

Japan's Rapid-Growth Policy on Trial: The Television Case

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The focus of this study is the examination of linkages between the economic policies Japan adopted in the rapid-growth decades and the "Television Case," a major and as yet unresolved antitrust suit brought, in the early 1970s by two American producers of television sets against every Japanese exporter of television sets to the United States.¹ This complex case, to be detailed in part two, essentially charges that during the 1960s and 1970s Japanese firms, having successfully cartelized their domestic markets for consumer electric and electronic products, collusively fixed the prices of television sets sold in Japan, and, springing from this high-profit base, mounted a predatory campaign to sell their products at below-cost prices on the American market, thereby injuring U.S. producers.

Both the gravity of these allegations against large and well-established Japanese corporations and that sufficient evidence exists to fuel a prolonged legal proceeding in U.S. courts call for a serious reexamination of underlying facts, especially those pertaining to Japanese government policies to promote rapid economic growth.

Our examination of this case has two goals. One is a better understanding of the nature and effects of the economic policies adopted by the Japanese in the 1950s and 1960s to achieve rapid economic growth. We will focus on the policies' impact on firms' market behavior and on the winners and losers thereby created. The other, even more important goal is to gain, through an analysis of the economic and legal issues involved in this case, insights useful in answering several timely and widely debated questions: Should Americans be concerned with Japan's current policies toward its high technology industries, which are

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largely dominated by the very firms named in the TV case? Could the success of those policies cause the U.S. high technology industries to undergo a painful restructuring similar to that experienced by the producers of television sets? And what implication do our findings have for the current debate on the American adoption of an industrial policy?

In part one, we present (1) a brief analysis of the basic dynamics underlying the Japanese "investment race"—the rapid and sustained investment campaigns undertaken by large industrial firms from the 1950s through the early 1970s; (2) a discussion of the role of the vertically integrated marketing systems built by some oligopolistic firms in their generally successful efforts to restrict competition in a score of major domestic markets; and (3) an analytic overview of the possibly crucial impact of the "investment race" and collusive conduct within domestic markets on market strategies (including "dumping") adopted by oligopolistic firms to increase exports. In brief, this part provides descriptions and analyses of the policy milieu and economic dynamics of Japan during the rapid-growth era critical to an accurate understanding of the issues in the television case, and thus of their implications for broader industrial policy issues.

The second part turns to the specifics of the case. Drawing from the analysis in the first, we discuss the rapid growth of the Japanese home electronics products industry and examine evidence regarding the domestic market behavior of the seven major firms in the industry. We then describe the market strategies these firms adopted to enter the American television market and the legal challenge such strategies invited. We argue that both the analysis and the evidence strongly suggest that the increase in Japanese exports of television sets to the United States was spearheaded by price cuts made feasible, even profitable, by scale economies of products, Japanese firms' high fixed costs, and the effective cartelization of the domestic market.

The final part contains a summary and discussion of the lessons to be learned from this case. The lessons, we contend, have an especially important bearing on the domestic and international implications of current Japanese policies toward high technology industries and on the current debate over the American adoption of an industrial policy (or "targeting") with the "Japanese model" very much in mind.

1. JAPANESE RAPID-GROWTH POLICY AND MARKETPLACE STRATEGIES

When Japan entered its era of rapid growth (1950-73), it was in many respects a "lesser developed country" and accordingly adopted many of the heavy-handed progrowth strategies seen in LDCs today. Japan was not expected to employ free market policies and open trade practices until 1964, when it was admitted to OECD and became an Article 8 nation under the General Agreement on Tariffs and Trade (GATT). It is gradually being acknowledged that protectionist and interventionist policies continued to characterize the Japanese economy even well after 1964. As openly recognized by virtually all those knowledgeable about

the Japanese economy of this era, including many former government officials and business leaders, capital markets were insulated and regulated, oligopolization and collusion among domestic firms was condoned and even encouraged, various discriminatory laws and practices against trading partners were adopted, foreign exchange was bureaucratically allocated, and technology imports were coordinated by government offices.²

To what extent these characterizations are inaccurate when applied to Japan of the 1980s—how much liberalization, in the broadest sense of the term, has occurred during the past decade—is the subject of intense debate. For the moment, let us simply state that significant changes have taken place under strong foreign pressure in the Japanese capital market, in trade practices, and in the market behavior of large firms, and turn at this point to an examination of Japanese policies and business behavior during the rapid-growth era.

Growth Policy, the "Investment Race," and Collusion

The rapid growth achieved prior to the first oil crisis of 1973 was based on a frenetic race among Japan's major companies to adopt successively more advanced, large-scale production techniques. The burgeoning world and domestic markets and the ready availability of Western engineering know-how led most large Japanese firms of this period to perceive increased investment, enlarged scale, and mass output as a profitable course of action leading to efficiency and reduced unit cost. This perception was crucially enhanced by the role the Japanese government played in promoting and coordinating the "investment race" and in condoning its anticompetitive consequences.

An important and, some would argue, essential progrowth policy measure contributing directly to the investment race was the regulation of the Japanese capital market. The race was fueled by loan capital flowing from the largest Japanese banks—the thirteen "city banks"—to large firms at subequilibrium interest rates. This disequilibrium created chronic excess demand for loans and gave the Ministry of Finance (MOF) extensive power to ration credit. A policy of providing capital to large firms (and depriving consumers and small firms of funds) was feasible because the Japanese capital market was insulated from international money markets.³

MOF allocated credit primarily to assist industries such as shipbuilding, steel, automobile, electronics, and chemicals, considered central to achieving rapid growth. That is, the ministry played a major role in creating strong, oligopolistic firms in each of these industries by providing abundant credit to the large city banks, which in turn were the principal suppliers of credit to these firms. Few scholars dispute that MOF used "administrative guidance" to direct credit to specific industries or even specific firms in need of funds for expansion of their productive capacities. Simply put, MOF policy made possible both the investment race itself and the concurrent oligopolization of Japan's major industries.⁴

Along with MOF policy, a discussion of the government's contributions to the investment race must treat the generous tax incentives designed to promote

rapid investment and exports, as well as the trade policies (tariffs, quotas, foreign exchange control, etc.) that crucially influenced the pace of the race. However, we here focus on the role of the Ministry of International Trade and Industry MITI (in the investment race, a role many believe was no less important than that played by MOF).

Little overstatement is involved in saying that MITI made the investment race possible by coordinating or "umpiring" the contest, thereby reducing the risks of rapid investment. Let us briefly explain what is meant by the above, drawing from an earlier, more detailed analysis.⁵

In the rapid-growth period, firms faced what economists call a declining long-run average cost curve, that is, if output expands, unit costs decline and production becomes more efficient. This was principally due to the availability of readily borrowable, successively more advanced, foreign technologies and meant that each firm in an industry could successfully undersell its rivals by investing more and producing more than others in the industry. The structure of such industries is "unstable," to again use economists' jargon. That is, competitive investment to increase productive capacity could not but lead to the bankruptcy of some of the firms in an industry, thereby allowing the market to regain stability with fewer firms, possibly even a monopoly.

However, the costly dislocations of such an unstable situation, which would be detrimental to rapid economic growth, could be avoided if an authority outside the market could coordinate the pace of investments made by competing firms. In postwar Japan, MITI acted as this authority. In a nutshell, MITI "guided" firms to coordinate investment so that each oligopolist in a market made investments roughly proportional to its current market share—no firm was to make an investment so large that it would destabilize the market. The policy was effective in encouraging competition for market share (i.e., preserving the essential competitiveness in the industrial markets) while promoting the rapid investment necessary to increase productive efficiency and output.

This policy, however, could be pursued only if market-share competition did not result in profit-eating open price war, especially in periods in which demand declined or failed to keep pace with the rate of increase in productive capacity. MITI's solution to this problem, understandably welcomed by the firms, was cartels. As a result, overt cartels were repeatedly organized, then dissolved, in steel, chemical, and other industries (including the home electric products industry, especially the television market).

This is not to say that these industries fixed prices at all times and were not competitive. Cartels were frequently formed when firms were adopting new technology, the optimal scale of which usually exceeded that of the technology being replaced (rationalization cartels), when recessions occurred in the domestic and/or international market (recession cartels), and when inventories became too large for various reasons including a too-rapid increase in capacity. In some instances the industry took the initiative to create cartels, while at other times MITI did so.⁶ Both the "rationalization" and "recession" cartels were permitted under the Antimonopoly Act as amended in 1953; moreover, MITI's extralegal

"guidance" cartels went unchallenged by the Fair Trade Commission of Japan (FTCJ), which, during this period, remained only a minor irritant in the national effort to achieve rapid economic growth.⁷

The credit allocation policies of MOF and MITI's coordination of firms' strategies were mutually reinforcing and the results were manifested in many ways. One of the most important consequences was the saddling of large Japanese firms with a high proportion of fixed to variable costs. As a result of MOF policy, large firms borrowed heavily to expand, which resulted in debt/equity ratios much higher than those seen in other industrial nations. Consequently, large interest obligations to banks became the primary capital costs for large Japanese firms, rather than flexible, performance-oriented dividends paid to stockholders; that is, capital costs became essentially fixed.⁸

Another reason for the high fixed costs was the permanent employment system utilized by large Japanese firms.⁹ The willingness of firms to assume this invariant labor bill was due in large part to the mutually reinforcing progrowth policies in effect during the high-growth decades, especially the MITI policy allowing recession cartels that reduced the risks of bankruptcy from high costs and low sales during cyclical drops in demand. As seen in the visible erosion of this employment system since the end of rapid growth, even the biggest of firms are unwilling to maintain or increase fixed labor cost outside the environment of rapid growth.¹⁰

Though often neglected, yet a third reason for the high ratio of fixed to variable costs was the unavoidable cost associated with the creation and maintenance of distribution outlets and production subcontractors affiliated with each large manufacturer. Typically, the costs associated with distribution systems were for administration (coordination, enforcement, etc.), marketing (advertisement, providing assistance for sales promotion, etc.), advancing trade and other credits, and providing capital. Since we later analyze in considerable detail the special role of firm-specific, vertically integrated marketing systems, here we stress only that relationships between these "parent-and-child" firms were not arms'-length, open-market transactions but rather were exclusive and long term, and limited each firm's freedom to move in and out of the vertical hierarchy. Parent firms, when faced with a decline in demand, could not simply "axe" their respective "child" firms, that is, subcontractors and distribution outlets. In short, to the extent the parent firms found it necessary to maintain the parent-child relationship with a number of distribution outlets even when demand slumped, the costs of maintaining such a relationship became fixed.¹¹

These three fixed costs combined to make a substantial portion of the costs faced by major Japanese firms very difficult to reduce when sales fell or failed to increase as expected. This fact had two important effects on corporate behavior. One was to motivate firms to operate at, or as close as possible to, full capacity to prevent sharp increases in costs-per-unit that resulted from reductions in output without corresponding reductions in the fixed costs just described. In short, large Japanese firms suffered from an inherent downward inflexibility of output level and a vulnerability to cyclical drops in demand.¹² The other effect is that the

desire to minimize the costs of this inflexibility and vulnerability motivated firms to collude during periods of "excess capacity." In light of these facts, we must examine both the domestic and international marketing strategies of many major Japanese corporations, particularly the role in those strategies of vertically integrated groups of distributing affiliates—the distribution *keiretsu*.

Keiretsu and Marketing Strategy

While vertically integrated marketing systems controlled by oligopolistic manufacturers are not unknown in any nation—gasoline retailing systems in the United States come to mind—such integrated marketing systems are more prevalent in Japan than in any other major economy.¹³ The reasons can be traced back to the environment that produced rapid growth.

While strategic industries essential to Japan's leap into industrial power grew rapidly due to the conditions already described, manufacturing industries that consisted mostly of small firms, the service sector, and, importantly, distribution, retained many characteristics of the prewar years. They remained chronically short of capital, labor intensive, relatively inefficient, and small scale until late in the rapid-growth period. In part, this "dual structure" developed because of the progrowth policy.

This early bifurcation of the national economy resulted in a mismatch between the mass-production capabilities of many of Japan's new industries and the underdeveloped distribution system. As large firms producing consumer goods began to expand, they faced a formidable obstacle in the fragmented marketing system, which was characterized by layers of capital-starved wholesalers and very small, inefficient neighborhood retailers. The emergence of efficient, modern mass merchandisers was slowed by legal obstacles and difficulties in gaining access to capital; volume sellers did not assume importance until the late 1960s.¹⁴

Several manufacturing industries reacted to the distribution bottleneck by vertically integrating their sales systems. Each manufacturer carved out a complete marketing channel, pumping capital and modern organization expertise into selected, controlled wholesalers and retailers. These groups of affiliated distributors—*keiretsu* channels—were built by the consumer electronics and electric appliance firms, and by the producers of automobiles, pharmaceuticals, cosmetics, and confectioneries. Vertical integration was common in many other markets but these consumer products industries have the largest and most thoroughly organized systems.¹⁵

The prevalence of this distribution strategy can be judged from the estimates by the Fair Trade Commission of Japan (FTCJ) that in the late 1960s the prices of 2 percent of all goods sold in the nation were set under legalized resale price maintenance and those of another 20 percent by covert upstream control of retail prices, both enforced through vertical restraints on distributors.¹⁶

The *keiretsu* outlets were drawn into affiliation with a manufacturer through a system of mutually reinforcing business practices reflecting restricted access to capital for small firms and weak enforcement of their legal rights.¹⁷ The most

important techniques used to attract and control distributors were the provision of capital and the rebate system, but refusals to deal and other devices were used as well. The provision of capital by a large producer often took the form of the ownership of blocks of wholesalers' stock; also, manufacturers frequently held bank promissory notes from the wholesalers and retailers while goods were moved. Other forms of trade credit, as well as direct loans, were extended by producers to cash-strapped distributors, strengthening the *keiretsu* relationship between them.¹⁸

Under the industry-wide rebate system, which was likewise important in fostering *keiretsu* ties, retail prices were set by the manufacturer, and price observance by the *keiretsu* outlets was ensured through capital provision and other mutually reinforcing tactics (as outlined below). Manufacturers would also set wholesale prices in such a way that they differed little from retail prices with the intent of providing the intermediate handlers of goods barely enough profits to keep them in business. Some goods had no margin at all.¹⁹ Manufacturers adopted such a strategy to make the *keiretsu* distributors responsive to sporadic, arbitrary rebates manipulated to reward sellers for manufacturer-preferred behavior. There are reportedly 500 names for different types of rebates, the most important relating to the proportion of an outlet's total sales constituted by the affiliated brand and to adherence to the suggested retail price.²⁰ Rebates were offered to distributors on a case-by-case, confidential basis and were often given for "loyalty," "cooperation," and "effort." In addition, wholesalers were rewarded for joining the company-affiliated wholesalers' organization.²¹ A variant of the rebate was the practice of selling merchandise to distributors at varying prices. As all outlets resold at a uniform price, this was an effective way to reward and punish affiliates.²²

Many manufacturers enforced territorial restriction on their wholesalers and divided Japan into discrete regions, assigning one wholesaler to each area.²³ The *itten itchōai* (literally, one store, one account) system, which specified the retailers to whom a given wholesaler was permitted to sell and similarly restricted the retailer's source of supply, became prevalent in some industries, further solidifying vertical distributional columns.²⁴ The dominant firms also extended a variety of assistance (promotional aids, demonstration services, and the like) to distributors in a discriminating manner, and transfers of personnel were commonplace between outlets and the manufacturer.²⁵

Another of these techniques aimed at dominating outlets was the underwriting of consumer installment purchase plans by the controlling manufacturer. Since credit for private purchases was virtually unavailable from banks in Japan due to the regulation of financial markets, credit extended by large producers (enjoying preferential access to bank loans) to consumers via the marketing channels provided an important booster of retail sales.²⁶ Even more effective practices, such as refusals to deliver goods to retailers who shaved prices and industry-wide collusion on rebate levels, are examined in the context of the consumer electronics industry in part two.

The cohesive vertical distribution channels obviously provided an ideal setting

for effective restriction of the behavior of downstream agents. In Japan, the most important such vertical restraint was retail price maintenance. This practice has not been shown to result necessarily in the loss of economic efficiency.²⁷ Indeed, it can yield such efficiency gains as the prevention of "free-riding" on national advertising campaigns, the encouragement of post- and presale service, and the prevention of monopoly rent extraction by wholesalers and retailers themselves.²⁸

However, in the hands of oligopolistic manufacturers, retail price maintenance is a powerful tool for restraint of price competition at the retail level to effectuate horizontal price-fixing agreements. Usually, the producers' interest is best served if fierce competition exists among their distributors. However, if those producers are collusively raising prices, price competition at the retail level can and often does reduce retailers' margins and destabilize upstream collusion as marginal retailers discontinue sale of the high-price, low-profit product. To prevent such a development, manufacturers are forced to reduce prices to increase sales margins to the remaining distributors. Under these circumstances, a manufacturer seeking to increase market share has a strong incentive to cut wholesale prices further to attract retailers from competing brands to its product. Industry-wide retail price maintenance, if effective, can alleviate these destabilizing pressures by protecting retailers' margins or rebate levels.

The *keiretsu* distribution systems offered an additional bonus. The limited mobility of all wholesalers and retailers was the key to greatly reducing the colluding producers' rewards for cheating on price and quantity agreements while increasing the penalty for doing so. It is true of most cartel arrangements that a cheating member can, by shaving price, suddenly capture a substantial portion of the market. Nevertheless, since wholesalers and retail outlets were captive and bought on an exclusive, long-term basis from one producer meant that, in most cases, only the increase in sales achievable *within* the cheater's own *keiretsu* outlets could be captured. The channels could have been expanded, but only so slowly competitors would have retaliated before any appreciable portion of the market could have been overtaken. If the price-fixing agreement collapsed into open price war, the considerable investment made in building the *keiretsu* would no longer earn its expected return. Thus competitive pricing meant an actual loss of return on investment and on administrative expenditures—not simply forgone "extra" profits.

No less important, both theory and empirical evidence support the argument that distribution *keiretsu* made entry into markets difficult, not only for would-be exporters to Japan but also for potential Japanese entrants.²⁹ How did these barriers enabling entrenched producers to consistently earn comfortable profits work? First, and of considerable significance, was the simple closure of existing wholesalers and, to a large extent, retailers, to new entrants. This resulted in a substantial increase in the initial investment necessary to enter the market.

While the existence of mass merchandisers and department stores facilitated entry to a degree, the control of wholesalers by incumbents could make entry

into this distribution sector difficult as well. Also, as the combined market share of these two types of distribution outlets was 15 percent of total retail sales in Japan in 1966, it is unlikely that the volume of sales necessary to support a mass production operation could have been realized by reliance on these non-*keiretsu* outlets during the period we are discussing.³⁰ Although the gradual emergence of a modern, well-capitalized independent retailing system has become the most serious threat to manufacturers' control of distribution, practically speaking, new entrants to these controlled markets in the 1950s and 1960s would have had to establish and maintain a network of sales outlets. This eliminated all but the largest, most well-capitalized new manufacturers from the ranks of would-be entrants.

According to some theorists, however, requiring a new entrant to do what the incumbents have done—make an investment—is not a barrier to entry. For such a barrier to exist, there must be asymmetries between entrenched firms and would-be entrants that work against the newcomer.³¹ Even under this more severe standard, we argue, Japan's distribution *keiretsu* created barriers to entry—the structures had characteristics that asymmetrically disadvantaged newcomers. One was that would-be entrants faced significantly higher costs in attracting *keiretsu* members than did entrenched firms. The new firm would have had to develop a distribution empire of its own on a thoroughly colonized continent. In these consumer products industries few independent wholesalers remained to be enlisted, and most of the unattached retail outlets were mass merchandisers or department stores, not small shops.³² Thus, new distribution chains would have required building from the ground up.

The second major problem for firms that contemplated building a vertically integrated sales system was an exacerbation of the problem faced by any entrant to an industry requiring a large initial investment. That is, the cost per unit sold of making this massive one-time investment decreased as time went by and large volumes of goods were moved through the outlets. This meant that for incumbents who had made these investments in the past (as much as thirty years ago in the electronics industry), this cost could be divided, as it were, over total cumulative output. Thus, in terms of arriving at an approximate additional cost-per-unit to be added to price to cover distribution expenses, entrenched firms had a substantial, if not prohibitive, advantage over the would-be entrant. In short, the entrenched producers could always cooperatively set prices below an entrant's costs, which had to include the recent massive investment required to build a new *keiretsu*.

As for the situation faced by would-be foreign entrants, the necessity of investing huge sums to create their own *keiretsu* marketing mechanism made up only part of the formidable barrier they faced. They were also confronted by various legal and procedural obstacles now widely acknowledged to have effectively protected the Japanese market well into the rapid-growth era.³³ Especially important are that throughout the rapid-growth period ownership in excess of 50 percent of ten or more retail outlets required special approval by the national government³⁴ and that foreign companies were prohibited from underwriting

installment loans for consumer purchases. Nor could foreign manufacturers make arrangements with retailers to restrict their dealings in competing domestic goods as was widely done by Japanese producers.³⁵ These factors, and the obvious problems associated with wresting away outlets already in one of the Japanese *keiretsu*, combined to create great difficulty in penetrating Japanese markets for goods distributed through manufacturer-controlled distribution channels.

All of the preceding had another very important consequence. The virtually closed domestic markets, the existing anticompetitive systems of vertical restraints (enabling certain industries to engage in nearly institutionalized domestic price fixing), the cost structure (high fixed costs) and the rapid expansion of most large Japanese firms provided the firms with the motivation and means to sell their products on world markets at prices below those commanded at home—possibly below the cost of production. Japanese firms have been accused of using their protected, high-price home market bases to finance export drive, and their low-price market-entry tactics and even predatory campaigns to gain market power in foreign countries. We now offer possible rationales behind the behavior that led to these allegations.

International Implications: A Theoretical Analysis

Selling goods at lower prices abroad than on domestic markets and purposely setting low prices to injure competitors have several things in common, not the least of which is that, at first glance, both seem counterproductive and irrational. Nonetheless, economic rationales for both activities are well established and theories linking the two can be readily presented. Toward this end, we offer four analytic scenarios that can cause export prices to be set below those charged in domestic markets, or "dumping." ("Dumping" is used here to indicate international price discrimination as defined under the Antidumping Act of 1921 and Kennedy Round Agreements on GATT [Art. 6]; i.e., the export of goods at a price less than that charged on the domestic market, not at a price less than the cost of producing the product.)

The four types of dumping are characterized by: (1) the simple inability on the part of a monopolist or oligopolists to sell products abroad at prices above competitive levels, while doing so domestically; (2) export-led expansion campaigns to reduce per-unit-costs of production, thereby increasing profits on goods sold domestically at fixed prices—this profit gain is balanced against any losses necessary to move "excess" goods on export markets; (3) the clearing of inventories accumulated during a decline in domestic demand by offering the products at low prices on the international market (thereby preserving cartel agreements on quantity and/or price in the domestic market); and (4) intent to gain foreign market power through predatory schemes and then recoup losses by increasing prices, that is, simple classic predation carried out across national boundaries.

The first scenario is perhaps the most common form of dumping and involves

selling at cost-plus-profit on the world market while charging fixed, higher prices to domestic consumers. In most circumstances, foreign competitors are not harmed by this full-cost international price discrimination. The export prices should be near world market prices, and consistent with fair competition.³⁶

However, a large, persistent differential between domestic price and the price prevailing on world markets indicates that dumping firms enjoy market power at home bolstered by barriers to imports from the world market. This is true because if the cheap foreign goods could enter the high-priced domestic market (or if lower-priced products exported into the world market could be re-imported back into the firm's domestic market) these sales would destroy the dumping firms' market power, equalize prices, and eliminate the dumping. Thus, a protected home market is a prerequisite to dumping and a persistent price differential in the absence of overt tariffs and quotas is clear evidence of the existence of effective nontariff barriers (NTBs). Even in this scenario, if economies of scale and learning curve effects are important in the production of an internationally traded commodity, the closure of markets, which underlies dumping, can have a strong negative impact on excluded foreign firms.

The second scenario is perhaps the most important, at least in the context of the rapid-growth era Japanese economy: an "export-led" expansionary campaign to reduce per-unit costs. Japanese firms during the era of rapid growth had strong incentives to reduce per-unit costs by increasing output. The condition created by the desire of each individual firm to expand output within a protected and cartelized domestic market can be readily anticipated. Because increased output means reduced costs per unit, it translates into increased profits on the products sold at high fixed prices in the domestic market, even if a part of increased output has to be sold on the world market at no profit or even at a loss. Therefore, even if increased output yields no profit (economic loss) on export markets, a rapidly expanding firm with a protected home market and facing a declining long-run average total cost curve would actually invest, produce, and sell to achieve the efficiencies and cost savings associated with mass production, despite temporary losses on world markets.

It is important to remember that this situation is not a matter of manufacturers deciding to invest and expand with full knowledge that the resulting production will be sold at no profit or at a loss on the world market, leaving them with only the reduction in production costs on units sold domestically as a return on their investment. Rather, these manufacturers enjoy a margin of error when making these major investment decisions. Essentially, even in the face of a high probability that the increase in output will have to be sold unprofitably on the international market, expansion is still worth the risk. The stronger the "home market cushion"—or the more effective the cartels in a closed market—the smaller the risk.³⁷ (The detailed microeconomic analyses behind this phenomenon are developed in the Appendix.)

The motivations to engage in the third type of dumping—reduced-price sales abroad to clear an accumulated inventory—are inextricably linked to the high fixed costs typical of Japanese firms in the period under discussion. The associ-

ated inflexibility of output level creates a cost pinch in the face of sagging domestic sales as costs-per-unit increase quickly if output is reduced. Reducing domestic prices during a period of slack demand is not an attractive alternative, because if home market prices are set collusively at profit-maximizing levels, the attempt to move more goods would necessarily drive the price from its optimal level and result in a net loss, even if more goods are sold.³⁸ Therefore, it is reasonable to assume that a firm would be willing to accept any loss on those goods on the international market that is less than the loss associated with selling the goods at home. Indeed, a smaller loss may result from exporting the goods at prices substantially lower than domestic prices—or even at a price less than the cost of production—than from overburdening the domestic market. (For a more precise analytic explanation, see the Appendix.)

It is useful to look at sporadic Japanese export drives in this light. When examining statistics of Japan's postwar export and domestic sales, a tendency for exports to increase in response to domestic recessions is clearly evident. The export drive can be at least partly explained by the difference in American and Japanese firms' responses to flaccid domestic demand. American firms reduce costs (usually the wage bill) and cut output. On the other hand, Japanese firms, burdened by inflexible obligations, face sharply increasing costs per unit if they decrease output; in some sectors, as exemplified by the oligopolized consumer electronics industry, total revenues would fall if prices were cut. Thus, these firms are very likely to maintain relatively high production levels and to attempt to export as much as possible of the accumulating inventory. The exports may or may not be priced so as to fully cover costs.³⁹

The fourth type of dumping is merely the international version of an infamous business tactic—predatory pricing. The purpose of low-price sales is to drive competing firms out of the market, thereby gaining market power; losses incurred can be recouped by charging high prices after the elimination of competitors. For obvious reasons, this is a rare phenomenon.⁴⁰

These motivations for dumping are not mutually exclusive; most important, expansionary campaigns in pursuit of economies of scale and export drives to clear inventory build-ups due to recessions can make predation less expensive and thus a more realistic option.

With the insight gained from the preceding analysis, we now turn to an examination of the growth, marketing strategies, and export behavior of the seven major Japanese electronics firms embroiled in a major antitrust litigation arising from their exports of television sets to the United States in the 1960s and 1970s.

2. CONSUMER ELECTRONICS: A CASE STUDY

Along with shipbuilding, steel, chemicals, automobiles, machinery, and several others, the consumer electric and electronic appliance industry is an excellent example of an industry that made the rapid economic growth of Japan possible. The volume of literature and evidence available both in Japanese and

English on the industry's marketing behavior make it possible to undertake a detailed analysis of the industry, revealing the dynamics behind rapid growth and a vertically integrated, cartelized domestic market in a stark, factual light.

This section will first acquaint the reader with the basic facts relating to the Japanese television producers, their industrial structure and marketing strategies, then will present only the essential facts regarding their penetration of the American market and the litigation that ensued. Out intent is not to proffer an opinion on the appropriate outcome of the ongoing antitrust litigation that involves legal issues peculiar to U.S. antidumping and antitrust statutes. Our focus here is on the causal relationship between policy and motivations; that is, to discern whether or not the behavior of the Japanese exporters of television sets to the United States was consistent with the behavior expected of an industry undergoing major expansion within the context of the Japanese rapid-growth policies of the 1950s and 1960s. Stated differently, our intent is to demonstrate that the market behavior, both at home and abroad, of Japanese television set producers was consistent with the pattern that would be anticipated on the basis of the analysis offered in the preceding section.

Growth and Structure of the Consumer Electric Appliances Industry

Starting from very humble beginnings in the prewar period—there were only 3,199 electric washing machines in Japan in 1938—the Japanese consumer electric appliances industry has grown into a world giant. In the mid-1950s, production began to mushroom and by 1968 output had grown twenty-fivefold. By 1971, one-third of world home electric appliance production was Japanese.⁴¹ Because of mass production techniques and progrowth policies, seven major companies enjoying strong ties to the large city banks rose to dominate the industry (see table 1). A primary part of this industry was (and is) made up of the consumer-products arms of huge, multidivisional firms that produce not only a complete line of consumer appliances and electronic products—from refrigerators to video cameras—but also manufacture industrial machinery, scientific equipment, commercial electronics, and recently, computers and other high technology products.

Numerous companies producing electrical goods sprang up during the immediate postwar period; however, the industry experienced virtually no new entry from the late 1950s through the 1970s; a presumably complete list of Japanese electronics firms and firm histories through 1981 shows the entrance of Kenosonic into small-scale audio component production in 1972 as the only case of a firm start-up since 1960. The television industry itself has had no new entry. All ten companies producing televisions in 1981 were in business by 1950; three are subsidiaries of other television manufacturers, leaving seven independent producers.⁴²

The top seven firms and their subsidiaries dwarf all others, controlling about 96 percent of the home electric appliance and electronics market and 99.9 percent of the television market.⁴³ Most other Japanese electronics companies—

and there are many small ones—produce commercial products or parts purchased by the majors; many are subcontractors or subsidiaries of larger companies.⁴⁴ Table 2 provides detail on the concentration ratios in the markets for various consumer electronics products and appliances; while it is clear that the industry is oligopolistic, the ratios are not extremely high.⁴⁵ The seven large firms that produce televisions as one of many product lines are vital to Japan's economy: electronics products comprised 10.3 percent of national industrial production and 17.5 percent of Japan's exports in 1980; Matsushita is Japan's fourth largest exporter.⁴⁶

The sheer size of the industry and its pivotal position in the national economy

TABLE 1
Japanese Television Receiver Manufacturers

Producer	Total sales ^a (1982, in millions of dollars)	Consumer goods as percent of output (1982)	Export ratio (1982)	Est. Mkt. Share Japan Consumer Goods ^b	Number of <i>keiretsu</i> retailers
Matsushita	10,783	63	32	33.0	25,000
Hitachi	8,878	23	32	13.3	10,000
Toshiba	7,954	32	23	10.7	14,000
Mitsubishi	5,911	25	24	6.3	4-5,000
Sony	4,231(1980)	75(1980)	71(1981)	9.9	NA
Sanyo	2,478	83	54	11.0	6,000
Sharp	2,102	66	55	6.5	3,500
Japan Victor	1,104	95(1980)	NA	6.6	Matsushita subsidiary
Onkyo	1,290(1980)	97(1980)	NA	NA	Toshiba subsidiary
Columbia ^c	270(1980)	46(1980)	NA	0.6	Hitachi subsidiary
Fuji ^c	105(1980)	0	NA	NA	NA

^aConverted at 230 ¥/\$.

^bThe shares of subsidiaries are included with those of the parent company (except Japan Victor).

^cNot producing televisions by 1981.

SOURCES: United States International Trade Commission, *Foreign Industrial Targeting and its Effects on U.S. Industries, Phase 1: Japan*, USITC Pub. 1437 (Washington, D.C.: GPO, 1983), Appendix H. Kawagoe Ryūtsū, "Keiretsuka no jittai" (The realities of vertical integration), in *Ryūtsū keiretsuka to dokkinho* (Distribution channelization and the Antimonopoly Law) (Tokyo: Matsushita, 1981), p. 59. *Japan Electronics Almanac, 1981* (Tokyo: Dempa Publications, 1981). Kenasaki Takashi, *Kadengyokai* (Electronics world) (Tokyo: Kyoikusha, 1982), p. 64.

surely explain at least in part why the Japanese government three times passed laws specifically to promote the industry and why MITI organized and oversaw joint research into solid state technology for television receivers in 1966.⁴⁷ Another government action materially aiding electronics and appliance production was the prohibition or restriction of competing imports under the Law Concerning Foreign Investment and the Foreign Exchange and Trade Control Law enacted in 1949 and 1950, respectively. These statutes remained in effect throughout the rapid-growth period, though changes in enforcement policies under both statutes allowed for substantial liberalization beginning in the mid-sixties.⁴⁸

As it grew in size and efficiency, the consumer electronics and appliance industry probably faced one of the most serious distribution bottlenecks experienced by any Japanese industry. In an assertive response, the firms organized an industry-wide set of vertically integrated marketing channels rivaled in size, discipline, and completeness only by the systems built by the automobile producers and the pharmaceutical and cosmetics industries.⁴⁹

Matsushita led the industry into the integration of distribution channels when, in 1949, it organized all its wholesalers in given geographic areas into single companies in which it held 30 to 50 percent of the stock. Each of these wholesalers (totaling 165 in 1970) has exclusive rights to a certain region in Japan.⁵⁰ During the recession in 1964-65, this technique spread throughout the industry. Sony, for example, divided Japan into 72 territories and assigned one wholesaler to each. Manufacture control became virtually complete at the wholesale level of this industry.⁵¹

The number of manufacturer-affiliated retail outlets doubled between 1956 and 1966 as each producer worked to create its own distribution system; by the

TABLE 2
Concentration Ratios
in Selected Consumer Electronics Products, 1980

Product	Number of Companies ^a				
	3	4	5	8	10
Monochrome TV	61.1	73.9	86.3	99.9	100.0 ^b
Color TV receivers	47.0	57.6	66.9	91.2	99.9
Electric ranges	65.7	80.1	88.9	99.5	99.9
Hair dryers	86.1	89.4	92.3	98.5	100.0
Radio receivers	43.2	51.8	58.2	65.7	65.9
Tape recorders	45.5	52.9	58.8	71.6	77.9
Stereo sets	42.2	51.8	58.6	76.9	80.2

^aSubsidiary's output is counted as that of a separate company in this table.

^bThis market has a concentration ratio of 100% at nine companies.

SOURCE: Seno-o Akira, *Gendai Nihon no sangyo shūchū* (Industrial concentration in modern Japan) (Tokyo: Nihon Keizai Shimbunsha, 1983).

mid-1960s, each producer had built a chain of affiliated—*keiretsu*—retailers. As can be seen in table 1, Matsushita had 25,000 affiliated retailers and each of the other companies controlled a set of *keiretsu* outlets proportionate in size to its domestic consumer products sales in the early 1970s. Two-thirds of the appliances stores in Japan are clearly affiliated with a single manufacturer and, despite the existence of discount houses, 73 percent of the products sold in the nation moved through the *keiretsu* outlets as late as 1974.⁵² Because important types of rebates were set to reflect the "loyalty" each retailer showed his *keiretsu* producer, the typical *keiretsu* dealer came to derive about 70 percent of its revenue from sales of the products of its *keiretsu* producer, usually carrying one subordinate brand for customer appeal.⁵³

Collusion in the Domestic Market

There is considerable evidence that the electronics manufacturers organized to use their distribution channels to control prices and quantities of goods sold on the national market. However, before detailing the effect of vertical restraints on horizontal price fixing, the analytically important facts as to the role of the distribution *keiretsu* in virtually closing the Japanese appliance and electronics market to new entrants, both foreign and domestic, must be ascertained, as price fixing cannot last long if new companies quickly appear and disrupt oligopolistic marketing agreements.

One can readily establish that the large electronics firms have consistently earned profits well above the Japanese average for major industrial companies.⁵⁴ Despite this, no company large and diversified enough to build and maintain a full-line *keiretsu* has emerged since the incorporation of Sanyo in 1947,⁵⁵ and American producers, who led the world throughout the 1950s and 1960s, have made no headway into the lucrative Japanese market. Imports occupied 0.1 percent of the Japanese color television market as late as 1980.⁵⁶

The level of profit enjoyed by these seven oligopolistic firms was due only in part to effective barriers to entry into their market. They have actively colluded to boost their profits. Evidence directly attesting to their collusive market behavior can be found in the many documents, diaries, and letters seized by the Fair Trade Commission of Japan in a series of investigations begun in 1957; these inquiries led to three antitrust cases against the industry, to be described below.⁵⁷ The confiscated documents confirm the existence of a clandestine system of meetings, attended monthly by representatives from high- and middle-echelon management and technical personnel of every firm in the industry over a period of ten to fifteen years. The following summary of the group meetings directly concerned with television receivers provides a glimpse into the activities of these groups.⁵⁸

The Market Stabilization group was organized by Matsushita, Toshiba, Sharp, Hitachi, Mitsubishi, Sanyo, and their subsidiaries during an economic downturn in 1956. In a subsequent investigation by the FTCJ, the firms in this group admitted to crafting an active program to control the prices of TV sets. Allowable

profit margins for retailers were set industry wide at 22 percent and for wholesalers at 8 percent.⁵⁹ To enforce these profit margins, essential in maintaining the agreed-upon price levels, the colluding firms took pains to closely monitor prices charged by wholesalers and retailers. These participating firms also adopted measures to make certain their products would not go to "disloyal" wholesalers who would make the television sets available to nonaffiliated retailers, which were not bound by the agreed-upon rebate margin and fixed prices. The colluding firms are known to have resorted in the mid-1960s to a variety of tactics in their attempt to minimize the "leakage" of their television sets to nonaffiliated or "disloyal" retailers; one example is:

Recently the following incident occurred: The Kobe Daiei Supermarket revealed to a member of the Committee on Price Controls in the House of Councillors the electric home appliance manufacturers' trick of secretly marking merchandise. On the back of electric washing machines and television sets the identification number of the sales route is written with a special kind of ink, visible only under a special light. By knowing this marking, manufacturers can tell which district distributor is sending goods to stores that sell goods at low prices, and on this basis they impose sanctions on the district distributor such as stopping shipment or abrogating contracts.⁶⁰

In 1966, the FTCJ launched an investigation of such activities (which resurfaced during the 1964-65 recession and continued in the mid-1960s). The inquiry resulted in the "Six Company Case" in which the FTCJ charged the six major electronics firms with "unreasonable restraint of trade." Sony alone among the seven majors was not included.⁶¹ Specifically, the charge was engaging in "concerted activities" to "fix, maintain, or enhance prices, or to limit production . . . thereby causing, contrary to public interest, a substantial restraint of trade."⁶²

In a 1970 preliminary decision, the FTCJ found the companies guilty of "agreeing . . . on the bottom prices, margin rates, and distributors' prices for both color and black-and-white televisions" and of "substantially restricting competition." However, the FTCJ decided in 1978 not to take further action on this case on the following ground: "the conduct that was at issue in this case, having ended in January 1967, is ten years old. Thus, even if this case is continued, it is unlikely the facts relating to this case can be clarified. Also seen from the perspective of maintaining competition, no substantial gains can be obtained by continuing the case."⁶³

Evidence of the horizontal price fixing of the six-company case was discovered by the FTCJ while investigating illegal vertical price fixing by Matsushita and Sony. In 1968 the commission issued Sony a warning, and agreed with the company that legal action would be halted if Sony would modify written contracts it made with its distributors in reference to price maintenance.⁶⁴ Matsushita, however, contested the findings until formal hearings were begun. Then, in 1971, it accepted a Consent Decree whereby it admitted to having instructed its wholesalers to refuse shipment to retailers who cut prices, and agreed to discontinue the practice.⁶⁵ Thus, despite findings that these companies had engaged in

illegal horizontal and vertical price fixing, no structural adjustment or major fines have ever been forced on the industry.⁶⁶

The evidence of collusive conduct seized by the FTCJ (but not released until antitrust proceedings against the seven companies and their subsidiaries were filed in the United States) tells much more. In brief, the companies formed a network of working groups, most of which met monthly from 1964 through at least September 1974. The most important were the TS group, the Tenth-day group, the Palace Preparatory group, the Palace group, and the Okura group. The TS group (the meaning of TS is not explained) was attended by representatives of all seven major companies and smaller ones as well. The Tenth-Day group was similar except that it was limited to mid-level managers in the television divisions of the majors only (possibly excepting Sanyo).⁶⁷ The Palace Preparatory group was assigned the task of digesting the material discussed by the Tenth-Day group and preparing a streamlined agenda of the more important unresolved matters for consideration by the Palace group, composed of senior managing directors meeting at the Tokyo Palace Hotel. From there decisions went before the highest executives of the major companies, who met monthly at the Hotel Okura.⁶⁸

An equally important point of contact among the companies was the Electronic Industries Association of Japan (EIAJ)—a legal trade association—to which each manufacturer submitted monthly reports detailing sensitive, current data on television production, shipments, and inventories broken down by screen size and tube type; confiscated reports were dated as early as 1958 and as late as 1975. The association disseminated this information to all the other manufacturers on a monthly basis. Documents indicate that a so-called MD group was the actual point of exchange and discussion of the data and that this group held votes on future production levels and shipments.⁶⁹

The existence of this welter of clandestine groups and overt cooperative activity has never been denied by the companies represented. Moreover, the seized documents in the possession of the FTCJ indicate that the primary goal of all of these groups was price fixing and the cooperative control of distributors. The groups openly discussed and agreed upon bottom prices for each type of receiver as well as wholesale and retail profit margins and rebate levels to *keiretsu* outlets.⁷⁰

The success of the cooperative system, especially in pulling the industry through the 1964-65 recession, has been proudly discussed by some officers of these companies and is openly referred to in Japanese language sources.⁷¹ The following is an excerpt from a speech delivered in 1966 by Konosuke Matsushita, the founder of the dominant firm in the industry, Matsushita Electric:

The electric appliance industry has grown to be a very large industry today. However, there used to be no opportunity for Presidents from each company to meet and talk. As you know, in other big industries, Presidents constantly meet with each other and discuss the direction that should be followed by the whole industry. Quite naturally, questions also come up as to what quantity to produce. But, where the electric appliance manufacturers are concerned, although there are meetings

such as those of the industrial association, there used to be no summit talks. This is very strange indeed. I think that responsible men should meet at least once a month and talk about management for the purpose of stabilizing the industry at all times. . . . Therefore, such summit talks have been held.⁷²

Until the mid-1960s, most Japanese consumers apparently remained unaware that the prices they were paying for television sets were inflated by the producers' price-fixing cartel. This situation changed dramatically, however, when they learned that the American consumers were paying much less for the same Japanese products. In late 1966 the existence of large differentials between domestic and export prices was reported by the major newspapers. For example, a November 10, 1966, article in *Yomiuri Shimbun*⁷³ reported that

A problem exists in the difference between the prices of exported and domestically sold color television sets. In selling to the U.S., the FOB price averages only 180 dollars, that is, a mere 64,800 yen. Though the makers claim that "no dumping is involved," it is quite natural that many, including the FTCJ, doubt the claim. Miki, the MITI minister, ordered investigation of this price differential and the answer provided by the electronics machinery industry was as follows: The difference of 85,000 yen between the FOB price of about 65,000 yen and the ex-factory domestic price of 150,000 yen is due to:

Differences in quality	15,000 yen	Warranty costs	3,200 yen
Commodity tax	14,000 yen	Spare parts reserve	2,000 yen
Sales costs	19,000 yen	Patent costs	1,500 yen
Advertisement costs	6,500 yen	Interest costs	5,700 yen
Installation costs	2,000 yen	Other costs	16,100 yen

Understandably, the explanation offered by producers to the *Yomiuri* was not readily accepted. Along with the large "Other costs," the item "Differences in quality" drew sharp criticisms such as the following made by Kazuki Daimon in his book *Kuroi bukka* (Black prices):

The manufacturers also recognize that exports are cheaply priced, but explain that exports can be priced cheaply because they can be shipped in large quantities and because they use parts that are fitting for low-priced products." [Daimon is quoting a Toshiba source]

So, this is an explanation. . . . American buyers would no doubt be angry if they heard such a thing. If they were informed that in television sets priced at ¥50,000, only parts befitting such a price were used, and in televisions priced at ¥12,000 or ¥13,000, only correspondingly inexpensive parts were used, then exports would probably be stopped.⁷⁴

As for the industry's attempts to explain that the ex-factory domestic price was higher because of the "maker sales costs," the Zendenshōren (the national association of retail stores of electric home appliances) disagreed, saying it was due to "the large profits of the makers."⁷⁵ The unions representing the employees of these companies, in a highly unusual move, went public with their complaints against management's market conduct and demanded the domestic price of

television sets be lowered.⁷⁶ Such revelations of the inflation of domestic prices led the Shufuren, an organization of Japanese housewives, to lead a nationwide boycott of televisions in 1967. This nationwide boycott has been credited with forcing Matsushita to accept the FTCJ Consent Decree of 1971 on the resale price maintenance case.⁷⁷

Nonetheless, the clandestine meetings between producers were allowed to continue, and the control of distributors and the use of the rebate system persisted. The average price differentials between domestic and export (ex-factory sales) price computed over a broad range of Japanese television receivers (see table 3) corroborates the findings that the *Yomiuri* article reported. The differentials were indeed large, persistent, and characterized the sales of every exporting company (though margins on Sony products were relatively thin).⁷⁸ Japanese prices dropped marginally in 1968 but were still substantially above export prices; the differentials had actually increased by the early 1970s, and ranged from 1 to 170 percent. The average domestic set probably remained about 50 percent more expensive than a comparable set in the United States, which makes American firms' lack of sales success on the Japanese market remarkable.⁷⁹

The impact of the Japanese exporters' pricing tactics was not limited to the domestic scene; patterns of sales of television sets incited strong reactions in the United States as well. While American consumers praised Japanese managerial and engineering know-how and purchased low-priced Japanese goods in record quantities, the U.S. television industry reeled under severe price competition. Developments in the American market caused by the successful entry of the Japanese exporters are the subject of the following subsection.

TABLE 3
Television Receiver Export Price Margins (In percentages)^a

Company	Color	Monochrome
Matsushita	74.02	55.16
Hitachi	58.42	43.36
Toshiba	32.34	38.78
Mitsubishi	52.73	81.72
Sony ^b	NA	NA
Sanyo	76.03	64.90
Sharp	61.80	66.72
Average	59.2	58.5

^aCalculated by dividing export price to the United States by the difference between average export price and average domestic price.

^bThe differences for Sony's products were smaller than those of the other companies.

SOURCE: *Appellants' Brief*, p. 39, In re: Japanese Electronics Products Antitrust Litigation, 723 F.2d 238 (3rd Cir. 1983).

The Japanese in the American Market

Large surges in the imports of inexpensive television sets from Japan during the 1960s and 1970s are said to have caused the near collapse of the American television industry. Though several major U.S. companies survived and are now operating in the black, the industry underwent a major restructuring due to Japanese sales success in the United States. The restructuring resulted in the exit of twenty-one companies (leaving only five American producers), the internationalization of every remaining firm, and in the entry onto the American scene of a major Japanese presence, in the form of both direct imports and of the production of Japanese-owned American subsidiaries. We provide here a brief review of the events that resulted in this transformation.

Japanese import penetration into the U.S. television receiver market began with small black-and-white TVs in the early 1960s. Japanese makers supplied 0.8 percent of American purchases in 1962; this rose to 6.5 percent in 1966 and 25 percent in 1971. Then the Japanese market share declined, while that for total imports climbed steadily to 91 percent in 1981 as noted in table 4.⁸⁰ Giving considerable credence to "product cycle" theory,⁸¹ production shifted increasingly to Taiwan, Korea, and Mexico, as U.S. producers moved overseas in search of cheap labor, preferential local government treatment, and cost savings on tariffs under a special statute lowering duties on re-imports.⁸² Japanese producers also moved to Taiwan and Korea and TV-related investment there appears to be roughly half American and half Japanese.⁸³

Color television receivers followed three to five years behind their monochrome predecessors; though the Japanese presence was relatively small in the color market during the sixties, the downward pressure the imports put on prices appears to have created problems as early as 1962, when labor groups began to petition the Tariff Commission for import relief.⁸⁴ U.S. employment in the production of receivers declined by half between 1966 and 1970, while Japanese market share increased from about 2 to 9.4 percent (see table 5).⁸⁵ The 1974-75 recession deeply wounded the American industry, and its recovery was largely aborted, in part due to the difference between Japanese and American responses to demand contractions analyzed earlier. A surge of Japanese imports swamped the U.S. color television market in 1976, just as demand began to rise; imports rose by 153 percent in one year. During this recession and recovery, Sears quintupled its purchases of Japanese color televisions (from Sanyo and Toshiba), supplanting Warwick, a U.S. producer. Warwick could not meet the price competition and was acquired by Sanyo in 1977; Matsushita purchased the consumer products division of Motorola, another failing American television manufacturer, in 1974.⁸⁶ Not only did the U.S. color TV market share occupied by sets produced in Japan rise from 2.6 percent in 1967 to 9.5 percent in 1975 and 18.9 percent in 1976, the production of the seven Japanese companies' American and third-country subsidiaries also rose rapidly during this period. While direct Japanese imports (as listed in tables 4 and 5) supplied only 14.0 percent of the

American color television consumption in 1977, one estimate of the Japanese firms' actual aggregate market share is 44.2 percent.⁸⁷

Although import penetration in the color television market was not as deep as that into monochrome sales, most U.S. color television manufacturers' profits declined steadily.⁸⁸ After dropping 50 percent between 1966 and 1970, employment in American firms producing television receivers fell another 33.7 percent between 1971 and 1975, and by 25 percent between 1977 and 1981.⁸⁹ The number of firms in the industry also shrank dramatically, from twenty-seven in 1960 to only five in 1980, and of those five, only three—General Electric, RCA, and Zenith—were large enough to constitute a real competitive force.⁹⁰

The International Trade Commission attributed much of the travail in the American industry to severe and sustained price competition;⁹¹ members of the industry attributed the price competition to collusive, predatory schemes on the part of the seven Japanese firms. And considerable evidence supports the allegations of the American producers. In addition to the evidence of collusion in the domestic market we have already presented, facts demonstrate that the seven firms carefully coordinated their export plans; they notified one another of the intended quantity of shipments and prices, allocated U.S. customers among themselves, and cooperatively concealed a web of illegal, covert activity while charging prices low enough to suddenly and decisively gain a large share of the American market.

The nerve center of the seven firms' export communications was a legal export cartel, the Japan Machinery Exporters Association (JMEA) organized in 1952. All the major producers and many of their subsidiaries joined the association, which remained in existence until 1973.⁹² Under the umbrella provided by this association, the industry also formed the Television Export Council attended by the top executives of each television exporter.⁹³

The JMEA and the TV Export Council devised the "Five-Company Rule"; this rule required each exporter to specify five U.S. companies as its only and exclusive customers. A member firm was to sell to another company's U.S. customer or change customers only with prior approval of the Television Export Examination Committee (of the JMEA), composed of officials from each company, including, of course, any would-be Japanese competitor. This committee was accorded the power to punish transgressions of the agreed-upon conduct by assessing a penalty equal to one-third the value of the offending shipment.⁹⁴ Each member of JMEA was also required to file an "application" with JMEA for each shipment to the United States, detailing the exact parties involved in the transaction as well as the type of television receiver, quantity, and domestic and U.S. price relevant to each shipment.⁹⁵ These agreements not to compete with each other for the accounts of major U.S. customers and the full exchange of sales information among themselves allegedly prevented U.S. buyers from playing Japanese firms off one another and ensured that increases in sales would be at the expense of American competitors.

The firms also devised a system of common minimum prices for exports known

TABLE 4
Imports and the U.S. Television Receiver Market: Monochrome
(All figures are in thousands of dollars)

Year	U.S. Market ^b	Japanese Imports ^d	Total Imports ^c	Japanese Market Share ^a	Import Market Share
1959	806,000				
1960	750,091				
1961	757,500				
1962	851,000	7,010		0.8	
1963	841,000	22,264		2.6	
1964	896,000	38,878		4.3	
1965	910,000	59,706	59,586	6.5	6.5
1966	756,000	105,706	114,520	14.0	15.1
1967	555,000	65,731	70,644	11.8	12.7
1968	591,000	80,784	97,018	13.7	16.4
1969	523,000	111,928	152,416	21.4	29.1
1970	505,000	119,867	172,869	23.7	34.4
1971	480,000	129,167	208,046	26.9	43.3
1972	514,000	101,427	262,066	19.7	50.9
1973	504,000	60,903	272,404	12.1	53.4
1974	447,000	57,903	277,766	13.0	62.2
1975	313,000	41,995	180,739	13.4	57.8
1976	417,000	87,135	261,166	20.9	62.8
1977 ^e	389,822	97,471	293,819	25.0	75.4
1978	434,079	93,521	350,858	21.5	80.8
1979	391,016	42,621	342,644	10.9	87.6
1980	374,152	27,766	531,052	7.4	88.5
1981	366,542	41,017	333,842	11.2	91.1

^aThese market share figures do not include the sales of the subsidiaries of Japanese companies producing in the United States and in third countries; they thus seriously understate Japanese market share but are based on the most complete data set publicly available.

^bFigures for 1959-69 U.S. market are from *TV Fact Book, 1980*, vol. 49 (Washington, D.C.: TV Digest, Inc., 1980). Figures after 1969 are from United States International Trade Commission, *Television Receivers, Color and Monochrome, Assembled or not Assembled, Finished or not Finished and Subassemblies Thereof*, Report to President on Investigation no. TA-201-19, USITC Pub. 808 (Washington, D.C.: Government Printing Office, 1977); ultimate source is the U.S. Department of Commerce.

^cSOURCE: Electronic Industries Association, Marketing Services Department, Washington, D.C. "Total U.S. Imports of Consumer Electronic Products," Rpt. no. MS-142-M, Feb. 6, 1978.

^dSOURCE: U.S. Bureau of the Census, U.S. Imports for Consumption and General Imports, Rpt. FT246, Annual issues, as compiled in "Statistical Analysis: Consumer Electronic Products Imports by Product Category" by plaintiffs in Japanese Electronic Products Antitrust Litigation.

^eAll numbers after 1976 in all columns are from Summary of Trade and Tariff Information, TSUS Items 685.11-685.19, USITC Publication 841, December 1982. Ultimate source of these data is U.S. Department of Commerce.

as "check prices." These minimum prices were agreed upon with the full knowledge and sanction of MITI as part of the legitimate function of the industry's export cartel (JMEA). The rationale for the export cartel, as described in documents requesting MITI approval, was to "prevent disturbance to the U.S. market caused by unfair prices,"⁹⁶ and to maintain export prices at a moderate level to prevent legal proceedings against the exporters under the U.S. Anti-dumping Act of 1921. As this act proscribes exports to the United States at prices less than those charged for the same commodity in the country of manufacture if such exports cause substantial injury to a U.S. industry, the check prices were to be the minimum prices that could prevent export sales from causing major damage to U.S. competitors.⁹⁷ These check prices were, nonetheless, far below prices prevailing in Japan.⁹⁸

It appears that the motivations for below-cost export sales, as discussed in part one and in the Appendix, were at least periodically compelling enough that in sanctioning these check prices, MITI was attempting to prevent export-led expansion campaigns and recession-sparked export drives from resulting in injurious, below-cost sales on the U.S. market. It is not difficult to see why MITI, as a government agency, would have wished to avoid the political and legal repercussions arising from such export surges and to insure that "the interest of importers or enterprises concerned at the destination is not injured," as stated in the law authorizing MITI to organize export cartels.⁹⁹

Ironically, had this minimum price system been observed by the Japanese firms, it could have constituted a per se violation of the Sherman Act and would have raised difficult legal issues involving sovereign immunity.¹⁰⁰ In fact, Japanese firms did not adhere to the check prices. Though the "minimum prices" appeared on all official invoices, bills, accounting records, and U.S. customs papers prepared by each Japanese firm and their major U.S. customers for fourteen years, and the firms used the figures on official documents and tax records submitted to their own government, the prices actually paid were consistently lower than the "minimum" check prices.¹⁰¹

As reported in the January 10, 1966, issue of *The Japan Economic Journal*: "Television receivers, electric fans, radios and batteries have been exported at substantially low price levels. Some have been sold even at below-profit levels. . . . Intensive export competition has set off serious underselling operations partly in order to offset poor sales performances in the domestic market. The management of major manufacturers has agreed that if the situation is left uncurbed, no adequate profits will ever be recovered. . . . The industries reconfirmed at a recent meeting to respect the floor export price worked out last year on television receivers and electric fans."¹⁰²

Despite this agreement, the firms continued to "double price" in violation of the intent of the legal export cartel, and in transgression of Japanese tax and U.S. customs laws. To prevent detection of the low prices, the firms were forced to make covert payments to the buyers of their products to make up the difference between the check prices and the actual prices. This "difference money" was transferred back to U.S. mass merchandisers in the form of kickback checks

drawn on Hong Kong and Swiss bank accounts, telegraphic transfers, free spare parts, "loyalty discounts," fictitious commissions, "inspection fees," and other clandestine methods.¹⁰³ It appears that every Japanese television producer was involved in this double invoicing; the interdependence of each company's behavior in keeping the elaborate system concealed is self-evident and well-documented.¹⁰⁴ Evidence suggests that the bulk of the sales of Japanese television sets before 1973 was characterized by the use of fraudulent prices, and, hence, customs fraud.¹⁰⁵ In short, there is little doubt that the large-scale, clandestine undercutting of the check price subverted the original purpose of the check-price system—the prevention of below-cost exports—to one of concealment of such exports and evasion of U.S. antidumping law.¹⁰⁶

In this context, the reasons for the "five-company rule" can also be better

TABLE 5
Imports and the U.S. Television Receiver Market: Color
(All figures are in thousands of dollars)

Year	Total Market ^b	Japanese Imports ^d	Total Imports ^c	Japanese Market Share ^a	Import Market Share
1959	37,000				
1960	47,000				
1961	56,000				
1962	154,000				
1963	258,000				
1964	488,000				
1965	959,000				
1966	1,861,000				
1967	2,015,000	52,120	53,213	2.6	2.6
1968	2,086,000	102,454	103,572	4.9	5.0
1969	1,653,000	138,689	143,365	8.4	8.7
1970	1,428,000	134,699	141,858	9.4	9.9
1971	1,808,000	191,715	205,271	10.6	11.4
1972	2,109,000	201,528	234,763	9.6	11.1
1973	2,306,000	210,423	263,309	9.1	11.4
1974	2,162,000	185,226	242,429	8.6	11.2
1975	2,025,000	192,805	220,752	9.5	10.9
1976	2,572,000	485,645	560,326	18.9	21.8
1977 ^e	2,887,015	405,553	501,118	14.0	17.4
1978	3,245,465	317,715	577,089	9.8	17.8
1979	3,286,392	128,857	302,564	3.9	9.2
1980	3,656,697	108,885	295,595	3.0	8.1
1981	3,907,098	244,452	481,690	6.3	12.3

NOTE: See sources cited in table 4.

understood. Its original intent appears to have been to preserve the minimum price agreements by removing any temptation on the part of Japanese firms to undercut one another. Though the restriction on the price was evaded, the five-company rule appears to have been strictly enforced by cartel members. This is consistent with the allegation by American firms that the rule was used by Japanese firms to ensure that the effect of their low-price tactics would not be dissipated in robbing one another of sales but could enable them to increase their market shares exclusively at the expense of their American competitors.

As the Japanese market share grew, injury to American manufacturers and labor led not only to frantic efforts to adjust—mostly through moves offshore—but also to a series of lawsuits and other legal action against the Japanese exporters.

The American Reaction

The marketing and pricing tactics of the Japanese firms and the resulting damage to American television set producers provoked one of the most rancorous and protracted series of antidumping suits in U.S. history and eventually led to charges against the Japanese under a battery of American antitrust laws. All American statutes for antidumping action rely on executive-branch agencies for their prosecution, except the little-known Antidumping Act of 1916. Thus, many of the legal actions were taken by the appropriate federal agencies in response to petitions filed by industry and labor groups. The U.S. International Trade Commission carried out a total of twenty-two investigations between 1970 and 1981, the Tariff Commission dealt with twenty cases brought by labor groups between 1962 and 1974, and the Labor Department conducted fifteen examinations between 1977 and 1981. The Commerce and Treasury Departments were also deeply involved in the complicated and time-consuming process of enforcing U.S. trade law.¹⁰⁷ In 1976 alone, television imports were being investigated under no fewer than five different U.S. trade laws.¹⁰⁸

The results from all this activity were mixed. The most important action was the Orderly Marketing Agreement (OMA) in effect between July 1977 and June 1980, limiting Japanese color television imports to 1.56 million units, and 190,000 incomplete units, that is, 146 percent of the 1975 level or 58 percent of the 1976 level. The number of television sets imported from Japan in 1979 actually dropped to a mere 19 percent of the 1976 level as production came on line from the Japanese firms' American subsidiaries and imports from Korea and Taiwan rose sharply.¹⁰⁹

The other important outcome of the executive-branch activity occurred in 1971, when the Tariff Commission found in favor of a 1968 dumping petition that charged that Japanese television sets were more expensive in Japan than in the United States, a violation of the Antidumping Act of 1921. The petition was sent to the Treasury Department for the determination of price differentials and the corresponding duties; amidst confusion and legal maneuvering, the department grappled for seven years with the question of how much to assess. A decision on

duties for 1972-73 was reached in 1978 but was protested and no penalty was collected. Jurisdiction over the problem was transferred to the Department of Commerce in January 1980 and an agreement was reached in April 1980 whereby the Japanese were to pay \$66 million, a substantial reduction from the \$440 million actually owed, as estimated by the U.S. International Trade Commission. Zenith and COMPACT (Committee for the Preservation of American Color Television) filed suits protesting the settlement, thus further delaying collection. In sum, the Japanese were found guilty of dumping under the 1921 act but the actual collection of duties had not, eleven years later, been made.¹¹⁰

In December 1970, National Union Electric Corporation (NUE) filed suit in the District of New Jersey against the seven major Japanese television manufacturers, eight of their subsidiaries, and one Japanese trading company. Four years later, Zenith Radio Corporation filed a similar suit in the Eastern District of Pennsylvania against the same firms, some additional subsidiaries, Motorola, and Sears. Because the facts and legal issues in the two suits were nearly identical, they were consolidated in 1975; the joint suit is known as The Japanese Electronic Products Antitrust Litigation.

The defendant firms were charged with conduct violating several U.S. laws: dumping motivated by predatory intent (under the Antidumping Act of 1916); conspiring to fix minimum prices and allocate customers among themselves (Art. 1 of the Sherman Antitrust Act); attempting to monopolize U.S. trade (Art. 2 of the same); engaging in multiparty conduct affecting importation to restrain trade (the Wilson Tariff Act); practicing price discrimination between Japanese and American customers as well as among different American customers (the Robinson-Patman Act); and, acquiring U.S. firms with an intent to monopolize (Sec. 7, the Clayton Act).¹¹¹ NUE is seeking \$360 million in damages while Zenith wants \$900 million under the provisions of Articles 4 and 16 of the Clayton Act.¹¹²

Preliminary hearings on the case began in the District Court for the Eastern District of Pennsylvania in 1975. In 1982, the court issued a summary judgment granting the defendants' motion to dismiss all charges made by the plaintiffs. Underlying the dismissal was the district court's judgment that the documents taken from the possession of the Japanese firms by the FTCJ (and relied upon by the FTCJ in making its decisions) failed to meet the tests of the federal rules of evidence, and thus were not reliable; for the same reason, legal documents issued by the FTCJ summarizing its investigations and finding several of the defendants guilty of illegal price stabilization were also judged untrustworthy and prejudicial. The court excluded from consideration official proceedings and decisions of the U.S. International Trade Commission on similar grounds. That is, the court ruled in the defendants' favor in part because it had effectively eliminated much of the evidence presented by the plaintiffs.¹¹³

The case was appealed by the plaintiffs in 1983 and the Court of Appeals for the Third Circuit overturned nearly every ruling of the District Court, holding that substantial issues of fact existed that warranted a trial. However, the Court of Appeals upheld dismissal of the charges against Sony, Sears, and Motorola. In

short, the appellate court held that sufficient evidence existed to warrant a trial to establish whether or not the remaining firms did violate U.S. law.¹¹⁴

In June 1984, the Japanese firms sought review by the United States Supreme Court, asking in effect that the decision of the appellate court be voided.¹¹⁵ The Supreme Court agreed in April 1985 to hear arguments from the parties involved and a decision as to whether the case is to be sent to trial or dismissed entirely is expected in early 1986. Thus, fourteen years after the case was initiated, it has yet to be tried and the legal issues raised by the protection and cartelization of the Japanese market and by the Japanese firms' market conduct in the United States remain unresolved.

Meanwhile, events in the business world moved relentlessly forward; two divergent tendencies had become evident by the late 1970s. While all seven major Japanese companies had set up production in the United States by 1979, sidestepping rising U.S. protectionism, all remaining American producers used some of the breathing space afforded by the OMA to move most subassembly production abroad, repeating the tactics used in producing monochrome sets. Today, both American firms and the consumer electronics arms of Japanese firms have roughly similar structures with respect to sales in the U.S. market—third-country production of basic components and final assembly in the United States. The major losers in these developments have been American workers who lost jobs and those U.S. firms forced out of the market. All in all, the old confrontation has now been muted; the price differentials between Japanese and American television sets have disappeared. Against this backdrop, the billion-dollar civil suit winds slowly through American courts, leaving in its wake many questions to be pondered by students of the Japanese economy, international trade, and industrial policy.

While legal issues remain tangled, it is possible to illuminate some of the economic issues involved by examining the facts of the case in light of the four separable but not mutually exclusive motivations to reduce prices on exports as presented in part one and developed in the Appendix. The pattern of exports of Japanese television sets into the United States in the 1960s and 1970s does not fit into a single category. That the Japanese firms sold large quantities of television receivers in the U.S. market at prices lower than those charged domestically (a violation of the U.S. Antidumping Act of 1921) is indisputable. A major study made under the leadership of Ryutaro Komiya, a prominent Japanese economist, stated: "When the ruling of dumping was made [by the U.S. Tariff Commission in March 1971], the newspapers reported that the Japanese producers were saying that their exports [to the United States] were likely to remain unaffected because export prices were raised after the proceeding against them had been initiated, and, as a result, price differentials [between Japanese and American markets] have now almost disappeared. *Such a statement is nothing but confirmation that dumping was a fact*" [emphasis added].¹¹⁶

The case has frequently been made that factor cost advantages, superior management, and advanced technical skills account fully for the Japanese ability

to charge these low prices and to defeat the Americans in price competition; thus, it is argued, simple international price discrimination (the first type of dumping described in part one) created the differentials between domestic and export prices.¹¹⁷ Though few would deny the legitimate competitive strength of the Japanese producers, those holding the view that these advantages alone explain Japanese success in the American market often seem unaware of the domestic/export price differential and of the large number of illegal and anticompetitive acts of the seven firms, in both the Japanese and American markets. If price advantage alone is to be credited, it must be shown that the effective domestic cartel, the subversion of the check-price system, the five-company rule, and other practices had no role in helping the Japanese capture a large share of the American color television market.

We wish to stress here that, beyond the impact of the firms' covert activities, the policies of the Japanese government substantially influenced the structure, marketing practices, and development of the industry. Preferential credit allocation via large banks, lax antitrust enforcement, condoning of de facto recession cartels, MITI-guided investment coordination, and various forms of NTBs were all policies of the Japanese government that promoted and shaped the growth of the industry, policies very different from those under which the American television producers conducted business. The possibility that the interaction of economic forces and government manipulations created incentives for the Japanese firms to engage in below-cost export sales and other activities in violation of U.S. laws must be included in any analysis of the successful penetration of the U.S. television set market by Japanese producers in the rapid growth decades. We contend that the policies did indeed affect domestic market behavior and export strategies of these Japanese firms. One manifestation was export-led expansionary drives to increase productive capacity and to reduce per-unit costs to enlarge profits on goods sold domestically at fixed prices (the second of the four types of dumping postulated earlier).

It can hardly be denied that the industry cartelized its domestic market over an extended period, maintaining stable horizontal price-fixing agreements through vertical restraints on controlled distributors, thus satisfying one of the two conditions necessary for dumping of this kind to occur.

The remaining condition—that the industry was pursuing economies of scale through increased exports—was also met, as evident in the following observation from a recent analysis of the sources of Japanese competitiveness in the production of television sets and tape recorders: "The constant drive to expand exports has contributed to production efficiencies as expanded production volumes permitted firms to move down the learning curve, thereby reducing unit costs, and improve their competitive position against foreign firms."¹¹⁸ The scale of Japanese television set production multiplied twelve times (increasing from 0.5 million sets to over 6.3 million) between 1966 and 1970.¹¹⁹ It is not unreasonable to assume that the "margin of safety" provided by the resulting increase in profits on the protected domestic market was a factor in the firms' decisions to expand so

courageously and that the new production may have been initially sold at unfavorable prices on the international market.

Circumstances indicate that the Japanese firms in this industry also engaged in the third type of dumping, that which occurs in times of recession to clear inventories accumulated because of Japanese firms' downward inflexibility of output level. Economic analysis of the cost structure of these firms indicate that they were, in fact, saddled with the high fixed costs that create this output inflexibility.¹²⁰ Note also that their collusive activities became visible during the downturns of 1956–58 and grew more elaborate in the 1964–65 recession. A closer analysis of the timing of the largest export surges reveals a tendency for increases during the period of recoveries from recessions. Exports of monochrome sets rose by 77 percent following the 1964–65 downturn and shipments of color sets recorded a sudden 152 percent jump on the heels of the 1975–75 recession. Exports of monochrome sets increased by 59 percent during this later period.¹²¹ The suddenness and magnitude of the surge of color set exports, its short duration, and the low-price tactics again adopted in 1976 cannot but suggest that during one of the worst postwar recessions, the firms were engaging in an inventory-clearing export drive to maintain production levels while preserving domestic price-and-quantity agreements.

We stress that all of this rational profit-maximizing behavior occurred under a unique set of constraints; this behavior alone does not imply predatory intent. The Japanese firms could have engaged in below-cost sales in the United States in the simple pursuit of profit, and with no intent to harm American producers and with no plans to overtake and monopolize the U.S. market to recoup losses by raising prices later.

Indications of such predatory intent must be sought in evidence concerning the concerted exporting behavior of the seven firms, particularly the five-company rule and the firms' cooperation in collectively concealing their subversion of the check-price system. Such an intent is suggested by the fact that the cartel appears to have been used to eliminate competition among Japanese companies and to achieve a rapid expansion in their exports of television receivers at the expense of American firms. That is, the firms may have realized that their extended price cutting, directed exclusively at non-Japanese producers, would eventually eliminate their rivals. In an industry such as television production, characterized by economies of scale and high initial investment in plant and equipment, the re-entry of competing firms is expensive and time consuming, and the seven Japanese firms may well have realized this and planned to dominate the U.S. market, raise prices, and recoup the losses of the predatory campaign.

In summary, not only is it incontrovertible that Japanese television sets were exported at price levels far below those charged in Japan, the existence of economic incentives for below-cost exports, as well as contemporaneous reports that such sales occurred, suggest that the seven companies actually took losses on the world market. Furthermore, the plethora of evidence revealing the Japanese

producers' concerted and illegal behavior in both domestic and international arenas invites accusations of coordinated predatory intentions against American firms. In short, charges that the seven exporters knowingly colluded to exploit the damage potential of these below-cost exports—though they had other, more basic, structural incentives to export at a loss—must be seriously examined.

This is not to deny that the recognized productive efficiency of the Japanese television manufacturers contributed to their success on the U.S. market. Ascertaining the precise relative importance to this success of cost advantages, as opposed to the impact of the marketing strategies analyzed here, is not, however, the central intent of this essay. Our purpose is to use the Japanese experience to illuminate broader questions of antitrust and industrial policy having significant implications for ongoing debates on the adoption of a U.S. microeconomic policy patterned after Japan's and on global competition in high technology industries.

3. SIGNIFICANCE AND LESSONS OF THE CASE

The television case sheds light on some seldom-mentioned but important aspects of the progrowth policies pursued by the Japanese government during the rapid-growth decades. These policies were intended to promote vigorous economic growth and export expansion by enabling Japan's leading industries to adopt new technology and undertake the construction of large, efficient plants. By all quantitative evidence, the policies were extremely successful; they were, however, far from cost free. While interest rate control kept returns to small savers artificially low, oligopolistic pricing, and politically essential price supports and import quotas benefiting farmers maintained high consumer prices for both manufactured goods and agricultural products.

We are willing to assert that at least in the case of the consumer electronics industry, the costs imposed on Japanese consumers were higher, perhaps substantially higher, than those justified in the name of achieving rapid economic growth. This was the perception, as well, of the housewives who launched a national boycott protesting the high prices of television sets.

On the international scene, Japanese industrial policy has involved export promotion, which, in its most visible forms—subsidies, tax exemptions, and so forth—has long provoked trade friction; furthermore, the difficulty of penetrating Japanese markets has led to allegations that the nation was protected by nontariff barriers and discriminatory legal codes.

The results of Japanese industrial policies most significant to our case study were rapid expansion of productive capacity, high fixed costs, a protected and cartelized market, and collusive conduct; these conditions set in motion economic dynamics that caused below-cost exports to occur. These loss-producing exports benefited American consumers at the expense of Japanese purchasers as they forced U.S. producers of competing goods and their employees to bear costs associated with slumping sales and industrial readjustment.

The character and effects of Japanese industrial policy revealed through this

case study have important implications for the ongoing debate on the adoption of an American economic rejuvenation program that goes beyond traditional macroeconomic manipulations. The evidence presented here cannot but create doubts as to the political palatability, both in domestic and international terms, of many Japanese practices if adopted by mature industrial societies. In particular, the costs imposed on consumers by the lax enforcement of antitrust statutes are likely to exceed the benefits such policies provide to firms. Economic analysis tells us that export promotion and protectionism, by overt or covert means, do not yield net benefits to society, although these practices may be profitable to certain sectors. Of course, within the context of catch-up growth, the impact may be different and it is clear that the LDCs have much to learn from the Japanese experience.

Thus the advisability of industrial policy in mature economies rests uneasily on the condition that it be applied judiciously and appropriately by disinterested and even-handed parties. Awarding the power to manipulate microeconomic decision making to agencies vulnerable to capture by industry interests, or conversely, to bodies manned by bureaucrats not fully acquainted with the realities of conducting business, could yield unexpected and costly results. Nevertheless, the evident success of Japanese firms in international competition, coupled with American difficulties, may eventually compel us to institute national programs to counter the Japanese advance.

The dynamics underlying the television case afford valuable insight into the possible effects of Japan's current policies for promotion of its high technology industry. The most important sectors of this industry—semiconductors, computers, and telecommunications—are today in Japan dominated by precisely those firms implicated in the television case, along with a few firms producing mostly computers, such as Fujitsu and Nippon Electric Company. MITI is now organizing and subsidizing joint research projects among the leading Japanese producers of high technology products and we find that companies such as Matsushita, Toshiba, Hitachi, Mitsubishi, and Sharp are being encouraged by the Japanese government to pool their resources and scientific capabilities toward pioneering the development of state-of-the-art computers, software, and integrated circuits. As American and Japanese firms now hotly compete for the leading edge in these technologies, the possibility that these efforts could disadvantage American firms has become a source of serious concern. The argument that the financial contribution made by the Japanese government is not a huge sum provides us little comfort because of the profound impact the organization of the research projects could have on the timing of innovation, on patterns of interfirm competition and cooperation, and on industrial structure.

The National Cooperative Research Act of 1984 exempting cooperative research projects undertaken by American firms from certain prosecution was passed by Congress in reaction to the perceived threat of similar Japanese behavior, but important analytical and practical obstacles lie in the way of the direct adaptation of Japanese techniques by American competitors.¹²² Furthermore, the analysis presented here suggests that U.S. producers and govern-

ment officials should be alert to signs of a repetition of past Japanese export patterns in the new products; specifically we must watch for developments indicating whether, or to what extent, the firms in the Japanese high technology industries are faced with incentives to engage in export drives to expand productive scale or to clear unanticipated inventories.

To be sure, Japan today is not Japan of the rapid-growth decades; its policies have changed substantially for both domestic and international reasons. Japan's capital markets have been significantly liberalized, depriving MOF of much of the power it once possessed. MITI also has become more sensitive to international pressures and today must be more mindful of the effect its guidance has on consumers. The hope is that Japan has abandoned the once-successful export promotion policies of its catch-up days and has become a full-fledged and stable member of the community of mature, industrialized, free-market economies.

However, the pattern of massive investment by Japan's major companies in cost-reducing mass output facilities followed by intense price competition in world markets, as seen in the television industry, is being repeated in semiconductors. As a result, industry sources anticipate intense trade friction over such products as the 64K DRAM to flare up by 1985.¹²³ As firms have expanded productive capacity rapidly to bring down per-unit cost, evidence suggesting anticompetitive behavior in the marketing of office computers and other final products utilizing microchips has been uncovered by the FTCJ. The commission has released a report on the increasing "capture" of wholesalers, a recent rise in producers' stockholdings in distribution outlets, and the transfer of management personnel between manufacturers and sellers. While the percentage of wholesalers dealing exclusively with one manufacturer is not high (34 percent), the FTCJ discovered that contracts signed between producers and dealers contained "restrictions regarding retail prices, sales area, retailers to whom the products could be sold, and other matters, restrictions which conflict with the intent of the Antimonopoly Act." Accordingly, the FTCJ "advised" the implicated firms to eliminate these clauses.¹²⁴

Clearly, these developments should be watched with care by those firms competing with the Japanese and by government officials charged with enforcing U.S. antidumping and trade laws. For the most important lesson of the television case is that both Americans and Japanese erred in permitting the practices that led to a litigation of more than a dozen years. The same error must not be permitted to recur as our two fully developed and interdependent nations vie for shares of world high technology markets.

NOTES

1. This case is detailed in part two; see also nn. 111 and 112.
2. Two examples among the many writings both by Japanese and Americans who now readily acknowledge the progrowth characteristics of the rapid-growth decades are: Yoshinobu Namiki, *Nihon-gata keizai o toku* (Understanding the Japanese-type economy) (Tokyo: President-sha, 1981), and Edward Lincoln, *Japan's Industrial Policies* (Washington: Japan Economic Institute of America, 1984). The former was once a MITI officer, and his observations regarding what he calls "the Japanese kabushiki-kaisha" (Japan Inc.) and the roles the government played during the rapid growth years are revealing (pp. 236-38). See also: Editorial Staff of *Ekonomisuto*, ed., *Shōgen: Kōdo seichōki no Nihon* (Testimonies: Japan in the rapid-growth period) (Tokyo: Mainichi Shimbun, 1984). The book, published by Mainichi Newspaper in two volumes, contains eighty-three interviews conducted by the editorial staff of *Ekonomisuto* with former officials, leading politicians, business leaders, and others who played key roles in formulating and administering the policies of the rapid-growth era. These interviews contain remarkably candid responses to questions regarding policy formulation and implementation and how they affected various aspects of both the domestic economy and Japan's trade. See especially the interviews with a former high-ranking MITI official on pp. 296-319, and with a former steel company executive on pp. 333-37, in vol. 1; and those with the president of a major business organization on pp. 233-42, with a former bank president on pp. 342-51, and with a former high-ranking officer of the Ministry of Finance on pp. 379-88 in vol. 2.
3. For an analysis of the significance of capital market structure in allowing governments to adopt policies to promote economic growth, see John Zysman, *Governments, Markets and Growth* (Ithaca: Cornell University Press, 1983). See also Ryoichi Mikitani, "Monetary Policy in Japan," in Karel Holbik, ed., *Monetary Policy in Twelve Industrial Countries* (Boston: Federal Reserve Bank of Boston, 1973), pp. 246-81; Yukio Noguchi, "The Government-Business Relationship in Japan: The Changing Role of Fiscal Resources," in Kozo Yamamura, ed., *Policy and Trade Issues of the Japanese Economy* (Seattle: University of Washington Press, 1982), p. 125; and for a more extended discussion of fiscal policy and capital market, see Henry G. Wallich and Mable I. Wallich, "Banking and Finance," in Hugh Patrick and Henry Rosovsky, eds., *Asia's New Giant* (Washington, D.C.: Brookings Institution, 1976), pp. 246-315.
4. We are not unaware of the recent revisionist view that argues in effect that MOF policy had little impact on the dictates of market forces, i.e., MOF's subequilibrium interest rate policy was ineffective. This view is now available in English in such works as Eisuke Sakakibara et al., "The Japanese Financial System in Comparative Perspective," a study prepared for the Joint Economic Committee, Congress of the United States, 1982, and in Akiyoshi Horiuchi, "Economic Growth and Financial Allocation in Postwar Japan," Brookings Discussion Papers, no. 18, 1984. In our judgment, however, their view, which may appeal to those interested in a theoretical analysis, is seriously flawed because they typically assume away important institutional and behavioral characteristics of Japanese monetary policy, the capital market, and the participants in the market. Instead of extending this essay with specific criticisms, both theoretical and empirical, of the revisionist view, let us only note that we remain convinced by a more widely accepted view of the character and effectiveness of the MOF policy. Murakami, after assessing the revisionist view (or the market school as he called it), summarized this view in the following words: "If all relevant facts are considered in a comprehensive way, it may be a sound judgment that the interest rate was regulated at an artificially low level in the following sense. The effective interest rates in most financial markets would have been significantly higher, and never lower, if the network of financial regulations had been removed." Yasusuke Murakami, "Toward a Socioinstitutional Explanation of Japan's Rapid Growth," in *Policy and Trade Issues of the Japanese Economy*, p. 14.
5. See Kozo Yamamura and Yasusuke Murakami, "A Technical Note on Japanese Firm Behavior and Economic Policy," *Policy and Trade Issues*, pp. 113-22.
6. See Kozo Yamamura, "Structure is Behavior," in Isaiah Frank, ed., *The Japanese Economy in International Perspective* (Baltimore: Johns Hopkins University Press, 1975), pp. 67-100.
7. The agency in charge of enforcing antitrust legislation, the Fair Trade Commission of Japan, was small and exercised very limited powers. Until 1977, the only binding sanctions available to the FTCJ were criminal prosecutions, and in thirty years of investigating, advising, and admonishing business, criminal charges were brought only six times—of which three were in 1949. The maximum fine for noncompliance with FTCJ orders was approximately \$25; after 1977 the penalty was increased to \$1,000. For more detail, see Kenji Sanekata, *Dokusen kinshi-hō to gendai keizai* (The Antimonopoly Act and the contemporary economy) (Tokyo: Seibundō, 1977).

8. Gary R. Saxonhouse, "The Impact of Japanese Financial and Employment Practices on Japanese Production and Pricing Behavior," unpublished paper, May 1979.
9. Shunsaku Nishikawa, ed., *The Labor Market in Japan* (Tokyo: University of Tokyo Press, 1980).
10. In the 1970s, the risk of being saddled with large fixed labor costs also began to be reduced by making semiannual bonus payments more flexible, i.e., reflective of the profit level of the firm and the rate of increase in productivity. See, for example, Kazutoshi Koshiro, "Development of Collective Bargaining in Postwar Japan," in Taishiro Shirai, ed., *Contemporary Industrial Relations in Japan* (Madison: University of Wisconsin Press, 1983), pp. 205-57.
11. See M. Y. Yoshino, *The Japanese Marketing System* (Cambridge: MIT Press, 1971), especially pp. 121-22, and Mitsuaki Shimaguchi, *Marketing Channels in Japan* (Umi Research Press, 1978), and sources cited in n. 15 below for general information on business groups.
12. Saxonhouse, "Japanese Financial and Employment Practices," and the sources cited in nn. 3 and 5.
13. For example, Masu Uekusa in his major study of Japanese industrial organization, *Sangyō soshikiron* (A study of industrial organization) (Tokyo: University of Tokyo Press, 1982), concluded his analysis of the Japanese distribution system by saying: "Creating the *keiretsu* distribution outlets is not a phenomenon unique to Japan. It is also found in Western nations. However, in Japan this mode of distribution is adopted by many industries, as we have just demonstrated. Furthermore, such systems as the territory system, the *itten-itchōai* system, and the discriminatory rebate system cannot be found in other nations where antimonopoly statutes are strictly enforced. The outlets in other nations are not organized into distributors' associations as prevalently as in Japan. . . . thus, the *keiretsu* distribution system can be seen as a significant characteristic of Japanese industrial organization" (p. 98). These systems referred to by Uekusa are discussed fully in the text below.
14. Mass merchandisers sold 4 percent of total retail sales in 1966, according to Yoshino, *Japanese Marketing System*, p. 134.
15. *Ibid.*, pp. 81-128. It is necessary to note that the Japanese distribution *keiretsu* are not an isolated phenomenon but are merely one variety of *kigyō keiretsu*, a vertical Japanese business group. The most common type of *kigyō keiretsu* is composed not of marketers but of production subcontractors that manufacture subassemblies and parts for the parent firm. It is useful to clearly distinguish between the small, vertical, tightly held *kigyō keiretsu* and the large, loosely organized, bank-centered, horizontal *kin'yū keiretsu*, to which most of the published data on business groups in Japan pertain. For discussions of *keiretsu*, see K. Bieda, *The Structure and Operation of the Japanese Economy* (Sydney: John Wiley and Sons Australasia Pty. Ltd., 1970); Dodwell Marketing Consultants, *Industrial Groupings in Japan* (Tokyo: Dodwell Marketing Consultants, 1979); and Misonou Hitoshi et al., *Kokumin no dokusen hakusho: Kigyō shūdan* (People's white paper on monopolies: economic groups) (Tokyo: Ochanomizu Shobō, 1978).
16. Yoshino, *Japanese Marketing System*, p. 120. No date was given for these figures; the estimate was termed "recent" in 1971.
17. For a legal background on this weak enforcement of legal and contractual rights, readers are referred to John Owen Haley, "Sheathing the Sword of Justice in Japan: An Essay on Law Without Sanctions," *Journal of Japanese Studies* 8, no. 2 (Summer 1982): 265-81, and *idem*, "Myth of the Reluctant Litigant," *Journal of Japanese Studies* 4, no. 2 (Summer 1978): 349-90. He argues, in essence, that because of the limited size and power of the Japanese judiciary, written legal contracts can be enforced only with great difficulty, especially in small concerns with limited resources. This explains why business relations in general must be based on "trust." Such a relationship between a large and a small firm has great potential to work against the bargaining position of the small firm by denying it legal recourse. The various forms of power exerted by large firms over small distributors described in the text must be viewed against this legal reality.
18. Shimaguchi, *Marketing Channels*, p. 51. Many Japanese sources provide details on the organization and operation of the distribution *keiretsu*; the most important are: Fair Trade Commission of Japan, "Ryūtsū keiretsuka ni tsuite" (On the vertical integration of distribution) (Tokyo: FTCJ, 1973); Kanasaki Takashi, *Kadengyōkai* (The home electronic products industry) (Tokyo: Kyōikusha, 1982); Fair Trade Commission of Japan, "Ryūtsū keiretsu-ka ni kansuru dokusen-kinshihōjō no toriatsukai" (The treatment of vertically integrated distribution under the Antimonopoly Act). This last source, a report issued by an internal FTCJ study group in March 1980, is particularly thorough in its description of the business tactics used to cement vertical *keiretsu* bonds and details the operation of territorial restrictions, rebate systems, and retail price maintenance. Also, extensive data are included on the relative volumes of goods passing through various distribution channels. See pp. 392-418.

19. Shimaguchi, *Marketing Channels*, pp. 50-52; Kanasaki, *Kadengyōkai*, pp. 108-10.
20. J. Amanda Covey, "Vertical Restraints under Japanese Law: The Antimonopoly Law Study Group Report," *Law in Japan: An Annual* 14 (1981): 55. This article provides an overview of the FTCJ group report issued in March 1980; see n. 18 above.
21. Shimaguchi, *Marketing Channels*, pp. 49, 87.
22. Kanasaki, *Kadengyōkai*, p. 108.
23. Yoshino, *Japanese Marketing System*, pp. 114, 117.
24. Ishida Hideto, "Anticompetitive Practices in the Distribution of Goods and Services in Japan: The Problem of Distribution *Keiretsu*," *Journal of Japanese Studies* 9, no. 2 (Summer 1983): 324.
25. Shimaguchi, *Marketing Channels*, pp. 52-58; Kanasaki, *Kadengyōkai*, p. 109.
26. Yoshino, *Japanese Marketing System*, p. 231.
27. For an overview of analytic articles relating to vertical integration and its efficiency implications, see David L. Kaserman, "Theories of Vertical Integration: Implications for Antitrust Policy," *Antitrust Bulletin*, no. 23 (Fall 1978), pp. 483-510. See also G. A. Hay, "An Economic Analysis of Vertical Integration," *Industrial Organization Review* 1 (1973): 188-98; J. M. Vernon and D. A. Graham, "Profitability of Monopolization by Vertical Integration," *Journal of Political Economy* 79 (July/August 1971): 924-25; and F. M. Westfield, "Vertical Integration: Does Product Price Rise or Fall?" *The American Economic Review* 71, no. 3 (June 1981): 334-36. Readers interested in a "model" of how effectively upstream collusion can be enforced at the retail level may wish to read *Shinketsu* (Decision) rendered by FTCJ on August 30, 1966 (1966, Decision no. 11) against Nagano Electric Machinery Commercial Association (a trade association of retailers of 174 stores in Nagano prefecture). FTCJ ordered the association to desist from agreeing to use the producer-suggested prices as the bases from which retail prices were determined (i.e., adding 15 percent to the prices the producers charged them), charging that this had the effect of price cartelization.
28. One characteristic of the "distribution bottleneck" faced by rapidly growing Japanese consumer products firms was the existence of regionally dominant wholesalers. Many Japanese firms in the prewar period bought all raw materials from, and sold all output to, trading firms or wholesalers, which in turn supplied all the wares sold by specialized retail outlets. These intermediaries could enjoy considerable local market power. Even today, this system survives in the Japanese textile and apparel industries.
- As mass manufacturers grew larger and gained command of some position in their respective markets, the presence of layers of rent-extracting agents exacerbated distribution inefficiencies. The gains realized from eliminating this waste were one incentive leading manufacturers to capture and control wholesalers. Interestingly, however, this development also increased consumer surplus.
- The rationale for this outcome can be quickly grasped. Imagine but one monopolist intermediary between the manufacturer and the final consumer. This intermediary agent would have a marginal revenue curve, derived with respect to final consumers' demand, which traces the combinations of prices and quantities at which it would be willing to buy from the manufacturer. This curve would be the manufacturer's effective demand curve, and the monopolist manufacturer would equate the marginal cost of production to the marginal revenue derived with respect to that secondary curve (which is both the wholesaler's marginal revenue curve and the manufacturer's demand curve). As each agent—the manufacturer and the wholesaler—would limit quantity to equate its marginal revenue and marginal cost, price would be "twice inflated" and consumer surplus would be limited accordingly. With vertical integration the manufacturer can eliminate the market-distorting impact of the rent-extracting middleman and equate the marginal cost of manufacture directly to marginal revenue derived with respect to final consumer demand, thereby increasing sales, reducing price, and increasing consumer surplus.
29. See pp. 250-53 for a discussion of entry into the electronics industry.
30. Yoshino, *Japanese Marketing System*, p. 134.
31. We are aware of the view of William J. Baumol outlined in "Contestable Markets: An Uprising on the Theory of Industry Structure," *American Economic Review* 72, no. 1 (March 1982): 1-15. The capital requirement for entry into a market effectively organized into *keiretsu* outlets would constitute a barrier to free entry under Baumol's criteria, making such a market "noncontestable." However, the "asymmetry" test for barriers to entry as posited by Michael Waterson, "On the Definition and Meaning of Barriers to Entry," *The Antitrust Bulletin*, no. 26 (1981), pp. 521-39, is employed here to demonstrate that *keiretsu* distribution structures can be shown to constitute a barrier even under this more stringent standard.

32. Yoshino, *Japanese Marketing System*, p. 114.
33. The importance of effective import barriers to Japanese industrial policy during the 1950s and 1960s is acknowledged even in publications funded by the Japanese government, such as Lincoln, *Japan's Industrial Policies*, p. 14.
34. Also, restrictions remained even after "full" liberalization of foreign investment in 1973. See Dan Fenno Henderson, *Foreign Enterprise in Japan: Laws and Policies* (Chapel Hill: University of North Carolina Press, 1973), appendix 11, p. 401.
35. Iyori Hiroshi and Uesugi Akinori, *The Antimonopoly Laws of Japan* (Federal Legal Publications, 1983), appendix 1, pp. 271-74.
36. If sales under these conditions injure an American industry, the selling firms are vulnerable to legal action under the Antidumping Act of 1921. It must be said that this possibility of suits against "fairly priced" imports is the source of much of the debate on U.S. antidumping law. See John J. Barcelo, "Subsidies, Countervailing Duties and Antidumping After the Tokyo Round," *Cornell International Law Journal* 13 (1980): 257-88; and Wesley K. Caine, "A Case for Repealing the Antidumping Provisions of the Tariff Act of 1930," *Law and Policy in International Business* 13, no. 3 (1981): pp. 682-701.
37. Also see Zysman, *Governments, Markets and Growth*, p. 41.
38. Price theory posits a profit-maximizing quantity for a given demand curve—that quantity at which a monopolist's marginal revenue equals marginal cost. Selling a greater quantity lowers price and the reduction in price multiplied by the quantity that would have been sold at the higher price is a loss. When this is deducted from the increase in revenues resulting from selling the additional units, a net loss always occurs.
39. Yamamura and Murakami, "Technical Note," pp. 99-100; see also H. W. de Jong, "The Significance of Dumping in International Trade," *Journal of World Trade Law* 2, no. 2 (March/April, 1969): 171.
40. Predatory dumping is expressly forbidden under the Antidumping Act of 1916; however, this little-known act has never been successfully invoked.
41. Yoshino, *Japanese Marketing System*, pp. 93-94.
42. This guide to Japanese electronics firms lists forty-eight companies; twenty-nine produced only parts or products with commercial applications; six produced parts, commercial products, and/or consumer audio equipment; and nine produced any combination of the above plus televisions. Fuji, an independent television producer in the 1950s and 1960s, appears to have been absorbed or exited from the market sometime before this *Almanac* was compiled. *Japan Electronics Almanac* (Tokyo: Dempa Publications, 1981), pp. 221-305.
43. This figure was computed from 1980 output quantities in Kanasaki, *Kadengyōkai*, p. 64, and is supported by market shares used as representative of the last few decades in Ishida, "Anti-competitive Practices," p. 328. See table 1 for more detail; subsidiaries output is included with that of the parent company when the relationship can be determined (except Japan Victor).
44. *Japan Electronics Almanac*, 1981, pp. 221-305, and n. 42 above.
45. The output of subsidiaries is by all indications counted as that of a separate company in the compilation of this table.
46. Kanasaki, *Kadengyōkai*, pp. 29, 39; and United States International Trade Commission, *Foreign Industrial Targeting and its Effects on U.S. Industries, Phase I: Japan*, Report to the Subcommittee on Trade, Committee on Ways and Means, U.S. House of Representatives on Investigation no. 332-162, USITC Pub. 1437 (Washington, D.C.: Government Printing Office, 1983), appendix H-2.
47. "Integrated Circuits for Television Receivers," I.E.E.E. *Spectrum*, May 1969 as cited in James E. Millstein, "Decline in an Expanding Industry: Japanese Competition in Color Television," in John Zysman and Laura Tyson, eds., *American Industry in International Competition* (Ithaca: Cornell University Press, 1983), p. 107.
48. Henderson, *Foreign Enterprise*, pp. 195, 218-36.
49. Yoshino, *Japanese Marketing System*, pp. 91-128.
50. Rowland Gould, *The Matsushita Phenomenon* (Tokyo: Diamond Sha, 1970), pp. 108-11; Kanasaki, *Kadengyōkai*, p. 108.
51. *Nihon keizai shimbun* (Japan economic news), Oct. 23, 1970; Yoshino, *Japanese Marketing System*, pp. 114, 117.
52. Kanasaki, *Kadengyōkai*, p. 110. The presence and role of distributors selling consumer electronics products at prices below high cartelized levels deserves a more detailed explanation here. Japanese producers practiced "dual pricing" or discriminatory selling on their domestic market, that

is, *keiretsu* outlets were charged a higher price by the producers for goods than certain volume sellers, who paid in cash (for example, ¥199,000 vs. ¥145,000 for a 19-inch color TV). The role of these cut-rate distributors is explained by the president of one of these outlets: staff from the *Asahi Journal* asked: "If we go to discount sales outlets, we find that the products of high-cost producers such as Sharp and Sanyo are sold cheaply in comparison to those of the low-cost producers—Toshiba, National [Matsushita], and Hitachi—products. Why?" To this, Nobui Yamasaki, the president of Maya Trading, responded: "For the three largest makers, the domestic market is a very important treasure box. They don't want to cause 'confusions' in prices there, so they make sure there is absolutely no decline in the prices. But, the agreed upon export price FOB is [for example] \$180 . . . it is lower, but they get paid in cash immediately if they export. So, treating exports to the U.S. as a 'place to get quick cash,' they export to the U.S. as much as they can. In the domestic market, they sell on credit . . . but by maintaining high prices, they earn high profits. . . . The high-cost producers have to sell in the domestic market to get cash."

The unavoidable implication is that the producers used the high-volume dealers judiciously, when necessary, to raise cash. The low-cost producers were careful not to "bust the cartel," while the high-cost producers had a greater need and incentive to "leak" their products to the mass merchandisers. See *Zenkoku denshōren Kaihō, 36-go* (Report of National Association of Electrical Appliance Stores no. 36) (Tokyo: NAEAS, Jan. 6, 1967), p. 12; for further descriptions supporting the above observations, see *Yomiuri Shimbun*, Oct. 13, 1970, *Sankei*, Oct. 16, 1970, *Asahi Shimbun*, Sept. 18, 1970, and *Asahi Journal*, Nov. 27, 1966. However, such "leakage" of products to the large volume cut-rate outlets for the reason described above and others failed to exceed 10 percent of the total sales as late as the early 1970s because "despite the emergence of these non-*keiretsu* distributors, they have not yet grown to a power that can successfully challenge the makers' *keiretsu* system and their oligopolistic control of the distributional stage . . . the makers' watchful eyes are effective, and they take steps to prevent cut-rate sales. The oligopolistic system continues to control both wholesale and retail prices. The barriers to entry in the distribution system remain effective." Ryutarō Komiya et al., "Kaden sangyo" (The home electric industry), *Chūō Kōron*, Business Topics Special Seasonal Issue, Summer 1971, pp. 396-97. See pp. 386-98 for a useful discussion of the non-*keiretsu* outlets. This long article (pp. 360-412) is a good study, both empirical and analytical, of this industry during the 1960s.

53. Yoshino, *Japanese Marketing System*, p. 116; Kanasaki, *Kadengyōkai*, p. 169.
54. Kanasaki, *Kadengyōkai*, p. 111.
55. *Japan Electronics Almanac*, 1981, pp. 221-305.
56. Kanasaki, *Kadengyōkai*, p. 172.
57. For details on this raid, see the weekly *Nihon no jitsugyō*, Feb. 15, 1967, pp. 20-31.
58. See FTCJ, *Kōsei torihiki iinkai nenji hōkoku 1970* (FTCJ Annual Report, 1970) (Tokyo: FTCJ, 1970), pp. 251-56, and FTCJ Annual Report, 1971, pp. 249 and 250.
59. Case Against Home Appliance Market Stabilization Council and One Other Person, Fair Trade Commission of Japan, Decision no. 5, filed Oct. 17, 1957, as prepared by Horace J. DePodwin Associates, Inc., in its *Economic Study of the Japanese Television Industry*, for Plaintiffs' Counsel in the Japanese Electronic Products Antitrust Litigation, M.D.L. 189, Sept. 1973, vol. 1, appendix exhibit 1 (hereafter, *DePodwin Report*).
60. Kazuki Daimon, *Kuroi bukka* (Black prices) (Tokyo: Shakai-Shimpo Publishing Co., 1968), pp. 41-42.
61. The activity charged ("unreasonable restraint of trade"), as defined in chap. 1, sec. 6 of the Japanese Antimonopoly Act, is proscribed by chap. 2, sec. 3 of the same act. *Initial Decision, Case No. 6, 1966*, Office of the Fair Trade Commission of Japan, filed June 9, 1970, as published in *DePodwin Report*, vol. 1, appendix exhibit 2.
62. Art. 3 of the Antimonopoly Act, see Iyori and Uesugi, *Antimonopoly Laws* p. 215.
63. FTCJ, *Kōsei torihiki iinkai nenji hōkoku* (The annual report of the Fair Trade Commission) (Tokyo: FTCJ, 1979), p. 57.
64. Yoshino, *Japanese Marketing System*, p. 123.
65. FTCJ, *Kōsei torihiki iinkai shinketsu shū* (Collection of judicial decisions of the Fair Trade Commission, 1971), no. 17, pp. 187-208.
66. As late as 1980, the FTCJ found it necessary to organize a group to study the problem of distribution *keiretsu*; the group released a report indicating the need for more restrictive treatment of the vertical restraints that still characterized the channels; see n. 18. For an English-language overview of this report, see Covey, n. 20, above.
67. *Asahi Shimbun*, Jan. 26, 1967.

68. *Mainichi Shimbun*, Mar. 16, 1966, and Komiya et al., "Kadensangyo," pp. 370-71. See also the summary of original documents as published in *Appellants' Brief*, pp. 37-38, in re: Japanese Electronic Products Antitrust Litigation, 723 F.2d 238 (3rd Cir. 1983) (hereafter, *Appellants' Brief*). Students of Japanese management will appreciate the evidence of ringi-style decision-making processes in the organization of this clandestine system.
69. *DePodwin Report*, vol. 1, pp. V-1 through V-17. The material used is a summary of the documents seized by the FTCJ.
70. Komiya et al., "Kadensangyo," pp. 373-76, 388-91, and *Appellants' Brief*, p. 36.
71. Gould, *Matsushita Phenomenon*, pp. 108-11, Kanasaki, *Kadengyōkai*, p. 106.
72. Konosuke Matsushita, "The Road to Co-existence and Co-prosperity," Commemorative Lecture at the Appreciation Sale for the Attainment of Six Million National TV Sets (Jan. 1, 1966) as reproduced in the *DePodwin Report*, 1: IV-19.
73. *Yomiuri Shimbun*, Nov. 10, 1966. See also *Mainichi Shimbun*, Aug. 30, 1970.
74. Daimon, *Kuroi bukka*, p. 7.
75. Komiya et al., "Kaidensangyo," pp. 368-69.
76. *Yomiuri Shimbun*, Dec. 16, 1970.
77. Van Zandt, "Learning to do Business with Japan, Inc.," *Harvard Business Review* 50, no. 4 (July/August 1972): 90; and Yamamura, "Structure Is Behavior," p. 86.
78. Komiya et al., "Kaidensangyo," pp. 368-69; and *Appellants' Reply Brief*, pp. 138-42, in re: Japanese Electronic Products Antitrust Litigation, 723 F.2d 238 (3rd Cir. 1983) (hereafter, *Appellants' Reply Brief*).
79. Data used are from the *DePodwin Report*, vol. 1, table VI-1 to VI-12; the figures were compiled by the accounting firm of Morris R. Cohen and Co. from the answers of defendants in the Japan Electronic Products Antitrust Litigation to interrogatories. Also see Komiya et al., "Kaidensangyo," pp. 367-68.
80. Japanese market shares figured from information reported by the Electronics Industry Association in *TV Fact Book, 1980*, vol. 49, published annually by TV Digest, Inc., Washington, D.C., vary from those figured using data as reported by the Department of Commerce in U.S. International Trade Commission, *Television Receivers, Color and Monochrome, Assembled or Not Assembled, Finished or Not Finished and Subassemblies Thereof*, Report to the President on Investigation no. TA-201-19, USITC Pub. 808 (Washington, D.C.: Government Printing Office, 1977), and from those used by the plaintiffs in the Japanese Electronic Products Antitrust Litigation. There are problems with the inclusion of subassemblies and parts, the subtraction of U.S. exports from U.S. market totals, Japanese falsification of prices on U.S. customs documents, and rounding. Many sources quote market shares in terms of sets, or units, rather than value, which exaggerates the Japanese firms' U.S. market share. The most important source of discrepancy, however, is the inclusion or exclusion of the production of the Japanese companies' American and third-country subsidiaries in the "Japanese market share." This introduces major discrepancies into any figures quoted for years after 1977, though the divergence begins in 1972, when Sony began American production. Figures in this article, unless otherwise noted, are for imports directly from Japan, figured using Department of Commerce data (whenever available) and quoted on a value basis; they thus represent conservative estimates but are based on the most complete data set.
81. See Raymond Vernon, "International Investment and International Trade in the Product Cycle," *Quarterly Journal of Economics*, vol. 80, no. 2 (1966).
82. This article allows American-owned companies to re-import subassemblies constructed from U.S.-produced parts, paying duty only on the value added abroad.
83. While imports directly from Japan accounted for only 11.2 percent of the American market for black-and-white televisions in 1981, it is impossible to determine the actual market share held by Japanese firms due to the inextricable mix of American and Japanese offshore production, and, also important, Japanese production in the United States.
84. Millstein, "Decline in an Expanding Industry,"
85. Employment change was computed using figures from USITC Pub. 808, and Bart S. Fisher, "The Antidumping Law of the United States: A Legal and Economic Analysis," *Law and Policy in International Business* 5, no. 1 (1973): 120. For import figures see table 5.
86. *Appellants' Reply Brief*, pp. 77, 99, and Opinion of Appeals Court, in re: Japanese Electronic Products Antitrust Litigation, 723 F.2d 238, 312, 313 (3d Cir. 1983) (hereafter, *Opinion of Appeals Court*).
87. *Opinion of Appeals Court*, p. 316. The unit used to arrive at this figure—value or number of TV sets—was unspecified in the source document. A 1977 Japanese market share of 37 percent on a

- number-of-sets basis was reported in Ira C. Magaziner and Robert F. Reich, *Minding America's Business: The Decline and Rise of the American Economy* (New York: Vintage Books, 1983), p. 170. This estimate, however, excludes Japanese companies' imports into the United States from third countries.
88. United States International Trade Commission, *Summary of Trade and Tariff Information on TSUS Items 685.11-685.19*, USITC Pub. 841, Control no. 6-5-33 (Washington D.C.: Government Printing Office, 1982), pp. 11-12.
89. USITC Pub. 808, p. A-44; Fisher, "Antidumping Law," p. 120; and USITC Pub. 841, p. 12.
90. Magaziner and Reich, *Minding America's Business*, p. 171.
91. USITC Pub. 841, p. 12.
92. *Appellants' Reply Brief*, p. 77.
93. *DePodwin Report*, 1: V-17.
94. JMEA "Rules," Art. 9, para. 4 and Art. 14; also, JMEA "Agreement" of 1963 as cited in *DePodwin Report*, 1: IV-37.
95. *DePodwin Report*, 1: V-17, V-19; the information used consists of a summary of original documents accepted as legal evidence.
96. *Appellants' Reply Brief*, p. 19.
97. *Ibid.*
98. Table 3 lists the differentials between domestic price and the check price—not the actual export price, which would be even lower.
99. *Appellants' Brief*, p. 18.
100. "Sovereign immunity"—the immunity from U.S. law granted any foreign government's action—has raised thorny issues in the television case. Under this doctrine, if a cartel is organized under the compulsion of a sovereign national power or its agent—such as MITI—it is exempt from prosecution under U.S. laws.
101. That the firms attempted to conceal their subversion of the check-price system from the Japanese government is attested to by a meeting held in 1966 by the Statistics Committee of the Electronic Industries Association of Japan where measures to change methods of reporting data to the government to prevent discovery of the size of the export price margins were discussed and adopted. *Appellants' Brief*, p. 39; *Opinion of Appeals Court*, p. 146. For information on the check-price system in general, see *Appellants' Brief*, pp. 11-34, *Appellants' Reply Brief*, pp. 100-103.
102. *The Japan Economic Journal*, Jan. 10, 1966.
103. *Appellants' Brief*, pp. 24-28.
104. An example of this documentation is the following handwritten cryptic note found in the possession of Sears: "Phone call from Tokyo: Iijima, Tokyo—Toshiba Murao says he heard customs was questioning Sanyo on double invoicing? Sanyo top level says no—not at present time. Sanyo feels we should wait on divulging system. Trigger off new investigation, last for years. Very dangerous—would re-open whole new case. . . . Re Toshiba: will have to divulge how we over and under bill them—would we have to reveal system if asked by customs?" (*Appellants' Brief*, p. 30).
105. Sears, which purchased 60 percent of Japan's television exports between 1963 and 1973, was served with a 13-count customs fraud conspiracy indictment in 1980; 37 persons were identified as coconspirators in a series of illegal activities occurring between 1966 and 1975. *Appellants' Reply Brief*, pp. 96-103.
106. Documents seized during later court proceedings indicate that, for the firms involved, an important reason for maintenance of the system was the avoidance of U.S. antidumping scrutiny, and in the event of such scrutiny, the understatement of price differentials that would allow for partial evasion of antidumping duties. *Appellants' Brief*, p. 33. The assessment of duties, to be discussed below, was materially delayed by the confusion resulting from multiple prices.
107. USITC Pub. 841, pp. 4-6, and Millstein, "Decline in an Expanding Industry," pp. 122-24.
108. Yoshio Ohara, "Nichi-bei-ō kankei no sōgōteki kōsatsu" (A comprehensive analysis of Japan-U.S.-European relations), *Japan-EC Studies Association Annual Report*, no. 3 (1983), p. 38.
109. USITC Pub. 841, pp. 5, 6, and 35; for market-share figures, see Table 5.
110. USITC Pub. 841, pp. 4-6; Millstein, "Decline in an Expanding Industry," p. 125; and Ohara, "A Comprehensive Analysis," p. 38.
111. See *Opinion of Appeals Court*, pp. 310, 316-19, for a summary description. Also see Phillips B. Keller, "Zenith Radio Corp. v Matsushita Electrical Industrial Co.: Interpreting the Antidumping Act of 1916," *Hastings International and Comparative Law Review* 6 (1982): 137.
112. Ohara, "A Comprehensive Analysis," p. 38; and *Opinion of Appeals Court*, p. 318.
113. See Keller, "Zenith Radio Corp.," and Kermit W. Almstedt, "International Price Dis-

crimination and the 1916 Antidumping Act—Are Amendments in Order?" *Law and Policy in International Business* 13, no. 3 (1981): 747–80.

114. Of the charges filed, only the allegations of price discrimination between Japanese and American customers was explicitly voided. For Robinson-Patman Act charges to have merit, both parties to the price discrimination must be American. *Opinion of Appeals Court*, pp. 310–18.

115. This appeal was accompanied by a statement prepared by the Japanese government stating that all export behavior of the defendants was carried out according to the instructions issued by, and under the express compulsion of, MITI and the Japanese government (see n. 100 above). *Brief of the Government of Japan as Amicus Curiae in Support of the Petition for a Writ of Certiorari*, filed July 6, 1984, in re: Japanese Electronic Products Antitrust Litigation, 723 F.2d 238 (3d Cir., 1983).

116. Komiya et al., "Kaidensangyo," p. 29.

117. For analyses of the situation based on this assumption, see Magaziner and Reich, *Minding America's Business*, pp. 169–80, and Zysman, *Governments, Markets and Growth*, pp. 278–79.

118. "Sources of Competitiveness in the Japanese Color Television and Tape Recorder Industry," paper prepared by World Developing Industry and Technology Inc., for the U.S. Department of Labor (October 1978), p. 72.

119. *Japan Economic Yearbook, 1971* (Tokyo: The Oriental Economist, 1971), p. 208.

120. Saxonhouse, "Japanese Financial and Employment Practices," pp. 1–8.

121. The OMA expired in 1980, so the 1981 increase cannot be correctly attributed to cyclical movements. For export figures, see tables 4 and 5.

122. A full treatment of antitrust issues arising from the MITI-led joint research projects in the Japanese high technology industry is available in Kozo Yamamura, "Joint Research and Antitrust: Japanese vs. American Strategies," a paper presented at the Conference on Japanese Industrial Policy in Comparative Perspective, New York City, March 17–19, 1984.

123. Tetsuro Wada, "Trilateral Friction in Microchip Business Seen among Japan, U.S. and Korea," *The Japan Economic Journal*, Tuesday, July 24, 1984, p. 20. A "64K DRAM" is a 64 kilobyte direct random access memory chip.

124. FTCJ, *Office computer no ryūtsu jittai chōsa ni tsuite* (A survey of the reality of office computer distribution), a nonclassified internal study, Sept. 28, 1984.

APPENDIX

NOTES ON BELOW-COST EXPORTS

The text (part one) posited four situations that could lead to export sales at prices below those charged on the exporting firms' domestic market. Leaving aside the first, which involves export sales at or near marginal cost while monopoly rents are extracted on a protected home market (probably the most common type of international price discrimination), and the fourth, which is nothing more than classic predation carried out across national boundaries, we turn here to examine more analytically the other two situations: export-led expansion and recession-sparked export drives. In analyzing both of these, a worldwide industry is posited in which all firms have identical cost functions; some have protected, cartelized, domestic markets while others sell on global markets only.

Export-led campaigns to achieve economies of scale rest on a firm's perception of declining long-run average total cost (LRATC, i.e., variable plus fixed costs) and the command of a cartelized domestic market; such a firm is diagrammed in figure 1. (The figure is not drawn to scale; it is exaggerated for ease of exposition.) The firm is faced by two demand curves—a low-elasticity domestic curve and a highly elastic but downward sloping world demand curve. (The origin with respect to the world demand curve is $(q_d, 0)$.) Initially, the firm equates domestic marginal revenue (MR_d) and short-run marginal cost (SRMC), selling quantity q_d for price p_d on the cartelized domestic market. It then exports the balance of its output ($q_t - q_d$) at price p_w , which is equal to its marginal cost of production (SRMC). The firm is engaging, thus, in the previously mentioned "simple" international price discrimination.

The firm is in equilibrium at this production level (q_t). As firms worldwide have identical costs functions, and face a common global demand schedule, if the extraction of rent in the cartelized domestic market is stabilized by barriers to entry, the industry as a whole is in global equilibrium, both short-run and long-run, provided the particular type of increase in productive capacity associated with export-led campaigns does not occur. This is because any increase will force prices below long-run costs.

However, those firms that control protected domestic markets with fixed prices have a special incentive to invest and to increase production from q_t to q_t' and to drive global prices permanently to below-cost levels, as indicated by p_w' . The firms will expand to move down their declining LRATC curves (following arrow), and increasing the profit made on units sold domestically by a sum proportionate to rectangle ABCD as production costs-per-unit decrease on goods sold on the home market at a fixed price. (The adjustment in domestic price and quantity that would result as the SRMC curve shifts due to an increase in capacity is not shown on the diagram as it does not materially affect the outcome of the strategy.) This gain must be balanced against the losses incurred

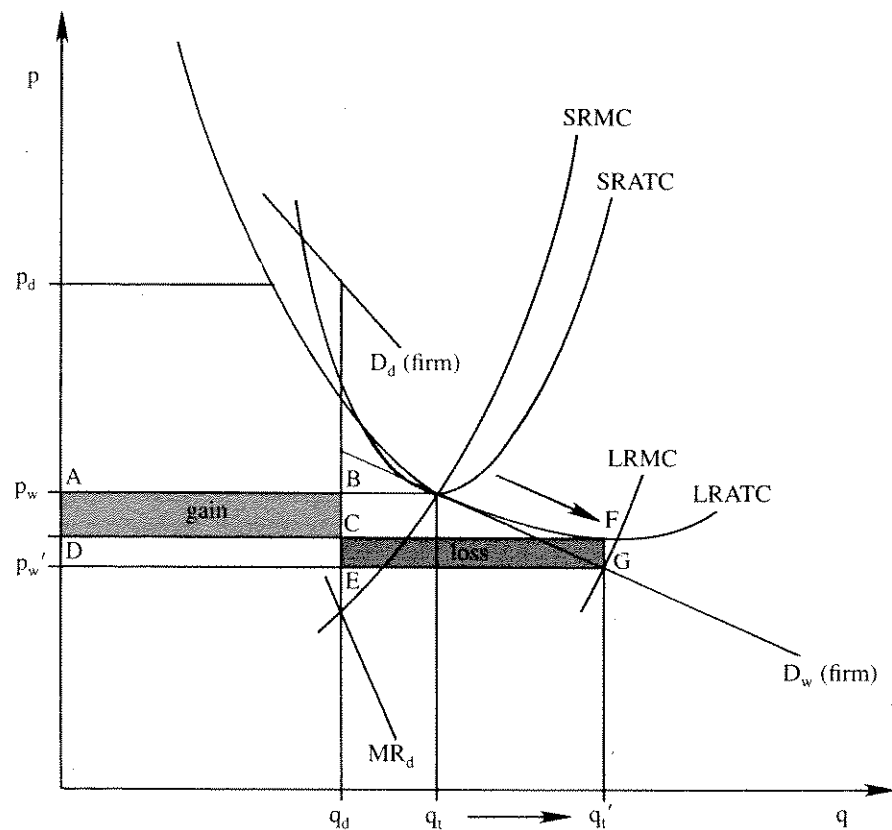


Figure 1. Export-led expansion

q_d = sales on domestic market (at p_d)

q_t = initial level of production

$q_t - q_d$ exported (at p_w)

q_t' = expanded level of production

$q_t' - q_d$ exported (at p_w')

ABCD = gain on domestic sales associated with expansion

CEFG = loss on increased export sales

NOTE: The SRATC curve in this diagram is drawn so that a portion falls below the LRATC curve, due to the fact that if any minimum point on an SRATC curve is also to fall on the LRATC curve, the long-run curve cannot always be below the short-run curve. This paradox was first confronted by Jacob Viner, "Cost Curves and Supply Curves," *Readings in Price Theory* (Chicago: Richard D. Irwin, Inc., 1952) pp. 198-232.

on international markets, which would be equal to rectangle CEFG, as increased sales are possible only through price reductions to levels below average total cost.

The firms with protected home market bases would restabilize output at level q_t' and price p_w' or at such point that the area of ABCD was equal to the area of CEFG. If all firms had identical costs functions, this price level would destroy the profit margins of firms that have no protected home market. The exit of these firms could conceivably shift firm-specific global demand schedules so as to allow remaining firms to make world-market sales at profitable prices.

This necessarily schematic rendition of the theoretical mechanics underlying a certain type of vigorous expansion of exports of a commodity that exhibits significant economies of scale points out one feasible way in which a protected home market can benefit an internationally oriented firm.

As made clear in the text, this type of expansion campaign is probably not engaged in in the face of full knowledge that the resulting increase in production will have to be sold at below-cost prices on the international market. Rather, the cost savings on goods sold domestically acts as a buffer, making firms willing to expand courageously into world markets even with a high probability that global demand conditions may at some point force such below-cost sales. That is to say, the command of a protected home market affords these firms a margin of safety, and thus encourages risk taking in the penetration of foreign markets.

The economic motivations behind a recession-sparked export drive can be easily analyzed with the aid of figure 2. Once again, two demand curves of differing elasticity are posited and the firm is in short-run equilibrium when producing so as to equate SRMC and MR_d on its national market and selling at SRMC on the world market. The firm would, thus, sell quantity q_d (at price p_d) at home and export q_w (at price p_w), for a total output of q_t . The firm is characterized by high fixed costs as evidenced by the steep rise of the short-run average total cost (SRATC) curve as total production varies from q_t . (The reasons for Japanese firms having these fixed costs are discussed in the text.)

Equilibrium is disturbed by a drop in domestic demand. (A concurrent drop in global demand is not posited here to simplify the analysis; such a drop would exacerbate the decrease in world-market prices associated with an export drive.) Adjustment to this slump in domestic demand causes the firm to reduce its sales to q_d' to re-equate SRMC and domestic marginal revenue; domestic price will fall to p_d' . With a constant level of export sales, total production would fall to q_t^* , an output associated with an increase in SRATC (following arrow) to a level indicated by line AE. This increase in costs-per-unit would cause a decrease in profit on domestic sales in the amount indicated by the area of rectangle ABCD and losses in the amount of DCFE on export sales.

However, a decrease in export price could enable the firm to increase exports enough to maintain output at or near the cost-minimizing level. That is, rather than decrease production from q_t to q_t^* and incur losses (shown as ABFE), the firm could export at a below-cost price, such as p_w' , leading to an increase in world-market sales equal to $q_t - q_t^*$ (or $q_w' - q_w$) and incurring a loss (CGHI).

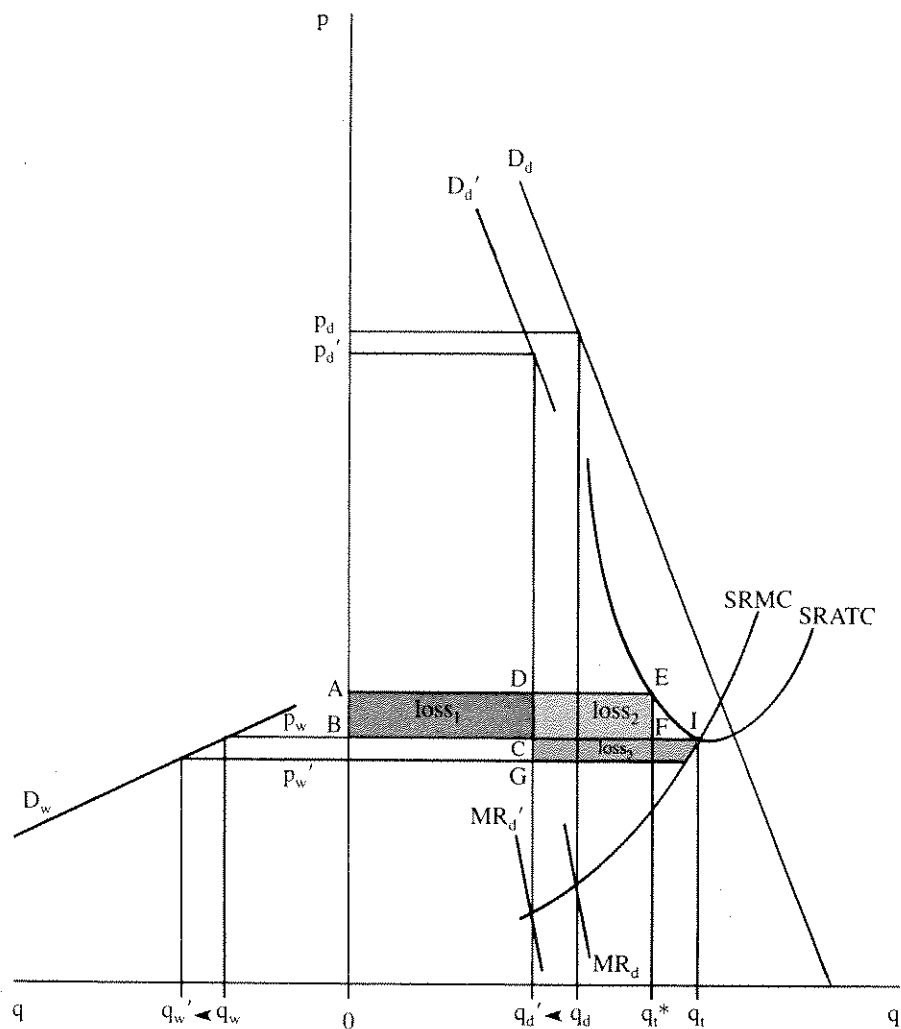


Figure 2. Recession export drive

- q_t = initial level of production in short-term equilibrium
- q_d = initial level of sales on domestic market (at p_d)
- q_w = initial level of sales on international market (at p_w)
—domestic demand falls—
- q_d' = new profit-maximizing level of domestic sales (at p_d')
- q_t^* = total output without below-cost exports
- q_w' = expanded level of exports at below-cost price
- ABCD = potential loss on domestic sales
- CDEF = potential loss on export sales
- CGHI = loss associated with below-cost export drive (at p_w')

The ratios between the size of the price reduction necessary (as related to the elasticity of global demand), the rate of increase in cost-per-unit as output falls and the percentage of production sold on the respective markets will determine which loss would be smaller; high fixed costs, highly elastic global demand, and moderate export ratios imply that a smaller loss would result from export drives than production cuts.

The amount of inventory on hand will necessarily affect the timing of such export surges as producers hold goods for a period of time going into an economic downturn, hoping for a quick recovery that would revive domestic demand and obviate the necessity of below-cost exports to clear inventories.

Thus, for a firm having high fixed costs and control of domestic cartelized domestic market, an export drive, even when pursued by selling their product at a below-cost price, may be a profit-maximizing (or loss-minimizing) response to a prolonged decline in demand. The below-cost sales can do sudden damage to foreign competitors (who may also be suffering from the recession) but prices will not be permanently depressed; when demand recovers, prices should return to levels permitting normal profit.