AN ECONOMIC EXAMINATION OF 'LESS THAN FAIR VALUE' PRICING BY JAPANESE PRODUCERS IN THE NEW CELLULAR MOBILE TELEPHONE MARKET

by

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I. Statement of Issue

On October 24, 1985, the Commerce Department issued its final anti-dumping ruling against 8 Japanese manufacturers of cellular mobile telephones (CMTs). This decision supports the year old petition filed with the International Trade Commission (ITC) by Motorola along with two other U.S. manufacturers of cellular mobile telephones (CMTs), General Electric and E.F. Johnson. These firms claimed their Japanese counterparts were selling or would likely be selling the new phone products at 'less than fair value' (LTFV) on the U.S. market. And the imports were materially injuring or threatening materially injury to the U.S. industry. As a result, the U.S. manufacturers were seeking the imposition of hefty dumping duties on the Japanese CMTs. The U.S. manufacturers reasoned that since duties are usually passed onto the consumer in the form of price increases, the Japanese merchandise would become relatively less competitive on the U.S. market.

The dumping margins reported in the final decision by Commerce are as follows: Matsushita (Panasonic) 106.6%, NEC 95.57%, Mitsubishi 87.83%, OKI 9.72%, Hitachi (the OEM to AT&T) 2.99%, All Others 57.81% (the composite of the weighted average dumping margins computed individually for Fujitsu, Japan Radio and Kokusai Electric).[1] Only Toshiba (the OEM to Audiovox) emerged unscathed from the investigation. Thus, Toshiba is now exempted from any dumping duties to be imposed by U.S. Customs against other Japanese manufacturers.

According to the Commerce brief, the final decision was based upon confidential financial data secured from each of the Japanese manufacturers under investigation for the period April to November, 1984.[2] Commerce reviewed each firm's financial statements showing research and development, production and general, sales and administrative costs. By aggregating the costs and computing a standard 8% profit margin on top, Commerce was able to construct a 'fair value' price for the CMTs sold by each Japanese manufacturer. Thus, if this 'appropriate' price was found to be above the particular exporter's sales price (ESP), Commerce determined the exporter to be guilty of dumping on the U.S. market. The dumping margin is simply the difference between the 'fair value' price and the ESP for the specified time period.

U.S. Customs officials have already been directed to continue to require cash deposits or bonds from the importers of CMT's equal to the amount 'by which the foreign market value of the merchandise subject to this investigation exceeds the U.S. price' as represented by the final dumping margins. Customs began this practice under the preliminary Commerce decision issued last June. In addition, the ITC must issue its own final ruling on the existence of material damage to the U.S. industry within 45 days of the Commerce decision. If the ITC determines material injury exists, Commerce will issue an anti-dumping duty order and the bonds placed with Customs currently will be converted into duties. Since the preliminary rulings by the ITC and Commerce as well as Commerce's final decision have gone against the Japanese, it is highly unlikely the ITC will rule otherwise.

Except for Matsushita and NEC, the final dumping margins differ significantly from the dumping margins determined by Commerce in its preliminary decision made June 5, 1985 as well as from the original petition filed with the International Trade Commission (ITC) by the U.S. manufacturers.[3] For example, in the preliminary Commerce ruling, Hitachi was found to be dumping CMTs at a 20.9% margin. In the final decision, Hitachi CMTs were later found to be 'underpriced' by a relatively miniscule 2.99%. And Toshiba, originally determined by Commerce to be dumping on a 4.77% margin, proved in the final determination not to be selling at less than fair value at all. At the other extreme, Mitsubishi was originally found to be dumping at a 21.94% margin; in the final determination the margin widened to 87.83%.

The investigative period covered by the final Commerce decisions and the computed dumping margins are strictly confined to the 1984 timeframe of the original petition (during which the 'market' was struggling to emerge). Yet the duties are to be imposed on today's imports --under vastly different market conditions from those existing in 1984. And as stated by the ITC in their preliminary decision:

> ***There is no information relating to the nature and extent of the alleged sales at less than fair value other than allegations of the petitioner, and the alleged LTFV margins calculated by the petitioner. . . . On the basis of home-market prices, and selected large volume sales or offers in the United States, Motorola calculated dumping margins for all nine Japanese manufacturers known to be selling the subject product in the United States. The alleged dumping margins range from 45 to 111 percent.***[4]

Why such vast differences over the same set of data between rulings? The numerous discrepancies in the actual data used in the analysis warrant a much more critical examination of the original petition. Yet, the final Commerce decision supposedly closes the debate over the existence of unfair trade practices by Japanese manufacturers of CMTs with an affirmative nod to U.S. manufacturers. At the very least, both the dumping allegations and 'fair value' methodology used by Commerce, ITC and the original petitioners to determine the existence of Japanese predation should be tested from an economic (as opposed to simply political) basis. In addition, the repercussions of the final Commerce decision on overall competition, innovation and trade should be examined.

II. Economic Theory Pertinent to Allegations of Dumping

L. G. Telser, the leading economist on predatory pricing asserted in "Cutthroat Competition and the Long Purse" that the decision to initiate a price war is not an easy one at all for the producer. To the contrary, a manufacturer may decide to utilize predatory pricing, but only as a last resort measure. Only after merger or acquisition as alternatives have been ruled out (as a result of legal constraints, etc.), and after the capital requirements and costs on both sides of a potential price war have been carefully examined will a producer contemplate a predatory pricing strategy. However, the possibility of a price war serves the potential monopoly interests in other important ways. As stated by Telser:

> ***The route to a monopoly return may use a 'threat' of cutthroat competition by either party, the would be monopolist as well as the firm it wishes to acquire, to set the price of merger. . . . Although reasonable men would not engage in predatory pricing, the threat of such cutthroat competition sets limits to the price of merger, and the share of monopoly return going to the successful entrant.***[5]

If, as alleged in the ITC petition, the Japanese are collectively waging a predatory war designed to destroy U.S.-based competition, then four necessary conditions must exist to support this predatory campaign. The first is that the Japanese must be able to act cooperatively (as a cartel) in order to effectively regulate CMT exports to the U.S. market and be the principal foreign supplier. As defined by noted international economists, Charles Kindleberger and Peter Lindert:

> ***Dumping is international price discrimination in which an exporting firm sells at a lower price in a foreign market than it charges in other (usually its home-country) markets. Predatory dumping occurs when the firm discriminates in favor of some foreign buyers temporarily with the purpose of eliminating some competitors and of later raising its price after the competition is dead.***[6]

Thus, 'dumping' requires not only separate markets for the product and corresponding monopoly power within the home market but also differing demand elasticity between the home and foreign markets. This is necessary to ensure an effective, profit maximizing price discrimination policy between the two markets.

In the context of the dumping allegations examined here, the Japanese producers must collude in charging the same price within the U.S. market in order to regulate the pricing and supply of their CMTs effectively. And, this price must be below the home country 'monopoly' price in order to be classified 'predatory'. As stated by L.G. Telser in a separate article on cartels:

> ***A Cartel like a monopoly needs to choose a rate of output or, equivalently, a price that maximizes profits. But unlike a monopoly, a cartel faces special difficulties. Because their members have conflicting interests, cartels are fragile organizations. . . . What rules must the members of a cartel establish to ensure compliance and render the cartel a sturdy instrument that will extract monopoly profits for the benefit of its membership? Obviously the cartel members must agree on the price at which they are willing to sell the product to distributors.***[7]

The second condition for inference of predation is that the market cannot have any excess capacity. That is, in order for a predatory campaign to be effective, the total supply of CMTs must at most match demand at the set 'predatory' price. This is due to the fact that excess capacity would negate the effects of a predatory campaign by pushing the 'market' price below the cartel's dumping price. Thus in the presence of excess capacity, all market participants would be responding to competitive industry pressures rather than to a predatory campaign.

The third condition in order for predation to succeed is the presence of barriers to entry into the industry. That is, the cost of entry into the market must be so steep that it automatically precludes future market participants from entering. Otherwise a successful predatory campaign would be negated by the fact that new firms would continually enter the market. This would unbearably tax the resources of even the most financially solid firm since the predatory campaign is based on the fact that after all of the competitors have been wiped out, the monopolist (or cartel) would raise prices to reflect the true unit cost.

Finally the fourth condition, that the predatory firm must have greater financial resources in reserve than its 'prey' firms in order to finance dumping activities, underlies the other three conditions. The very nature of 'predatory' activity is enormously costly because it implies selling a product below the profit maximizing price. Firms engaging in predation must have enough resources to see them through such a campaign successfully. As further stated by Telser regarding the capital requirements of a price war:

> ***The critical role of reserves in this argument should be noted. To present a credible threat the potential monopolist needs more reserves than the firm it seeks to remove from competition . . . liquid assets are important in making possible the formation of monopoly and in determining the price of merger.***[8]

If no cartel exists, there would be no means of financing cooperative predatory activity, and hence competitive forces would prevail. Finally, if excess capacity is present or there are no barriers to entry into the industry, any financial reserves that are initially made available for a predatory campaign would be quickly depleted. Thus, the benefits of predatory pricing must outweigh the enormous costs to the potential predators.

III. Economic Evidence of Predatory Pricing

We are now ready to test the validity of Japanese dumping allegations on the basis of the four necessary conditions specified above. Under the first condition, the predator firms must collude in both home and foreign markets. In the case of the nine Japanese firms, only NEC and Matsushita sell CMTs in Japan. In fact, the other seven firms are actually precluded from participating in the Japanese market. This is because of the fact that CMTs are considered a part of the complete cellular systems which include switching centers, transceivers, base stations, etc. built by both NEC (Nippon Electric) and Matsushita and wholly operated by the Japanese telephone company, Nippon Telephone. This is in sharp contrast to the fact that the numerous cellular systems already in operation within the U.S. feature a wide variety of equipment and are not vendor specific. In addition, the U.S. market for end-user equipment is by FCC mandate separated from the main cell-site equipment used by the system operators. Thus, differing operating conditions between the U.S. and Japan appear to have created significantly different market structures.

Another important assumption in the predatory cartel model is the existence of one fixed price which all members must charge. This is required to maintain strict uniformity in price and supplies within the group. However, in the case of Japanese producers of CMTs, the nine producers appear to have charged widely differing prices during the period covered by the ITC dumping investigation.

The manufacturer's suggested list price charged by both U.S. and Japanese suppliers in 1984 was, across the board, approximately $2500 per phone.[9] Each producer, however, in large volume sales and individual offerings, attempted to close deals by offering deep discounts off the 'quantity one' price. The subsequent anti-dumping action arose after calculation of the dumping margins for each individual Japanese producer. These dumping margins are not uniform, however. Not even NEC and Matsushita (the only two suppliers to the Japanese market) were calculated to be the same discount from list price. Instead, each manufacturer was calculated by the petitioners, the ITC and in turn Commerce, to be dumping at significantly different margins (i.e. from 106.6% for Matsushita to 2.99% for Hitachi). Thus, the Japanese producers do not appear to meet the important criteria of uniform pricing required under cooperative predatory activity.

According to a 1984 study by Frost & Sullivan, the total market share of the U.S. CMT manufacturers in 1984 was approximately 56%; Motorola controlled 35%, General Electric held 12% and E.F. Johnson had 9% of the market. In the same study, OKI held 20%, Matsushita 10%, and Hitachi 5%. All other Japanese manufacturers combined (including NEC, Toshiba, and Kokusai) only held an additional 5% of the U.S. market. Thus the total U.S. market share held by Japanese firms amounted to 40%.[10] Please refer to Figure 1 for further detail.

This market share information can be used to estimate the potential for cooperative predatory behavior in an industry. A standard measure, the Herfindahl index (sum of the squared values of the market shares of each firm) computes the potential measures.[11] According to Department of Justice merger guidelines, a value exceeding the ratio of .18 signifies the industry is highly concentrated, and the potential for collusion is high. A ratio between .1 and .18 represents moderate concentration and a ratio less than .1 signifies an unconcentrated industry.

Referring to Table 1, the Herfindahl value for these nine firms is less than .06; hence the Japanese market share is unconcentrated. The Herfindahl value for the three U.S. manufacturers is in contrast significantly higher at .145. Hence, the U.S. producer share is moderately concentrated. As a result of this test, the first necessary condition for successful predatory pricing (or dumping) to take place, that of collusive behavior by the nine Japanese CMT producers, can not be empirically supported by the evidence outlined above.

The second necessary condition, that no excess capacity can exist at the predatory pricing level, can also be examined effectively in the context of Japanese CMTs. According to the ITC brief, in 1984, U.S. manufacturers alone held an annual production capacity exceeding 335,000 units.[12] Yet, total demand in 1984 for the still quite pricey phone (at $2500 to $2000 retail) was only approximately 70,000 units.[13] Hence only 21 percent of total domestic production capacity was utilized. At the same time, Japanese producers imported over 81,000 units. Thus, total potential CMT supply in the U.S. reached 416,000 units during 1984. As a result, total capacity utilization fell below 17 percent.

Additionally, although domestic production capacity for 1985 reached over 400,000 units annually, demand stood at approximately 135,000 units, a 34 percent capacity utilization rate.[14] Adding Japanese imports, estimated at over 90,000 units for 1985, the utilization ratio fell below 28 percent.[15]

The supply and demand effects on CMT pricing will be examined in more detail later on. The main point here is that even if there were no Japanese imports during the 1984 -1985 two-year timeframe, U.S. manufacturers alone would have had to wrestle with excess capacity. Thus it appears the second important condition for successful predatory pricing, no excess capacity, was not met in the case of the U.S. CMT market.

The third condition necessary to wage a successful predatory campaign, the presence of barriers to entry into the industry, also appears rather dubious in view of the number of Japanese and U.S. competitors already in the market (12 by current accounting and growing). Additionally, the CMT market can be likened to the standard telephone market . In either market, it is very easy to license the technology from any one of the major manufacturers. In addition, it is also easy for a prospective firm to purchase the basic components and to simply perform the needed assembly work. Either way, a prospective entrant forgoes the costly capital investment associated with an extensive research and development effort to design a telephone.

Thus, barriers to entry do not appear to be a problem either in the CMT industry. In fact, the FCC continually monitors both markets to ensure competitive performance.

The fourth condition, the the predator firms have greater financial resources than the potential prey firms can also be examined empirically. The following chart shows financial information for the nine Japanese firms as well as the three primary U.S. manufacturers of CMTs:[16]

A. Japanese Manufacturer Financials:

Company	1985 Sales (In $B)[17]
Matsushita Electric	16.90
NEC	7.83
OKI	1.03
Mitsubishi Electric	11.07 [18]
Hitachi	19.40
All Others	1.50
TOTALS	**57.73**

B. U.S. Manufacturer Financials:

Company	1985 Sales (In $B)[19]
Motorola	5.53
General Electric	26.80
E.F. Johnson (Western Union)	2.30
TOTALS	**34.63**

A glance at the figures above shows that the composite financial strength of the Japanese manufacturers is greater by $23.1 billion than that of the three U.S. manufacturers. However, all of the major CMT manufacturers are large, multibillion dollar corporations. As a result, any joint attempt by the Japanese firms to prey on the U.S. industry would be met with huge financial losses not to mention the imposition of stiff U.S. penalties. To wage such a campaign would jeopardize not only the other sizeable non-CMT operations within each of the Japanese companies but their all-important public image. CMT manufacturing operations in the major Japanese electronics concerns listed above account for only a small portion of their overall revenues. Thus, it does not appear to be a feasible argument that the Japanese CMT operations have a significant advantage financially over the U.S. CMT manufacturers.

Hence, of the four conditions necessary to wage a predatory pricing campaign, the first three have not been met by Japanese CMT manufacturers. The fourth, sizeable financial strength, appears to be met when viewing overall Japanese electronics operations revenues. Yet this is qualified by the magnitude of the financial strength (in billions of U.S. dollars) of all of the CMT manufacturers, U.S. and Japanese alike. It does not appear feasible the Japanese multinationals would actually sacrifice their other significantly more profitable and sizeable operations as well as market positions to wage an unpopular predatory campaign in the U.S. CMT industry.

IV . Commerce Methodology vis-a-vis Production Realities

Prior to examining an alternative hypothesis to the predatory cartel theory, it is important that first we critically review the methodology used by Commerce to determine the existence of dumping practices. As stated earlier, the original petitioners, the ITC and Commerce's methodology for determining a 'fair value' price simply aggregated the specific supplier's costs and computed a standard 8% profit margin on top. Thus, if the 'fair value' price was found to be above the Japanese exporter's sales price (ESP), Commerce determined the exporter to be guilty of dumping on the U.S. market.

However from an economic standpoint, constructing a price is 'putting the cart before the horse'. The frame of reference used to determine the 'fair value' price, based on a standard cost plus profit margin formula, is from a supply and demand perspective, off the mark. Indeed, if determining the market price were that easy, the central planners in Communist countries would be the world's heroes today. And AT&T would still be regulated.

Rate of return based pricing as used in monopoly industries like public utilities has proven an inefficient substitute for the market price. It is especially inappropriate to construct prices in what appears to be the highly competitive marketplace of the emerging CMT industry. Do new computer venture firms earn 8 percent profit in their infancy? Competition does not function this way. Only regulated monopolies have the luxury of a guaranteed rate of return. And in the preceding section, it has been shown that the industry is not controlled by a predatory cartel.

Yet in the final analysis, Commerce attempted to spread research and development costs out over several years of projected sales volumes in order to compute a fixed cost per unit upon which to base their 'fair value' price. Product-specific expenditures were distributed over a three year timeframe. General cellular technology investment was spread over a six year schedule. The fallacy behind this methodology is that a producer can correlate neither the expected payoff from a new venture nor the initial investment with the price offered in the first months or years of operation. The time horizon for payoff expectations is decades. The benefits of early entry must be weighed against the enormous costs from this perspective.

For marketing reasons, the unit is usually priced way below what would be reflected by actual start-up costs. Most high technology firms lose (and even expect to lose) big in the initial three to five years of operations prior to breakeven. This is in order to establish a market position early on in what is projected to be a huge volume business.

V. An Alternative Hypothesis: Market Forces

The fatal flaw, however, in the assumption that a 'fair' price can simply be reconstructed from cost data alone is that normal, day to day supply and demand fluctuations, which actually determine the market price, are ignored. It actually appears that the combined effect of excess supply and the efficiency of new production technology (i.e. the economies of scale currently purging the microcomputer industry) have created the decreasing price syndrome prevailing in today's CMT market. If there is no uniformity in price and no barriers to entry, and if the Japanese producers charge various prices bearing little relationship to cost and excess capacity prevails in the market, rather than a predatory pricing campaign taking place, the industry is, alternatively, reacting to market conditions in a highly competitive manner.

In a number of recent studies, the demand for cellular phones (like that of any new product) has been found to be extremely price elastic.[20] That is, the lower the combined cost of the telephone and the transmission service offered, the greater the demand. Referring to Figure 2, showing the potential market reached at various levels of monthly cost, it appears to be a highly price-sensitive industry.[21] Only at a combined monthly cost (for service and telephone) of less than $25 is up to 75 percent of the business market tapped. On the consumer household side, the figures are markedly less. For example, at less than $25, only up to 40 percent of the market is served. This is the result of currently perceived benefits of the new CMT product and services. Individuals have yet to be convinced that the CMT will provide benefits not currently provided by conventional telephone service. Nonetheless, the combined cost of the CMT and service significantly affect the demand for CMTs.

Table 2 provides an estimate of total U.S. demand for CMT units during 1984 and 1985 respectively. The monthly cost is derived from both the monthly service charges (including per minute usage rates and access to cellular service) and the amortized value of the capital cost of purchasing the CMT unit (based on a standard .034 factor capital conversion value currently used in the financial industry). In 1984, the combined monthly cost averaged approximately $150. This included $85 for the CMT ($2500 x .034) and an additional $65 for service and usage (per minute) charges.

However in 1985, the combined monthly cost averaged approximately $100 ($41 for the CMT and $60 for the service). This drop in 1985 is credited to both the decrease in CMT's and to rate reductions by cellular services anxious to sign up additional customers. In fact, several cellular carriers were advertising package deals for both the use of a car phone (installed) and 60 minutes of access for approximately $100 per month. In Table 2 the values for

1984 and 1985 were derived from a model of the number of units demanded within an average city.[22] As a result, in 1984, approximately 30 U.S. cities were served by cellular systems. Hence, the aggregate quantity demanded at each price is also a function of the number of existing markets.

In 1985, an additional 60 U.S. cities were opened up to cellular service. After subtracting the number of units originally sold and allowing for modest inflation and depreciation in 1984, an estimate of units demanded for 1985 was derived. These figures show the extreme sensitivity to price which characterizes the new cellular phone industry. At over $200 combined monthly cost, (incidentally the approximate charge associated with using cellular service initially) only approximately 30,000 units would be demanded. However, at only $25 per month (the approximate cost of standard telephone service) demand is estimated at about 2.7 million units in 1984.

Yet, when the U.S. market for cellular phone service first opened up around the end of 1983, CMT manufacturers domestically and abroad geared up significantly for production for what each perceived to be a long-term lucrative business opportunity with ***immediate*** profit potential. As Herschel Shosteck cautioned in his article on the demand for cellular service featured in the May-June, 1983 issue of ***Personal Communications:***

> ***What we are finding in our market studies indicates that you should proceed with caution. The market will be out there, but only when the prices for the service come down. Those who think that they can make alot of money in a hurry are, I think, going to be very disappointed.***[23]

As stated earlier, U.S. manufacturers held an annual production capacity exceeding 335,000 units during 1984. Yet, total demand in 1984 for the still quite pricey phone (at $2500 to $2000 retail) was only approximately 70,000 units. This low 21 percent capacity utilization rate alone would have set the stage for rapidly falling prices among the three U.S. manufacturers.

Referring to Figure 3 representing a demand function for CMT's in 1984 (based upon Table 2), one can easily spot the trouble in pricing that would occur given the number of units under production. If U.S. manufacturers had any hopes of selling 335,000 units, the price per unit would have had to drop to almost nothing in the introductory stages of the CMT market. Needless to say, this would have been impossible. Yet, realistically, one can see by the demand function in Figure 3 that at a price of $2500 to $2000 in 1984, only 60,000-70,000 units would be sold, and that existing market demand conditions would necessitate further reductions in price. The presence of the Japanese manufacturers only exacerbated the underlying problem. That is: given the high price of all these units how do we sell enough to attain production economies?

This resulted in the classic 'chicken and the egg' production dilemma which plagues all new and potential markets. In this case, cost-based pricing could easily destroy the market and market-based pricing could easily destroy the manufacturer. This is the reality CMT manufacturers had to wrestle with in 1984.

CMT production technology is volume-based, hence the excess capacity produced in 1984 appears to have created downward pressure on prices. And, based on current demand and supply figures, even ridding the market of Japanese competition will not reverse the downward trend. For example, although U.S. production capacity is now upwards of 400,000 units annually, demand is forecast at approximately 135,000 units for 1985, a 34 percent capacity utilization rate. This is even though the average retail price for CMTs has fallen considerably from $2500 to $2000 in 1984 to approximately $1100 by the end of 1985.[24]

Referring to Figure 4, which represents estimated CMT demand for 1985 (also based on Table 2), the only way for producers to have sold 135,000 units would have been the significant reduction in price which occured from 1984 to 1985. Because of the extremely elastic demand for CMT existing at this time, price competition has become the primary method for reducing excess supply.

The Japanese were perhaps responding to these market realities a bit more quickly than U.S. manufacturers would have liked to. Additionally, the unprecedented strength of the U.S. dollar on the world market may have made Japanese CMTs slightly more attractive during 1984 at which time the exchange rate of yen per dollar topped 250. The foreign exchange advantage has since changed in favor of U.S. exports. For beginning in 1985, the dollar began its long decline, bottoming out in December at 200 yen per dollar. In February, 1986 the exchange rate slumped even further to a low of 180 yen per dollar.[25]

Yet even in the absence of Japanese competition, the pressure of increasing inventories would have prompted U.S. manufacturers to cut their prices. As stated by Nathan Associates in their September 1985 forecast on cellular phone growth:

> ***Despite rapidly declining prices for cellular telephones, aggressive marketing campaigns, and service price cuts by competing cellular systems, sales are much slower than was originally anticipated. Potential buyers have yet to be convinced of the value of mobile phone service and have been hesitant to subscribe to cellular telephone service.***[26]

Perhaps the original petition arose out of the realization by U.S. manufacturers that their own product demand and market share projections were quite unrealistic. These originally rosy forecasts may have misled U.S. manufacturers in particular to believe they would be able to maintain higher per unit prices than the actual market could support. As stated by one of the respondents regarding Motorola's initial pricing policy during the November 28, 1984 ITC proceedings:

> ***From the outset, Motorola assumed it would have a near monopoly share of the CMT market. For example, why would they price a cellular phone along [the lines of] the phones for IMTS, which they sold, when the volume for CMT's was at least ten times greater than for IMTS phones?*** [27]

By 'IMTS', the respondent meant the older, standard mobile telephone systems which have existed since the 1940's, and have largely been supplied by domestic firms, although on a extremely limited service basis. Thus, while IMTS production is quite expensive, having previously served a very select (low-volume) market, U.S. producers incorrectly pegged initial CMT offer prices to IMTS. This is in spite of the fact that CMT production is, in contrast to IMTS, a high volume-based technology.

The highly competitive nature of the CMT market prompted pricing policies bearing little relation to start-up costs. There would have been no other way for original producers to attain the necessary sales volume to even begin to cover the initial investment in CMT production than a reduction in the price of CMTs in 1984. Thus, rather than selling at less than fair value, CMTs were in fact selling at the only price the U.S. market would bear, given the existing supply and demand conditions for the new product. It appears the presence of Japanese producers in the already crowded market simply fueled protectionist rhetoric.

VI. Conclusions

Periodically, charges are brought to the U.S. government by various interest groups asserting the law of supply and demand does not work in their particular case. That is, the market price existing for their product is less than 'fair market value'. Hence, armed with a veteran lobbying force, they politic hard for protective measures which will assure a prevailing price more acceptable to their own standards of fair value.

It appears U.S. manufacturers of CMTs have done just that. And the U.S. government, in its desire to process the petition quickly, has discriminated against the Japanese industry as a whole. This, in spite of discrepancies in the data, supply and demand economics, the immature state of the CMT market and differing conditions existing today, the strength of the U.S. dollar against other currencies in 1984, and the fact that the method of computing 'fair value' from cost data is seriously flawed, especially in start-up industries. Unfortunately it appears Commerce and the ITC have adhered rigidly to the letter of the law rather than to the spirit of its intent.

Indeed, it is difficult to understand how U.S. CMT manufacturers, have been materially injured. All three are huge, international entities themselves. And each controlled a significant portion of the U.S. market during the investigative timeframe in 1984. A decision today by the ITC against Japanese manufacturers could have negative repercussions not only for free trade, but also on overall competition and innovation.

These potential problems would be less the result of supply and demand effects of duties on the U.S. market price, than of the retaliatory actions by foreign governments against U.S. CMT exports. The CMT industry is a ***world*** market. This is supported by the fact that cellular telephone systems and technology were in widespread use abroad (i.e. in Sweden, Japan, and other countries) several years prior to the technology's introduction into the U.S. market. In order for us to continue sharing the benefits of innovation, cost reductions and an expanding market for CMT service, the U.S. must not close itself off from healthy, vigorous competition. We should especially not wish for the return of the $2500 phone.

FIGURE 1

1984 U.S. CMT Market Share

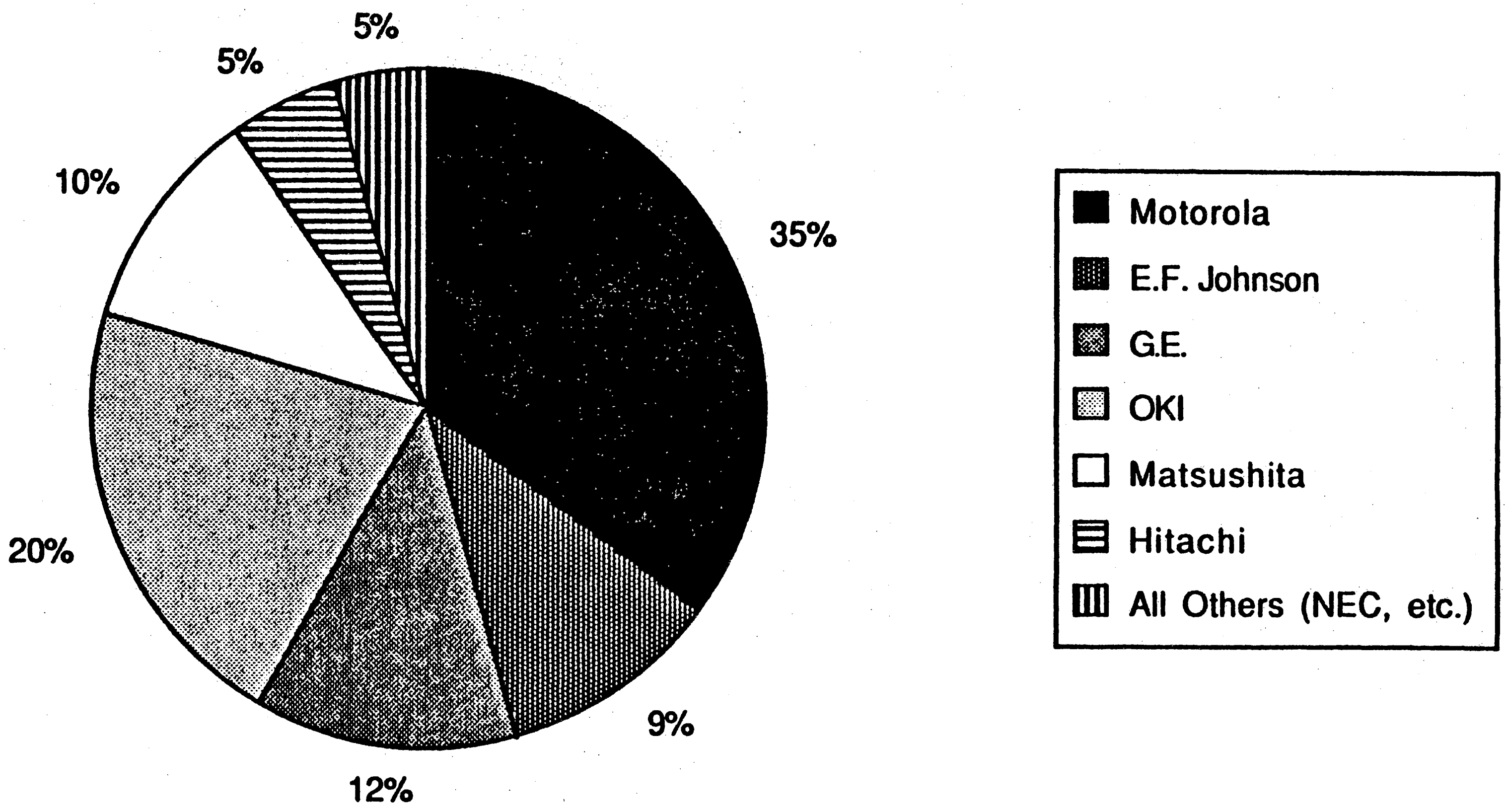

FIGURE 2

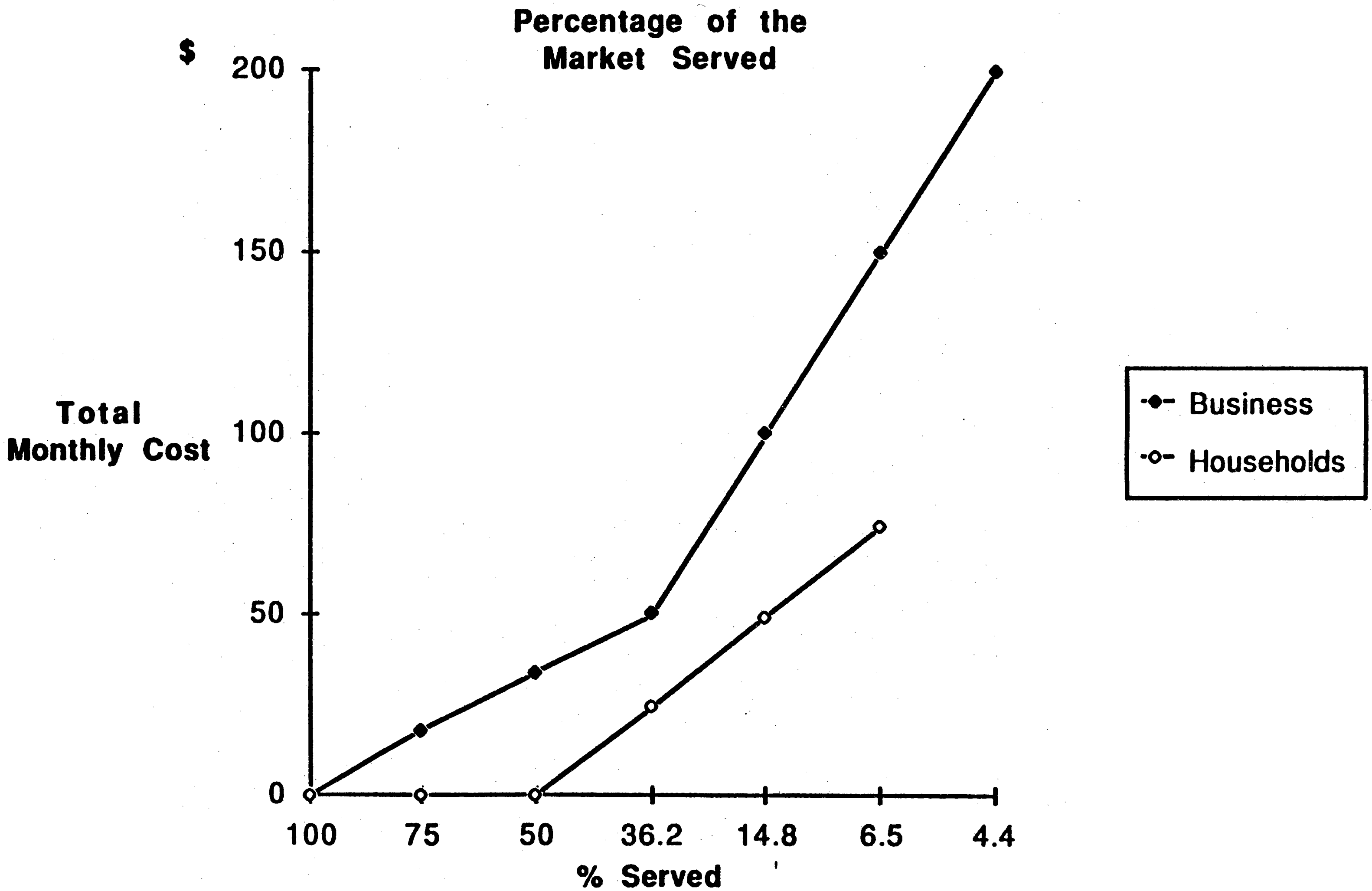
Percentage of the
Market Served
$
Total
Monthly Cost
200
150
100
50
0
100
75
50
36.2
14.8
6.5
4.4
% Served
Business
Households

FIGURE 3

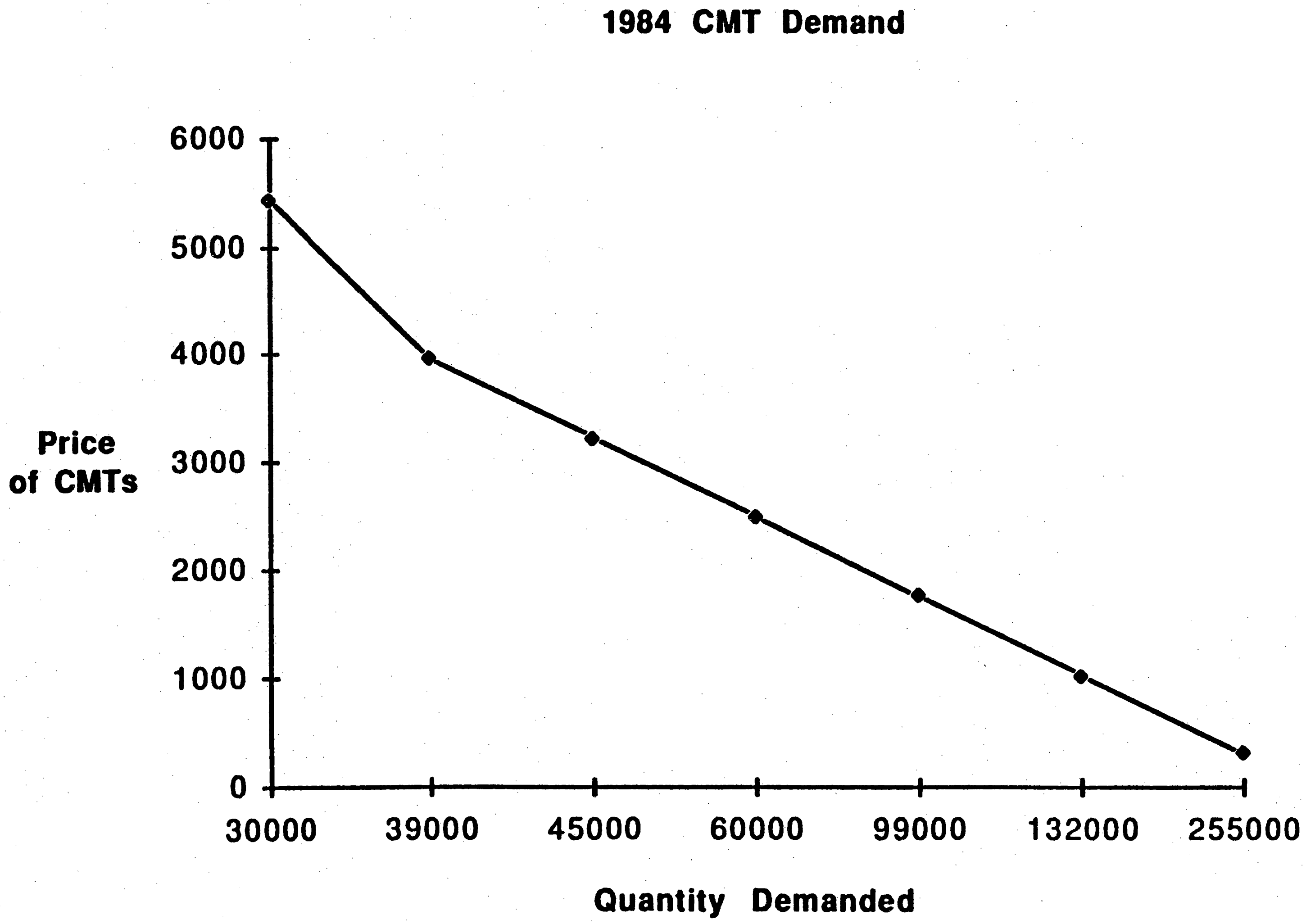
1984 CMT Demand
Price of CMTs
6000
5000
4000
3000
2000
1000
0
30000
39000
45000
60000
99000
132000
255000
Quantity Demanded

FIGURE 4

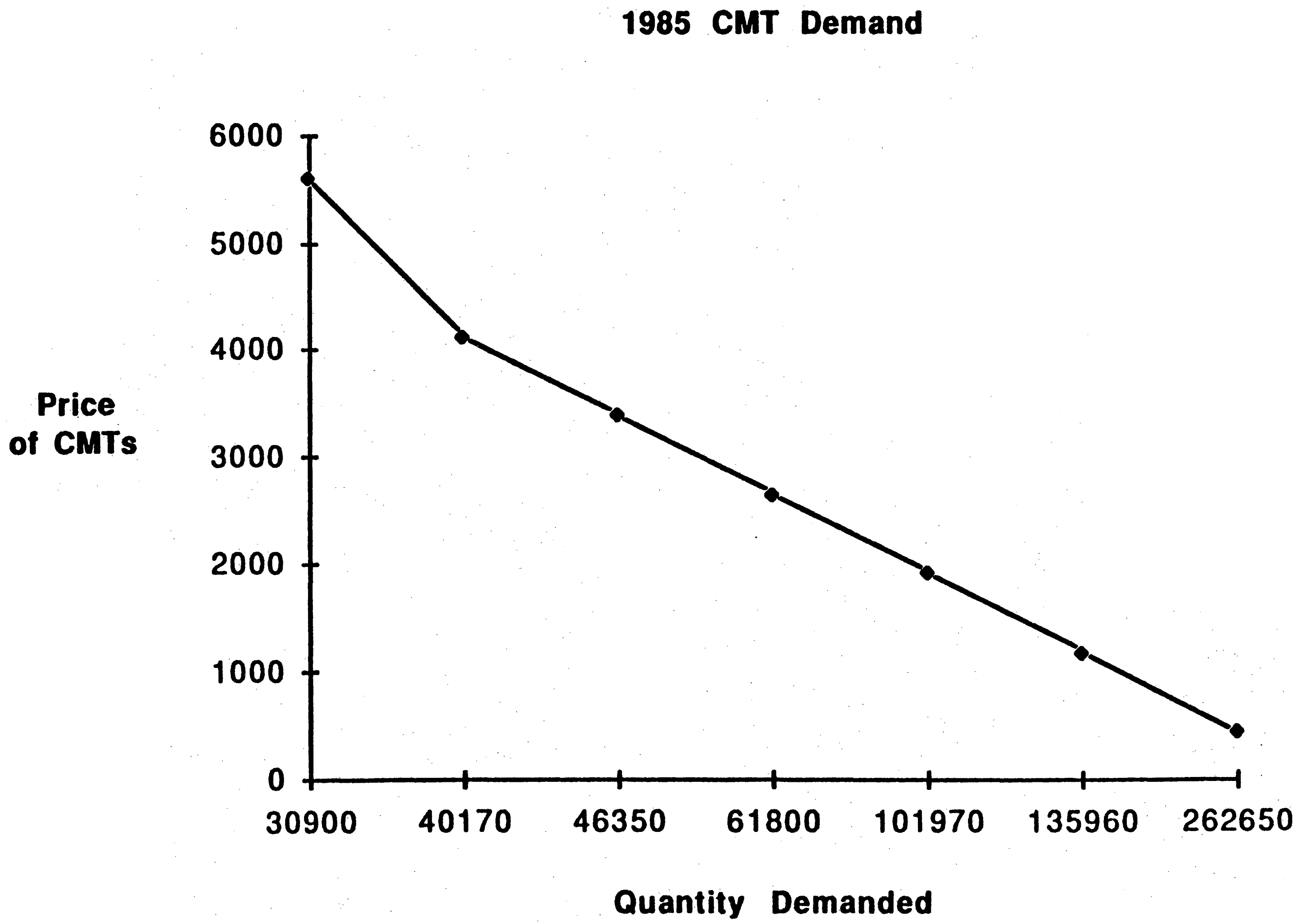
1985 CMT Demand
Price of CMTs
6000
5000
4000
3000
2000
1000
0
30900
40170
46350
61800
101970
135960
262650
Quantity Demanded

TABLE 1

Herfindahl Values of U.S. Market Share

JAPAN

Company	% Market	X2
OKI	20.00%	0.04
Matsushita	10.00%	0.01
Hitachi	5.00%	0.0025
All Others	5.00%	0.0025
Sum of X2 Values:		0.055

U.S.

Company	% Market	X2
Motorola	35.00%	0.1225
G.E.	12.00%	0.0144
EF Johnson	9.00%	0.0081
Sum of X2 Values:		0.145

TABLE 2

Estimated U.S. Demand for CMT Units (1984 and 1985)

	Monthly Cost	Units/City	1984 Demand	1985 Demand
	$25.00	90000	2700000	2781000
	$50.00	25500	765000	787950
	$75.00	8500	255000	262650
••	$100.00	4400	132000	135960
	$125.00	3300	99000	101970
**	$150.00	2000	60000	61800
	$175.00	1500	45000	46350
	$200.00	1300	39000	40170
	Over $200.00	1000	30000	30900

** Monthly Cost in 1984: $85.00 (CMT) plus $65.00 Svc/Usage Charges
= $150.00 Total Monthly Cost (1984 Average)

•• Monthly Cost in 1984: $40.00 (CMT) plus $60.00 Svc/Usage Charges
= $100.00 Total Monthly Cost (1985 Average)

Notes

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[2]U.S. Department of Commerce, International Trade Administration, Cellular Mobile Telephones and Subassemblies from Japan: Final Determination of Sales at Less than Fair Value, A-588-405 (October 25, 1985), p. 17.

[3]U.S. Department of Commerce, International Trade Administration, Commerce News, ITA 85-64 (June 5, 1985), p. 1.

[4] U.S. International Trade Commission, Cellular Mobile Telephones and Subassemblies Thereof From Japan, Determination of the Commission in Investigation No. 731-TA-207 (Preliminary) Under the Tariff Act of 1930, Together with the Information Obtained in the Investigation, USITC Pubn. 1629 (December, 1984), p. A-5.

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Notes Continued

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[13]Robert R. Nathan Associates, Inc., Cellular Growth in the United States: 1985-1990 and Beyond, An Updated Overview of the Expected Growth of Cellular Telephone Use Nationwide and in the Top 90 Metropolitan Markets (Washington, D.C.: Robert R. Nathan Associates Economic and Management Consultants, September 1985), p. 5.

[14]Ibid.

[15]U.S. International Trade Commission, Cellular Mobile Telephones and Subassemblies Thereof From Japan, Determination of the Commission in Investigation No. 731-TA-207 (Preliminary) Under the Tariff Act of 1930, Together with the Information Obtained in the Investigation, USITC Pubn. 1629 (December, 1984), p. A-18.

[16]All revenue figures are in billions of U.S. dollars and are derived from the electronics operating divisions of manufacturers.

[17]National Register Publishing Company, International Directory of Corporate Affiliations 1985/86 (Wilmette, IL: National Register Publishing Company, 1986).

[18]Ward Publications, Ward's Directory of 51,000 Largest Corporations (Petalima, CA: Ward Publications, 1984).

[19]National Register Publishing Company, Directory of Corporate Affiliations 1985/86 (Wilmette, IL: National Register Publishing Company, 1986).

[20]U.S. International Trade Commission, Official Transcript Proceedings Before the U.S. International Trade Commission Meeting of the Commission Wednesday, November 28, 1984 In the Matter of Cellular Mobile Telephones and Subassemblies Thereof from Japan, Investigation No. 731-TA-207 (Preliminary), p. 97.

[21]Herschel Shosteck, "Will Cellular Be Viable In Small Markets?" Personal Communications Technology, January, 1986, p. 16.

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[23]Herschel Shosteck "How Real is the Demand for Cellular Service?" Personal Communications, May-June, 1983, p. 26.

[24]Robert R. Nathan Associates, Inc., Cellular Growth in the United States: 1985-1990 and Beyond, An Updated Overview of the Expected Growth of Cellular Telephone Use Nationwide and in the Top 90 Metropolitan Markets (Washington, D.C.: Robert R. Nathan Associates Economic and Management Consultants, September 1985), p. 47.

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