the firm was not interested in buying shock absorbers from Blackstone as they were "having difficulties" (Barna 1362, 1366). TRW had also informed Blackstone that they "would love to sell us [Blackstone] their inventory [of shock absorbers]" (Barna 1362-63, 1366). Maremont did not consider TRW to be as likely an entrant into the significant manufacture of replacement shock absorbers as Walker (Pond 773-76). As stated by Maremont's then senior vice-president (now president): "My estimate would be that it would be a much easier entry for an exhaust manufacturer into the shock absorber business from a manufacturing standpoint than it would be for a suspension parts manufacturer [TRW]" (Pond 776).

454. Maremont did not consider any foreign shock absorber manufacturer as likely to become a significant factor in the United States replacement market (Stewart 9255, 9263, 9276-77; Nelson 9940). A knowledgeable official testified that such firms lack the necessary domestic distribution system, knowledge of the U.S. replacement market, proper sales force, marketing programs and sales promotion programs (Stewart 9256-57, 9277-79, 9288-89).

455. No witness identified Sears Roebuck, the leading purchaser of replacement shock absorbers, as being a likely entrant into the manufacture of shock absorbers (Pond 866; Putman 1133; Buck 9922; Nelson 10,007-08).

XVI. Monroe as a Potential Entrant into the ESP Market

456. Monroe had been considering diversification of its basically one product company for a number of years¹³⁶ (Fleuelling 3948). In

¹³⁶ In its 1972 Annual Report Monroe stated that: "[w]e plan to continue looking for products with good potential in the aftermarket which could be fitted into our marketing structure" (CX 145E).

1975, after its entry into oil filters, the company reaffirmed its goal of continued diversification.¹³⁷ [107]

457. Monroe sought to add a second or third major automotive product line, which could be built into a strong second or third industry position (CX 178A). The type of financial return looked for was one which would result in \$2 million in profit after taxes (CX 178A).

458. Monroe considered diversification through acquisition, and established acquisition criteria¹³⁸ (CX 177B-C).

459. Monroe preferred to acquire an "under carriage" producer (CX 179A). By adopting this acquisition strategy, Monroe felt it would be in a position to supply the large, emerging retail chains with an "under carriage" package for their installation shops, and thus mitigate any threatened loss of its market penetration (CX 179A). Front-end equipment and parts manufacturers, brake and brake parts manufacturers, and ESP producers were included in the "under carriage" category by Monroe (CX 179A-B; Fleuelling 5768-69). ESP producers were considered to be compatible with Monroe, because of the success Midas was enjoying in selling both ESP and shocks (CX 179B).

460. Following its determination that ESP met its acquisition criteria (CX 177A-B), Monroe took steps to acquire [108]the Arvin Company,¹³⁹ hiring a broker to assist in this effort. On February 13, 1974, the broker transmitted to Monroe a comparison of Monroe's and Arvin's financial data, and an analysis of the effects of offering differing amounts of Monroe stock in exchange for Arvin stock (CX 182A-E). On February 25, 1974, Monroe's Chairman of the Board met with Arvin's President and Chairman to discuss the acquisition of Arvin by Monroe (CX 183; Baker 579-80; Fleuelling 3947-48, 3963, 5767-68; see CX 208Z-47, Admission No. 360). On March 29, 1974, Monroe's broker submitted additional statistics to the company pertaining to the possible Arvin acquisition, along with other relevant considerations (CX 185A-D; see Baker 582). The proposed Arvin acquisition proceeded so far as discussing the mechanics of

¹³⁷ Monroe stated in its 1975 Annual Report that, "[t]he Company will continue to be alert to opportunities represented by additional product lines with good sales potential, suitable for marketing through our well-established world-wide distribution system" (CX 142E; see CX 208Z-47, Admission No. 361).

¹³⁸ Some of the acquisition criteria were:

- The profit potential should be at least an immediate return of 10% on investment.
- Products involved must be involved in a growth phase, not a static or declining phase.
- Acquire brand name products of a specialty character which are related to our current area of business.
- Products which could respond to aggressive advertising and merchandising.
- Products which could lend themselves to our distribution channels and manufacturing skills.

(CX 177B)

¹³⁹ Arvin, which sells ESP primarily to the OE market, accounted for approximately 10% of ESP sales to the replacement market in 1976 (CX 265 *in camera*; Nelson 11,027-28 *in camera*).

putting the two firms together organizationally, such as selecting a name for the combination, a proposed Board of Directors, a list of officers and a corporate organization structure (CX 186; Baker 582). However, the merger was never consummated, and, according to Mr. Fleuelling of Walker, was never seriously considered (Fleuelling 3947-48, 3963, 5767).

461. The combination of Monroe and Arvin would have strengthened Arvin's position in the ESP replacement market by adding Monroe's excellent merchandising ability to the lesser marketing skills possessed by Arvin (Baker 588-89).

462. The record identifies an additional ESP acquisition candidate. During 1975, the parent of Muffler Dynamics was attempting to sell the company (Kittridge 1411-12, 1441 *in camera*). Muffler Dynamics is a small replacement ESP producer, manufacturing four lines of mufflers, all of which are consolidated lines designed for sale primarily to mass merchants and muffler installation shops (Kittridge 1403-05, 1409). Muffler Dynamics does not sell to the traditional segment of the replacement market (Kittridge 1452). Muffler Dynamics has the present capacity to make about two million mufflers per annum, having an approximate value of \$15 million (Kittridge 1405-06). Muffler Dynamics has no tube mill, but does possess bending equipment which could be used to produce pipes (Kittridge 1406-07). Sales of Muffler Dynamics ESP are made primarily through independent sales representatives, rather than by salesmen of its own (Kittridge 1429).

463. In the opinion of Muffler Dynamics' official, Mr. Kittridge, the combination of his company and Monroe could [109] have become a substantial factor in the U.S. replacement ESP market (Kittridge 1424).

464. Prior to its own acquisition, there was some interest on Monroe's part in acquiring Walker (CX 4C). As noted, only Monroe among the major shock absorber replacement marketers did not manufacture or sell ESP prior to its acquisition in 1977 (Moore 1258 *in camera*).

465. Armstrong, a leading British shock absorber producer, acquired a British ESP producer in 1974 (Hooper 2614). At the time of its acquisition, that ESP producer had 4 to 4.5 percent of the ESP replacement market in the United Kingdom (Hooper 2616). Under Armstrong, the share of market held by that ESP producer has risen to 9% (Hooper 2616). [110]

XVII. Legal Discussion

The Commission's complaint advances three theories of violation of Section 7.¹⁴⁰ These involve: (1) horizontal aspects of the merger; (2) the doctrine of potential competition, both actual and perceived; and (3) allegations of entrenchment. Under my view of the facts and controlling legal precedents, none of these theories are viable in this case.

Before discussing these points, however, two issues regarding relevant product market require attention.¹⁴¹

A. The Shock Absorber Cluster Market

As discussed at length in the findings, shock absorbers and ESP are manufactured for both OE installation and replacement purposes (Findings 55-169). To assess the competitive consequences of Walker's acquisition of Monroe, the complaint focuses on the replacement category, declaring the relevant markets for both products to be their manufacture and sale to (1) the entire U.S. replacement market, and to (2) the independent aftermarket segment thereof (*i.e.*, the replacement market minus OE service sales).¹⁴²

In the case of shock absorbers, while MacPherson struts and steering dampers are not interchangeable with conventional shock absorbers, it is clear that they perform the same type of function on vehicles. Each is used for hydraulic dissipation of mechanical energy arising from road imperfections and vehicle dynamics. The production of each involves the same or similar technology, and each contain common working components (a metal cylinder filled with hydraulic fluid, into which a piston mechanism is inserted, with valving to permit a measured flow of [111]fluid). Each is marketed together by the leading shock absorber manufacturers, through the same replacement channels to the same customers (Findings 25-54). Accordingly, it is not inappropriate to consider these products as being in a single cluster market.

There is legal precedent of long duration to support the recogni-

¹⁴⁰ Violation of Section 5 FTC Act was also alleged, resulting from the alleged Section 7 Clayton Act violation. This was not independently pursued at the hearings, and thus requires no independent resolution in the initial decision.

¹⁴¹ There is no dispute that the relevant geographic market for both shock absorbers and ESP is the United States as a whole (Finding 24).

¹⁴² OE service refers to those products manufactured for sale to OE vehicle producers for distribution to their dealer outlets (Finding 170).

tion of a cluster market, where technical or commercial realities permit such classification.¹⁴³ In its 1963 decision in *Philadelphia National Bank*,¹⁴⁴ the Supreme Court did not have any difficulty in determining that (374 U.S. at 356):

*** the cluster of products (various kinds of credit) and services (such as checking accounts and trust administration) denoted by the term "commercial banking" *** composes a distinct line of commerce.

Commercial banking was found by the Supreme Court to be a distinct line of commerce even though the various services and products offered by commercial banks are distinguishable from each other, and in some instances are also provided by financial institution other than commercial banks. The products and services in question, such as personal loans, checking accounts, estate and trust planning and safety deposit boxes, are clearly not interchangeable. The Court emphasized that it was the cluster of products and services which commercial banks offered as a full line that made commercial banking a distinct line of commerce as a matter of trade reality. The Supreme Court later reaffirmed its holding that the commercial banking industry as a [112]whole was a proper line of commerce for Section 7 purposes.¹⁴⁵

The Commission has used similar rationale in numerous cases. As long ago as 1960, for example, in the *Spalding* case,¹⁴⁶ the Commission found the existence of an athletic goods market, which contained all manner of non-interchangeable sports equipment. Recent Commission decisions include *Brunswick Corp.*, Dkt. No. 9028, Nov. 9, 1979, Slip Op. at 6-10; *Kaiser Aluminum and Chemical Corp.*, 93 F.T.C. 764, 833-39 (1979); *Coca-Cola Bottling Co. of New York, Inc.*, 93 F.T.C. 110, 199-205 (1979).

B. Supply Cross-Elasticity for OE and Replacement Shock Absorbers and ESP

As regards both shock absorbers and ESP, it is respondent's elaborate contention (1) that the concept of cross-elasticity of supply

¹⁴³ *Liggett & Myers Inc.*, 87 F.T.C. 1074 (1976), *aff'd*, 567 F.2d 1273 (4th Cir. 1977); *British Oxygen Co., Ltd.*, 86 F.T.C. 1241, 1345-46 (1975), *rev'd on other grounds and remanded sub. nom.*; *BOC Int'l, Ltd. v. FTC*, 557 F.2d 24 (2d Cir. 1977); *United States v. Ford Motor Co.*, 286 F. Supp. 407, 411-16 (E.D. Mich. 1968), *aff'd*, 405 U.S. 562 (1972); *L.G. Balfour Co. v. FTC*, 442 F.2d 1, 10-12 (7th Cir. 1971); and *United States v. Grinnell Corp.*, 384 U.S. 563 (1966). *Cf. Sterling Drug, Inc.*, 80 F.T.C. 477, 555 (1972); *United States v. Bethlehem Steel Corp.*, *supra*, 168 F. Supp. 576, 594 (S.D.N.Y. 1958).

¹⁴⁴ 374 U.S. 321 (1963).

¹⁴⁵ *United States v. Phillipsburg National Bank & Trust Co.*, 399 U.S. 350 (1970) (commercial banking); *see also, United States v. Grinnell Corp.*, 384 U.S. 566 (1966) (central station protective services); *British Oxygen Co., Ltd.*, 86 F.T.C. 1241, *rev'd on other grounds, sub nom.*, *BOC Int'l, Ltd. v. FTC*, 557 F.2d 24 (2d Cir. 1977) (industrial gases); *United States v. Hughes Tool Co.*, 415 F. Supp. 637 (S.D. Cal. 1976) (specialized surface rotary drilling equipment); *United States v. Bethlehem Steel Corp.*, 168 F. Supp. 576 (S.D.N.Y. 1958) (iron and steel industry).

¹⁴⁶ *A.G. Spalding & Bros., Inc.*, 56 F.T.C. 1125, 1160 (1960); *aff'd*, 301 F.2d 585, 606 (3d Cir. 1962).

is invariably co-extensive with production flexibility, and (2) that the evidence shows such a degree of shifts in production as between OE and replacement products that the latter simply cannot be regarded as being in a separate submarket (See RPF 27-34, 38-114, RRPf 16-30). Complaint counsel differ sharply on both points (CRPF pp. 2-12).

It is difficult for me to equate production with supply in the overall sense. To focus solely on production factors would overlook other factors involved in supplying a product, such as distributing and marketing. As to these, the record shows significant differences as to OE and replacement products (Findings 58-97).

In the *Budd* case, 86 F.T.C. 518, 571-72 (1975), the Commission's decision not to further subdivide the overall "van [113]trailer" market into submarkets for "open-top" and "closed-top", was not based solely upon considerations of production flexibility. Its evaluation of cross-elasticity of supply included the "interchangeability of production and distribution facilities" between the two products, enabling a manufacturer of one to "shift readily to the production and sale" of the other (emphasis added). The Commission stated:

Because the record establishes such a high degree of cross-elasticity of production, and identical marketing ease, among van trailers, we conclude that "open-top" and "closed-top" van trailers do not constitute separate submarkets.

(86 F.T.C. at 572, emphasis added)

Apart from this consideration, there is much testimony and data in the record concerning the ability to, and the feasibility of, switching OE and replacement shock absorber and ESP production (Findings 98-116, 156-69).

Complaint counsel maintain that even if the record demonstrates complete production flexibility between OE and replacement, respondent's contention based on this assertion must fail as a matter of law. I agree with their position.

The Supreme Court in *Brown Shoe*,¹⁴⁷ referred to production facilities as but one of seven enumerated submarket criteria.¹⁴⁸ Indeed, as complaint counsel point out, in that landmark case the Court upheld separate submarkets for men's, women's and children's shoes based upon four criteria, viz., public recognition, separate plants, peculiar product characteristics and distinct customers. This was despite the fact found by the court below that "the history of Brown's own factories reveals that a single plant may *** without undue difficulty be shifted from the production of children's shoes to men's or women's shoes or vice versa."¹⁴⁹

¹⁴⁷ *Brown Shoe Co. v. United States*, 370 U.S. 294 (1962).

¹⁴⁸ 370 U.S. at 325.

¹⁴⁹ 370 U.S. at 367-68 (Harlan, J., dissenting in part and concurring in part).

In *United States v. Aluminum Co. of America*, 377 U.S. 271 [114] (1964), the lower court had found that:¹⁵⁰

[T]here is complete manufacturing interchangeability between copper and aluminum, and manufacturers constantly review their product lines and "switch readily from one product or conductor metal to another in accordance with market conditions."

Nevertheless, the Supreme Court found separate submarkets on the basis of only two criteria, distinct prices, and peculiar characteristics and uses.¹⁵¹

Based upon such precedents, together with the decisions of lower courts,¹⁵² and those of the Commission,¹⁵³ it is clear that production flexibility is but one factor to consider in determining the relevant product market in any given case.

We turn now to consider the theories of violation. [115]115]

I

Horizontal Aspects

Among the alleged anticompetitive effects of the Walker-Monroe merger is that: "actual competition between Tenneco and Monroe and between Tenneco and other producers of shock absorbers for domestic sale to the replacement market and the independent aftermarket has been eliminated."

This allegation cannot be sustained because at the time of the merger Tenneco was not a producer of shock absorbers for the following reasons:

(1) In 1975 and 1976, Walker sold a small number of shock absorbers to muffler shops which it had purchased from Monroe as a rebaxter (n.8 *supra*). It did not manufacture those units.

(2) Through its Mechanex Division, under which the assets acquired from Triple S Industries were placed, Walker purchases steering damper cylinders, adds bracketry and sells a line of steering dampers (CX 43A-H). This does not make Walker a shock absorber

¹⁵⁰ 377 U.S. at 285 (Stewart, J., dissenting).

¹⁵¹ 377 U.S. at 277.

¹⁵² See, e.g., *United States v. Black & Decker Mfg. Co.*, 430 F. Supp. 729, 736-41 (D. Md. 1976); see also *L.G. Balfour Co. v. FTC*, 442 F.2d 1, 9-11 (7th Cir. 1971); *Reynolds Metals Co. v. FTC*, 309 F.2d 223, 225-29 (D.C. Cir. 1962); *Crown Zellerbach Corp. v. FTC*, 296 F.2d 800, 812-14 (9th Cir. 1961), cert. denied, 370 U.S. 937 (1962). Additional cases on point include *United States v. Pennzoil*, 252 F. Supp. 962, 975 (W.D. Pa. 1965); and *Columbia Metal Culvert Co. v. Kaiser Aluminum & Chemical Corp.*, 579 F.2d 20 (3d Cir. 1978), wherein the court stated at p.29, n.30:

It is true there was testimony that the same production facilities can be used to turn out both steel and aluminum culvert, and that the same companies often manufacture both. This, however, is not enough to preclude the existence of submarkets as a matter of law.

¹⁵³ See, e.g., *Kaiser Aluminum & Chemical Corp.*, 93 F.T.C. 764, 834 (1979); *Coca-Cola Bottling Co. of New York*, 93 F.T.C. 110, 204-05 (1977).

manufacturer, even though the Mechanex Division manufactures bracketry for mounting the product (Prescott 11,284-85).¹⁵⁴

Nevertheless, even if one were to assume that respondent were a shock absorber manufacturer, and were to look at its shock absorber sales in best light, these would total in each of the years 1975 and 1976 approximately 100,000 units, less than 0.2% of the replacement unit market (RX 550A, 550D *in camera*; N. Wright 11,849-52A). In dollar figures, the market share would be less than .3% in 1975 and 1976 in both the replacement market and independent aftermarket submarket (CX 261A, 262, 263, 266 *in camera*). This seems clearly to fall within the *de minimis* concept recognized by *Brown Shoe*, 370 U.S. at 329.

Nor are the cases cited by complaint counsel of assistance on this point.¹⁵⁵ In each case, the small company acquired [116] had at least some firm base or facility which could be utilized for expansion by the acquiring firm. In the present case, respondent in this case to "expand" its role as a "shock absorber manufacturer," would be tantamount to entering the market *de novo* (See Nelson 10,785-86).

Accordingly, the complaint's allegation based upon an alleged "horizontal overlap" must be rejected.

II

Potential Competition

Both branches of the doctrine of potential competition, actual and perceived, are in issue in this product extension merger case. The "actual" theory involves the elimination of entry into a market by an actual potential competitor, *i.e.*, a company, but for its acquisition of an existing competitor in a market, would itself have entered that market either by *de novo* means or by toehold acquisition. The "perceived" concept involves the elimination of a firm situated at the "edge" of a market, perceived to be a threat to enter that market, and thus exercising a procompetitive discipline upon the activities of companies presently operating therein. See *United States v. Marine Bancorporation*, 418 U.S. 602 (1974); *United States v. Falstaff Brewing Corp.*, 410 U.S. 526 (1973); *Ford Motor Co. v. United States*, 405 U.S. 562 (1972); *FTC v. Procter & Gamble Co.*, 386 U.S. 568 (1967);

¹⁵⁴ The shock absorber cylinder, of course, is the heart of the steering damper, and the basis for including it in the shock absorber cluster market, *supra*.

¹⁵⁵ *United States v. Aluminum Co. of America (Alcoa-Rome)*, 377 U.S. 271, 280-81 (1964) (27.8% acquiring 1.3%); *FTC v. Pepsico Inc.*, 477 F.2d 24, 27-28 (2d Cir. 1973) (40% acquiring 0.3%); *Stanley Works v. FTC*, 469 F.2d 498 (2d Cir. 1972), *cert. denied*, 412 U.S. 928 (1973) (1% acquiring 22%); *Retail Credit Co.*, 92 F.T.C. 1, 143 (1978) (2.8% acquiring 49.3%).

United States v. Penn-Olin Chemical Co., 378 U.S. 158 (1964); *United States v. El Paso Natural Gas Co.*, 376 U.S. 651 (1964).

While the Supreme Court has fully endorsed the "perceived" test, it has expressly reserved ruling upon the validity of the "actual" potential theory in both its *Falstaff* and *Marine Bancorporation* decisions. Nevertheless, it is a viable approach in the eyes of numerous lower federal courts and the Federal Trade Commission.¹⁵⁶ [117]

A. Actual Potential Entry

According to complaint counsel, the *Marine Bancorporation* case sets forth certain elements which must be satisfied before the doctrine of potential competition may be applicable (CPF, p. 114):

- (1) The market in question must be concentrated;
- (2) There must be feasible alternative methods of entry other than by the merger in question; and
- (3) The alternative means must offer a reasonable prospect of long term structural improvement or other benefits in the target market.

There is no question that both the shock absorber and ESP replacement markets are highly concentrated. As set out in the findings, for shock absorbers in 1976 the top four figure was 92.9% (95% in the independent aftermarket); for ESP in 1976 the top four figure was 73.5% (78.7% in the independent segment) (Findings 185, 186, 208, 219).

As for the second point, the criterion concerning feasible alternatives, this, according to complaint counsel, involves an assessment of entry barriers and the acquiring firm's capabilities, characteristics and economic incentive to enter the market in question.¹⁵⁷ Since there is no dispute between the parties that entry barriers for both shock absorbers and ESP are high, let us turn to the other indicia concerning feasible alternatives.

According to Professor Brodley,¹⁵⁸ the question of whether the acquiring firm had the capability, interest and incentive to enter the market by alternative means, and the feasibility of [118]this, has invited:¹⁵⁹

*** Virtually open-ended inquiry into a broad spectrum of financial, technological, and marketing issues *** Among the issues explored in recent cases are technological

¹⁵⁶ See cases and authorities cited in the second paragraph of footnote 25 in the Commission's decision in the *Brunswick* case, Dkt. No. 9028, November 9, 1979 (Slip Op. at 17-18) [94 F.T.C. 1174 at 1267].

¹⁵⁷ CPF, p.114, n.95.

¹⁵⁸ Brodley, *Potential Competition Mergers: A Structural Synthesis*, 87 *Yale L.J.* 1 (1977).

¹⁵⁹ *Id.* at 23.

capability, capital availability, marketing and advertising abilities, market overlap between the target and acquiring firms, predicted returns from entry as compared with benchmark, or target returns, other incentives or disincentives to entry (such as diversification needs), growth patterns of the acquiring firm (including past entry into similar markets), growth of demand in the target market, availability of smaller or "toehold" acquisitions at prices acceptable to both buyer and seller, specific entry barriers (such as scale economies, product differentiation, and high absolute cost requirements), and managerial interest and intentions as to entry.

There is evidence in this record respecting most, if not all, of those points. Detailed findings have been made concerning, *inter alia*, technical similarities in producing shock absorbers and ESP (Findings 268-77, 346-53); their distribution processes (Findings 278-95); their marketing and merchandising methods (Findings 296-318); their common competitors and customers (Findings 319-39); and synergistic savings (Findings 340-45). The findings have covered points such as respondent's substantial interest in the shock absorber business, and the steps taken in this regard, including the acquisition of a small company (Findings 354-88). Other findings have covered respondent's economic incentives (at least in its eyes before the merger) regarding shock absorbers (*see, e.g.*, Findings 199-200, 203, 356).

In fact, the evidence adduced by complaint counsel as to respondent's capability, interest and incentive is, in my judgment, impressive, and amply substantiates those points. That is, except for one particular: absent the Monroe merger, how was respondent, as a practical matter, to enter the replacement shock absorber market in any meaningful way? [119]

In this connection, there is no reliable record evidence of which I am aware, that Walker was actually planning to enter the shock absorber market *de novo*.

As for toehold acquisitions, what shock absorber manufacturers were available for purchase which might offer a viable entry vehicle? My reading of the record convinces me that there were *none*, at least at the time of the Monroe acquisition.

As for Armstrong, the record shows some interest on respondent's part in that company, going back to 1966-68 discussions (Findings 359-64). Respondent continued to maintain its interest prior to the merger, but the record shows a lack of interest on Armstrong's part (Findings 389-400).

As for DeCarbon, while some preliminary discussions occurred, the record shows that failure to agree on an initial price blocked a possible acquisition from the outset (Findings 401-09).

As for Blackstone, the only non-foreign toehold cited in the record as possibly available, this company has apparently been for sale

since 1974, with no purchaser thus far. There was evidence that Blackstone was an unattractive candidate for entry (Findings 410-13). The record does not indicate any interest on the part of respondent to acquire that company, or any effort made in that direction.

The names of other shock absorber manufacturers (all foreign) appear in the record. Their prospects as toehold acquisitions for respondent are unclear (Findings 414-27).

Thus, it has not been established in this record that feasible alternative methods of entry existed for respondent, at the time it acquired Monroe. Under presently governing case law, violation has not been shown. *See, e.g., United States v. Siemens Corp.*, [1980] Trade Reg. Rep. (CCH) ¶ 63,287.¹⁶⁰ [120]

B. Perceived Potential Entry

The record in this case contains testimony by a number of industry witnesses that they perceived Walker to be one of the most likely entrants into the shock absorber replacement market (Findings 444 *et seq.*).

To the elements of proof recited by complaint counsel respecting actual potential competition, *supra*, p. 117, another element must be added respecting the perceived potential entry theory, *i.e.*, a "probability that the acquiring firm prompted premerger procompetitive effects within the target market."¹⁶¹

In support of this proposition, complaint counsel rely to a great extent upon the testimony of Mr. Byron Pond, a senior Maremont official (*see* Transcript pp. 771-79, 858-59, 864-65). Respondent interprets Mr. Pond's testimony to mean that the requisite effects were not shown.

I have examined this testimony carefully, and while it may not be entirely clear, it appears to support respondent's view. The crucial testimony was given at Transcript pp. 776-77:

Q. Did the presence of Walker, IPC or Midas and/or TRW as likely potential entrants into the shock absorber market, have any effect on Maremont's decisions, business decisions?

A. I don't think that we looked specifically at competitors on a periodic basis or potential competitors, in developing our strategy. I think we developed our strategy and approach to the business based on how we perceive it and how we perceived the opportunities.

¹⁶⁰ Similarly, I can find no reliable evidence establishing, under current legal standards, that Monroe was planning to enter the ESP replacement market *de novo*. As for its possible acquisition of Arvin, the merger was never consummated, and, according to the testimony of witness Fleuelling, never seriously contemplated. *See* Findings 456-65.

¹⁶¹ *CPF*, p. 114.

To me, this testimony means that Maremont did not take potential competitors, including respondent, directly into account in making its business decisions.

Mr. Pond further testified concerning the attractive nature of the shock absorber business, and Maremont's heavy investments in it over the past ten years. He stated that "if we didn't invest, someone else would," and that such investments by Maremont would make the shock absorber business "a less exciting or less desirable business for competitors to expand in." (Pond 778). [121]

This latter testimony can be read to refer to potential competitors, or it can be read to refer to competitors presently in the market, or to both. It is simply unclear.¹⁶²

Accordingly, I find the record evidence insufficient to sustain the allegation as to "edge" effect.¹⁶³

III. Entrenchment

There is legal precedent for declaring a merger unlawful which confers a decisive advantage on a dominant competitor, which creates a reasonable probability of entrenching that company's market position. *FTC v. Procter & Gamble Co.*, 386 U.S. 568 (1967); *General Foods Corp. v. FTC*, 386 F.2d 936 (3d Cir. 1967). See legal analysis set forth in *United States v. ITT Corp.*, 324 F.Supp. 19, 24 (D. Conn. 1970), and in the court's earlier opinion in that case, 306 F.Supp. 766, 775-76 (1969). In order for this theory of liability to attach it must be demonstrated that the acquired company was prior to the merger, an already dominant competitor in the relevant market. *Beatrice Foods Co.*, 86 F.T.C. 1, 66 (1965).

In the present case, the record shows that Monroe did not dominate the shock absorber replacement market at the time of its acquisition by Walker. It was facing aggressive competition from Maremont, which already had ESP products in its arsenal. (Finding 197). Thus, the entrenchment theory does not apply to Monroe.

While Walker is the leading ESP producer (Finding 210), its replacement market share at the time of the merger was just over 30% (Nelson 10,377 *in camera*). In no sense can it be considered a giant among pygmies or to dwarf its ESP competitors. None of its major competitors, Maremont, Arvin [122]Questor, and Midas (IC Industries) can be considered as small companies. Its two largest

¹⁶² Complaint counsel rely upon certain language in *United States v. Phillips Petroleum Co.*, 367 F. Supp. 1226, 1257 (C.D. Cal. 1973), *aff'd*, 418 U.S. 906 (1974), that the necessary "edge" effect may be presumed. Whatever the present validity of this holding, it conflicts with the Pond testimony, that Maremont's business decisions were not specifically influenced by potential competitors, including respondent.

¹⁶³ There was no record evidence that Monroe was perceived as a potential entrant into the replacement ESP replacement market.

competitors in the replacement ESP market, Maremont and Questor, already possess shock absorber facilities. It is difficult to see how Walker automatically becomes entrenched by acquiring this capability.

XVIII. ORDER

It is ordered, That the complaint herein be dismissed.

OPINION OF THE COMMISSION

BY DIXON, COMMISSIONER:

This matter involves a challenge to the acquisition of the Monroe Automotive Equipment Company by Tenneco, Inc., under Section 7 of the Clayton Act, 15 U.S.C. 18, and Section 5 of the Federal Trade Commission Act, 15 U.S.C. 45. At issue is whether the merger was likely to reduce competition in either the market for replacement shock absorbers or the market for replacement exhaust system parts (ESP) through the elimination of potential competition in either market, the elimination of actual competition in the replacement shock absorber market, and the entrenchment of Monroe in the replacement shock absorber market.¹ Despite the variety of the allegations, the focus of the litigation, and of this [2]opinion as well, is on the effect of the merger upon potential competition in the market for replacement shock absorbers.

The Administrative Law Judge (ALJ) below, although making extensive findings favorable to Complaint Counsel, dismissed all counts in the complaint, and Complaint Counsel appeal. We reverse in part, finding that the acquisition eliminated potential competition in the sale of replacement shock absorbers.²

¹ The following abbreviations are used herein:

I.D.	-	Initial Decision Finding of Fact No.
I.D., p.	-	Initial Decision Page No.
Tr.	-	Transcript of Testimony Page No.
CX	-	Complaint Counsel's Exhibit No.
RX	-	Respondent's Exhibit No.
RAB	-	Respondent's Answering Brief Page No.
RPF	-	Respondent's Proposed Finding No.
RRPF	-	Respondent's Reply Proposed Finding No.
CCPF	-	Complaint Counsel's Proposed Finding No.

² We affirm, *infra* n.20, the ALJ's dismissal of the claim that the merger lessened actual competition in the replacement shock absorber market. However, given our analysis of the impact of the merger on potential competition in that market and the remedy which necessarily ensues, it is unnecessary to reach the further claims that the merger unlawfully entrenched Monroe and that Monroe was a potential entrant into the replacement exhaust system market.

Potential Competition

The term "potential competition" encompasses two distinct but closely intertwined theories of violation: actual and perceived potential competition. A merger may be challenged for eliminating perceived potential competition when it removes from the edge of a concentrated market a firm likely to have been exerting a salutary policing effect upon conduct within the oligopoly. To determine whether a firm is so positioned, and thereby so perceived, requires an examination of its "characteristics, capabilities and economic incentive" to attempt entry into the market in question, *United States v. Marine Bancorporation*, 418 U.S. 602, 624 (1974); see also, *United States v. Falstaff Brewing Corp.*, 410 U.S. 526, 533-34 (1973). Moreover, for the loss of this firm to be significant, there must be few other firms similarly positioned, see, e.g., *Heublein, Inc.*, 96 F.T.C. 385, 588-89 (1980). A challenge based on the loss of an actual potential entrant involves a similar inquiry, but two additional factors must exist before there is the probability that the merger will substantially lessen competition: that the firm had means to enter other than through the challenged acquisition and that those alternative means were likely to have had a procompetitive effect on the target market. *United States v. Marine Bancorporation, Inc.*, *supra*, 418 U.S. at 633.³ The inquiry also differs in that we are unconcerned with how target [3]market firms are likely to perceive the actual potential entrant; the procompetitive benefit lies in the future, when entry is attempted, rather than in current reactions by fearful target market firms. Moreover, a firm may be an actual potential entrant without meeting all the requisites of a perceived potential entrant. The apparent objective economic evidence, for example, may exclude a firm from being seen as a potential entrant, yet it may possess plans and hidden capabilities which establish it as an actual potential entrant.

This case involves charges that Tenneco's acquisition of Monroe eliminated both actual and perceived potential competition in the replacement shock absorber market, and we find violation on both counts. Our analysis of the evidence, necessarily lengthy given the voluminous record, focuses first on Tenneco as a perceived potential entrant. As discussed, however, there is considerable overlap between the two theories, so our examination of the characteristics,

³ Although the Supreme Court has delineated the elements of actual potential doctrine, it has expressly reserved approval of the doctrine itself. *United States v. Marine Bancorporation*, *supra*, 418 U.S. at 625; *United States v. Falstaff Brewing Corp.*, *supra*, 410 U.S. at 537. We believe, however, that approval will eventually come. See, *Heublein, Inc.*, *supra*, n.22; *Brunswick Corp.*, 94 F.T.C. 1174, 1267 n.25 (1979), *aff'd*, *Yamaha Motor Co., Ltd. v. Federal Trade Commission*, slip. op. (8th Cir., July 29, 1981) and authorities cited therein.

capabilities and economic incentives which relate to Tenneco as an actual potential entrant will be included in the discussion of the perceived case. Although the great bulk of the evidence related to these elements applies with equal force to either theory, certain aspects do not, and these points will be highlighted as they occur in the discussion.

The Firms

Tenneco, Inc. is a diverse enterprise with interests in, *inter alia*, shipbuilding, farm equipment, automotive parts, petroleum, chemicals and packaging. Tenneco was the 15th largest industrial concern in the United States in 1975 with assets of over \$6.5 billion. I.D. 3. One subsidiary, the Walker Manufacturing Division, manufactures a complete line of exhaust system parts for passenger cars and light and heavy-duty trucks. I.D. 4. The Mechanex Corporation, a subsidiary of Walker, distributes a line of automotive steering dampers, a type of shock absorber mounted horizontally between the front wheels of a vehicle. I.D. 5. Walker also manufactures a line of automotive lifting equipment, including air and hydraulic-powered jacks. I.D. 6. [4]

Monroe has long been a major manufacturer of an extensive line of automotive shock absorbers, including conventional shock absorbers, steering dampers and MacPherson strut cartridges. *See* discussion, *infra*, 5. Monroe produces high quality products, and the brand name is well known. The bulk of Monroe's output, 81 percent in 1976, is sold in the replacement market through warehouse distributors, chain stores, other private brands, and vehicle manufacturers. Although it has long been a single product company, it added a new line of replacement automotive oil filters in 1975. In fiscal 1976, Monroe's net income exceeded \$5 million on domestic sales of over \$128 million. Its total assets that year were valued at over \$185 million. The acquisition of Monroe by Tenneco was announced on December 20, 1976, and was consummated on July 29 of the following year. I.D. 16-19, 21-22, CX 143G, 175.

The Relevant Markets

Automotive shock absorbers are devices which dampen motion by converting mechanical energy into the controlled movement of a hydraulic fluid, and disperse that energy as heat into the atmosphere. I.D. 26. Shock absorbers consist of one or more steel tubes which contain the hydraulic cylinder, a piston and rod which moves through the cylinder, hydraulic valves, hydraulic fluid, springs, seals

and bearings. CX 220 Z-8 to Z-16. I.D. 348-49. Shock absorbers have no substitutes in automotive applications. I.D. 25.

A shock absorber is mounted vertically at each wheel between the vehicle body and the wheel. *See, e.g.*, CX 220 Z-8 to Z-10, I.D. 42. Mounting methods vary; there are conventional and newer "McPherson strut"⁴ designs. The latter design has seen growing popularity in recent years, particularly in front suspension applications, because it is a more compact method of suspending a wheel than conventional suspension designs. I.D. 35. Despite external differences in mounting and appearance, the inner shock absorbing parts of a McPherson strut are like those of conventional shock absorbers, and like conventional shock absorbers, wear out and require periodic replacement.⁵ I.D. 84. [5]

As noted above, steering dampers are another form of "shock absorber." Mounted horizontally between the front wheels of certain vehicles, this device absorbs road shocks and oscillations in the steering system. I.D. 42, 45. Steering dampers differ from conventional shock absorbers primarily in that different hardware is used to mount them, and a "gas bag" is sometimes added due to the product's horizontal positioning. The internal workings of steering dampers, however, consist of much the same components as conventional shock absorbers. I.D. 47.

"Exhaust system parts" (ESP) comprise the mufflers and pipes which convey and quiet engine exhaust gases from the motor to the rear of the vehicle, and also include the clamps, brackets and other hardware necessary to connect the pieces and attach them to the car body. I.D. 55. Exhaust system pipes consist of hollow steel tubing bent to follow a prescribed path through a vehicle's undercarriage, and fashioned at the ends to attach to the engine exhaust manifold, other pipes, or a muffler. Thus, the end of a pipe may bear an additional flange or simply have been expanded to slip over another pipe. Mufflers are oval or round cylinders fabricated from sheet metal, and contain various sheet metal baffles to absorb sound. *See, generally*, Tr. 1796-1809.

The ALJ found these two overall product markets of shock absorbers and ESP. *See*, I.D. pp. 110-12.

The ALJ also found three submarkets within each product market,

⁴ In addition, there are variants on the conventional shock absorber, *i.e.*, spring-assisted conventional shock absorbers and air-adjustable shock absorbers. I.D. 50.

⁵ There are three methods of servicing a McPherson strut. One is to discard the entire strut and replace it with a new unit. Another is to disassemble the old strut, discard the old "plumbing" (seals, valves, fluid and the like), assemble new internal workings from a kit of new parts and reassemble the strut. The most popular method, however, is to disassemble the unit, discard the old, internal workings, and replace them with a factory assembled and sealed shock absorber cartridge, much like the way a refill is inserted in a ball-point pen. *See* CX 172 A-C, 225, 274, I.D. 38.

based on whether the part was for the manufacture of a new vehicle or replacement installation, and within the replacement market based primarily on lines of distribution. The [6]original equipment (OE) submarkets for both shock absorbers and ESP, which involve sales to vehicle manufacturers, are very distinct from the respective replacement markets. Product line, production technique, customers, prices, distribution methods and product demand vary significantly between each OE and replacement market, and these differences between markets are similar for shock absorbers and ESP.

Buyers in both OE markets are highly sophisticated in terms of the engineering and price of the parts they purchase. I.D. 69-70, 132-33, 136. Profit margins in the OE market are lower than in the replacement market. I.D. 73-74, 82, 122-23, 133-39. Design is largely dictated to the would-be OE supplier by the vehicle manufacturer, I.D. 68-70, 131-33, while replacement market manufacturers determine their own specifications, construction methods and materials within the overall constraints of a vehicle's configuration. I.D. 85, 141-42, 145, 147.

There are additional major differences between the OE and replacement markets for these products. To supply the OE market, a manufacturer need only be able to manufacture a limited line to fit contracted-for applications, I.D. 67, 126-27, while a replacement market supplier must produce a broad line of types and sizes to fit a very high percentage of all vehicles on the road. I.D. 87-88, 144. In the case of shock absorbers, thousands of different part numbers are produced by a single manufacturer. Monroe, for example, boasts having over 5,000 part numbers for the domestic market alone. CX 143L, I.D. 226. These variables cause differences in the production methods and machinery used in the OE and replacement markets.⁶ The OE supplier needs but one plant and little warehouse space or inventory to supply a vehicle manufacturer, and geographical proximity to the vehicle assembly plant is important. I.D. 78-79, 137-38. A replacement market supplier, on the other hand, needs [7] warehouse facilities, a large inventory and distribution lines across the country. I.D. 124, 153-54. *See also*, CX 5W, 5Z-8 to 9. The replacement supplier must also label and package his product, while

⁶ In OE shock absorber production, suppliers must use high speed production lines to meet the volume demanded by manufacturers at competitive costs. Supplying the shock absorber replacement market, however, requires a mix of high and low-speed production facilities to maintain inventory in the broad array of sizes and design needed for vehicles in use. In addition, the OE market for shock absorbers is typically limited to one size and design, the 1" diameter conventional shock absorber, while manufacture for the replacement market demands a variety of sizes and design features for each application, e.g., 1", 1- $\frac{1}{16}$ " and 1- $\frac{1}{8}$ " sizes and conventional, spring and air-assisted designs. Of these, the 1- $\frac{1}{16}$ " size is the most popular. I.D. 65, 75-77, 86-89, 101-03, 106-09.

OE product is simply shipped in bulk, without even mounting parts. I.D. 66, 90, 111, 130, 148, 152.

A further significant distinction between these markets lies in methods of sales and marketing. In the OE markets, sales of both ESP and shock absorbers are made by bidding on specifications provided by the vehicle manufacturer; advertising and other product promotions play no part. I.D. 69, 72, 122, 131-36. The OE sales force, moreover, is small and has a technical, engineering orientation to deal effectively with similarly oriented OE buyers. I.D. 71, 132. In the replacement markets, however, marketing and product promotion are important considerations. Replacement market manufacturers advertise heavily to develop brand name recognition and consumer demand for their product. Promotional efforts are also aimed at warehouse distributors and jobbers, to build brand loyalty and create incentives for their sales efforts. I.D. 91-97, 149, 152.

Demand for both shock absorbers and ESP also varies substantially between the respective OE and replacement markets. Demand in the former markets is strictly a function of new vehicle production, while demand in the latter markets is dependent upon the number of vehicles in use, their age and mileage. I.D. 64, 84, 125, 140. There is no cross-elasticity of demand between the markets. I.D. 63, 118.

Given this multitude of factors distinguishing these OE and replacement markets, it is not surprising that the industry itself regards the markets as separate and categorizes sales accordingly. I.D. 59-61, 120-21. [8]

These "practical indicia" differentiating OE sales from replacement sales in both the ESP and shock absorber product markets amply satisfy the criteria for economically meaningful submarkets set forth in *Brown Shoe Co. v. United States*, 370 U.S. 294, 325 (1962).

The ALJ found additional submarkets within the replacement market: an "OE service" submarket and an "independent aftermarket" submarket. OE service is defined as parts purchased by the vehicle manufacturer for resale by its dealerships as replacement parts. The independent aftermarket includes all other replacement sales, e.g., to warehouse distributors, mass merchants, and chains of franchised specialty installers. I.D. 170.

A number of the same *Brown Shoe* criteria which distinguish OE from replacement sales also distinguish OE service transactions from those of the independent aftermarket. For example, sales in the OE service submarket are made by the same small, technically oriented sales forces used in OE sales. Similarly, widespread warehouse facilities are unnecessary for OE service sales; delivery is made to the vehicle manufacturer which redistributes to its dealers.

I.D. 174, 178. A manufacturer can compete for OE service business without manufacturing a full line of replacement parts, while broad coverage is needed in the independent aftermarket. I.D. 180. Finally, industry members and trade publications recognize OE service as a distinct market, reporting sales in it separately from the independent aftermarket. I.D. 171-73. Given these factors, we agree with the ALJ's finding of these two economically significant submarkets within [9]the replacement market.⁷ [10]

Moreover, the ALJ correctly grouped replacement steering dampers, conventional shock absorbers and McPherson struts within the replacement shock absorber market. These items are all produced by the leading shock absorber manufacturers as the items which comprise a complete line of replacement shock absorbers. They are designed by the same engineering staffs within each company, and, as discussed above, share a common technology. They are marketed together through the same distribution channels to the same customers. I.D. 37, 46, 50, 51, 53, pp. 110-11. Ample precedent supports viewing such closely related products as a relevant market for antitrust purposes. *E.g.*, *United States v. Philadelphia National Bank*, 374 U.S. 321, 356 (1963); *A.G. Spalding & Bros., Inc.*, 56 F.T.C. 1125, 1160 (1960), *aff'd* 301 F.2d 585, 606 (3d Cir. 1962).

The ALJ found that the relevant geographic market for both products to be the United States as a whole. I.D. 24. The parties do not contest this finding. *See, e.g.*, RPF, n.6. We concur with the ALJ

⁷ Respondent urges that only overall product markets may properly be found, relying on an asserted high cross-elasticity of supply between OE and replacement market production. The ALJ, however, was correct in rejecting this contention. Even assuming, *arguendo*, that great flexibility exists between OE and replacement market production, other economically significant distinctions between them remain. *See, Brown Shoe Co. v. U.S.*, *supra*, 370 U.S. at 325. For example, an established OE shock absorber manufacturer would lack brand name acceptance, an appropriate sales force, warehousing, and the diverse and sizeable inventory needed to obtain replacement market sales. *See* discussion pp. 10-11, *infra*. Factors such as these are important obstacles to entry into the automotive aftermarket, and are well recognized in prior decisions. *See, Ford Motor Co. v. United States*, 405 U.S. 562, 565-67 (1972) (spark plugs); *Bendix Corp. v. FTC*, 450 F.2d 534, 537 (6th Cir. 1971) (filters) (reversing on other grounds); *SKF Industries, Inc.*, 94 F.T.C. 6, 14 n.2, 78 (1979) (ball bearings). *See also, United States v. Aluminum Co. of America*, 377 U.S. 271, 277, 285 (1964); *United States v. Black & Decker Mfg. Co.*, 430 F.Supp. 729, 736-41 (D. Md. 1976). *Compare, Budd Company*, 86 F.T.C. 518, 572. ("The interchangeability of production and distribution facilities between two products [is important in market definition] since the manufacturer of one can shift readily to the production and sale of the other . . .") (*emphasis supplied*). Finally, there is considerable evidence that the cross-elasticity in question is substantially lower than respondent contends. The record reveals numerous factors impeding cross-elasticity: some replacement production is done most efficiently in small batches on low speed, less automated assembly lines ("short lines"), while OE production is best done in larger batches on high speed lines ("long lines"). I.D. 101-03, 106-07, 109. Factors such as lead time to win contracts and the need to maintain on-going relationships with customers prevent abrupt switching between OE and replacement production, absent substantial excess capacity. I.D. 112-14. Finally, it is more efficient to specialize plant production according to product size and Monroe has moved to such specialization. I.D. 110, 116. OE and replacement shock absorbers are typically 1" and 1-3/8" respectively. I.D. 65, 89.

Respondent also urges that OE sales must be included within the relevant market based on the assertion that entry into the replacement market cannot occur without the aid of additional volume from OE sales, and the further assertion that a "submarket must support new entry on an economically viable basis." RAB 44. Whatever the merit of the latter proposition as a matter of law, respondent's factual predicate is incorrect. *See* discussion *infra*, 59.

that this is the appropriate geographic market in which to analyze the effects of the acquisition.

Market Structure

Examining either the overall replacement market for shock absorbers or the submarket comprised of the independent aftermarket, one finds a substantial sales volume concentrated among very few firms. In the overall replacement market, sales by manufacturers totaled \$250 million in 1975 and \$290 million in 1976. I.D. 183. Four-firm concentration is extremely high in this market; the top four firms accounted for 91.4 percent of replacement market sales in 1975 and 92.9 percent in 1976. I.D. 185. Two-firm concentration is also extraordinarily high, the top two firms enjoying 77.6 percent of the replacement market in 1976. *Id.* [11]

Monroe is the number two firm in the overall replacement market, a close second to Maremont. I.D. 185, 195. The remaining firms in the top four are Questor and General Motors, which sells under the Delco brand. I.D. 184, n.77. This concentrated market structure has been stable over time; these firms have held the top four positions in this market at least since the late 1960's, and Monroe has occupied either the number one or number two position since the beginning of that decade. I.D. 188-89. There is, in addition, a trend towards increasing concentration over time. Although some existing firms have been acquired by ESP firms—a point we will return to later—there has been no new entry since at least 1958. I.D. 190. In addition, some firms have exited the market, narrowed their focus to a single product, or found themselves suffering diminishing market share as fringe firms. I.D. 191-92.

In the independent aftermarket, the market shares held by the top two and top four firms are even greater. In 1976, these shares were 80.9 percent and 90.5 percent respectively, while in 1975 they were 81.9 percent and 94.4 percent. Dollar volume of sales in the aftermarket was \$235 million in 1975 and \$275 million in 1976. I.D. 186. It is in this independent aftermarket where the anticompetitive consequences of the Monroe acquisition are clearest, and the aftermarket is the focus of this opinion as well. This opinion also uses the terms "aftermarket" and "replacement market" interchangeably, inasmuch as the aftermarket accounts for nearly all of overall replacement market sales, 94 to 95 percent of replacement market sales in the years cited above.

These levels of concentration are, by any measure, extraordinarily

high. Four firm market shares in the range of 50 percent [12] are sufficient to raise concern over the loss of potential competition.⁸ The level of *two* firm concentration in the present case far exceeds this measure. The high two firm concentration, moreover, skews the distribution of market shares among the top four firms in a manner which further facilitates oligopolistic cooperation among the industry leaders.⁹

Very substantial barriers to entry, especially into the independent aftermarket, accompany these high levels of concentration. The scale economies involved in the production of shock absorbers impose a high barrier to entry. A minimum efficient scale (MES) shock absorber plant would have capacity to produce over 6 million units annually, a volume which would comprise approximately 10 percent of annual unit sales in the replacement market, Tr. 9914, RX 230, I.D. 222. Barriers of a different sort are found in the time and technology required to establish a manufacturing facility, and the time needed to garner a necessary market share. Acquiring design skills and manufacturing know-how present real but surmountable obstacles, as existing producers can and do provide licenses and manufacturing technology. See discussion *infra*, 57-58. A manufacturing plant can be constructed in under two years, I.D. 224, but gaining significant market share would obviously extend considerably beyond that time frame. [13]

Additional major obstacles surround the independent aftermarket, and involve many of the same factors previously considered in distinguishing the relevant product markets. Some of these factors include the need to establish a large nationwide sales force, relationships with buyers, advertising and other promotional efforts geared to consumers, retailers and jobbers, and ultimate acceptance of the new entrant's brand. Tr. 10193, I.D. 225, 233-41. Existing firms have established high levels of product differentiation, and continue to advertise extensively to consumers. I.D. 237-40. A successful new entrant into the aftermarket must also create a national distributional network, including very substantial investments in warehouses and inventory. As discussed above, an invento-

⁸ In *Heublein, Inc.*, *supra*, we held that a four firm ratio of 47.9 percent "arguably falls at the edge of a reasonable definition of those markets where the loss through merger of a potential entrant may substantially lessen future competition." 96 F.T.C. at 584-85. See also, *United States v. Phillips Petroleum Co.*, 367 F.Supp. 1226 (C.D. Cal. 1973), *aff'd per curiam*, 418 U.S. 906 (1974) (four firm ratio of 58 percent is concentrated); *United States v. Wilson Sporting Goods Co.*, 288 F.Supp. 543 (N.D. Ill. 1968) (four firm ratio of 63 percent is concentrated). Cf. *United States v. Hughes Tool Co.*, 415 F.Supp. 637 (C.D. Colo. 1976) (four firm ratio of 34 percent not concentrated).

⁹ An examination of the distribution of market share has been used increasingly to weigh the likely competitive impact of a given level of concentration. See, e.g., *Heublein, Inc.*, *supra*, at 584-85 (a "high two firm ratio of 41.9 percent" was considered sufficient to invoke Section 7, although the four firm ratio of 47.9 percent was otherwise borderline); *Warner Lambert Co.*, 87 F.T.C. 812, 870 (1976). See also, Kwoka, *The Effect of Market Share Distribution on Industry Performance*, 61 *Review of Economics and Statistics* 101 (1979).

ry of replacement shock absorbers involves thousands of different parts, and sufficient numbers of each must be warehoused to provide a high rate of order fill. I.D. 225-26. A new entrant in the aftermarket would also face the expense of "stock lifting," buying out the existing stock of a warehouse distributor or jobber, and other promotional costs in order to gain entry into the existing distributional network. See CX 4"O", I.D. 227. Further demands upon the new entrant are the need to offer credit terms and other financial assistance to new accounts. I.D. 228-29.

These barriers to entry are consistent with the high level of concentration found in the replacement market, and with the trend towards still greater concentration. Moreover, the existence of substantial barriers at both the manufacturing and distributional levels operates as a two-edged sword, keeping out both foreign shock absorber manufacturers and domestic manufacturers of other automotive replacement parts. See discussion *infra*, 40-43.

High levels of concentration, of course, are not to be analyzed in a rigid, mechanical fashion, causing an inevitable conclusion of poor competitive performance. Concentration ratios do, however, raise a serious concern that the market performs in a noncompetitive fashion, which may be rebutted by proof of competitive market performance. *United States v. Marine Bancorporation, Inc.*, *supra*, 418 U.S. at 630-31. See also, *United States v. General Dynamics Corp.*, 415 U.S. 486, 494-504 (1974); *United States v. Penn-Olin Chemical Co.*, 378 U.S. 158, 176-77 (1964). Respondent argues strenuously that the performance of this market did become fiercely competitive in the years just prior to the merger. RAB 46-60. We, too, find that economic performance in this market improved substantially in those years, but, as we will discuss below, we disagree with respondent over the cause of that new competitive vigor. In brief, we find that the source of the improved economic performance lay in [14]industry fears that Tenneco was likely to attempt entry—an actual "edge effect"—rather than in the buyer power supposedly asserted by mass merchants against their suppliers. See discussion, *infra*, 30, 52-57. An edge effect, of course, can be expected to continue only so long as there are firms to be feared at the edge, and the elimination of Tenneco as a potential entrant thus reduces the probability that the increased competition and resultant lowered profitability in the premerger period will continue. In other words, absent the salutary impact of a Tenneco at the edge, it is highly probable that the oligopolistic cooperation which is to be expected in concentrated markets will soon reemerge. Thus, continued reliance upon high concentration ratios is appropriate where an

actual edge effect is found, as those ratios indicate the ease with which oligopolistic cooperation can be expected to resume in the post-merger period.

We turn, then, to those factors which establish Tenneco as a likely potential entrant into the replacement shock absorber market. This entails an examination of Tenneco's capability, interest and incentive to enter this market.¹⁰ As we have indicated, these factors must be present for Tenneco to be considered either an actual or perceived potential entrant, so we will discuss them but once and in the context of the perceived case.¹¹ [15]

Capabilities

Tenneco was uniquely capable of *de novo* entry into the replacement shock absorber market. As discussed above, its Walker Manufacturing Division already manufactured rolled and welded steel tubing for ESP production, tubing which is also a major input in shock absorber manufacture. I.D. 270-71. There is little doubt that Tenneco possessed substantial existing capability in terms of tube production know-how and manufacturing equipment; the firm was regarded as a very efficient ESP manufacturer. *See* discussion, *infra*, 45, n.41. Tenneco gave great weight to this common factor of production in the premerger period, and found its existing skills in ESP manufacturing were highly relevant to shock absorber production.¹² [16]Tenneco's Walker subsidiary provided additional design and manufacturing skills relevant to shock absorber manufacture; Walker is a major manufacturer of hydraulic and air-powered jacks which rely on hydraulic principles and internal construction closely related to the internal design and construction of shock absorbers.

¹⁰ *British Oxygen Co.*, 86 F.T.C. 1241, 1251-56 (1975), *rev'd and remanded on other grounds sub nom.*, *BOC Int'l. Ltd.*, 557 F.2d 24 (2d Cir. 1977); J.F. Brodley, *Potential Competition Mergers: A Structural Synthesis*, 87 Yale L.J. 1, 23 (1977). Other decisions have used differing terminology to describe the same inquiry, e.g., *United States v. Marine Bancorporation*, *supra*, at 624 (characteristics, capability and economic incentive); *United States v. Phillips Petroleum Co.*, *supra*, at 1239-53 (capability, motivation and interest).

¹¹ Generally, this organization poses no problems, as much of the evidence of interest, capability and incentive bears equally on each theory. At some points, however, this is not so, given the differing viewpoints of the two theories, i.e., what the firm is likely to do versus what other firms are likely to see it as likely to do. These points will be discussed as they arise.

¹² Respondent's position in this litigation has been to diminish the significance of its ESP production, *see, e.g.*, RAB 20-21, but its view before the acquisition was to the contrary. According to Tenneco's Corporate Development Department,

[t]he manufacturing process for exhaust and shocks are very similar, with both products starting from sheet steel that is welded into tubing. This probably is the most important common manufacturing process and one in which Walker has a great deal of proprietary knowledge. Other metal components are fabricated by machining, forming or shaping, and are assembled or attached together. The exhaust systems probably require more forming and welding, whereas the shock requires more machining, some wire processing, and some hydraulic work. Regardless of the detail process, both products are metal fabricated products with very similar technology and production skill requirements. CX 4F.

See also, I.D. 269, 273-75. *Cf.*, I.D. 276.

I.D. 346. For example, both hydraulic jacks and shock absorbers contain piston rods, rubber seals, springs, bearings, check valves, screw machine parts, machine rods, chrome plated parts, and hydraulic fluid. I.D. 348-49. Further similarities exist for the engineering and research and development skills required for both jacks and shock absorbers. I.D. 347, 350. These similarities were not lost on Tenneco, at least prior to the Monroe acquisition, when it considered its jack capabilities transferable to shock absorber production.¹³

In distribution and marketing, as well as in manufacturing, Tenneco was extremely well-positioned to enter the shock absorber aftermarket. In addition to its 8 manufacturing plants, it had 2 distribution centers and 22 field warehouses nationwide in 1975. I.D. 9-10. This network was well suited to distribute shock absorbers along with ESP, *see*, I.D. 287, and promised synergy savings from joint distribution. In the warehouse, for example, both mufflers and shock absorbers are stored and moved in "cubes" of packages stacked on pallets. I.D. 286. *See also*, I.D. 290. In shipping, heavy but compact shock absorbers combine well with bulky but light ESP, allowing optimum use of trailer space and weight limits. I.D. 291. These theoretical freight savings may be realized, moreover, given that shock absorbers and ESP move in the same distribution channels to the same customers. I.D. 278-81, 296-97. *Cf.*, I.D. 282-84. For example, at the retail level, muffler specialty chains nearly always offer shock absorbers as a second line of merchandise, I.D. 280, but only occasionally offer other types of automotive repair.¹⁴ I.D. 307, 309, 311-16, 318. [17]

Other segments at the retail level also offer both shock absorber and ESP service, including service stations, mass merchandiser automotive centers, and other repair garages. I.D. 303-04. Some of these retail segments, particularly mass merchandisers and muffler specialty shops, are supplied directly by the manufacturer, and an account may be handled by a single sales force. I.D. 292-93, 302. At the wholesale level, WDs also handle both ESP and shock absorbers, creating further opportunities for combined shipments. I.D. 290, 297-98. In addition, those accounts, too, may be handled by a unified sales force, although the record on the success of this practice with

¹³ As with ESP, respondent in this proceeding has attempted to diminish the significance of its jack manufacturing capabilities. RAB 25-26. Nonetheless, its internal, pre-merger memoranda paint a remarkably different picture. *See, e.g.*, CX 5Y-Z-1, CX 15J. Such pre-acquisition statements are inherently more reliable than views proffered in defense of a merger.

¹⁴ The record explains in great detail why this is so. Briefly, both shock absorbers and ESP are "under-the-car" items requiring the same type of tools and shop configuration to service. Both jobs require little skill, allowing the shop to employ low paid installers who lack the training or ability to perform other, more complex types of repairs, *e.g.*, transmission, brake or tuneup services. I.D. 304. *See also, e.g.*, I.D. 317.

WDs is mixed. I.D. 300. Compatability in marketing is also seen in the use of the same trade journals to promote both ESP and shock absorbers. I.D. 299.

Further, the same factors are important in both shock absorbers and ESP in gaining and keeping wholesale accounts, *e.g.*, the inventory management necessary to provide a high level of "order fill," *see* discussion *infra*, 52, 54-55, the financial resources to provide credit terms, and the salesmanship necessary to cultivate accounts. I.D. 298.

Determining the compatability between different product lines, and thus the probability of entry, need not be limited to an examination of only the individual factors set forth above; past decisions by other firms in these industries provide such a useful check on our findings. Here, two separate lines of historical data point to the compatibility of Tenneco's operations to the replacement shock absorber market.

First is the prior merger of *every other* major ESP firm with a replacement shock absorber manufacturer. Thus, Maremont, originally only an ESP manufacturer, acquired the Gabriel Company in 1960, I.D. 322, and then successfully expanded Gabriel's share of the shock absorber replacement market. *See generally*, I.D. 322-29. Maremont is now the leading manufacturer in the shock absorber replacement market. I.D. 326. At about the same time the predecessor of Questor Corporation, AP Parts Corporation, another ESP firm, acquired Heckethorne, a struggling shock absorber firm. I.D. 331-33. Again, the combined venture successfully expanded its share of the shock absorber replacement market. I.D. 334. The records established by these firms corroborate the compatibility in design and engineering outlined above; both firms successfully applied their skills in ESP engineering and manufacturing to the redesign of their shock absorber product line. *See* discussion *infra*, 62-64. The compatibility in distribution and marketing is further corroborated by the [18]behavior of smaller ESP manufacturers, which distribute shock absorbers as reboxers.¹⁵

Another line of historical evidence also points to the compatibility of Tenneco's pre-merger product line with entry into shock absorber manufacture. That product line included air and hydraulic-powered automotive jacks which, as discussed above, have much in common with shock absorbers in terms of engineering and construction. The significance of these similarities is borne out in practice; the record

¹⁵ The remaining firms in the replacement ESP market, Arvin and Midas, distribute reboxed shock absorbers. I.D. 335-37, and Midas has considered entering into shock absorber manufacture from time to time. *See* discussion, *infra*, 44.

reveals that several shock absorber manufacturers also manufacture hydraulic jack products. These firms are Armstrong, a British corporation, and Bilstein and Fichtel & Sachs, which are German companies. I.D. 352.¹⁶ [19]

Additional Capabilities

Although the combination of objective factors and observed entry provide ample reason to find Tenneco capable of *de novo* or toehold entry into shock absorber production, Tenneco had additional attributes which would have assisted such entry. These include Tenneco's ownership via previous acquisition of Triple S Industries (a "manufacturer" of steering dampers), its ownership of a subsidiary manufacturing oil seals, and its planned expansion of its "Speedy Muffler King" franchise of muffler specialty shops.

Speedy Muffler King, originally limited to Canadian operations, was being expanded into the United States at the time of trial. While relatively few Speedy shops had by then been opened in the U.S., I.D. 313, Tenneco intended to expand the chain to national proportions, CX 27L, 500 shops within five years.¹⁷ Tr. 1651-52 *in camera*.¹⁸ See also, I.D. 310-13. There is little reason to doubt that these plans will

¹⁶ Such evidence, when available, has repeatedly been used by courts weighing the probability that future business conduct will take a particular course. Thus, in *United States v. Black & Decker Mfg. Co.*, *supra*, the Court examined the capability of Black & Decker, a manufacturer of electric-powered hand tools, to enter *de novo* the two cycle gasoline-powered chain saw market by the objective factors of engineering, manufacturing, marketing and distribution compatibilities, but also gave considerable weight in its finding of non-compatibility to the fact that no successful entry had ever occurred from the supposedly adjacent market into the target market. *Id.* at 758. The Court went on to note that a manufacturer with great familiarity with four-cycle gasoline engines had tried unsuccessfully to enter through a toehold acquisition the two-cycle gasoline engine-powered chain saw market. *Id.* at 773. The Court also observed that recent entrants had been foreign firms which already had considerable expertise in two-cycle engines. *Id.* Similarly, in *United States v. Phillips Petroleum*, *supra*, the Court looked to the *de novo* entry by another firm into the California petroleum market to corroborate objective factors pointing towards the feasibility of a similar entry by Phillips, and to rebut Phillips' contention that unique factors in the California market precluded its entry by means other than through acquisition. 367 F.Supp. 1226, 1247-49. See also, *United States v. Consolidated Foods Corp.*, 455 F.Supp. 108 (E.D. Pa. 1978), in which the Court found that the acquiring firm's Sara Lee division was not a likely *de novo* entrant into the institutional frozen pie market, given that its past efforts at *de novo* entry failed due to an inability to master the requisite "technology," specifically, manufacturing the pie crust. *Id.* at 139.

¹⁷ Tenneco's internal plans to expand its muffler shop chain do not, of course, bear directly on its status as a perceived potential entrant, absent some indication that those plans had become known to target market firms. On the other hand, its ownership of the then small Speedy Muffler King chain was, of course, public knowledge, and target market firms could reasonably expect Tenneco not to remain content with a relative handful of muffler shops, given the rapid growth of this segment of the replacement ESP market.

¹⁸ This opinion makes limited disclosure of relevant and material *in camera* information beyond that already utilized by the ALJ in his Initial Decision. Commission authority to make such disclosures is specifically reserved by Section 21(d) of the Federal Trade Commission Act, 15 U.S.C. 57b-z (d) and Section 3.45(a) of the Commission's Rules of Practice, 16 C.F.R. 3.45(a). Such disclosure is made in order that the Commission's decision-making be "on the record" to the greatest extent possible, to aid the public's evaluation of the wisdom and fairness of Commission decisions, and to provide clearer guidance to affected parties. Balanced against these factors is the potential harm disclosure could cause to the party previously protected by an *in camera* order. See *RSR Corp.*, 88 F.T.C. 734 (1976). Here, we believe the risk of such harm is slight given both the age of the data (generally now three to five years old) and the circumscribed nature of the disclosures that are made. In these circumstances, we believe that the public interest in providing the full factual underpinnings of our decisions must prevail.

be realized. Retail muffler shops are the fastest growing segment of the replacement market, I.D. 306, making it very desirable for a major ESP manufacturer such as Tenneco/Walker to be assured of a significant share in that segment. Moreover, the feasibility of vertical integration in that segment is demonstrated by the strong position of the Midas chain, which manufactures its own line of ESP. *See*, I.D. 314, 207 and n.90.

Tenneco's plans further show an intention to install shock absorbers as the only other major line of merchandise in its muffler shop chain, I.D. 309, 313, as is the common practice in muffler specialty operations, I.D. 307. Although Tenneco forecast that its chain would achieve the majority of its sales in mufflers, it also foresaw substantial shock absorber sales; at trial, the president of Walker Automotive testified that within "several years" its muffler shop chain could achieve a shock absorber sales volume comparable to the level Monroe supplied to Midas—\$7 to \$8 million annually, Tr. 1669, a level which corresponds to roughly 1.5 million units annually. Tr. 1267 *in camera*, 10186-87. The reliability of this forecast is [20]enhanced by its consistency with the actual experience of existing muffler shop operations. *See, e.g.*, I.D. 312, 315-16, 318.

The operation of a major chain of muffler shops would be of significant assistance to entry into shock absorber manufacture. As discussed above, the minimum efficient scale of a shock absorber plant is in the neighborhood of 6 million units annually. *Supra*, 12. Thus, Midas' volume at the time of trial, while insufficient on its own to merit in-house manufacture,¹⁹ would be of considerable help in achieving volume sufficient to support a MES plant.

Tenneco's acquisition of Triple S Industries in 1974, I.D. 379, further enhanced its capabilities to enter the shock absorber market. Triple S produced and distributed a line of steering dampers and other automotive accessories, *see, e.g.*, I.D. 369, 380, and was regarded in the industry as a manufacturer of steering dampers, I.D. 383-84. It should be noted, however, that Triple S performed substantially less than all the operations normally considered as part of the manufacturing process. Although it did draw up specifications and reviewed and modified the design of its steering

¹⁹ A witness from Midas addressed this point directly, testifying that Midas looked from time to time at the feasibility of entering shock absorber production, but found that its internal demand for shock absorbers was insufficient to justify production. Tr. 1255 *in camera*. (Almost all of Midas' shock absorber purchases were distributed to its muffler shops; very few reboxed shock absorbers were resold to wholesalers. Tr. 1283-84) Additional factors inhibiting in-house manufacture of shock absorbers were that Midas had not yet accomplished complete in-house ESP manufacture and lacked certain areas of shock absorber engineering unrelated to ESP production. Tr. 1288-90. Tenneco, of course, was not so narrowly circumscribed in either its sales opportunities or its engineering capabilities.

damper cylinders, and did attach installation bracketry to finished cylinders, I.D. 382, Triple S did not actually produce the cylinders themselves. Rather, cylinder production was contracted out to a shock absorber manufacturer, Maremont at the time of the Triple S acquisition. I.D. 381. Despite this important lack of manufacturing [21]capacity,²⁰ Triple S still contributed to Tenneco's capabilities to enter shock absorber manufacture. Triple S possessed more than familiarity with shock absorber specifications; its president, Mr. Petrak, had created and patented a new shock absorber design—the "Terramatic"—which promised several improvements over conventional shock absorber designs. I.D. 371. One such improvement would be an ability to consolidate replacement parts numbers, *id.*, which could save significantly on inventory expense both to the manufacturer and its customers. This design feature would thus be of obvious import to a new entrant by reducing two major barriers to entry: the capital cost and product differentiation barriers.

Respondent disputes the value of the Terramatic design, arguing that its patents were "narrow," that its ability to be manufactured successfully was uncertain, and that Mr. Petrak's talents lay more in sales than engineering. *See, e.g.*, RAB 3-4. Respondent further asserts that it instructed its negotiators not to pay additionally for the Terramatic patent when purchasing Triple S Industries. *Id.* [22]

Nonetheless, the record demonstrates that respondent considered the Triple S acquisition as adding to its potential to enter the shock absorber market before it acquired Monroe. For example, Tenneco/Walker's 1977-81 Five-Year Plan stated:

During 1976, we will be working on a new concept in shock absorption called Terramatic. The Terramatic unit, which is patented, came to Mechanex through the purchase of Triple S Industries in 1974. If the Terramatic principle proves successful, it could be extended to automotive and heavy duty shock absorbers, opening up a tremendous new market for Mechanex. (CX 25Z-9)

Our conclusion that respondent's capability to enter shock absorber production was enhanced by its acquisition of Triple S, Mr.

²⁰ It is for this lack of manufacturing capability combined with the extremely small share of the shock absorber market held by Triple S (between .1 and .3 percent) that we dismiss complaint counsel's appeal that the Monroe acquisition should be viewed as a merger between actual competitors. While an assembler of components may be considered a "manufacturer in the proper circumstance," *Beatrice Foods Co.*, 86 F.T.C. 1, 71 (1975), and the appropriate line between an assembler/manufacturer and a reborder is not always crystal clear, we find Triple S's operation closer to the latter rather than the former. Triple S's ability to expand sales, or to move into conventional shock absorbers was obviously dependent upon the willingness of another manufacturer to supply completed shock absorber cylinders at a competitive price. Thus, a move by Triple S into conventional shock absorber sales would be obviously limited to that of a reborder, absent the construction of a plant to manufacture the shock absorber cylinder—in essence an entry *de novo*.

For these reasons, we find that Tenneco's prior acquisition of Triple S is best viewed as an addition to its design and engineering abilities to enter *de novo* rather than as the acquisition of a manufacturer with existing ability to compete in the shock absorber replacement market.

Petrak's services, and the Terramatic design is not diminished by the fact that design and testing work lay ahead on the Terramatic shock absorber. I.D. 372, Tr. 2088-90.

Tenneco's capability to enter shock absorber manufacture was further enhanced by its existing production of hydraulic seals, I.D. 353, a necessary component in shock absorber production. Tenneco would have an information advantage over other firms from possessing this additional area of manufacturing expertise, *see, e.g.*, I.D. 353, even granting Tenneco's assertion that its oil seal products were not then suitable for use in shock absorber manufacture.

Significantly, there is no indication that firms in the shock absorber market were aware, or had any reason to be aware, of Tenneco's doubts as to its ability to produce oil seals suitable for shock absorbers, or of the technical problems which remained to be overcome with respect to the Terramatic shock absorber. [23]

A final area of additional Tenneco capability, and by no means an unimportant one, is the great financial resources Tenneco could bring to bear on an entry into shock absorber manufacture. As discussed above, Tenneco was, at the time it acquired Monroe, the 15th largest industrial corporation in the United States in terms of assets and 18th largest in terms of net income. Its 1975 net income was \$343 million. I.D. 3. Such resources enabled Tenneco to overcome the significant financial barriers to entry into shock absorber manufacture, whether *de novo* or through toehold acquisition, as well as to implement its complementary expansion into retail muffler shops, *supra*, 19. This financial capability increased Tenneco's ability to turn even a relatively undesirable toehold firm into a significant competitor.²¹

Incentive

Tenneco had substantial incentives as well as capabilities to enter into shock absorber manufacture. Indeed, as we will discuss, there is a close interrelationship between these elements; its capabilities would provide Tenneco with special economic advantages as a shock absorber manufacturer.

Synergy savings from joint ESP/shock absorber manufacture and

²¹ For example, Mr. Baker of Arvin Industries, a minor ESP manufacturer which distributes but does not manufacture shock absorbers, discussed the relative abilities of Arvin and Tenneco to turn around Blackstone, a toehold firm which Arvin found unattractive:

We turned [Blackstone] down for basically that reason: they were a poor competitor in that marketplace. We didn't have the horsepower to improve their market position . . . Walker, with their number one position in ESP and with their financial wherewithal, could take a Blackstone and do wonders with it. They certainly could move a Blackstone off of an eighth or tenth list and move it right up through the pack somewhere. Tr. 601-602.

distribution are good examples. Synergy was discussed above as it related to Tenneco's *ability* to enter the shock absorber market, but these special savings also provide economic incentives not available to other industrial enterprises. The record in this matter is unusually clear on the areas where synergy savings exist between the ESP and shock absorber markets and the magnitude of those savings as well. [24]

Perhaps the best expression of these synergies is found in CX 5, an internal Tenneco document entitled "Proposal to Acquire Monroe Auto Equipment Company." This proposal, prepared by Walker for top Tenneco management, sets forth a number of areas of projected savings. The proposal discusses in particular the savings to both Walker and Monroe from joint shipments of shock absorbers and ESP, which would reduce the freight bill for shock absorbers alone by \$500,000 per annum. CX 5V-Y, Z-22. These combined shipments would produce additional advantages to customers²² which would in turn increase profitability and market share in both the ESP and shock absorber markets. It predicted that Walker ESP would gain 1 percent in the traditional aftermarket and 3 percent in the non-traditional aftermarket, while Monroe would gain 2 percent and 6 percent in each market respectively. CX 5R, X-Y. Walker also foresaw substantial synergy savings from consolidation of research and development, purchasing, manufacturing and warehousing. These savings were set forth in its Monroe proposal.²³ [25]

²² For example, an ability to combine shipments would allow customers to place orders more frequently, since a smaller volume of each product could be combined to fill a trailer. More frequent ordering would allow a customer to reduce its inventory, increasing its profitability by increasing the turnover on both product lines. Walker foresaw that this improvement in service to its customers would increase the market share of both its ESP line and the Monroe shock absorber line. CX 5R, X-Y.

²³ *Operations*

Monroe presently has approximately 100,000 square feet in each of their three plants devoted to storage and shipping. This represents approximately one-third of their domestic floor space. We project we could warehouse and ship for them all of their product, thereby freeing up the equivalent of a new plant in terms of space. To accomplish this, we would add approximately 25,000 feet to each of three of our distribution points, for a cost of less than \$1,500,000.

Not only would there be substantial savings of floor space, but a very significant better utilization of fixed investment in each of their existing plants. Many pieces of equipment they presently have in each plant, such as steel slitters, tube mills, etc., as well as support functions, such as plant management, personnel, maintenance department, etc., would not have to be duplicated—which would be the case if they had to build a new plant. Monroe estimates the result would be that they could obtain additional shock production through increased efficiency in addition to an equivalent new plant in production capacity. The manufacturing process for exhaust and shocks are very similar, with both products starting from sheet steel that is welded into tubing. Monroe has a steel slitting operation in each plant, whereas Walker contracts this operation on the outside. Walker's expertise in hydraulics, with our jack operations, also ties in closely with Monroe's.

Purchasing

Savings can be realized by combining this function, particularly since commodities purchased are basically the same, being primarily steel, cartons, oil, and rubber. Possibilities exist for other Tenneco divisions to increase their sales volumes. The combination of these savings should have a profit contribution of a minimum of \$600,000 annually by 1980.

Engineering and R & D

Here again the potentials for savings are significant due to the similarity of the product lines. Present research on materials is being duplicated, as well as our hydraulics research. Walker exhaust systems research

(Continued)

Respondent urges that these synergy savings are largely unique to a Monroe-Walker merger, not to generally realizable savings between ESP and shock absorbers. RAB 24-25. While there are, obviously, some areas in which Tenneco expected to gain from a melding of specific strengths from the two firms, such as the discussion of Monroe's "historic strength in promotion," *infra*, 27 n.23, the great bulk of the projected savings are plainly due to the nature of the products rather than the [26]particular companies producing them. Moreover, even a projected major savings which at first blush seems unique to Monroe, the gains from better utilization of Monroe factory space, appears upon examination generally applicable to joint ESP and shock absorber production. That is, Tenneco believed that it could increase the effective capacity of Monroe's plants by storing shock absorber inventory in Walker warehouses, freeing Monroe [27]plant space for maximum production. We fail to see, however, why this gain from efficient use of warehouse and plant space would not also occur if Tenneco had acquired a toehold producer or entered *de novo*.

Synergy savings alone, of course, could be insufficient inducement to enter a declining market, and respondent urges that the shock absorber market is, in fact, in decline, eclipsed by the rise of MacPherson strut suspension systems, RAB, 10-11. We disagree with respondent's contention on this score with respect to both the

utilizes dynamics of sound dampening, which is quite similar to the theory of motion vibration dampening utilized in shock absorber research. In both Walker's air jacks and Monroe's air shocks, the products require combined application of hydraulic and air principles.

Administrative

Again because of servicing the same customers and the same industry, we can expect savings in the administrative area by combining operations with Walker. The elimination of the need for a widely distributed annual report and the other expenses relevant to being a public corporation can be eliminated. These savings alone are estimated to be from \$250,000 to \$300,000 annually.

To this can realistically be added the savings from having several administrative departments such as credit, order entry, accounts receivable, etc., combined. These are recapped on the schedule on page 71. CX 5Y-Z-1

Finally, Tenneco foresaw significant savings from joint marketing operations:

Marketing - Domestic

Shock absorbers are distributed through exactly the same channels as exhaust, all the way from the manufacturer to the consumer. (Exhibit 1) It is the only other product which is universally installed in the muffler specialty shop. A significant reason for the compatibility of the two products is that they represent "under-the-car" service items subject to the same environmental conditions and repair conditions and historically are replaced by the same person, whether he be a service station mechanic, a mass merchandiser or specialist installer, or the 'do-it-yourselfer.'

Consequently, the distribution channels are extremely similar, and Walker and Monroe have basically the same customers and prospective customers as well as competitors. This similarity of customers is demonstrated in the following Exhibit J, showing our 50 largest wholesale accounts as well as our larger non-traditional accounts. Our selling programs, discount structure, and customer terms philosophy are very similar and would be easily merged. Walker's programs stress customer service, an area in which we feel Monroe could benefit from our expertise. Conversely, Monroe has historically been an industry leader in promotion activities, an area in which Walker has been mediocre, and which becomes more important as we address our Walker programs to the consumer level. CX 5S-R (exhibits omitted).

overall growth of the market and the impact of the MacPherson strut innovation within it.

There is little doubt that the future prospects for the shock absorber market, which saw growth and high profitability during the 1960's and early 1970's, remain bright. Although 1974 saw unit sales fall, CX 5J, that sales drop was attributed to factors extraneous to the underlying strength of demand for replacement shock absorbers: a recession which delayed discretionary shock absorber replacements and the oil embargo, which closed many service stations which promoted and installed [28]shock absorbers, CX 142D, 143D. Subsequent years marked a period of recovery.²⁴ CX 5I-J. Respondent's own analysis of the market's future, performed just prior to the Monroe acquisition, foresaw great opportunities for growth in the years ahead:

Monroe estimates the life of a shock to be approximately two years. With 130,000,000 vehicles on the road, and if we assume 30,000,000 are two years old or younger, we can develop the potential shock market as 100,000,000 times two (since only ½ would be replaced in any one year and there are four per vehicle), or 200,000,000 units to be replaced per year. Total replacement market sales of shocks have been 46,000,000 and 47,500,000 in 1974 and 1975 respectively, indicating that only about 25 percent of the potential market is being sold. CX 5-O.

Industry estimates foresaw steady sales increases in the long term, bolstering this current growth potential. Maremont, for example, foresaw a continued 10 percent growth rate, compounded annually, due to growth in the population of vehicles in use, increasing miles driven per year, and increases in consumer disposable income. RX 38F. Tenneco shared this view. *See, e.g.*, RX 25 at 11. This optimism was not tempered even by rising fuel prices, as analysts foresaw fuel savings coming from increased fuel efficiency in vehicles rather than a decrease in miles driven. RX 187D. Analysts also foresaw no threat to continued reliance upon the automobile as the primary means of transportation in this country, *see, e.g.*, RX 25 at 9, no substitute to shock absorbers in automobile suspensions, and no risk of reduced replacement demand from a "lifetime" shock absorber, RX 24 at 14, RX 25 at 37-38. Indeed, Tenneco itself foresaw that the trend toward smaller, lighter cars posed increased potential for the replacement market, reasoning that the ride quality of "downsized" vehicles will decrease more noticeably with degradation of shock absorber function, causing increased sales opportunities. CX 3B,I.

The advent of MacPherson strut suspensions also does not pose a

²⁴ Another industry member, however, did suffer reduced demand in 1977 due to an adjustment to shortened supply lines. The shortened supply lines, caused by the move to installation by mass merchandisers, require less inventory. RX 187D.

threat to overall demand for replacement shock absorbers. We do find the relevant replacement market to include [29]both conventional shock absorbers and MacPherson struts, *see* discussion *supra*, 4, 10, and respondent's own documents do not raise this distinction as a relevant factor. However, even if we remove MacPherson struts from the market, demand for conventional shock absorbers appears strong. Respondent's own witness projected that by 1983, only 35 percent of new domestic vehicles would utilize the strut layout, and these vehicles will typically have struts installed at the front wheels only; the rear wheels will continue to be controlled by conventional shock absorbers. Tr. 1952, 1967. This increased use of MacPherson struts would still leave the great bulk of replacement demand for the 130 million plus vehicles-in-use requiring conventional shock absorbers, and, as discussed above, respondent estimates that only 25 percent of this current potential market is being reached. *See, e.g.*, RX 25 at 20.

Apart from potential unit volume, respondent argues strenuously that the shock absorber industry had, by the time of the acquisition, lost the extraordinary level of profitability which had marked the 1960's and early 1970's. *See, e.g.*, RAB 10-11.

Respondent's documents reveal, however, that it believed that Monroe's profitability would return, even in the absence of a merger, to levels at least as great as those earned by Walker. CX 5Z-12, 6B. Still greater rates of profitability would arise through the synergy savings discussed above. Tenneco's pre-acquisition documents demonstrate, moreover, a belief that many of the factors which depressed Monroe's profits in 1975-76 were temporary problems, unrelated to any underlying weakness in demand for shock absorbers. Tenneco believed that Monroe's problems were due to start-up costs of new plants in Canada and Brazil, a slump in the U.S. economy, a period of excess inventory in the field (also discussed by Maremont, above) and unresponsive management by Monroe, apparently at senior levels. CX 5Z-12.

Tenneco argues that even if this were true with respect to Monroe, it does not demonstrate the overall attractiveness of the shock absorber market to an entry by means other than through acquisition of Monroe. RAB at n.11. The record, however, demonstrates that Monroe's profit history has followed the same general trend experienced by Maremont, the other major shock absorber manufacturer. Although allowing only a rough comparison, since the data for Maremont is a summary of overall operations including shock absorbers, ESP, catalytic converters, and other automotive and non-automotive items, RX 188D, the figures do show a sharp dip in

Maremont's pre-tax earnings [30](before extraordinary items) in 1974 with a strong recovery in 1975-77. RX 187M. Thus it would be unreasonable to read Tenneco's optimism over the future profitability of Monroe as limited to that firm rather than the replacement shock absorber industry generally. Moreover, this view is consistent with the prospects of continuous growth in overall demand for replacement shock absorbers and the high barriers to entry discussed above.

Another factor which contributed to the decline in profitability in the mid-1970's, and dampened prospects for a full rebound to the "Golden Age" of shock absorber profits deserves special mention, *i.e.*, the actions initiated by Maremont which increased competitiveness and reduced profit margins at the manufacturing level. Maremont made heavy investment in plant and equipment. Investment in inventory was also increased to provide an unusually high rate of "order fill." Research and development efforts were expanded to develop new shock absorber products. Finally, and perhaps most significantly, Maremont engaged in a "very aggressive" cost reduction program and passed those savings, and more, on in lower prices. Tr. 776-80, 855-57; I.D. 448-49. These aggressive activities by Maremont were additional factors depressing Monroe's profitability in the mid-1970's, Tr. 10591-91A, CX 21B, by forcing Monroe to cut prices to its traditional channel customers by 9 percent in July, 1975. Tr. 4114. Moreover, there is testimony by a witness from Armstrong, a British shock absorber manufacturer with modest sales in the United States, *see*, I.D. 393, 399, that he perceived increased competition and declining profitability among U.S. shock absorber manufacturers in the mid-1970's. Tr. 2661, 2666-68.

Although this evidence persuades us that the replacement shock absorber market did lose some of its sparkle during the mid-1970's, we are not persuaded that this dip in profitability was permanent, and, indeed, as discussed above, the indications were that the long term prospects for this industry were bright and secure. Moreover, even in an environment of normal rather than supranormal profitability, Tenneco's unique combination of capabilities made this market attractive to enter. The synergy savings which Tenneco calculated with respect to the Monroe acquisition, and which we believe are not limited to a Tenneco-Monroe combination, *see* discussion *supra*, 24-27, demonstrate the ability of those savings to enhance profitability.

Tenneco had additional incentives to enter this market, even if we assume a continuation of a "merely" normal level of profitability. In particular, Tenneco had a defensive motive [31]to enter into shock

absorber manufacture given that its major ESP competitors were already manufacturing shock absorbers. The record is quite clear that Tenneco, beginning at least from 1967, CX 77, and continuing up to the time of the merger felt at a competitive disadvantage *vis-a-vis* Maremont and Questor from the lack of a shock absorber line:

Walker's major competitors, Maremont and Questor (AP), have shock absorber lines. In the wholesale market channel, these lines are marketed separately. In the retail market channel, Maremont and Questor tend to combine their marketing programs. We have unofficial information that Maremont will be moving to combine their shock and exhaust programs in the wholesale channel, offering combined discounts, etc. If so, we need a shock line to be in a competitive position. CX 5E.

Moreover, the most rapidly expanding segment of the independent aftermarket is the non-traditional channel composed of mass merchants and specialty installers. *See, e.g.*, RAB 54, where combined shipments are relatively more important than in the traditional channel, *e.g.*, warehouse distributors. I.D. 289, 293.

Tenneco had an additional incentive to enter shock absorber production from its planned expansion of its Canadian retail muffler chain into the United States which would generate significant demand for shock absorbers, *see* discussion *supra*, 19-20. Obtaining a source for that supply from one of its major competitors could be a costly proposition.²⁵

Interest

Tenneco's interest in entry into the shock absorber market began in the late 1960's, shortly after its acquisition of Walker, and grew and quickened in the years leading up to the Monroe acquisition. The record documents that this interest was shared by officials at high levels at both Tenneco headquarters and its Walker subsidiary. Moreover, this interest was not only expressed internally through closely held planning documents but was expressed publicly as well, through negotiation with at least three major and one minor shock absorber firms and the actual acquisition of a fifth firm marginally involved in shock absorber manufacture and holding patents on a novel but untried new shock absorber design. [32]

Walker's interest in entering shock absorber manufacturing apparently began in the period 1967-68 when it commenced discussions with Armstrong Patents Ltd., the largest British manufacturer of shock absorbers. Among the possibilities set forth at the time were the purchase of shock absorbers manufactured by

²⁵ For a time, Monroe's ability to sell shock absorbers exceeded its plant capacity, causing it to purchase some of its supply from its competitors at a substantial premium. Tr. 1627-28.

Armstrong, perhaps at its then-operating Canadian plant, or shock absorber manufacture by Walker under license from Armstrong. The record demonstrates that, in addition to discussions and correspondence occurring between Walker and Armstrong, Walker officials were debating internally whether royalty payment could be offered, or whether Walker wouldn't be better off doing its own shock absorber engineering rather than obtaining a design through licensing, *i.e.*, entering *de novo*. CX 72-75. One scenario under consideration at that time involved Armstrong initially manufacturing for Walker and, as the volume of Walker's shock absorber sales increased, Armstrong assisting a Walker move into shock absorber manufacturing on a royalty basis. CX 76.

In weighing the import of these discussions concerning Armstrong, we find it significant that they directly involved a high Walker official, Mr. Thomas G. Cook.²⁶ These expressions of interest, then, are distinguished from and of considerably greater import than situations where the only interest found is at a junior or middle level of management, or even in a "think tank" office. *Cf. United States v. Crowell, Collier and Macmillan*, 361 F.Supp. 983, 1005 (S.D.N.Y. 1973). Moreover, the fact that initial interest in shock absorber manufacturing was expressed by an official as highly placed as Mr. Cook adds to the significance of subsequent interest shown by subordinate corporate planning offices by demonstrating that those planners were not indulging in abstract exercises unlikely to be approved by their seniors. *Cf. United States v. Atlantic Richfield Co.*, 549 F.2d 289, 296-97, n.9 (4th Cir. 1977); *United States v. [33]Siemens Corp.*, 621 F.2d 499, 503, 508 (2d Cir. 1980).²⁷

One such study appears as a report by Walker Financial Planning staff dated July, 1970, and ranks growth and profitability performance in 18 lines of automotive replacement parts. Of these areas the study found:

It is observed that two product categories seem especially deserving of further market research: front suspension parts, which would include shock absorbers, and filters.

²⁶ At the time the 1967-68 Armstrong discussions took place, Mr. Cook appears to have been either the Walker treasurer or vice president for finance. Tr. 1573. Mr. Cook became president of Walker on January 1, 1969, shortly after these discussions ceased, and remained as president through the time of the Monroe acquisition. Mr. Cook reports directly to the Office of the President of Tenneco. Tr. 1572-73.

²⁷ We do not understand these decisions to mean that activity by lower level management may never be taken as sufficient indications of corporate interest. Those decisions dismissing interest shown by lower level management are clouded by objective factors which go counter to entry *de novo* or via toehold acquisition. *See, e.g., United States v. Siemens Corp.*, *supra*, 621 F.2d at 503, 507-08 (firm lacked nuclear camera technology and opportunity had passed); *United States v. Atlantic Richfield Co.*, *supra*, 549 F.2d at 296 (copper mining not an appropriate area for grass roots entry); *United States v. Crowell, Collier and Macmillan*, *supra*, 361 F.Supp. at 999 (reputation a high barrier to entry into musical instrument manufacturing). Here, of course, the objective evidence strongly supports the interest shown at all levels of management. *See discussion, supra*, 15-23.

These two categories are not only outstanding in terms of apparent profitability, but they have experienced exceptional market growth as well. CX 41F.

Another examination, prepared by Tenneco's Corporate Development Department shortly before the Monroe acquisition, discussed the shock absorber market generally as well as Monroe in particular. These Tenneco planners concurred with Walker management that Walker should move into shock absorbers, citing such factors as (1) a projected growth rate for replacement shock absorbers greater than that projected for replacement ESP, (2) an improvement in the marketing and distribution of ESP, and (3) the aid such entry would provide to Walker's move into the retail muffler shop market. CX 3B-I. [34]

Walker's 5-Year Plan, 1977-1981, also prepared prior to the Monroe acquisition, again demonstrates corporate interest in a move into shock absorbers generally, apart from an acquisition of Monroe. The plan discusses proposed development work on the Terramatic design, acquired with Triple S, as leading to a new market in "automotive and heavy duty shock absorbers" for Tenneco. CX 25Z-9.

During the period 1970-76 when these planning reports were prepared, Tenneco actively pursued various methods of entry into shock absorber manufacture. In 1973, Walker conducted negotiations with Tropic Industries, a small firm which possessed a patented new shock absorber, the "Loadamatic," with a unique ability to adjust automatically to varying vehicle loads.²⁸ I.D. 365-66. Walker considered various means of entering the shock absorber market with this device, including producing the device under license from Tropic, acquiring Tropic outright, and entering into a development contract with Tropic with an option to purchase the company. CX 45N-"O". Walker evinced more than a passing interest in Tropic,²⁹ but eventually ceased to consider it; a search revealed that the Loadamatic's patent protection was insufficient. CX 49. [35]

Walker's active and continuing interest in shock absorbers is further demonstrated by its acquisition of Triple S Industries in 1974, which, at the time of its acquisition, was marketing three types of automotive products: hydraulic stabilizers for automotive trailers, hubs for four-wheel drive vehicles, and steering stabilizers. CX 51C-E, L-"O". These items, however, were not the focus of a February 6, 1974, letter from Triple S to Walker, apparently the first contact

²⁸ Walker believed that this unique feature, combined with its simple design and reliability would provide a superior product to existing load-leveling shock absorbers marketed by Monroe and Maremont. CX 45A-B.

²⁹ This included an extensive evaluation of the current and potential market for load-leveling shock absorbers, sales forecasts, profitability calculations, charts of various expenses and sales, and, of course, profits. CX 45C-M.

between the two firms. Rather, that letter promoted Triple S's new "Terramatic" design for shock absorbers.³⁰ CX 52A-D.

Walker, in turn, likewise focused initially on the potential of the Terramatic principle to be incorporated in a new shock absorber.³¹ [36]

That the Triple S acquisition was also justified on its existing products, CX 55A-C, 56A, and that Walker did find the Terramatic patent to be narrow, RX 8-11, do not in our view detract from Walker's interest in Triple S as demonstrating interest in entering the shock absorber market apart from the acquisition of Monroe. [37]

The acquisition of Triple S in October, 1974, has added importance beyond confirming Tenneco's internal interest in entering the shock absorber market; this acquisition must also have been taken by other industry members as tangible proof of active interest by Tenneco in shock absorbers. Significantly, knowledge of the existence of the

³⁰ Among the advantages claimed for the new design over conventional shock absorbers were: (1) more sophisticated "response curves," (2) simpler design requiring fewer parts, (3) more stable performance over useful life, and (4) an adjustable feature allowing one part number to be installed in multiple applications, which would reduce inventory requirements by 60%. CX 52A-D.

³¹ A February 15, 1974, Walker memo provided a preliminary evaluation of the Terramatic:

I have no doubt that excellent working shock absorbers can be made as described. With the exception of his claims [of past testing and self-compensating ability], I do not argue with any of his presentation.

The use of a variable orifice in controlling a shock absorber is not new, having been used in aircraft landing gear and flutter dampers for years. His particular construction, or method of varying the orifice, may be new.

A copy of the patent was not included. I suspect his claims may be narrow. . . . CX 53A-B.

A subsequent internal memorandum again demonstrates Walker's interest in entering the shock absorber market through Triple S. After discussing the current Triple S product line, it states:

Terramatic. This is the original item which caused our interest in the company—and is the one farthest out in the time frame. Patent has been applied for and a 'couple of its features' have been tried in a Steerline unit. In my opinion, the features of this unit are technically sound—with one misgiving. Leakage path flows will be some percentage of the flow through his control configuration—I do not know what percentage. Success depends on that percentage, and the selected manufacturing process would largely determine it. No complete prototype has been built.

I am enthusiastic as to the possibilities of this product, first in Steerline (particularly heavy duty) and after some manufacturing experience, very probably for heavy duty shock absorbers—and even automobile shock absorbers. I emphasize that this is not production ready. Dollars and time must be invested in development. I do feel there is reasonable chance of success.

When this success is achieved, there is good opportunity (as Harry claims) for consolidation of slow movers into faster movers. There would then be definite marketing advantages as well as the technical (control) advantages he claims in his report.

Overall, I believe acquiring Triple 'S' would offer Mechanex almost immediate benefit from current products. In longer range, a new shock absorber for the Walker line could be gained.

Technically, current products and manufacturing are sound. The two new products appear feasible. If the 'price is right,' let's go! CX 54B-C.

Similar expressions of interest in the shock absorber market via Triple S are seen in still other Walker memoranda, e.g., CX 56A ("The greatest potential, of course, which is not included in these projections, is the Terramatic principle as applied to shock absorbers."); CX 58B ("[T]his gives us just the tiniest foothold in the shock absorber industry. While we have no plans at the present time, this could be a seed that would grow. . . . [Mr. Petrak] might be the one to spread the fertilizer and make the shock absorber seed bloom."); and CX 59A ("Based on the above, I believe Walker could realize sales in excess of \$10 million within three years on *present* products. For Terramatic and Autolok the sales potential is so huge, particularly Terramatic, I would not want to forecast sales volume until I have had more opportunity to study the product and its markets.") (emphasis in original) See also, CX 25Z-9 (Walker 5-Year Plan, 1977-81).

Terramatic design had become widespread by the time of the Triple S acquisition.³² [38]

Thus, Tenneco's acquisition of Triple S would communicate to the "rational shock absorber manufacturer" a serious desire on the part of Tenneco to enter into shock absorber manufacture, and is therefore relevant as helping to establish Tenneco as a perceived potential entrant. This aspect is significant apart from Tenneco's internal planning³³, or the ultimate workability of the Terramatic design. *See, United States v. Falstaff Brewing Corp., supra*, 410 U.S. at 532-33 nn.8 and 13. [39]

Tenneco's interest in shock absorbers is also implicit in its ownership of over 70 Speedy Muffler King outlets in Canada in the early 1970's, its opening an initial outlet in the United States in 1974, Tr. 1654, 1666, and its plan to expand rapidly Speedy Muffler King into a large scale United States chain by 1983, Tr. 1651-52 *in camera*.³⁴ Muffler specialty shops were the most rapidly growing segment of the replacement ESP market, which would and did make this market an enticing one for a large ESP firm such as Walker to

³² The record reveals that beginning in late 1973 and continuing into 1974 Triple S contacted 5 German firms to introduce the Terramatic shock absorber—Volkswagen, Daimler-Benz, GM-Opel, Fichtel & Sachs, and Bilstein. CX 68A-C, CX 67C, and CX 63C. Additional contacts in 1974 occurred with Armstrong, the British firm, and Questor in the United States, which manufactured shock absorbers under the Goerlich name. CX 67B, D-F. Notably, it appears that Triple S's contacts with all of these firms focused exclusively on the Terramatic shock absorber, not the other products Triple S then had in production. *Id.* The documentary evidence further reveals interest by these firms in the Terramatic, but at least some of these discussions ran aground due to Triple S's inability to deliver prototypes for testing, an inability apparently stemming from Triple S's straitened financial condition. CX 68B, CX 67C, CX 63C.

³³ For example, Walker's president, Mr. Cook, asserted at trial that his instructions were to pay nothing for the rights to the Terramatic design. (Tr. 1676-77) There are, however, reasons to be skeptical of this assertion apart from the numerous expressions of Walker's interest in Triple S for this very design. For example, although Mr. Cook asserted that "not a nickle" was paid for the Terramatic, Tr. 1676-77, the parties executed a license agreement providing for royalties on future Terramatic shock absorbers, as well as 4-wheel drive hubs. That agreement further provided that the patent rights in these products would revert to the licensor if the licensee failed to make its "best efforts" to produce at least one type of the licensed products within 4 years. CX 57D-E, CX 66A. Two years into that agreement, just months before the Monroe acquisition and perhaps a touch self-consciously, Mr. Cook prepared a memorandum to a subordinate which reads in its entirety:

Just a reminder that in our purchase of Triple S, there were certain things that needed to be done within a specified time frame or certain rights reverted back to Petrak. If you do not have the details, please get them from Jim.

I leave you with the responsibility of being sure we don't lose these rights by default and suggest it might be timely to follow up on them now. CX 70.

Other documents prepared at about the same time acknowledged that the acquisition of Monroe would be certain to be challenged by this agency, *see, e.g.*, CX 5D, creating the possibility that Tenneco's premerger documents were prepared with this litigation in mind. *United States v. Phillips Petroleum Co., supra*, 367 F.Supp. at 1238. This possibility, of course, makes even more difficult the task of ascertaining the subjective intent of Tenneco in the relevant time frame.

The alleged disinterest in the Terramatic principle is further contradicted by the efforts Walker made to investigate Triple S's attempts to sell the Terramatic in Europe. The record contains reports to Mr. Cook dated July, 1974, several months prior to the Triple S acquisition, from Walker Europe and Walker Deutschland, confirming that the companies approached by Triple S were favorable to the Terramatic but that Triple S lacked the finances to provide them with prototypes. CX 63A-D.

³⁴ Additional interest in the muffler shop business was expressed in 1976, when Walker negotiated the purchase of Car-X Service Systems, a chain then consisting of 45 or 50 muffler shops, although that purchase was not approved by Tenneco. Tr. 1663. Significantly, Walker planned to expand Car-X rapidly into a major national chain, CX 109G, 108P, corroborating its expansion plans for Speedy Muffler King.

move into. Tr. 1654. A large national muffler chain generates significant demand for shock absorbers. *See* discussion *supra*, 19–20.

Like the Triple S acquisition, Tenneco's at least partially visible move into the muffler shop business could hardly go unnoticed by rational shock absorber firms.

Finally, Walker's interest in entering into shock absorber production, again apart from the Monroe acquisition, was demonstrated by its negotiations in the immediate period preceding the merger with two foreign shock absorber firms which had modest sales in the United States. These firms are Armstrong, a British firm, which produces a full line of shock absorbers, I.D. 391–92, 399, and DeCarbon, a French firm, producing a superior quality "gas-pressurized" shock absorber. I.D. 402–03. *See also* discussion, *infra* 60–61. Walker's renewed interest in Armstrong, as revealed in correspondence between Mr. Cook and Mr. John Padget, the president of Walker Europe, began in 1974 when it was learned that "circumstances could be ripe for a takeover" of Armstrong. CX 80. Mr. Padget foresaw "substantial synergistic effects" from the acquisition between Walker ESP and shock absorber operations in Britain, Europe, the United States, Canada and elsewhere. CX 83B. Padget proposed that under the acquisition, Walker would sell Armstrong shock absorbers through Walker's channels, and make Armstrong shock absorbers in Walker's U.S. and Canadian plants. *Id.* Walker Europe went so far as to calculate acquisition prices which could be offered Armstrong shareholders under various levels of assumed future growth, while providing substantial return on investment to Walker. CX 83D, CX 84A–L. In October, 1974, however, Mr. Cook directed Padget to maintain [40]contact with Armstrong, but on a low-key level, until Tenneco decided how Walker's expansion should proceed. CX 85. Walker Europe remained interested in Armstrong, and reminded Walker of Armstrong's desirability in May, 1976, when Padget responded to information from Walker that Tenneco believed the time was right for investment. CX 88.

This period in 1976 also saw Walker interested in and negotiating with DeCarbon, a French shock absorber firm. CX 89–91. As with Armstrong, this interest in DeCarbon was expressed at high corporate levels by both Mr. Cook, president of Walker, and Mr. Padget, president of Walker Europe.³⁵ *Id.*

³⁵ Walker's broker communicated strong Walker interest to DeCarbon, CX 93–A, although at trial Mr. Padget denied authorizing those statements. Tr. 2705–06.

Other Potential Entrants

The loss of Tenneco as a potential entrant, actual or perceived, is significant for purposes of Section 7 only if it was one of a relatively small class of such potential entrants. If numerous firms are perceived by target market firms as similarly situated at their market's edge and of similar propensity to enter, the loss of one such potential entrant through merger is unlikely to loosen the restraints against anticompetitive conduct felt by target market firms, and the merger is therefore unlikely to lessen competition substantially. Similarly, the loss of a firm as an actual potential entrant is insignificant if numerous firms are equally capable and likely to enter in the reasonably foreseeable future, as that remaining group of firms maintains the promise of entry and eventual deconcentration. See, e.g., *FTC v. Procter & Gamble*, 386 U.S. 568, 580-81 (1967); *Heublein, Inc.*, *supra*, at 588-89.

The burden of initially identifying a sizeable, plausible class of other potential entrants falls upon respondents, *Heublein, Inc.*, *supra*, at 588-89, and respondent here urges that many firms are as likely to enter as Tenneco. All of these firms, however, Tenneco included, are said by respondent to be unlikely to enter given "formidable" problems of entry and "steadily shrinking" profits in the industry. RAB 27-28. This alleged broad class of similarly situated potential entrants is comprised of vehicle manufacturers, foreign shock absorber manufacturers, and other vehicle parts manufacturers. RPF 407-443, RRPF 190-200. [41]

We are persuaded by complaint counsel, however, that none of the firms so identified shared Tenneco's special combination of characteristics which established it as an especially potent and likely potential entrant. Further, very few of these firms can be considered to be even potential entrants, and none were as likely as Tenneco to make the attempt.

Respondent emphasizes that Bendix and TRW are as likely as Tenneco to enter the shock absorber market. Bendix is primarily a manufacturer of automotive braking components, but also manufactures parts for other automotive systems.³⁶ TRW, on the other hand, manufactures automotive engine and chassis parts and distributes reboxed shock absorbers. I.D. 435.

The ALJ considered Bendix, as well as brake parts manufacturers generally, and concluded that entry into shock absorber production was unlikely to come from that direction. I.D. 431-34. We concur.

³⁶ These include power steering units, electronic fuel injection systems, spark plugs, filters, universal joints and wiper blades. Tr. 9100, 9102, 9104.

There are significant incompatibilities at several levels between the two product lines which would make entry substantially less attractive to a brake producer than to an ESP firm. Great differences exist, for example, between the skills and tools required to repair brake systems and those needed to replace shock absorbers and ESP. *See*, I.D. 304, n.99. Thus, many shops which install shock absorbers and ESP do not perform brake work, I.D. 307, 314-18, reducing potential synergy savings from a unified sales force and joint shipments in the non-traditional channel. Further, the very nature of the sales forces differs between shock absorbers and brake parts, the latter requiring salespeople skilled in brake repair. Tr. 9108, 10,106.

In assessing the compatibility, or lack of it, between brake products and shock absorbers, we also give considerable weight to the recent exit in 1977 of Maremont, the leading shock absorber producer, from the brake friction material business. Tr. 9270. Moreover, brake parts firms do not appear to have a defensive motive to enter shock absorber production, while Tenneco feels pushed in part by its competitors' production of both ESP and shock absorbers. Tr. 10,109. *See also*, discussion *supra*, 30-31.

In addition, with respect to Bendix, we are persuaded that it considers shock absorbers a very different product line from its current lines of business, *see, e.g.*, Tr. 9137, [42]9139, and one in which it has no interest in entering,³⁷ Tr. 9137, 9148, 9168.

The trier of fact concluded from this and other evidence that Bendix had little incentive and no plans to enter the U.S. shock absorber market. I.D. 432-34. We see no reason to disturb those findings.

Engine, transmission, or chassis parts firms are also unlikely to enter into shock absorber manufacture. Like brake parts, these parts move primarily through the traditional channel, *see, e.g.*, Tr. 8929, again eliminating the possibility of synergy savings from joint sales and shipments in the fast-growing (for ESP and shock absorbers) non-traditional channel.

Much of the reason for the disparity in marketing channels used by ESP and shock absorbers versus the continued reliance on the

³⁷ That a Bendix subsidiary in Spain acquired a small Spanish shock absorber manufacturer, LIPMESA, does not compel a different conclusion. LIPMESA sells almost exclusively in Spain, Tr. 9115, not at all in the United States, Tr. 9116, and its production is focused on a very limited range of European vehicle makes: Renault, Citroen, and Fiat. Tr. 9116. Moreover, merely to assert, as respondent does, that Bendix's ownership of this firm demonstrates compatibility of brake systems and shock absorbers in the *United States* market, without more, requires us to assume too much, *i.e.*, that the Spanish replacement markets for these components are sufficiently analogous to their U.S. counterparts that the LIPMESA acquisition may be accorded some weight in predicting Bendix's intentions domestically. The record, however, is silent on this important aspect. Cf. *Heublein, Inc., supra*, at 588-89.

traditional channel for engine, chassis and front end parts is due in no small measure to the differing level of mechanical skill and shop equipment needed for repairs to these automotive systems. ESP and shock absorber replacement may be performed by a relatively unskilled and low-paid mechanic or by a consumer, and require relatively few tools. I.D. 304, n.99. In contrast, engine, chassis, and transmission parts require skill and sophisticated equipment to install. *Id.* Moreover, these firms, like brake parts firms, lack a defensive motivation to enter. For example, Moog, a chassis parts firm, carried a line of reboxed shock absorbers without success, and ultimately withdrew from that market. Tr. 3259, 3469. TRW, Moog's main competitor in chassis parts, has also been unsuccessful merchandising reboxed shock absorbers in the traditional channel. *E.g.*, Tr. 8932-33. [43] This lack of success has caused internal TRW recommendations that it exit from the sale of reboxed shock absorbers. Tr. 8934-36. Accordingly, we concur with the ALJ's conclusion that Moog and TRW, as well as these general classes of replacement parts manufacturers, are unlikely potential entrants into shock absorber manufacture.³⁸

Nor do the automakers, apart from General Motors, which manufactures replacement shock absorbers under the Delco name, I.D. 184, n.77, appear to be likely potential entrants into the replacement market. Among the remaining automakers, the apparent trend is away from in-house manufacturing for even OE shock absorber requirements,³⁹ much less for the replacement market.

Nor can foreign shock absorber firms be considered to be as likely to enter as Tenneco, even though such firms possess product designs, manufacturing ability and the potential to spread scale economies in manufacturing across several continents. The difficulties a foreign firm would face include the establishment of a United States distribution network and winning consumer acceptance. Tr. 9256-57, 9277, 9933-37. These difficulties can be seen in the case of Armstrong, a British firm manufacturing perhaps the broadest line of shock absorbers in the world. Tr. 2615. Armstrong began distributing shock absorbers in the United States in the late 1950's, Tr. 2613, but by the time of trial had achieved only a one percent share of the United States replacement market, Tr. 2638. Its

³⁸ We find RX 263, which purports to identify potential entrants solely by manufacturing capability, RPF 414, an unhelpful guide, given (1) that it ignores the important synergies in sales, shipping, marketing and retail installation, *see* discussion, *supra*, 16-17, 23-27, and (2) that its focus is upon the one barrier to entry which appears most easily hurdled, *e.g.*, through a licensing arrangement. *See* discussion, *infra*, 57-58.

³⁹ *E.g.*, Ford discontinued conventional shock absorber production in 1977, and will manufacture only a portion of its needs for MacPherson struts in the future. Tr. 791, 862, 3730, 3778-79, 3942-43. Chrysler similarly ceased shock absorber manufacturing in 1975-76. CX 19-B, Tr. 10,158.

Canadian shock absorber assembly plant which opened in 1974, Tr. 2633, had closed by 1978. Tr. 9254, 9929, 10,159.

Indeed, the only other firms which appear at all likely to enter shock absorber manufacture are the two other major ESP producers which currently distribute reboxed shock absorbers, Midas and Arvin. These firms would share many of the same synergies attracting Tenneco towards shock absorbers, and both have actively considered moves into shock absorbers, I.D. 428-430, yet neither were as likely potential entrants as Tenneco. [44]

Midas' weakness *vis-a-vis* Tenneco stemmed in part from its more tenuous stature as an ESP manufacturer. Midas has not yet accomplished complete in-house manufacture of its ESP line, and aims to achieve this more immediate goal before moving into a new product line. Midas views itself as lacking certain aspects of engineering expertise needed for shock absorber production. Tr. 1288-90. Further, Midas ESP production is heavily devoted to supplying its franchisee's needs; sales of ESP to other replacement market firms accounts for a minor portion of Midas sales. Tr. 1283. Relatively few reboxed shock absorbers are sold in this small replacement market operation, Tr. 1284, leaving Midas' potential for shock absorber sales largely limited to that needed to supply its franchisees. That amount, however, is insufficient to justify self-manufacture. Tr. 1255-56 *in camera*.

Arvin, too, must be considered a less likely potential entrant than Tenneco, given Arvin's primary orientation as an OE rather than replacement market ESP supplier, its relative lack of success marketing reboxed shock absorbers, the decrease in financial support it offered its muffler shop franchisors, and its comparative lack of a defensive motive due to its smaller stake in the replacement market. Tr. 559, 576-79, 710-11, 909-10, 10,088-89.

We conclude from this review that no other firm raised as a potential entrant in this proceeding shared the unique combination of capabilities, interest and incentives which established Tenneco as both a potent and highly probable potential entrant into the shock absorber market. Thus, the loss of Tenneco as a potential entrant is highly significant in antitrust terms, as it meant no less than the loss of the single firm most likely and best able to enter and deconcentrate what is now a very highly concentrated market. *See, FTC v. Procter & Gamble Co., supra*, 386 U.S. at 580-81. That a small group of less potent and less likely potential entrants remains does not remove the anticompetitive consequences of the Tenneco-Monroe merger.⁴⁰ [45]

⁴⁰ See, *United States v. Wilson Sporting Goods Co., supra*, 288 F.Supp. at 563 (merger anticompetitive despite

Industry Perception of Tenneco

The strong confluence of objective factors leading Tenneco to enter the shock absorber market, and Tenneco's clear and visible interest in that entry were not unnoticed among firms in the shock absorber market. The record reveals that these firms actually perceived Tenneco as a likely potential entrant, and also perceived that few other firms were likely to enter. The most significant evidence in this vein was the testimony of Mr. Pond, president of Maremont, the leading shock absorber firm. He testified that prior to the Monroe acquisition he considered Tenneco as one of only three likely potential entrants into shock absorber manufacture, the other firms being Midas and TRW, and that these firms would find entry "tempting." Tr. 771-78. Moreover, TRW was believed to be less likely to enter than Tenneco. Tr. 775-76.⁴¹

Another strong and well-based perception of Tenneco's ability to enter into shock absorber design and manufacture comes from Mr. Putnam, the Chairman of Questor Corp. Questor had successfully [46]made precisely that move in 1958, when it diversified from ESP into shock absorbers with the acquisition of Heckethorne, then a marginal shock absorber manufacturer with a product that was not well received. Significantly, Questor re-engineered the product, replacing its "one tube" design with a more conventional "two tube" product, and gained market share with the new product. See discussion, *infra*, 62. Thus, considerable weight is due Mr. Putnam's perception that Tenneco was capable of *de novo* entry.⁴²

the fact that three other large sporting goods firms were also interested in target market, Spaulding, MacGregor and Rawlings, plus a fourth, Medalist, with actual plans to enter and undeterred by the merger); *British Oxygen Co.*, 86 F.T.C. 1241, 1353-1354 (1975), *rev'd on other grounds sub nom. BOC International Ltd. v. FTC*, 557 F.2d 24 (2d Cir. 1977) (Commission finds merger anticompetitive where there were only three other potential entrants and none were "very strong" entry candidates). See also, V. P. Areeda & D. Turner, *Antitrust Law*, ¶ 1123 at 123-24 (1980) ("a universe exceeding three *similarly well-qualified* potential entrants should be presumptively sufficient to obviate concern") (emphasis supplied).

⁴¹ Tenneco was perceived as a more likely entrant than TRW because of the similarity in manufacturing shock absorbers and ESP, based on the importance of steel tubing in both products. Mr. Pond believed that entry by an ESP manufacturer would be "much easier" from a manufacturing standpoint than entry by a suspension parts firm. Tr. 775-76. He saw this entry coming either by the entrant commencing shock absorber manufacturing at the outset or first distributing shock absorbers to build volume, followed by a move into manufacturing, and believed that this choice would depend upon the entrant's financial resources. Tr. 772-73. Mr. Pond's perceptions were supported by those of his former vice president for research and engineering, who believed Tenneco had the capability to engineer and manufacture shock absorbers, and that he saw Tenneco's capabilities in this area as being at least as good or better than firms which manufactured other types of automotive products, including brake parts and suspension parts. See, e.g., Tr. 438-40, 480-82. In forming his perception of Tenneco's capabilities, he emphasized Tenneco's highly efficient production of ESP, Tr. 482, and the similarity in engineering the flow of gases in an exhaust system with engineering the flow of hydraulic fluid in shock absorbers, based on his own experience in transferring his engineering skills from the one product to the other. Tr. 484-85.

Mr. Pond also perceived Walker was a more likely entrant than Arvin, because Arvin's orientation was primarily as an OE supplier, while Walker was heavily oriented toward the replacement market. Tr. 864-65.

⁴² Q In your opinion, Mr. Putman, did Walker or TENNECO have the ability to enter into manufacture and sale of shock absorbers without acquiring Monroe?

A. Yes, sir. We did it, in our second phase of getting into the two-tube shock.

(Continued)

A perception of Tenneco as a likely, capable potential entrant was held by Midas as well, an ESP firm near the fringe of the shock absorber market which itself has considered from time to time entry into shock absorber manufacturing, *see* discussion, *supra*, 43-44, and thus would be well positioned to judge which other firms would be likely to enter. Significantly, Midas saw Walker as one of only two likely potential entrants, the other being Arvin. Tr. 1248-49.⁴³ [47]

In contrast, Tenneco presented the testimony of a senior marketing official at Monroe that he never considered Tenneco a likely potential entrant into shock absorber manufacturing, and that no officers or directors of Monroe ever raised that possibility with him. Tr. 3973-74. He testified further as to an extensive list of firms which he did consider likely potential entrants into the replacement shock absorber market.⁴⁴ This testimony, however, even if taken at face value, cannot rebut the contrary testimony of actual perception by Maremont, the other major industry member, for the procompetitive effects from such a perception by Maremont would still exist, and would be lost by the merger.⁴⁵ [48]

This proof of actual perception, moreover, goes beyond the level of proof found to be sufficient in other potential competition cases. Substantial authority exists for the proposition that the perceptions of firms in the target market may be inferred from objective economic criteria which identify a firm or class of firms as likely to enter the target market. *United States v. Falstaff Brewing Corp.*,

Q In your opinion, how could TENNECO or Walker have penetrated the replacement market with shock absorbers?

A In my judgment, they could have done the same thing we did in our second phase. They could have set up a facility and hired the proper technical people and the production people and marketing people, to set up an organization and go out to some of the national accounts where their contacts are as good as ours and offer them a quality product at a fair price, and I think they would have gotten their share of business, same as we did. Tr. 1145-46.

⁴³ Another glimpse of the industry's perception of Tenneco as one of the few firms likely to enter shock absorber production may be gleaned from the circumstances surrounding the Triple S acquisition in 1974. It appears that in offering its Terramatic shock absorber design to prospective purchasers, Triple S went to domestic and foreign shock absorber manufacturers. *See* discussion, *supra*, 37. As far as we can determine, Tenneco was the only firm not manufacturing shock absorbers which was approached by Triple S.

⁴⁴ Included were vehicle manufacturers (General Motors, Ford, Chrysler, Volkswagen, Toyota Nissen, Honda); foreign shock absorber manufacturers (Boge, Fichtel & Sachs, Bilstein, Armstrong Girling, Woodhead, Cofap, Kyaba, Tokiko, Showa); and other domestic auto parts manufacturers (Rockwell, TRW, Wagner Electric, Dana, Ecklund, Eaton, Federal-Mogul, Budd, Bendix, Borg-Warner). Tr. 3979-86.

⁴⁵ While it is thus unnecessary to reach the question of Monroe's true perception, we see little reason to treat the subjective perception of a potentially biased target market firm differently from the subjective intent of a firm said to be an actual potential entrant. That is, purported lack of subjective perception (or intent to enter) should be given little weight if the objective economic evidence points to a contrary conclusion. *See, United States v. Falstaff Brewing Corp.*, *supra*, 410 U.S. at 566 (Marshall, J., concurring); *cf. United States v. Siemens Corp.*, *supra*, 621 F.2d at 508 (subjective evidence entitled to some weight when supported by objective evidence); *FTC v. Atlantic Richfield Co.*, *supra*, 549 F.2d at 298 (subjective evidence deserves some weight where objective evidence is not strongly to the contrary). Here, of course, the purported absence of a subjective perception of Tenneco at the fringe is suspect given the obvious self interest of Monroe in preserving the merger and is countered by the overwhelming objective evidence pointing to the likelihood of an entry attempt, and the prior history of entry by ESP firms.

supra, 410 U.S. at 532-34; *United States v. Marine Bancorporation*, *supra*, 418 U.S. at 639-40.⁴⁶ Here, ample objective evidence related to the capabilities, incentives and interest of Tenneco in entering the replacement shock absorber market, *see* discussion, *supra*, 15-40, factors which could hardly go unnoticed by "rational shock absorber manufacturers." The likelihood that target market firms would perceive Tenneco as a likely potential entrant is enhanced, moreover, by an additional objective factor, the prior entries by other replacement ESP firms into the replacement shock absorber market. *See*, discussion, *supra*, 17-18, *infra*, 62-64. [49]

The perception by firms in the target market of a likely potential entrant perched at the edge of their market and the likely present procompetitive effects which flow from that sobering perception may exist independently of the internal plans of the potential entrant, or of other factors which block, at least temporarily, actual entry by that firm. *United States v. Falstaff Brewing Corp.*, *supra*, 410 U.S. at 532-33. *See also*, *FTC v. Procter & Gamble*, *supra*, 386 U.S. at 580-81.

In the present case, the ALJ, as we will discuss in greater detail below, found Tenneco not to be an actual potential entrant because of a lack of evidence that Tenneco was planning to enter *de novo* and because he believed that no viable toehold was available at the time of the acquisition. I.D., p. 119.

Although we disagree with the ALJ on the issue of actual potential entry, accepting his view would not alter our finding of industry perception of Tenneco as a potential entrant. In particular, he found that the two "viable" toehold firms which Tenneco had under consideration were unavailable because of an inability to agree with one firm over price, I.D. 406-08, and a lack of interest by the other firm, at least at the price offered. I.D. 394-97. These difficulties in negotiation, however, were, by their very nature, unlikely to have been known to anyone outside the immediate parties involved, and so would not diminish the perception of Tenneco as a likely entrant.⁴⁷ [50]

⁴⁶ In *Falstaff*, a majority of the Court held that the district court erred in failing to consider whether Falstaff was likely to have been perceived as a probable potential entrant based upon objective evidence, 410 U.S. at 533-34, n.13.

On remand, the district court reviewed that objective evidence and found that a firm in the target market would have perceived Falstaff as unlikely to enter. Thus, the presence of Falstaff on the edge of the market "could not have any procompetitive effect on behavior in said market." *United States v. Falstaff Brewing Corp.*, 383 F.Supp. 1020, 1023-24 (D.R.I. 1974).

The Supreme Court's subsequent decision in *Marine Bancorporation*, *supra*, continued to rely upon objective evidence which would tend to prove or disprove the likely procompetitive effect of a potential entrant poised at a market's edge. Skipping over the intermediate step of the perception of target market firms, the Court found that the district court did not err in its conclusion that no "wings effect" was likely based on its review of "the economic facts." 418 U.S. 602, 639-40. In this assessment, the Court gave great weight to regulatory barriers to expansion by the acquiring bank, barriers which banks in the target market would be expected to be well aware of. *Id.*

⁴⁷ Indeed, the record demonstrates the sensitive nature of the discussions. For example, in its negotiations

Further, the unavailability of firms as acquisition candidates does not affect the feasibility of entry through licensing from a foreign firm. See discussion, *infra*, 57-60. Thus, even if target market firms believed that Tenneco's talks with Armstrong and DeCarbon would not lead to merger, those firms could rationally perceive that Tenneco could license manufacturing technology from either firm.

Thus, we find that objective evidence is fully consistent with the actual perception of firms in and near the target market that Tenneco was a likely and capable potential entrant into the shock absorber market.

Present Procompetitive Effects

The importance of the perception by one or more target market firms of a significant potential competitor at their market's edge stems from the likely beneficial influence that such a perception will have on decisionmaking within the target market. Such decisions are expected to be more akin to those of a competitive market, to the benefit of consumers and competition generally, as target market firms attempt either to forestall entry by the new firm or to be better prepared for a new, more competitive environment if the feared entry materializes. An instance of the latter behavior was found in *Brunswick Corp.*, *supra*, where a domestic outboard motor manufacturer, OMC, acted to upgrade its 25-horsepower model to the level established by a similarly-sized product of Yamaha, a feared potential entrant. *Id.* 1222, 1273.

Brunswick was atypical in that at least some of the procompetitive effects could be directly traced to the perception of Yamaha at the market's edge. The more usual case will not present such a clear showing of causality, given the likely existence of multiple influences on any business decision, *e.g.*, the influence of existing competitors within the market, the level of overall demand for the product, general economic conditions, and the like. These practical limitations on our ability to trace causality are accommodated by the standard of proof under Section 7, *i.e.*, it is sufficient to establish the "probability that the acquiring firm prompted premerger procompet-

with DeCarbon, a family owned French firm, Tenneco's broker sought more information to justify an asking price which was high in relation to reported profits. CX 92, CX 93. He wrote DeCarbon that:

TENNECO-WALKER, and Ameutec are sufficiently experienced in Europe to appreciate that a family owned company keeps records differently than the publicly held company, and TENNECO-WALKER would be discrete and ethical enough to keep *all confidential disclosure* from you in *absolute confidence*. CX 93B (emphasis in original).

itive effects within the target market." *United States v. Marine* [51] *Bancorporation, Inc.*, *supra*, 418 U.S. at 625 (emphasis supplied).⁴⁸ [52]

In the instant case, there are indications that the competitiveness of the shock absorber industry increased in the years just prior to the challenged acquisition, and reasons to believe that the perception of Tenneco at the market's edge was a significant factor stimulating this new competitive vigor.

These changes appear to have begun with Maremont in 1968, Tr. 777, at the time when Tenneco first began expressing interest in shock absorber production through its talks with Armstrong, *see* discussion, *supra*, 32. Beginning at that time, Maremont began a program of heavy investment in three aspects of its shock absorber program, each significant to defending against the threat of Tenneco's entry.

One such area was in inventory levels, which determine the completeness with which orders can be filled. During this period, Maremont invested "considerably more" in inventory in order to provide a level of "order fill" in the range of 98 to 99 percent, even though industry practice at that point demanded only 90 to 92 percent availability⁴⁹, Tr. 777-78, benefiting wholesalers, jobbers and ultimately consumers through improved availability of product.

A second area of Maremont activity was in new product development. During this period Maremont introduced a new "air-oil" shock absorber and engaged in extensive research and development of a self-leveling and self-adjusting shock absorber. Further, Maremont moved strongly into the relatively new area of MacPherson strut replacement cartridges. Tr. 778.

Finally, and perhaps most significantly, Maremont made great efforts over this period, and especially in the years coinciding with Tenneco's greatest interest, to reduce its cost of manufacture. These

⁴⁸ *See also, United States v. Falstaff Brewing Corp.*, *supra*, 410 U.S. at 526:

The District Court should therefore have appraised the economic facts about Falstaff and the New England market in order to determine whether in any realistic sense Falstaff could be said to be a potential competitor on the fringe of the market with *likely* influence on existing competition. . . . The Government did not produce direct evidence of how members of the New England market reacted to potential competition from Falstaff, but circumstantial evidence is the lifeblood of antitrust law. *Id.* at 533-34, n.13; (emphasis supplied).

FTC v. Procter & Gamble Co., *supra*, 386 U.S. at 580-81 (Court found it "clear that the existence of Procter at the edge of the industry exerted considerable influence on the market" based on review of objective evidence and assumption that target market behavior would be influenced); *United States v. Phillips Petroleum Co.*, *supra*, 367 F.Supp. at 1232-39, 1254-56 *aff'd per curiam*, 418 U.S. 906 (1974) (edge effect found based on objective factors and perception of Phillips as a likely entrant). *Cf. United States v. Siemens Corp.*, *supra*, 621 F.2d at 509 (presumption of edge effect rejected where fringe firm neither likely to enter nor perceived as likely to enter by target market firms).

The presumption of an edge effect in appropriate circumstances is consistent with the overall thrust of Section 7, which is concerned "with probabilities, not certainties." *Brown Shoe Co. v. United States*, 370 U.S. 294, 323 (1962); *United States v. Falstaff Brewing Corp.*, *supra*, 410 U.S. at 534 n.13.

⁴⁹ *See* discussion, *infra*, 54 n.51.

cost savings, and more, were passed on to consumers in lower shock absorber prices. Indeed, there is evidence that Maremont was *absorbing* cost increases in the period immediately prior to the Monroe acquisition. Tr. 778-79, 855, I.D. 449. Moreover, the impact of this edge effect was widespread. Price cutting caused by cost reductions and/or cost absorptions was not limited to Maremont; Monroe and the remaining producers were forced to match Maremont's prices to the benefit of consumers. Tr. 779, 854, 4071-72, RX 58. [53]

Although we need not trace these substantial and varied procompetitive effects directly and solely to the perception of Tenneco on the edge, *United States v. Marine Bancorporation, supra, United States v. Falstaff Brewing Corp., supra*, there is evidence indicating that that perception did, in fact, play a role in causing Maremont to engage in the activities set forth above. There is, for example, the testimony of Mr. Pond of Maremont in discussing the cost reduction program:

One of the ways that you strengthen your position in a business *and restrict or limit the amount of competition that you are faced with* is to make considerable efforts to become a low-cost producer. We have had as a company very aggressive cost-reduction programs over the past eight or nine years, but more specifically, over the past three to four years, to reduce the cost of our product, to reduce the cost of our every-day market products. Tr. 778-79. (emphasis supplied)

Given Maremont's actual perception of Tenneco as the most able of just a few potential entrants, *see* discussion, *supra*, 45, and objective economic evidence similarly placing Tenneco as the single most likely such entrant, *see* discussion, *supra*, 41-44, we are persuaded that these efforts to "restrict or limit" competition were in large measure aimed at deterring a destabilizing *de novo* or toehold Tenneco entry.

Our reading of the evidence is thus contrary to that of the ALJ, who found after reviewing Mr. Pond's testimony that "while it may not be entirely clear, it appears to support respondent's view [that the requisite effects were not shown]." I.D., p. 120. The ALJ found "crucial" a carefully couched statement by Mr. Pond that Maremont did not "specifically" examine potential competition "on a periodic basis" in formulating its strategy.⁵⁰ I.D., p. 120. [54]

The ALJ found this testimony insufficient to establish the present

⁵⁰ The relevant testimony in full is as follows:

Q. Did the presence of Walker, [Midas] and/or TRW as likely potential entrants into the shock absorber market, have any effect on Maremont's decisions, business decisions?

A. I don't think that we looked specifically at competitors on a periodic basis or potential competitors, in developing our strategy. I think we developed our strategy and approach to the business based on how we perceive it and how we perceived the opportunities. Tr. 776-77.

procompetitive effect of Tenneco because he read it to mean that Maremont did not take Tenneco "*directly* into account in making its business decisions." I.D., p. 120. (emphasis supplied) This standard, however, of demanding clear, subjective evidence of an actual direct edge effect is inappropriate for Section 7, which is concerned with the probable anti-competitive impacts of acquisitions. *United States v. Falstaff Brewing Corp.*, *supra*, *United States v. Marine Bancorporation*, *supra*. "Potential competition cannot be put to a subjective test." *United States v. Penn-Olin Chemical Co.*, *supra*, 378 U.S. at 174; *United States v. Falstaff Brewing Corp.*, 410 U.S. at 534 n.13.

The ALJ similarly dismissed other Maremont testimony as "unclear" because it does not establish whether Maremont's heavy investments were to stave off actual or potential competition. I.D., p. 120-21. Although we find that this standard again puts too fine a point upon an inquiry concerned with the probability, not certainty, of a present procompetitive effect, analysis of the investments made by Maremont leads to the conclusion that the motivation behind them can more logically be found in the concern for potential rather than actual competitors.

For example, Maremont testified that it invested heavily in inventory to improve the quality of its service, its rate of "order fill," to a level substantially higher than the industry standard then in effect.⁵¹ The record does not reveal competitive pressure from Monroe or others within the replacement shock absorber market to improve service, but an extraordinary level of order fill could be a useful weapon against a feared potential entrant. One obvious impact is in raising the investment in inventory needed by a potential entrant to compete in winning over new accounts, making entry more expensive. Providing improved service to its accounts also can reasonably be expected to increase the loyalty of those accounts to Maremont, [55]to increase the difficulty facing a new entrant in winning market shares generally, and to push whatever loss did arise onto Monroe or others. Finally, there is the possibility that Maremont was responding to an expectation that Tenneco, upon entering, would set a high standard of service, comparable to what it was already providing in the replacement ESP market. CX 27N.

Similarly, a better explanation for Maremont's cost-cutting and cost-absorption can be found in fear of potential entry than in the

⁵¹ The record demonstrates only that a rate of order fill at the level of 80 percent or below may be unsatisfactory in the replacement shock absorber market. Tr. 968, 1627-28, 1630-32. In his discussion of the standard of order fill in this market, I.D. 226, 284, the ALJ erred in lumping together practices in the replacement ESP market with the shock absorber market, *id.*, especially in light of direct testimony that the normal level of order fill in the shock absorber market is in the range of 90-92 percent, Tr. 777. There is evidence that the standard in the ESP market is close to 100 percent, and, significantly, is set by Walker. *See*, CX 27N, Tr. 9437-38.

actual competition which then faced the firm. One would not expect a firm in such a concentrated market voluntarily to absorb cost increases and thereby cut its rate of return. Rather, one would expect Maremont merely to pass such increases through in the reasonable expectation that its one main competitor will find that enlightened self interest lay in following a similar course.

Even investments in cost-cutting, which generally would appear not to be inhibited by a high level of concentration, as the payoff from that investment could be retained by the firm, here appear motivated by fear of potential entry rather than by the present competition facing Maremont. Maremont, it must be noted, had a large proportion of its sales, 41 percent, going to one account, Sears, Roebuck and Co., and an additional 14 percent going to three other mass merchants. RAB 54 *in camera*. Although the record does not disclose the nature of Maremont's contractual relationships with these other big accounts, it does demonstrate that the Sears contract provided for payment on a *cost-plus* basis, *i.e.*, projected actual cost for the contract [56]year plus a fixed percentage of that cost as Maremont's return.⁵² RAB 55 *in camera*. This arrangement is significant for it limits the return which Maremont could obtain from investments in new, cost-saving technology. Thus, the benefit to Maremont of investment in this area is substantially less than it would otherwise seem to be.

Investment in cost-reducing technology, however, might be completely justified as an attempt to deter entry by Tenneco, or to be better prepared for more rigorous competition following entry. Indeed, Maremont recognized that Tenneco was a highly efficient ESP manufacturer. Tr. 439.⁵³ [57]

In conclusion, we find that the various improvements in the competitiveness of the replacement shock absorber market in the

⁵² At the close of the year, Sears' auditors would examine Maremont's actual production costs, and "redetermine" the cost-plus figure. If Maremont's costs exceeded the projection at the beginning of the year, Maremont received only the originally projected cost plus the fixed percentage. If Maremont succeeded in cutting costs, *half of the actual savings were refunded to Sears*. Further, it appears that the new, lower cost figures would become the basis of the calculations for the next year, giving Maremont none of the benefit of these savings in the second and succeeding years, at least in its business with Sears. RAB 55 *in camera*.

⁵³ Respondent argues that Sears' "buyer power" instigated the wave of increased competition which swept across the shock absorber industry in the early 1970's. *See, e.g.*, RAB, 54-57. The "power buyer defense," in brief, asserts that sufficiently dominant buyers can insure that even a concentrated market behaves competitively, obviating concern over the loss of potential competition. *Id.* at I.D. 204. Although the power buyer defense has met, at best, a lukewarm reception in cases lacking the extreme concentration present here, *see, e.g.*, *United States v. Black and Decker Manufacturing Co.*, *supra*, 430 F.Supp. at 754-55, we find it wholly inapplicable to the present case. As discussed above with respect to cost cutting, the improved competitiveness in the shock absorber market seems much better explained by the perception of Tenneco at the edge than by pressure brought to bear by Sears or other buyers. Similarly, there is no indication that Sears was unhappy with Maremont's service or otherwise instigated Maremont's inventory buildup; if anything, the presence of a large, predictable account such as Sears would seem to permit less, not more, inventory on hand. There is also no indication that Sears provided the motivation for Maremont's plunge into new product development.

pre-merger period cannot be adequately explained by factors indigenous to that market. Rather, the competitive upsurge appears closely related to the presence of Tenneco poised on the market's edge, in short, an actual edge effect.

Actual Potential Entry

A second, independent violation is that Tenneco, at the time it acquired Monroe, was itself an actual potential entrant into the replacement shock absorber market. The elements of this violation are largely co-extensive with those which establish Tenneco as a perceived potential entrant, *i.e.*, the prerequisite of a concentrated target market, the need for the firm to have capabilities, interest and incentive such that it is a likely potential entrant, and the requirement that few other firms be similarly situated. However, two distinct additional elements are required as well: (1) that the firm had available to it a feasible means of entry other than through the challenged acquisition and (2) that entry through that alternative route carried a reasonable prospect of deconcentration or other beneficial procompetitive effects. *United States v. Marine Bancorporation, supra*, 418 U.S. at 633.

There were, in fact, various alternative methods of entry available to Tenneco at the time of the Monroe acquisition. We have little doubt that, given its existing capabilities, *see* discussion, *supra*, 15-23, Tenneco could have entered *de novo*, without even the aid of technology licensed from another shock absorber firm.⁵⁴ While Tenneco did not demonstrate interest in attempting entry on such a completely *de novo* basis, I.D. p. 119, it did express interest in entry aided by technology licensed from a foreign firm. I.D. 360. International licensing appears to be common in the shock absorber industry, and includes the transfer of product designs, manufacturing know-how, trade names, parts, machinery and training. Tr. 9265-67, 4412, 2862-64, 9166.

Tenneco did not need all of these elements to enable it to enter the replacement shock absorber market. A license would have been most useful to it in supplying it an initial design⁵⁵ and any details of shock absorber production know-how it lacked, but Tenneco already possessed much of the additional skills and [58]assets a licensor could provide by the time it acquired Monroe. For example, Tenneco

⁵⁴ Indeed, Tenneco expressed some confidence in its ability to design and manufacture its own shock absorbers. *See*, CX 75.

⁵⁵ The record demonstrates that a firm may use a licensed design for its first generation of shock absorbers, and later move on to its own internally developed designs. *See, e.g.*, discussion, *infra*, 62 n.66. Tenneco, in fact, had such a design under development in the Terramatic. *See* discussion, *supra*, 20-21.

had already established itself as an efficient producer of rolled steel tubing, a major input in shock absorber production, and possessed significant proprietary knowledge in this area. *See, e.g.*, I.D. 269. *See also*, discussion, *supra*, 15. It also possessed the Walker tradename, already well established in the replacement ESP market.⁵⁶

Tenneco, had it wished to pursue the license route rather than the Monroe acquisition, very likely could have obtained whatever technology it desired. *See, e.g.*, Tr. 10172-73. There were a substantial number of foreign firms, at least seven, which did not have any United States licensees at the time of trial. Tr. 2472, 2602-03, 2865, 10172.

Licensing is not a hypothetical method of entry into shock absorber production; the record reveals that it is in fact common. Tr. 780-81, 2472, 2584-86, 2602, 2628, 2641-44, 2845-46, 2863-64, 4388-89, 4412, 9116-17, 9232, 9265-67, 9397, 10170-73, 10847. Nor is it difficult to see how licensed technology could assist a firm as well-positioned as Tenneco in completely surmounting the steep barriers to entry which surround the replacement shock absorber market.

Those barriers to entry, as discussed earlier, include the need for substantial capital, a nationwide distribution network, marketing ability, brand-name acceptance, technology to produce at a competitive price, and volume sufficient to support an MES plant.⁵⁷

There is little doubt that Tenneco could scale or already had scaled, most of these barriers. What remained were aspects of technology, available through license, and the establishment of volume sufficient to support an MES plant. That volume appeared attainable; Tenneco's penetration of the replacement market would be aided by volume from several sources. As discussed above, Tenneco had already committed itself to building a nationwide chain of muffler shops, which would alone generate demand for 12 to 25 percent of the demand needed to support an MES plant.⁵⁸ In addition, Walker already sold Monroe shock [59]absorbers as well as its own Mechanex steering dampers.⁵⁹ Manufacturing these products from its own plant would contribute approximately another 3 percent to MES volume. *Supra*, 21 n. 20. Additional immediate areas for volume could come from supplying shocks to Tenneco's growing chain of European muffler shops, and the possibility that a foreign licensee would supply its United States sales from Walker. CX 76.

⁵⁶ While the Tenneco and Walker names were obviously not established with respect to shock absorbers, the excellent reputation associated with each would aid acceptance of a new shock absorber line, especially with WD's. Tr. 10193-97, 10204.

⁵⁷ *See* discussion, *supra*, 12-13.

⁵⁸ *See* discussion, *supra*, 19-20.

⁵⁹ The shock absorbing cylinders for those dampers were obtained from Maremont, *supra*, 20.

Finally, it would appear that the opportunity for OE sales would present an additional area for Tenneco to build volume at a new facility.⁶⁰ Although substantial barriers exist for OE suppliers to enter the replacement market, especially in the need for broad product line, nationwide distribution and marketing ability, see discussion, *supra*, 6-7, the barriers are obviously lower when a replacement market firm seeks OE sales. The primary prerequisites for such sales would be some additional, technically focused salespersons, a plant site not too far distant from the recipient assembly plant, and sufficient excess capacity, see discussion, *supra*, 6. This final factor would obviously mesh well with Tenneco's initial replacement market volume. Thus, Tenneco could reasonably anticipate having initial demand for shock absorbers sufficient to supply a substantial portion of the volume needed to support an optimally-sized, MES plant.⁶¹

Entry with the aid of licensed technology could occur very rapidly, potentially even faster than the planned expansion of Tenneco's chain of muffler shops into a major national network. Although Tenneco's expansion of its muffler shop chain was planned to take five years, see discussion, *supra*, 19, shock absorber production could commence under license in as little as two years. Tr. 2642-43. These time frames, combined with Tenneco's great and quickening interest in the replacement shock absorber market, cause us to conclude that there existed the strong probability that Tenneco would [60] have entered by alternative means within the near term had Tenneco not acquired Monroe. Compare, *BOC International v. FTC*, 557 F.2d 24, 29, (2d Cir. 1977).

A second mode of entry, via toehold acquisition,⁶² was also both

⁶⁰ That OE sales might aid a profit-maximizing entry into the replacement market says only that such sales are desirable, not that they are necessary. Cf., RAB 44-45. Moreover, the record is clear that the replacement market in the United States is sufficiently large to support MES production without dependence upon OE sales, Tr. 9256, and Tenneco's existing replacement market distribution network made it particularly able to enter without OE sales.

⁶¹ We believe, moreover, that Tenneco would, in fact, enter with an MES-sized plant, even though initial demand would fall below that level. In this vein, we concur with the view of Dr. Nelson, complaint counsel's automotive expert, who believed that Tenneco would choose to build on that scale initially, and build volume up to MES level gradually over a number of years, and accept some cost disadvantage during that time the plant was under-utilized. Tr. 11020.

⁶² Blackstone, with its .4 percent share of the market, clearly qualifies as a toehold firm. See, Tr. 10993 *in camera*. Foreign firms with similarly modest shares of the United States' market such as Armstrong and DeCarbon also qualify as toehold firms, even if they possess very substantial market shares in other countries. The district court, however, in denying a preliminary injunction in this matter, *FTC v. Tenneco*, 433 F.Supp. 105 (D.D.C. 1977), held that the Commission had not demonstrated the existence of a feasible toehold. *Id.* at 114. The court defined a toehold as, *inter alia*, a firm "not dominant or otherwise significant in the American or foreign market," citing *Missouri Portland Cement Co. v. Cargill*, 498 F.2d 864 (2d Cir. 1974). *Id.* at 112. *Missouri Portland*, however, involved firms dominant in other geographic markets *within the United States*. We see little basis either in law or in logic, to extend the concerns of Section 7 to any conceivable anticompetitive impact upon the domestic market in Britain or France.

Nor do we view a foreign firm's dominant position in its domestic market as highly probative of even its potential market share in the United States. While some excess capacity in a foreign plant could obviously be used

feasible and available. A toehold would, like a license, provide technology, but would offer an additional advantage as well: the toehold's sales volume would be added to the volume Tenneco could already piece together through other avenues.

While respondent disputes the availability for acquisition of foreign firms such as Armstrong and DeCarbon, their feasibility as entry vehicles is not contested. Armstrong, for example, produces one of the world's most complete line of shock absorbers, *see* I.D. 391-92, 399, and Tenneco actively sought Armstrong [61]technology. I.D. 360-61. In terms of volume, Armstrong also would contribute to an additional 400,000 units annually to Tenneco's sales in the United States. *See*, I.D. 399. Armstrong further provided the possibility of supplying initial United States sales from the foreign, MES-sized plant until domestic sales volume rose to a level sufficient to support a new plant in the United States, an option actively considered by Tenneco in its discussions with Armstrong. *See*, I.D. 360, 362. A European toehold could fit well with Tenneco's expansion of its muffler shop chain in Europe, CX 109F, 106C, by supplying those shops with shock absorbers. *See* CX 83B.

The acquisition of a small, struggling domestic firm, Blackstone, also would have served as a viable method of toehold entry, although this route would have been more difficult and less attractive than the acquisition of a substantial foreign firm such as Armstrong. There is no dispute that Blackstone was burdened with aged equipment, a less than complete product line (it produced only 1" and 1- $\frac{3}{16}$ " conventional shock absorbers), declining market share and a mediocre reputation. I.D. 410-412. Even so, we believe that the ALJ erred in concluding that the firm was not a viable vehicle for Tenneco's entry into the replacement shock absorber market. I.D. 413.

The ALJ failed to consider how Blackstone's assets, although limited, could have aided Tenneco in surmounting the barriers which remained before it. In making his negative determination, the ALJ also neglected to consider the historical evidence of prior entry into the shock absorber replacement market through the acquisition, by an ESP firm, of a troubled toehold. Close scrutiny of an ailing toehold's capabilities, especially in light of what assets the acquiring firm could bring to it, is necessary, given the strongly procompetitive effects likely to flow from such an acquisition and subsequent efforts

to supply expanded sales in the United States, we truly doubt that a foreign firm would devote all its capacity to an effort in the United States, and thereby abandon its hard-won domestic sales base, and its investments in a domestic sales force, good will, customer contacts, warehouses and so forth. *Cf.* W.M. Landes and R.A. Posner, *Market Power in Antitrust Cases*, 94 Harv. L. Rev. 937, 963-70 (1981).

to improve that firm and to expand its market share. *See, e.g., The Bendix Corporation*, 77 F.T.C. 731, 819 (1970) *vacated and remanded, FTC v. Bendix, supra; The Stanley Works*, 78 F.T.C. 1023, 1078 (1971).

Blackstone, like Armstrong, would have brought to Tenneco another increment of United States sales in its efforts towards establishing unit volume capable of supporting an MES plant.⁶³ [62] It also possessed designs and manufacturing know-how for the 1" and 1-3/16" conventional shock absorbers it then had in production, as well as prototypes of both air-and spring-assisted shock absorbers, and the technical expertise to build them. I.D. 410. These additional items would provide a full product line, save for MacPherson strut replacement cartridges.

The feasibility of entry through a firm such as Blackstone has been demonstrated by Questor's acquisition of Heckethorne in 1958, and Questor's subsequent expansion of that firm. Although such analogies can never be exact, we think the circumstances of Heckethorne in 1958 and Blackstone in 1976 were sufficiently similar to provide us some guidance.⁶⁴ Heckethorne was successfully expanded to a significant factor in the market⁶⁵ even though, at the time it was acquired, it offered less technology to its acquiring firm than Blackstone did to Tenneco in 1976. In particular, when it was acquired, Heckethorne offered little in the way of design and production know-how.⁶⁶ [63]

This analysis is further supported by testimony from high officials from both shock absorber⁶⁷ and ESP⁶⁸ firms. [64]

There is, in addition, the example of the extraordinarily successful expansion of Gabriel following its acquisition by Maremont in 1962.

⁶³ In this instance, the contribution would have been less, approximately 250,000 units annually. Tr. 10993 *in camera*.

⁶⁴ For example, it appears that Heckethorne's market share was considerably greater at the time of its acquisition than Blackstone's. *See, e.g., Tr. 10216-17*. Yet Tenneco now, unlike Questor then, has the prospect of substantial sales through its muffler shop chain and through other means, *see discussion, supra*, 19-21, roughly compensating for this seeming difference in initial volume.

⁶⁵ Its market share in recent years is in the 7 to 9 percent range. Tr. 10936-37 *in camera*.

⁶⁶ Its product at that time was an odd-looking mono-tube design produced under license from DeCarbon, the French firm. Tr. 1114-15. While the design was functional, its unusual appearance gave it poor acceptance in the trade and Questor was unable to increase its market share in the first five years after the acquisition. Questor then designed a new line of conventional two-tube shock absorbers, and produced them, essentially from scratch. Tr. 1109-15, 1179.

⁶⁷ The Chairman of Questor, Mr. Putman, testified to the relevance of Questor's history to Tenneco's ability to enter the shock absorber market. When asked whether Tenneco could have entered without Monroe, he testified that it could have, and supported that opinion with his own firm's experience in expanding from its base with Heckethorne. *See discussion, supra*, 46.

⁶⁸ These officials testified that Blackstone would have been a viable toehold for Tenneco. According to Mr. Baker, the Executive Vice-President of Arvin,

Walker, with their number one position in ESP and with their financial wherewithal, could take a Blackstone and do wonders with it. They certainly could move a Blackstone off of an eighth or tenth list and move it right up through the pack somewhere. Tr. 602.

Similarly, Mr. Moore of Midas, who had visited Blackstone's plant, *see, e.g., I.D. 429*, believed that Tenneco would, with Blackstone, become a significant shock absorber producer. Tr. 1325-26.

Although this history is necessarily less relevant than the experience of Questor given Gabriel's significant market share at the time of acquisition,⁶⁹ it does merit some weight, inasmuch as Gabriel was in a downward trend when it was acquired, Tr. 10225, 10231-35, a trend which was dramatically reversed following the firm's acquisition by Maremont, Tr. 10235-39. Gabriel's market share has at least doubled and has possibly increased four-fold. Maremont today is the number one firm in the replacement shock absorber market.

Not only were these toeholds feasible, they were available as well. The availability of Blackstone is beyond question; the firm was actively soliciting firms to purchase its shock absorber at the time of the Monroe acquisition, I.D. 411. The availability of foreign firms, such as Armstrong and DeCarbon is less obvious, yet we believe that either of these firms in all likelihood could have been acquired by Tenneco, had Tenneco wished to undertake the more arduous and less certain competitive struggle which necessarily accompanies entry through a toehold acquisition. Rather than persuading us that Armstrong and DeCarbon were in fact unavailable, the record demonstrates only that Tenneco broke off negotiations with each firm once it had learned that a gap existed between the prices asked and offered.

In the case of Armstrong, a publicly traded company, the firm's management took the position in 1974 that it was not interested in being acquired at even a "normal premium" over the market price of the firm's stock. Tr. 2622-23. Management's position was that the firm's prospects were so bright that it would take a 100 percent premium to arouse their interest. But whether it would, in fact, have taken a premium of that size remained to be seen, given that the firm's share was widely held, Tr. 2639, and even management was constrained to admit that the Board of Directors would have had to recommend sale at an appropriate price. [65]

What had transpired, then, was little more than offer and counter-offer, accompanied by what appears to be some bluster and posturing by Armstrong. Such a course of events is to be expected in any negotiation, and by no means establishes that the target firm is, in fact, unavailable, especially given that Tenneco was the party which ceased negotiation.

To hold otherwise would, in essence, leave the government unable to challenge effectively the acquisition of major target market firms.

⁶⁹ Gabriel's market share in 1962 was a matter of some dispute in this proceeding. Compare, e.g., RAB at 23 with Tr. 10224-25. We find the most reasonable estimate of Gabriel's replacement market share at that time was that provided by Dr. Nelson, who believed it to have been in the 10 to 18 percent range. See, e.g., Tr. 10224-25, 10230-31. This is considerably less than the market share which the Commission previously believed Gabriel to have held when it was acquired. See, e.g., Tr. 10635, 10723.

To protect itself from exposure under Section 7, the well-counseled acquiring firm would need only to approach each toehold firm and engage in a round of negotiation, secure in the knowledge that the inevitable gap between offered and asked prices would insulate in from legal challenge and the eventual shock of a divestiture order.

In this case, there is nothing which demonstrates that Tenneco's negotiations with Armstrong or others were sham,⁷⁰ but that does not end the matter. Even if numerous rounds of serious and committed bargaining had occurred, and some price gap remained, we would be most reluctant to conclude from that alone that the target firm was, in fact, "unavailable." What a firm is willing to offer, of course, is related to a number of factors, not the least of which would be whether better opportunities lay before it. Here, the acquisition of Monroe, with its already established 38 percent replacement market share, must surely have been seen by Tenneco as an alternative infinitely more attractive than the purchase of Armstrong. Tenneco would acquire, along with Armstrong, years of struggle to build market share, and the prospect of creating a market structure permanently more competitive than would exist if it could obtain Monroe. *See, The Stanley Works, supra*, 78 F.T.C. at 1072. [66]

We have little doubt that had Tenneco believed it could not, in fact, acquire Monroe, it would have successfully closed the gap in price⁷¹ which separated it from Armstrong.⁷² *See, The Bendix Corporation, supra*, 77 F.T.C. at 820. Accordingly, we find that the unavailability of Armstrong as well as DeCarbon,⁷³ and other firms,⁷⁴ has not been established.

Finally, there is no doubt that entry by Tenneco through either a toehold acquisition or a licensing arrangement would both decrease concentration and produce additional procompetitive effects. Al-

⁷⁰ There is, though, evidence that Tenneco was well aware that its acquisition of Monroe would result in a almost certain challenge by this agency, *see* discussion, *supra*, 38 n.33, and that this second round of talks with Armstrong occurred just prior to the Monroe acquisition.

⁷¹ Nor is it the Commission's role to establish what that price would be. *See, British Oxygen Co. Ltd.*, 86 F.T.C. 1241, 357 (1975), *rev'd on other grounds, sub nom., BOC International, Ltd. v. FTC, supra*.

⁷² Indeed, Tenneco instructed the president of Walker Europe to maintain "contact and relationship" with Mr. Hooper, the chairman and CEO of Armstrong, pending further orders from Tenneco. CX 85.

We also note that Tenneco did acquire Harmo, a British ESP firm, in 1975 after negotiations which resembled its talks with Armstrong. Tr. 10178, 11485. *See, also*, Tr. 11490, CX 230.

⁷³ The record demonstrates a pattern of offer and counter-offer with DeCarbon not unlike that which occurred with Armstrong, although DeCarbon and Tenneco appeared farther apart on price. CX 91-95. Like Armstrong, the DeCarbon negotiation was left open. CX 96.

We are unimpressed by respondent's assertions that the French government would block a DeCarbon acquisition. RPF 363. In fact, DeCarbon proposed a manner of sale to ease any governmental concern, CX 92D, and Tenneco had in 1976 acquired at least one French ESP firm, Bellanger, Tr. 11485. Indeed, Tenneco had demonstrated a facility for acquiring European ESP firms in the early and mid 1970's, purchasing firms in Sweden and Germany, as well as in Britain and France. *See, e.g.*, Tr. 11482-91.

⁷⁴ The record also identifies still other suitable foreign firms, but does not make clear whether any of those firms could, in fact, have been purchased. I.D. 414-27 and p. 119.

though little evidence demonstrating the probability [67] of such benefits is required when the market in question is oligopolistic,⁷⁵ and few markets would seem more oligopolistic than the one in question, *see* discussion, *supra*, 10–12, there is, in fact, an abundance of evidence pointing to the likely benefits to competition which would flow from alternative entry by Tenneco.

The strongest predictor of the likely impact of such entry is found in the strong defensive actions taken by the industry in response to the *threat* that Tenneco would enter. Tenneco was regarded both within and without the market as the firm most likely to attempt entry, and that perception was the likely trigger of a wave of procompetitive effects, including improved service, new product development, cost cutting, and price cutting. *See generally* discussion, *supra*, 45–57. Actual entry by Tenneco would certainly have continued and perhaps even intensified those salutary effects.

In addition, deconcentration was also likely, inasmuch as full utilization of an optimal MES plant would require something on the order of 10 percent of the replacement market, *supra*, 12, and we conclude that Tenneco, with all its capabilities, would achieve at least that volume and likely more. In such circumstances, deconcentration would likely occur.⁷⁶ [68]

Conclusion

As the previous discussion illustrates, the effect of this acquisition is likely to lessen competition substantially in the sale of replacement shock absorbers through the elimination of both perceived and actual potential competition, in violation of both Section 7 of the Clayton Act and Section 5 of the Federal Trade Commission Act. The necessary and appropriate remedy in such circumstances is complete divestiture of the stock and assets illegally acquired. *United States v. E.I. Dupont de Nemours & Co.*, 366 U.S. 316, 328–31 (1961); *Procter & Gamble Co.*, 63 F.T.C. 1465, 1584, (1963) *aff'd*, 386 U.S. 568 (1967). *See also*, *L.G. Balfour Co.*, 74 F.T.C. 345 (1968), *aff'd*, 442 F.2d 1 (7th Cir. 1971). Further, a ban on future acquisitions without prior Commission approval is often imposed to prevent repetition of the

⁷⁵ *See, e.g., BOC International v. FTC, supra*, 557 F.2d at 27 n.5, quoting Professor Turner:

[T]he problem of proving that the new entrant would have been a substantial competitive factor can be overstated. It is highly likely that a new entrant in . . . a tight oligopoly industry . . . will shake things up a great deal in the process of trying to acquire a substantial market share, even if in the end its inroads are rather modest. 78 Harv. L. Rev. at 1383.

⁷⁶ More precisely, deconcentration would necessarily follow unless the overall sales volume in this market were rapidly to double and redouble, rendering MES-level sales an insignificant percentage of the newly expanded market. Needless to say, we believe this latter scenario highly implausible, especially in the short run.

violation. *See, e.g., Liggett & Myers Inc.* 87 F.T.C. 1074 (1976), *aff'd*, 567 F.2d 1273 (4th Cir. 1977).

Accordingly, we order, as urged by Complaint Counsel, divestiture of Monroe and a 10-year moratorium on future acquisitions by Tenneco of any shock absorber firm without prior Commission approval. CCPF pp. 161-64.

We fail, however, to see the need for, and therefore the appropriateness of, additional order provisions also urged by Complaint Counsel. Complaint Counsel would further burden Tenneco with a requirement that it report, for a 10-year period, *any* acquisition and the product line involved. Such a requirement, however, would not serve to further fence-in respondent from another unlawful shock absorber acquisition; Paragraph V already sees to that. Moreover, even if we were to assume likely recidivism in other product lines, the provision would not by its after-the-fact reporting aid us in preventing future violations; the pre-merger notification provisions of the Hart-Scott-Rodino Antitrust Improvements Act of 1976, 15 U.S.C. 18a, provide sufficient advance warning of most significant acquisitions. Complaint Counsel would also have us order Monroe, once divested, to "resist" takeover attempts by any other ESP firm. Although the notion of a target market firm valiantly struggling to preserve potential competition is appealing, the enforceability of such a provision is doubtful at best, and we decline to adopt it. Finally, we decline to adopt the proposed 10-year moratorium on any acquisition by Monroe of an ESP firm, inasmuch as we did not reach that theory of violation.

CONCURRING STATEMENT OF COMMISSIONER CLANTON

I. Introduction

I fully support the Commission's decision in this matter, but I would like to elaborate further on some of the thorny issues associated with the potential competition doctrine. In particular, my focus concerns the feasibility and attractiveness of alternative means available to Tenneco by which to enter the independent shock absorber aftermarket, factors that help to establish Tenneco as an actual potential entrant. In light of findings by the administrative law judge and a district court judge that alternative entry routes were not available, it seems useful to compare the facts of this case with the evidentiary standard set forth in previous judicial precedents. The Commission's conclusions here with respect to alternative means of entry are not only reasonable but consistent with those precedents.

An important consideration in cases of this kind is the relative weight that should be assigned to various forms of objective and subjective evidence. My point in this regard is simply that in assessing the alleged elimination of potential competition, we are always dealing with probabilities and rarely, if ever, with certainties. These probabilities, such as the likelihood of entry by means other than the acquisition under consideration, are invariably difficult to pin down with concrete and certain proof. In weighing the evidence—both testimonial and objective—we must always take care to refrain from engaging in substantial speculation about a firm's plans for the future. On the other hand, the whole theory of potential competition becomes quite useless if we and the courts are required to find with relative certainty that an acquiring firm would enter the market by means other than the acquisition or the date by which such alternative entry is going to occur. Market dynamics and the vagaries of any corporation's own planning process will almost always preclude us from making such precise determinations. Areeda and Turner have recognized this characteristic of potential competition:

Although we have criticized some decided cases which have not required much proof, truly satisfying proof cannot be demanded. To insist upon it would be virtually to abandon the effort to preserve potential entrants from elimination by merger. Abandonment, however, would be unwise in those situations where a highly concentrated market needs more competition and where potential entrants are few in number. With appropriate proof of such needs and numbers, . . . we see no alternative to rather modest proof that the defendant outside firm was a potential entrant. V. P. Areeda & D. Turner, *Antitrust Law* ¶1121e at 117 (1980). [2]

In some cases, the evidence provides fairly clear answers to the questions posed by the actual potential entrant theory. For example, in *Heublein, Inc., et al.*, 96 F.T.C. 385, 587 (1980), the Commission found that Heublein's experience in the marketing and distribution of other alcohol products, together with the experience of similarly situated firms, more than adequately supported the conclusion that it would have been within that firm's capacity to acquire and operate successfully a small wine company, even though we ultimately did not find liability against that actual potential entrant.¹ And, in *Brunswick Corp., et al.* 94 F.T.C. 1174, 1269-70 (1980), *modified as to relief*, 96 F.T.C. 151 (1980), *aff'd as modified sub nom. Brunswick Corp. v FTC*, No. 80-1913, and *Yamaha Motor Co., Ltd. v FTC*, No. 80-1760 (8th Cir. July 29, 1981), we found it unusually clear that the potential entrant possessed and was exploiting the technology

¹ It should be noted that in *Heublein* the facts also revealed with greater-than-usual clarity the substantial number of other potential entrants at the market's edge, which of course diminished the competitive importance of the loss of Heublein as one actual potential entrant. 96 F.T.C. at 589.

required to enter the relevant market; the entrant also was adept at marketing in areas distant from its production facilities, such as the relevant market. Similarly, in *Heublein*, we were able to judge with confidence that there were numerous smaller candidates available to the respondent for entry by toehold acquisition. 96 F.T.C. at 587-88. By contrast to these instances, the facts in other cases may not be as clear-cut, and a decision may often have to be made on the basis of inference from such evidence as company history or the experience of other firms in the market. But the fact that less-than-certain judgments must be made in the process of evaluating likely potential entry should not be fatal to the process or wholly determinative of the outcome.

In this case, the evidence of objective factors—including market compatibility, access to relevant technology, favorable and attractive market conditions and the availability of less anticompetitive entry vehicles—makes it quite reasonable to conclude that Tenneco would likely have entered the relevant market by alternative means.

II. Interest, Incentive and Feasibility of Entry

As the Commission's opinion notes, one of the key prerequisites to any finding of liability is to establish that a *reasonable probability* exists that the acquiring firm had means to enter, and would likely have entered, the relevant market other than through the challenged acquisition. *United States v Marine Bancorporation*, 418 U.S. 602, 633 (1974); *United States v Siemens Corp.*, 621 F.2d [3]499, 506-07 (2d Cir. 1980). In *Siemens*, the court relied upon the following factors to find that the defendant would probably *not* enter the market *de novo* or by toehold acquisition, even though it had both the interest and incentive to do so: Siemens lacked the technological competence to develop its own product, as evinced by the fact that it had tried and failed to achieve that objective; it faced a substantial time lag before reaching the market, even if it did have the technology to develop its own product; the defendant had missed the growth phase of the market and the profit prospects for the future in that market were not encouraging; and there was no offer of evidence of an attractive and available toehold. *Id.* at 507-08.

By contrast, the objective factors here support a reasonable probability that Tenneco would have entered by means other than this acquisition within a foreseeable period of time. Like Siemens, Tenneco has the interest and incentive to enter the shock absorber market, as the ALJ found, as the Commission's opinion details and as I describe below. Unlike Siemens, Tenneco possesses the techno-

logical capability to enter the market. Although Tenneco/Walker did not have all the required technology in hand, it was close to that stage and presumably could have licensed or acquired the remainder. It had experience in making jacks and tubes and had acquired proprietary technology in shock absorbers, through Triple S. Respondent also had an efficient distribution system compatible with shock absorbers and its own muffler shops—a form of retail outlet through which shock absorbers are often sold. This compatibility is seen in the fact that most of the major competitors of Walker and Monroe market both exhaust system parts and shock absorbers. Also, unlike Siemens, even though the profits in shock absorbers have declined from previous levels, the rewards to be gained from the shock absorber business are still attractive and are expected to remain so.

As mentioned above, the ALJ found that Tenneco had no plans to enter *de novo* and that no toeholds were available that would be viable alternative means of entry. Specifically, he found that while Tenneco was interested in acquiring Armstrong the interest was not mutual, that Tenneco and DeCarbon had failed to agree on a price, that Blackstone was unattractive, and that the status of "other" toeholds was "unclear." (I.D. 119) Also, in denying a preliminary injunction, a district court found insufficient and inconclusive showings on both the *de novo* entry prospects and toeholds. *FTC v Tenneco, Inc.*, 433 F. Supp. 105 (D.D.C. 1977). However, our own review of objective factors developed in this record leads us to a different conclusion. [4]

As the majority's opinion makes clear, prior to the acquisition of Monroe Tenneco had been exploring several different means of entering the shock absorber business. More specifically, it had explored licensing, development of proprietary technology and various acquisitions. Obviously, if each of these alternatives had led to a dead-end, we would be left with no choice but to permit the merger, but the evidence reveals something quite different from that. After surveying Tenneco's multiple and varied probes of the shock absorber market, it is reasonable to conclude that the firm intended to enter by some means, whether by *de novo* entry, toehold acquisition, licensing or even acquisition of a leading firm. Moreover, because of Tenneco's recent consideration of the time required for development of Armstrong and DeCarbon licenses and its probes of other acquisitions, probable entry seems more predictably immedi-

ate in this case than it has been in others. *Compare BOC International, Ltd. v FTC*, 557 F.2d 24, 29 (2d Cir. 1977).² In *BOC*, the court concluded that the Commission had found only that the respondent was likely to enter *eventually* with no indication as to what was meant by eventual entry. Here, by contrast, we have evidence of multiple negotiations with other firms regarding licenses and acquisition, plus the consummated acquisition of Triple S, all indicating a more immediate prospect of entry by Tenneco. Some further review of the evidence bearing on each of the elements of the actual potential competition doctrine will confirm this conclusion.

A. Interest and Market Attractiveness

A major argument of Tenneco is that it never seriously considered entering the shock absorber market by any means other than the Monroe acquisition. (RAB 14) Respondent emphasizes that no decision-making officials at Tenneco or Walker ever seriously considered any other method of entry, citing complaint counsel's own expert for the proposition that, at the very least, respondent did not exhibit an intention to enter absent acquisition of a license or a toehold. (RAB 15) In particular, Tenneco belittles its talks with other shock absorber firms prior to its negotiations with Monroe, including Armstrong, Tropic, Triple S and DeCarbon. (RAB 15-17) While some of those negotiations may not have proceeded to ripeness, and some of those firms or their assets ultimately may not have been available, these overtures belie the respondent's denial [5]of any interest in this business beyond its efforts to acquire Monroe. This conclusion is supported by the evidence of respondent's sustained and focused interest in shock absorbers over time; for example, there is the following observation of Mr. Cook, the president of Walker. Although made in conjunction with consideration of the Monroe acquisition proposal, these comments unmistakably exhibit Tenneco/Walker's strong prior interest in the shock absorber market:

During the past reviews of Walker's five year plans, we have had discussions with the Tenneco Planning Department regarding potential new product lines that would most closely fit with our present exhaust business, and the answer has been collectively agreed to be shock absorbers. As is detailed in the preliminary background data attached, we believe the product line is the most compatible and is significant enough to justify pursuing. (CX 10A)

Respondent also argues that its interest in Monroe does not necessarily evince a general interest in other kinds of entry. (RAB

² In *Yamaha Motors Co. Ltd. v FTC*, the court of appeals did not attempt to determine precisely when Yamaha might have entered the market; it determined only that the showing of the time of likely entry was "considerably more definite than was the case in *BOC*." 1981-82 CCH Trade Case ¶64,202 at 73,729 n. 12 (8th Cir. July 29, 1981).

17-18) That may certainly be true in some instances, but, as we said in *Heublein*, 96 F.T.C. at 586, the fact that a firm says it will enter a market only by acquiring a particular firm should not be conclusive or highly probative, especially where there is other evidence of broader interest.³ I agree with the majority that Tenneco exhibited such broader interest prior to its acquisition of Monroe.

Tenneco's general interest in shock absorbers has been stimulated and sustained by the special characteristics of its Walker Division that make shock absorbers the most logical line of products to add to its ESP lines. The majority's opinion describes in some detail the experience of Walker in the manufacture of steel tubing, a major input in shock absorber production (CX 4F), as well as its jack-manufacturing experience with hydraulic principles closely related to the design and construction of shock absorbers. In addition, the majority details Walker's distribution and marketing capabilities which afford peculiar economies in shipment and sales from the combination of ESP and shock absorbers. [6]Walker itself has recognized the special compatibility of these two lines of products. (See CX 10A). The similarity of these technologies is much greater than was the case in either *Siemens, United States v Black and Decker Mfg. Co.*, 430 F. Supp. 729 (D. Md. 1976), or *FTC v Atlantic Richfield Co.*, 549 F.2d 289 (4th Cir. 1977). The differences between Siemens' X-ray and computer tomography technology, on the one hand, and the technology required for entry into nuclear medical equipment created a wider chasm than exists here between ESP and shock absorbers. 621 F.2d at 507. And, in *Atlantic Richfield*, although Arco had experience in one narrow segment of the uranium market, the court found that it possessed none of the requisite expertise to make it a potential entrant into uranium extraction; the two diverse technologies were not regarded as similar or transferable. 549 F.2d at 299-300. Likewise, Black & Decker's experience in electric motors did not lend it the know-how required to enter gasoline engine production because, as the court noted, their design and development entailed different considerations. 430 F. Supp. at 758. Such is not the case here, as Tenneco itself recognized on several occasions, and it is quite reasonable to infer that respondent's experience with very compatible technology and mar-

³ The court in *Siemens* said that the memoranda of a few lower-echelon employees of the defendant company who possessed no management responsibility could not suffice as evidence of corporate intent to enter a market. 621 F.2d at 508 (2d Cir. 1981). Furthermore, the views of those employees had not been brought to the attention of the decision-making management. In this case, however, there is sufficient involvement by the upper management of Tenneco and Walker to attribute the expressions of interest in shock absorbers found in Tenneco's documents directly to the decision makers.

keting methods positioned it well for—and heightened its interest in—entry into the shock absorber business.

The attractiveness of the relevant market also constitutes an important objective factor to be weighed in potential competition analysis. Such analysis involves not only profitability but projected market growth and other market trends indicating the long-term health or decline of a business. Such considerations have played a role in other decisions, including the recent *Siemens* decision, in which the court found that the alleged actual potential entrant had missed the phase of rapid growth in the market and that profitability had become, and would likely remain, low. 621 F.2d at 507. See also *United States v Wilson Sporting Goods Co.*, 288 F. Supp. 543, 553, 560 (D. Ill. 1968) (market growing rapidly and attractive for entry); *United States v Ford Motor Co.*, 286 F. Supp. 407, 439 (E.D. Mich. 1968) (rate of return apparently attractive but misleading); *United States v Standard Oil Co.* (NJ), 253 F. Supp. 196, 212 (D.N.J. 1966) (high profit and growing demand). In this case, however, such factors portray a different picture of the prospects for the shock absorber market and entrants seeking to enter it.

Respondent argues that the shock absorber market was stagnant from 1973–77 primarily because of the growth in demand for MacPherson struts and was unattractive to possible entrants because of the high minimum scale required for efficient production of shock absorbers. (RAB 10) While the barriers imposed by scale economies may be high, the evidence indicates that Tenneco is in a far better position than any other firm to achieve successful entry. Furthermore, while the profits in this market in recent years may be somewhat lower than they were previously, that is not enough to render the market unattractive for purposes of this analysis. As the ALJ notes, there is evidence that the decline in Monroe's profitability was temporary, resulting from internal problems, competition from Maremont and [7]conditions in foreign markets. (I.D.F. 200) Moreover, respondent's own forecasts prior to the merger indicate that the market is attractive and that Monroe's setback is only temporary. (I.D.F. 205) Although the profit margins in the market have become somewhat leaner and some firms have exited, the market is hardly in irreversible decline nor does it approximate the condition of the market in *Siemens*. While some weight would be given to changed market trends, these changes are not so significant as to justify a finding that the shock absorber market is unattractive. In fact, the departures from the market tend to show only that those

firms were not as well situated to thrive in the market as Tenneco/Walker.⁴

B. Feasible Means of Entry

The availability to Tenneco of feasible alternative means of entry is a critical issue here, and it played a principal role in the ALJ's and district court's findings in favor of respondent. The most likely alternatives available to respondent appear to be entry through a licensing arrangement or through acquisition of a toehold firm (e.g., Armstrong, DeCarbon, or Blackstone). We must acknowledge that economies of scale may make entry by either licensing or expansion of a toehold more difficult, as the respondent argues. (RAB 26) Yet, to the extent that it exists, this difficulty was known to Tenneco and taken into account in its pre-merger evaluations of the shock absorber market. Some of the pre-merger documents involving the acquisition of Triple S indicate that Tenneco considered using that purchase as a springboard into the full-scale participation in shock absorber market. (CX 25Z-9) Throughout its period of exploration of shock absorbers, Tenneco also discussed production under a license as a possible option. Respondent specifically discussed licensing as well as acquisition with both Armstrong (CX 76) and DeCarbon (CX 297, 300, 303), and it seems quite clear that shock absorber production under a license was feasible. As the majority's opinion notes, the American shock absorber firm, Heckethorne, at the time of its purchase by Questor, produced under a license from DeCarbon. Additionally, an official of Armstrong, which licensed firms in many countries, testified that such licenses could be developed into full production in two years.

As for the availability and attractiveness of the toeholds, we place greater weight than the ALJ did on the extensive contacts and negotiations by Tenneco with various firms, ranging from Tropic and Triple S to Armstrong and DeCarbon. The ALJ's dismissal of the Armstrong and DeCarbon talks as futile and meaningless because of differences over price is not entirely persuasive. The reasonable inference to be drawn from these talks is that they were serious, that they proceeded and were maintained [8]over a period of time and that they were substantial exercises within the total context of Tenneco's multi-faceted exploration of the shock absorber business. Indeed, even after its initial round of discussions with Armstrong, which did not produce an agreement, Walker's president wanted to

⁴ A variant of respondent's argument about the attractiveness of the market is that the market was performing so competitively that the potential competition doctrine is inapplicable. That issue will be discussed more fully below.

keep the lines of communication with Armstrong open for future development. The fact that certain negotiations were stalled over price differences is not necessarily dispositive. Obviously, respondents should not be required to pursue a futile exercise or accept an unreasonable offer. But the facts here do not reveal an impasse in negotiations between Tenneco/Walker and either Armstrong or DeCarbon. Rather, the evidence, based on Walker's own assessment indicates that the doors remained open for purchase of a viable toehold at the time Tenneco turned its attention to Monroe.

III. Fewness of Potential Entrants

As we noted in *Heublein*, although complaint counsel bear the ultimate burden of proof on the issue, it seems reasonable to ask the party defending the merger to come forward initially with evidence that "a group of plausibly qualified potential deconcentrators exists." 96 F.T.C. at 589. Respondent suggests that a large group of such entrants is sitting in the wings, citing the major auto companies and manufacturers of original equipment shock absorbers and other motor vehicle parts. Superficially, those firms might appear to have the capability to enter the independent aftermarket for shock absorbers. But complaint counsel have persuasively demonstrated, as both the ALJ and the Commission's opinion describe, that the characteristics of the shock absorber aftermarket—*e.g.*, inventory management, distribution, brand-name recognition, access to technology and scale economies—make entry difficult and severely limit the number of likely potential entrants into the market. Respondent acknowledges that entry barriers are high and argues on that basis that even Tenneco would not be able to enter the market successfully except by purchase of Monroe. However, as detailed previously, Tenneco clearly appears to be in the best position to enter by means other than the Monroe acquisition, and the exit of other auto parts producers from the market suggests that expertise in other automotive lines is not readily transferable to the independent aftermarket for shock absorbers.

IV. Likelihood of Deconcentration

The Supreme Court in *Marine Bancorporation* clearly suggested that the presumption of non-competitive market performance derived from high levels of concentration could be rebutted, citing *United States v General Dynamics Corp.*, 415 U.S. 486 (1974), a horizontal merger case wherein the court found that market shares based on the traditional measure of sales did not fully reflect

competitive conditions in the market. 418 U.S. at 631. Respondent claims to have overcome the presumption here by showing how intense competition has thinned profit margins. [9] More specifically, respondent offers the following evidence in support of its contention: (1) testimony of industry executives; (2) testimony of non-industry members as to unattractiveness of entering the market from a profit perspective; (3) documentary evidence showing declining rates of return; (4) evidence showing that shock absorber prices rose less rapidly than prices generally; and (5) "buyer power" exerted by large mass retailers such as Sears. (RAB 48-49)

As to the first two arguments, it appears difficult to place great weight on post-merger statements of "intense price competition" by industry representatives. If corroborated by other objective evidence, these statements might be given some credence, but it is hard to imagine any industry member admitting that his firm did not compete aggressively or that the industry was non-competitive. The statements by non-industry members about the attractiveness of the market are somewhat more credible, but the reasons advanced could as easily be attributable to the fact that those firms did not have the technical or marketing capability to enter the market. In other words, the very reasons why those firms are not likely entrants—and Tenneco is—provides an explanation for their view that the market did not offer attractive investment opportunities.

With respect to the third reason, the evidence of declining rates of return—especially Monroe's—does not necessarily suggest that those returns will inevitably remain low. For one thing, Tenneco's own pre-merger documents indicate that the market is attractive and that Monroe's problems are temporary:

Generally, the industry growth pattern has been similar to exhaust: A long period of steady growth up to 1973, a drop in 1974, and a recovery in 1975-1976. (CX 5I)

We strongly believe Monroe will rebound and again be a significant profit producer, particularly if they are combined with Walker. (CX 5D)

We project the shock market to continue to grow and basically be a function of cars on the road, miles traveled, and overall economic conditions. (CX 5G)

An additional factor affecting Monroe's profitability was the more aggressive competition of the other industry leader, Maremont, in the early-to-mid-1970s. Although Maremont's actions reflect more competitive behavior, it is not at all clear that they signal the beginning of a long-term trend toward a fully competitive market. For one thing, Maremont may well have been responding, at least in part, to the threat of entry by Tenneco. For another, high entry

barriers limit the prospects [10] that a rapid influx of new competitors will await those industry leaders who attempt to extract supracompetitive profits from the market. That is not to say that a highly concentrated industry having relatively high entry barriers cannot operate reasonably competitively. However, the evidence that such an occurrence is likely to exist and remain permanent should be fairly persuasive. In light of evidence that historical profits were above average, that the shock absorber market is not in an irreversible state of decline, that the structure of the market has not changed significantly over time and that Monroe's problems were temporary, it is difficult to conclude that the presumption created by the high concentration levels has been effectively rebutted.

The evidence on price trends is especially difficult to assess and, therefore, is less reliable as a measure of the degree of competition existing in the market. It simply does not reveal with any clarity the underlying causes of the pricing behavior or the likelihood that competitive pressures, to the extent they exist, are likely to have a dampening effect on prices in the future. It is possible, as respondent suggests, that the growth of Sears and other mass retailers has had some impact on prices. But even if we accept the notion that buyer power could be considered an effective antidote to seller market power, it is not at all clear that the mass retailer segment of the shock absorber aftermarket will serve as an effective check on the competitive behavior of industry leaders. As respondent acknowledges, even with the presence of Sears, the buyer market is still significantly less concentrated than is the seller side. Moreover, given the difficulty of entry into the manufacture of shock absorbers for the independent aftermarket, there are substantial constraints on the ability of buyers to integrate vertically upstream if prices at the seller level rise too far above the competitive ideal.

In short, the evidence offered by respondent is inadequate to counter the presumption arising from the high concentration figures. Industry returns may be somewhat lower than they were, but the downward pressures on profits and prices are not so strong or irreversible that we can assume that the market—notwithstanding the concentration levels—is reasonably competitive. [11]

V. Perceived Potential Competition

Finally, a brief word is in order about our finding that Tenneco was a perceived potential competitor. In making that finding, the Commission relied upon objective evidence, bolstered by consistent

subjective evidence and a consistent inference of present effect upon one of the existing firms, Maremont.

The objective evidence has been described in detail and needs no further mention. Objective evidence undoubtedly constitutes the best evidence of the perceptions of existing firms and, "[o]rdinarily the objective likelihood of the outside firm's future entry would also determine the perceptions of existing firms." *Id.* ¶1122c at 119. As for the subjective evidence, which consists of the testimony of competitors as to their perceptions of Tenneco's entry potential it is wise to heed the advice that "subjective evidence from existing firms must be heavily discounted." V. P. Areeda & D. Turner, *Antitrust Law* ¶1122d at 120 (1980). Subjective evidence can be helpful, however, as confirmatory evidence, so long as its limitations are clearly understood. Here, those subjective perceptions are in line with the objective factors to which we have devoted so much care. In addition, the observed behavior of Maremont during the time of Tenneco's most active efforts to enter the shock absorber market is consistent with the other evidence of an edge effect. While Maremont may have also been responding to other market conditions, its conduct is quite consistent with a perception of Tenneco as a likely potential entrant.

Furthermore, it is useful to note that Maremont's behavior, in light of the other evidence, is perhaps as close as we may get in most cases to direct evidence of an edge effect. We cannot trace, with absolute certainty, Maremont's every action directly back to its apprehension about Tenneco, but the "something more" that would be required to do that—such as a pre-litigation document from the files of a high executive of an existing firm identifying the presence of the potential entrant as the cause for its efforts to discourage entry—will rarely be available. The problem of proof, of course, does not justify making speculative guesses about the market's likely reaction to potential new entry. The evidence here, however, taken as a whole warrants the reasonable inference that existing firms were aware of Tenneco's efforts to enter and reacted accordingly.

[12]

VI. Conclusion

To summarize briefly, I support the Commission's decision. The facts before us point inexorably toward the conclusion that the various elements of the potential competition doctrine have been satisfied. While the evidence in cases of this kind is always subject to

some uncertainty, I believe our findings are fully supportable and in harmony with relevant judicial precedent.

FINAL ORDER

This matter having been heard by the Commission upon the appeal of complaint counsel from the initial decision, and upon briefs and oral argument in support thereof and in opposition thereto, and the Commission for the reasons stated in the accompanying Opinion having determined to reverse in part the initial decision:

It is ordered, That the initial decision of the administrative law judge be adopted as the Findings of Fact and Conclusions of Law of the Commission, except to the extent it is inconsistent with the accompanying Opinion. Other Findings of Fact and Conclusions of Law of the Commission are contained in the accompanying Opinion.

It is further ordered, That the following order to divest be, and it hereby is, entered:

I

It is ordered, That respondent, Tenneco, Inc. (hereinafter "Tenneco"), a corporation, and its officers, directors, agents, representatives, employees, subsidiaries, affiliates, successors and assigns, shall divest all stock, assets, title, properties, interest, rights and privileges, of whatever nature, tangible [2]and intangible, including without limitation all buildings, machinery, equipment, raw material reserves, inventory, customer lists, trade names, trademarks, and other property of whatever description acquired by Tenneco as a result of its acquisition of Monroe Auto Equipment Company (hereinafter "Monroe") together with all additions and improvements to Monroe subsequent to the acquisition. Such divestiture shall be absolute, shall be accomplished no later than one (1) year from the service of this Order, and shall be subject to the prior approval of the Federal Trade Commission.

II

It is further ordered, That such divestiture shall be accomplished absolutely to an acquirer approved in advance by the Federal Trade Commission so as to transfer Monroe as a going business and a viable, competitive, independent concern.

III

It is further ordered, That pending any divestiture required by this Order, respondent shall not knowingly cause or permit the deterioration of the assets and properties specified in Paragraph I in a manner that impairs the marketability of any such assets and properties. Respondent may but shall not be required to make capital expenditures for the improvement of any such assets and properties.

IV

It is further ordered, That pursuant to the requirements of Paragraph I, none of the stock, assets, properties, rights, privileges and interests of whatever nature, tangible or intangible, acquired or added by Tenneco, shall be divested, directly or indirectly, to anyone who is at the time of the divestiture an officer, director, employee or agent of, or under the control, direction or influence of Tenneco or anyone who owns or controls, directly or indirectly more than one (1) percent of the outstanding shares of the capital stock of Tenneco or to anyone who is not approved in advance by the Federal Trade Commission.

V

It is further ordered, That for a period of ten (10) years from the date this Order becomes final, Tenneco shall cease and desist from acquiring, or acquiring and holding, directly or indirectly, through subsidiaries or otherwise, without the [3]prior approval of the Federal Trade Commission, the whole or any part of the stock, share capital, assets, any interest in or any interest of, any concern, corporate or noncorporate, engaged in the business of manufacturing, distributing, or selling, shock absorbers, nor shall Tenneco for a period of ten (10) years from the date this Order becomes final enter into any agreement, understanding or arrangement with any such concern by which Tenneco obtains the market share, in whole or in part, of such concern in the above described product lines, without the prior approval of the Federal Trade Commission.

VI

It is further ordered, That within sixty (60) days from the effective date of this Order and every sixty (60) days thereafter until it has fully complied with Paragraph I of this Order, Tenneco shall submit

a verified report in writing to the Federal Trade Commission setting forth in detail the manner and form in which it intends to comply, is complying or has complied therewith. All such reports shall include, in addition to such other information and documentation as may hereafter be requested, (a) a specification of the steps taken by Tenneco to make public its desire to divest Monroe, (b) a list of all persons or organizations to whom notice of divestiture has been given, (c) a summary of all discussions and negotiations together with the identity and address of all interested persons or organizations, and (d) copies of all reports, internal memoranda, offers, counteroffers, communications and correspondence concerning said divestiture.

VII

It is further ordered, That Tenneco shall notify the Commission at least thirty (30) days prior to any proposed changes which may affect compliance obligations arising out of the Order, such as dissolution, assignment or sale resulting in the emergence of successor corporations, and that this Order shall be binding on any such successor.