

RESALE PRICE MAINTENANCE

*An Economic Study of the FTC's Case
Against the Corning Glass Works*

Pauline M. Ippolito
Thomas R. Overstreet, Jr.



FEDERAL TRADE COMMISSION

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I

Introduction

In June of 1975 the Federal Trade Commission (FTC) entered an amended final order against the Corning Glass Works, requiring that Corning cease enforcing certain clauses in its fair-trade contracts.¹ This order was the culmination of nearly five years of litigation in the Corning case designed to limit substantially the scope of permissible resale price maintenance (RPM), the practice by which a firm restricts the price at which its distributors can resell its products.

According to the prevailing federal fair-trade statutes at the time, a manufacturer could legally use RPM only if state fair-trade laws allowed firms to set resale prices in contracts with wholesalers and retailers in the state; otherwise, RPM was illegal *per se* under the federal antitrust statutes. The FTC's case dealt with particular aspects of Corning's fair-trade contracts governing sales between dealers in states with different Fair Trade laws, but in our view, the effect of the Commission's order was to narrow permissible fair trade so severely that for all practical purposes the legal use of RPM was no longer possible for most national distributors.

This study describes the legal outlines of the Corning case and examines the economic effects of Corning's use of RPM. This *ex post* analysis of the Corning case is interesting today for several reasons. Economic understanding of vertical restraints, such as RPM, has changed dramatically in the 20 years since the case was initiated. At the time, the practice was widely presumed to be anticompetitive, but today a variety of other explanations for RPM are also recognized to be potential reasons for the practice. The Corning case is of particular interest, because the products involved in the case are relatively

¹ *In the Matter of Corning Glass Works*, 85 FTC 1061 (1975), *modifying* 82 FTC 1675 (1973), *aff'd*, 509 F. 2d 293 (7th Cir. 1975).

"simple" goods that do not seem to fit the most well-known of the efficiency rationales for the practice. A better understanding of the Corning case may help us to understand the economic motivation for RPM in such simple good cases, which were quite common during the fair trade period.²

The Corning case is also of interest to students of legal and regulatory institutions, because it illustrates the extent to which legal rules can be shaped by these bodies. The legal theory advanced by the FTC in the Corning case represents a successful attempt to prohibit practices that had been openly adopted for more than two decades. The importance of the case was never fully appreciated, however, because it was overtaken by events;— six months after the final amended order in the Corning case, Congress repealed the statutes that enabled the state fair-trade laws, thereby providing a legislative foundation for what had become the market reality for most national firms — a *per se* prohibition of RPM nationwide.

This report begins with a description of the FTC's case against Corning in chapter II and of Corning's fair-trade program in chapter III. An economic analysis of the case follows in chapter IV, with concluding remarks in chapter V.

² The fair-trade era in the U.S. lasted for almost four decades from the mid 1930s until early 1976. For a summary of its history, see Overstreet (1983), 3-9; especially, see also the appendix for examples of firms that used fair-trade contracts and the products involved.

II

The FTC's Case Against Corning

In 1970, when the initial investigation of Corning's fair-trade practices began, each of the states and the District of Columbia fell into one of three categories with respect to the legality of fair trade.³ Nineteen states permitted fair-trade contracts, but the contracts were enforceable only against dealers that had actually signed a fair-trade agreement. These were the so-called *signer-only states*. Another 17 states permitted fair-trade contracts, and upon notice all dealers were bound by the terms of the contract, whether or not they had ever signed such a contract, as long as at least one dealer in the state had. These were the so-called *nonsigner states*. Finally, 14 states and the District of Columbia had no fair-trade laws. In these areas, fair-trade agreements and other forms of RPM were illegal *per se*. These were known as *free-trade areas*.⁴

The FTC's investigation of Corning's fair-trade practices was initiated by a complaint from a retail hardware dealer in Oklahoma, a signer-only state,

³ The federal fair-trade laws, the Miller-Tydings Act passed in 1937 and the McGuire Act passed in 1952, exempted certain vertical agreements from the Sherman Act and the FTC Act if such agreements were permitted by state law. Without the enabling statutes, RPM contracts would have been in violation of Section 1 of the Sherman Act and Section 5 of the FTC Act.

⁴ The signer-only states were Arkansas, Colorado, Florida, Georgia, Idaho, Indiana, Iowa, Kentucky, Louisiana, Michigan, Minnesota, New Mexico, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Washington and West Virginia. The nonsigner states were Arizona, California, Connecticut, Delaware, Illinois, Maryland, Maine, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Tennessee, Virginia and Wisconsin. The free-trade states were Alabama, Alaska, Hawaii, Kansas, Montana, Mississippi, Missouri, Nebraska, Nevada, Rhode Island, Texas, Utah, Vermont and Wyoming.

alleging that he was unable to obtain Corning's fair-traded products from an authorized Corning wholesale distributor located in Missouri, a free-trade state, unless the Oklahoma dealer would first sign a fair-trade agreement with Corning.⁵ The Oklahoma retailer was a discounter and was unwilling to sign an RPM contract with Corning. Without a signed fair-trade contract from the Oklahoma retailer, the Missouri wholesaler was bound by the terms of its agreement with Corning to refuse to deal with the retailer.

The reason for manufacturers in a multijurisdictional setting to include such provisions in their contracts is straightforward. To implement RPM in signer-only states, manufacturers had to be able to prevent those with access to their goods from reselling to dealers that had not signed RPM agreements.⁶ Otherwise, it would be virtually impossible to implement an effective RPM program in signer-only states, because discounters could obtain the product from dealers in free-trade or other states and not be bound by the manufacturer's RPM restrictions.

To prevent dealers from becoming sources of unconstrained supply for would-be discounters, fair-trading manufacturers, such as Corning, had almost universally adopted a contractual convention pioneered by the Sunbeam Corporation. This convention required dealers in free-trade areas to agree contractually with a fair-trading manufacturer that if they resold to dealers doing business in fair-trade jurisdictions, they would (1) sell to them at fair-trade prices, and (2) obtain a signed fair-trade agreement between the manufacturer and the fair-trade area dealer before the sale. Otherwise, dealers were obligated by secondary boycott agreements in the contracts to refuse to

⁵ Interview with R. Bloch, the lead attorney who litigated the Corning case for the FTC.

⁶ In the 17 nonsigner states manufacturers had less difficulty enforcing RPM contracts against discounters because, regardless of whether or not a particular reseller had signed a fair-trade contract, the manufacturer could prevent discount selling as long as a valid fair-trade contract had been executed with any reseller in the state.

sell to dealers in fair-trade jurisdictions.⁷ Free-trade state dealers could, of course, sell within the free-trade areas to any customer at any resale prices.

The basic legal issue raised by the *Corning* case was whether the McGuire Act permitted any price or customer restrictions on resellers located in free-trade jurisdictions, that is, which state's laws governed transactions between resellers in free-trade and fair-trade areas. The Commission concluded that neither price nor customer restrictions were permitted on sales made by resellers located in free-trade states, regardless of the location of the resellers' customers. The FTC reasoned that to construe the law otherwise would mean that citizens doing business in states that officially favored free trade could be bound by the extraterritorial policies of fair-trade states merely because the resellers' products crossed state lines. Such a result, the FTC said, ran directly counter to the stated intent of the McGuire Act "...to protect the rights of states under the United States Constitution to regulate their

⁷ Prior to 1951 fair-trade agreements generally did not contain this type of provision. All of the then 45 fair-trade states had valid nonsigner provisions, which made secondary boycott clauses largely unnecessary. Also, it was believed that suits brought under the Miller-Tydings Act to enforce nonsigner clauses were immune from federal antitrust attack. However, the Supreme Court's decision in *Schwegmann Bros. v. Calvert Distillers Corp.*, 341 U.S. 384 (1951), held that the Miller-Tydings Act did not extend antitrust immunity to enforcement of nonsigners clauses in interstate commerce. The practical effect of the Schwegmann decision was to change the 45 fair-trade states from nonsigner states to signer-only states. Fair traders, led by Sunbeam, adapted by changing their fair-trade contracts to include the secondary boycott clauses.

Although Congress overturned the Schwegmann decision when it passed the McGuire Act in 1952, fair traders generally continued to include secondary boycott clauses in fair-trade contracts. The boycott clauses were needed in signer-only states, and a growing hostility to nonsigner clauses in the state courts made this case more common. Also Congress failed to pass the Cole Amendment to the McGuire Act, which would have established a "federal nonsigners clause" making it illegal for anyone to sell or deliver fair-traded goods to fair-trade state customers at discount prices. Without the Cole Amendment, the boycott clauses remained useful in controlling sales from free-trade to fair-trade areas.

internal affairs..."⁸ Thus, the legal argument centered on which state was referred to in the language of the McGuire Act, which stated that:

Nothing contained in this Act or in any of the Antitrust Acts shall render unlawful any contracts or agreements ... requiring a vendee to enter into contracts or agreements prescribing minimum or stipulated prices, for the resale of a commodity ... when contracts or agreements of that description are lawful ... in *any state* ... in which such resale is to be made, or to which the commodity is to be transported for such resale.

The FTC issued a complaint in January 1972 charging Corning with violations of Section 5(a)(1) of the FTC Act. At the time of the complaint, Corning distributed its fair-traded products entirely through distributor/wholesalers, who resold to retailers for subsequent resale to the public. Regardless of their location, all wholesale distributors and retail dealers were required to sign authorized fair-trade agreements with Corning.

The FTC complaint against Corning contained five counts. Each count alleged that a particular aspect of Corning's fair-trade program was in violation of Section 5 of the FTC Act. In summary form, the counts were:

- Count I alleged that the provisions in Corning's contracts that required resellers in free-trade areas to sell to resellers in fair-trade areas at fair-trade prices were illegal.
- Count II alleged that the contractual provisions that required free-trade state wholesalers and retailers to refuse to deal with resellers in fair-trade states unless the latter signed fair-trade contracts with Corning were illegal (the secondary boycott clauses).

⁸ The FTC staff certainly recognized that the converse of this argument was true as well; without the contractual restrictions, fair-trade states would be unable to implement a fair-trade policy in their states because of the free-trade policies of other states. The FTC staff prosecuting the case expected the Corning case to be "the death knell of fair trade" (*The Evening Star*, October 8, 1971, A1).

- Count III alleged that the contractual provisions that required wholesalers and retailers in signer-only states to refuse to deal with resellers in other fair-trade states unless the latter signed fair-trade contracts with Corning were illegal (also secondary boycott clauses).
- Count IV alleged that Corning's fair-trade contracts did not clearly set forth the terms which made the fair-trade prices merely suggested resale prices in free-trade areas, diminishing the likelihood of price competition in those areas.
- Count V alleged that Corning violated the law by establishing a discriminatory discount program, which allowed wholesalers to sell at quantity discounts to volume-buying retailers.

Corning denied the allegations in all counts of the complaint. However, by virtue of a stipulation between Corning and the FTC's Complaint Counsel, only Counts II, III and V were litigated, with relief to be granted on Counts I and IV should the allegations of Count II be sustained. The case was tried on cross-motions for summary judgement on Counts II, III and V. Because there was no disagreement on the facts, no evidentiary hearings were held.

The FTC hearing examiner trying the case issued an initial decision in January 1973. He held in favor of Corning on Counts II, III and V, and dismissed the complaint in its entirety. This decision was appealed by FTC Complaint Counsel to the full Commission. On June 5, 1973, the Commission reversed the hearing examiner in part, holding that Corning had violated the law as alleged in Count II of the complaint, but upheld the dismissal of Counts III and V. Corning appealed the Commission's decision, and on January 29, 1975, the Court of Appeals for the 7th Circuit affirmed the decision of the Commission (509 F. 2nd 293 (1975)). Corning did not appeal the Seventh Circuit's decision, and the FTC's order became final on April 30, 1975.

Prior to the FTC's final order, Corning had completely abandoned its fair-trade program. On January 15, 1974, Corning voluntarily stopped enforcing RPM at the wholesale level, although it continued to enforce its

retail level fair-trade prices. On March 5, 1975 the Corning board decided to end retail RPM and on March 24, 1975 announced this decision to its district representatives. This decision was announced to the press on April 7 and became effective April 19, 1975. The FTC's amended final order was issued on June 17, 1975.

The final order required Corning to cease and desist from imposing price or customer restrictions upon any sales by resellers located in states that are or become free-trade states; from circulating blacklists of resellers that had not abided by Corning's fair-trade contracts; from otherwise communicating or taking any action in violation of applicable laws intended to prevent any retailer from obtaining any Corning commodity. The order further prohibited Corning from taking any unilateral or concerted action, or refusing to deal, where the purpose or effect was likely to be resale price maintenance, discrimination, or unavailability of Corning's products through normal channels of distribution. Corning was required for 10 years to insure that all prices were either conspicuously marked as suggested only, or to provide resellers with alternative materials without prices for use by resellers to reflect their own prices.⁹

By successfully challenging the widespread fair-trade practice of including secondary boycott clauses in fair-trade contracts, the Corning case effectively removed RPM as a viable option for the majority of manufacturer/suppliers. Following the Corning decision, it was clear that fair-trading manufacturers could not legally prevent resellers of their products located in free-trade states from supplying discounters in signer-only fair-trade states. As a practical matter this meant that manufacturers, especially those distributing their products through wholesalers, would be unable to control the sources of their

⁹ Corning was also required to send notices of the FTC order to all dealers under fair-trade contracts after March 1971, as well as to all resellers terminated or placed on blacklists since January 1966, and to reinstate any terminated dealers requesting reinstatement.

products for resellers in the signer-only states, and as such would find it virtually impossible to enforce RPM at the retail level in those states.

Prior to the Corning case, fair-trade had been perceived to be feasible in states that accounted for approximately 85 percent of the U.S. population.¹⁰ Following the Corning order, however, effective RPM was possible only in the 17 nonsigner states. These states accounted for 49.8 percent of the 1975 U.S. population. This figure probably overstates the real scope for fair-trade pricing, however, because many of these states bordered free-trade or signer-only states, where consumers could easily move across jurisdictional boundaries for discount prices. Thus, for the majority of fair traders, the now perceived inability to enforce resale prices effectively in areas accounting for over half the U.S. population was likely to reduce substantially the attractiveness of fair-trade contracts.

Following the case against Corning, only manufacturers selling directly to retailers could still hope to implement an effective and widespread fair-trade program. Secondary boycott clauses were not as important to such suppliers, because these manufacturers dealt directly with their authorized retail accounts. However, even these suppliers could have substantial difficulty enforcing RPM legally, because authorized retailers would have incentives to become transshippers, that is, sources of supply to unauthorized retailers. If challenged, fair-trading manufacturers attempting to enforce RPM by terminating dealers for transshipping to discounters would be forced to defend their actions on the legally difficult basis that the actions were unilateral and thus sanctioned by the Colgate exception to the antitrust laws.¹¹

¹⁰ Source: *Statistical Abstract of the United States 1976*, Table 10, Population-States: 1960-1975, 11. The free-trade areas accounted for 15.5 percent of the U.S. population in 1975, signer-only states for 34.7 percent, and nonsigner states for 49.8 percent.

¹¹ *U.S. v. Colgate & Co.*, 250 U.S. 300 (1919). In the Colgate decision the Supreme Court held that RPM achieved through unilateral refusals to supply price cutters was not a violation of the antitrust laws, because there was no "agreement" in
(continued...)

Thus, the FTC's case against Corning made it clear that the scope for permissible RPM was quite narrow. As a result, it is hardly surprising that there was little supplier opposition to the formal repeal of the Miller-Tydings and McGuire Acts by Congress six months later.¹² The Congress merely certified as official legislative policy what had already become a marketplace and judicial reality for most firms.¹³ The repeal of the federal enabling statutes, however, made the FTC's order in the Corning case superfluous and obscured what otherwise might have been a landmark decision regarding fair trade.

The economic effects of the decision on Corning and on consumer welfare were never addressed in any systematic way by the FTC during or after its suit against Corning. Although there had been some recognition within the FTC that RPM could be used to procure dealer services, this possibility was considered insufficient justification for a permissive attitude toward RPM. In the next two chapters, we will first describe and then attempt retrospectively to analyze Corning's use of RPM and to determine which of the various economic theories of RPM are consistent with the available empirical evidence on the Corning experience.

¹¹(...continued)

restraint of trade in such refusals. Subsequent court decisions, however, had severely limited the practical scope of the Colgate defense for RPM.

¹² *Consumer Goods Pricing Act of 1975*, Public Law 94-145, 89 Stat. 801 (1975).

¹³ See, for example, Kleinfield, N.R., "Much Ado ... Fair Trade Laws Fall in State After State, But Impact is Small," *Wall Street Journal*, June 11, 1975, 1,19.

III

Corning's RPM Practices

CORNING'S FAIR-TRADE PROGRAM

The price-maintained Corning products at issue in the case are still sold under the trade names Pyrex, Corning Ware, and Corelle. Pyrex and Corning Ware are the trade names of Corning's glass and glass-ceramic products for food preparation, cooking, serving and storage.¹⁴ Corelle is the trade name of Corning's major tableware line.¹⁵ Corning began marketing Pyrex in 1915 and sold it with maintained resale margins from the enactment of the Miller-Tydings Act in 1937.¹⁶ Corning Ware and Corning Ware Electromatics were fair-traded from their respective market introductions in 1958 and 1960. Corelle tableware was first distributed nationally in 1971 and was fair-traded from its 1970 initial test market introduction.¹⁷ Throughout the fair-trade era, Corning maintained the resale margins on major components of both its relatively old and its newly developed consumer products,

¹⁴ In 1971 Corning's Pyrex product line included: pie plates, loaf dishes, cake dishes, baking dishes, custard dishes, covered casserole dishes, and covered roaster dishes (ovenware products); covered double boilers, drip coffeemakers, percolators and teapots (range top ware); and mixing bowls, salt and pepper shaker sets, cruet sets, measuring cups, and various hot and cold beverage servers (kitchenware products). The Corning Ware product line in 1971 included covered sauce pans with and without handles, covered skillets, Dutch ovens with cover and rack, serving trays, teapots, drip coffee makers, oven top coffee percolators, electromatic percolators, electromatic skillets, loaf dishes, baking dishes, covered fryers, roasters, pan sets, pie plates and accessories. See appendix to *In the Matter of Corning Glass Works*, 85 FTC 1061.

¹⁵ Corelle tableware included plates, bowls, cups and saucers.

¹⁶ *Vornado v. Corning Glass Works, et al.*, 255 F. Supp. 216, 219-220.

¹⁷ Annual Reports for 1970 and 1971.

wherever fair-trade laws allowed. Thus, RPM was apparently an important feature of Corning's method of marketing and distributing its consumer products.

At the time of the FTC complaint, Corning sold directly to 360 wholesale distributors located in 45 states and the District of Columbia, which in turn resold to over 50,000 retailers located in every state and the District of Columbia.¹⁸ Eighty-three of the wholesale distributors were located in free-trade areas. In 1971 Corning did not sell directly to any retailers. Corning provided its wholesale distributors with presigned dealer contracts, which wholesalers were required to execute with all of their reseller customers. The contracts were direct fair-trade dealer agreements between the signing retailers and Corning; the wholesalers merely acted as agents for Corning in obtaining the signed contracts. In this way Corning obtained signed RPM contracts with all of its retailers.¹⁹

Corning's distributor and dealer fair-trade agreements became effective when they were executed and remained in force until terminated by either party. The contracts could be terminated upon written notice from either party, effective upon the date of receipt of the notice. Terminated dealers were obliged to remove Corning products from sale and to offer the products back to Corning, which was obliged to repurchase the products at the dealers' original invoice cost.²⁰

Corning established its wholesale and retail level fair-trade prices and margins through a series of maximum allowable discounts from minimum retail prices specified on fair-trade price lists, which could be changed by Corning with 10 days notice. For example, on Pyrex products wholesalers

¹⁸ See *In the Matter of Corning Glass Works*, 82 FTC 1675, 1733-1747 for a listing of Corning's wholesale distributors at the time.

¹⁹ See *In the Matter of Corning Glass Works*, 82 FTC 1675, 1690-91.

²⁰ See examples of the contracts in the appendix.

could sell to retailers at not less than the retail fair-trade list prices less a discount not in excess of:

30 percent from list for broken (partial) cases,

33 1/3 percent plus 5 percent²¹ (38 1/3 percent) from list for 1 to 9 original cases,

33 1/3 percent plus 10 percent (43 1/3 percent) from list for 10 to 49 original cases,

40 percent plus 5 percent (45 percent) from list for 50 or more original cases.²²

Corning also allowed an extra discount not in excess of 2 percent for cash payment, if wholesalers generally gave such discounts to all retailers on all products. Corning allowed retailers to give trading stamps or trading points to customers if this was the dealers' general policy on all products, if the total value of the stamps or points did not exceed 3 percent of Corning's fair-trade prices, and if all posted and advertised prices were Corning's fair-trade prices. Similarly, "double stamp" days were allowed if they occurred no more

²¹ The extra 5 percent discount on original case orders of Pyrex was automatically allowed for advertising, and appeared on wholesale distributor invoices as an "allowance for advertising purposes."

²² Similar pricing formulas applied to Corning Ware, Electromatics and Corelle products. For Corning Ware the discounts were 35 percent from list for 1 to 17 pieces, 40 percent for 18 pieces or more; for Electromatics the discounts were 30 percent for 1 to 3 packs, 35 percent for 4 packs or more; for Corelle the discounts were 35 percent for 1 to 9 original shippers and for broken (partial) shippers, 40 percent for 10 to 24 original shippers, 40 percent and 5 percent for 25 or more shippers. The price lists defined the terms pieces, packs, and shippers. The 5 percent allowance explicitly for advertising appears only on the Pyrex price list and evidently was not available on Corning's other fair-traded products.

frequently than one day per week and the value of the stamps or points did not exceed 5 percent of Corning's fair-trade retail list price.²³

By establishing the allowable discounts, Corning determined minimum wholesale prices, and thus minimum wholesale margins. Wholesalers were free to set wholesale prices above this level, but once chosen, these wholesale prices, combined with Corning's retail-level fair trade prices, determined minimum retail margins.

Corning also considered it a violation of its fair-trade contract if dealers (a) offered or gave anything of value in connection with the sale of any fair-traded Corning product, (b) offered or made any concession in connection with such sale, or (c) sold or offered for sale any Corning product in combination with any other merchandise.

The evidence indicates that Corning actively enforced its fair-trade contracts. For instance, from November 1957 to June 1965, Corning obtained 86 permanent injunctions against violators of its fair-trade agreements. The injunctions were obtained throughout the U.S., but over 20 percent were obtained in the state of New Jersey.²⁴ The majority of these cases appear to involve actions against dealers selling to unauthorized dealers outside the normal channels of distribution. The evidence indicates that Corning did not use other vertical restraints, such as exclusive distribution.

There are a number of economic hypotheses that might explain why Corning preferred to market its consumer products with protected dealer margins. Before attempting to evaluate alternative explanations for Corning's

²³ Corning's allowable discounts applied only to single orders and billings for shipment to one address. Corning did not permit any additional rebates, cumulative or annual discounts, dividends, or group purchasing by one retailer for stores not under that retailer's direct management. Nor did Corning allow discounts on sales to corporations for resale to their employees. Such sales were to be at retail list prices.

²⁴ See *Vornado, Inc. v. Corning Glass Works et al.*, 255 F. Supp. 216, 220.

RPM activities, however, it is instructive first to consider how Corning itself described the benefits of RPM.

CORNING'S RATIONALE FOR ITS FAIR-TRADE PROGRAM.

Corning was a long time supporter of fair-trade laws, and on numerous occasions the company offered its rationale for enforcing RPM agreements. For instance, in 1937 Corning contended that:

(1) [Fair-trade] protects valuable property rights of manufacturers of trade marked commodities. Cut-rate retailing cheapens the commodity in the eyes of the consuming public, and leads the consumer to believe that small, independent merchants are gouging the consumer when they charge reasonable prices. The small independent merchant then shifts his selling efforts to other commodities, or even refuses to carry the trade marked commodity at all, causing a loss of sales not offset by the increased volume sold in discount houses. (2) Effective fair trade legislation maintains the existence of smaller, independent retailers, enabling them to compete through geographic convenience, the carrying of little called for items not handled by the discounter, and personal service. (3) The consumer is the ultimate beneficiary of the fair trade law. The protection afforded the good will of independent manufacturers enables them to maintain mass marketing systems for quality products and hence to reduce costs through mass production. This forestalls the concentration of power in giant, vertically integrated organizations, loss of the convenience and services offered by smaller merchants, reduction of the number of quality products and a degree of oligopoly harmful to the consumer. (4) Thus [fair-trade] promotes the public welfare...²⁵

²⁵ *Corning Glass Works v. Ann & Hope, Inc.*, cited in 1973 *Trade Cases*, Para. 74,432, 93,940, referring to a Corning statement supporting passage of the Miller-Tydings Act in 1937.

Twenty seven years later, in 1964, R. Lee Waterman, then manager of Corning's consumer products division, stated:

I wish I had a product susceptible to saturation advertising. I wouldn't be interested in [fair trade]. My advertising would make people come into the stores and ask for my product, and I could force retailers to carry it and beat out a price on the anvil of their own anguish. Or, if I had a high-value, low-weight product, which I could profitably ship to many small dealers, I wouldn't need [fair-trade]—I could franchise dealers and sell only to those who agreed to charge my price. But I can't advertise heavily—and my product has a relatively low value per pound, so nearly all my shipments have to be carried in carload lots to wholesalers.

Our lab has developed a new glass ceramic with remarkable qualities, but to sell it we have to rely not on our dealers' reluctant acquiescence but on their active collaboration. They'll have to display it and talk about it. And they won't do that if they believe that once they've built up the product some downtown store will take the business away by advertising it at a lower price. We can't afford to become a target for stores which base their promotional appeal on someone else's name, the best-known name they can lay their hands on.²⁶

Eleven years later, when Corning announced the end of its fair-trade program to the press, the company said it still believed the program served

...the best interests of all our customers—wholesalers, retailers, and consumers. This belief has not changed. However, a rapidly growing number of equally sincere people, principally consumer groups and governmental agencies, are convinced that fair trade is not in the best interests of the consumer. At this point, they have been successful in

²⁶ Mayer, M., "Fair Trade or Foul, The Battle Rages Again," 237 *Saturday Evening Post*, April 11, 1964, 66, 68.

eliminating the effectiveness of Corning's program in all but a few states ... We now find it impractical and inequitable to attempt to continue a fair trade program where we cannot protect customers who have signed a fair trade contract from pricing practices of those who have not signed such contracts and who can obtain merchandise for resale from nonfair trade states.²⁷

In 1984, nine years after completely abandoning its fair-trade program, current and former Corning executives continued to explain the perceived benefits of RPM in essentially the same way their predecessors did in the 1930s. In interviews,²⁸ knowledgeable Corning executives focused on the importance of maintaining widespread distribution as the primary concern behind Corning's desire for an active RPM program. Corning executives expressed the view that if the firm allowed discounting by high volume outlets, it risked losing many of its small-scale retailers (typically hardware,

²⁷ Press release of April 7, 1975, Public Relations Department, Corning Glass Works. For a typical press account of this decision see *Washington Post*, April 8, 1975, D-9.

²⁸ On August 21, 1984, Conrad R. Stenski, Senior Vice President, Administration, Corning Glass Works, formerly Vice President and General Manager of the Consumer Products Division, agreed to an extensive interview with Thomas Overstreet to discuss the then 10-year-old RPM decision, hereinafter the *Stenski interview*. Mr. Stenski was actively involved in the day-to-day operation of Corning's fair-trade program and filed an affidavit in the FTC case.

William C. Ughetta, Vice President and General Counsel, Thomas O'Brien, Counsel for the Consumer Products Division, and James Kiggen, product manager for Pyrex and Corning Ware from 1958 to 1962, also agreed to interviews regarding Corning's fair-trade experiences, hereinafter, *Ughetta, O'Brien and Kiggen interviews*. In each instance, the (current and former) Corning executives were expressing their own opinions about the motivations for and effects of Corning's RPM. With the exception of Mr. O'Brien, the individuals interviewed were actively involved in implementing the fair-trade program and are knowledgeable about Corning's former fair-trade policies. Although the rationale offered by the Corning executives is referred to in the text as "Corning's," this should be understood to be for expositional convenience. The executives' opinions were not solicited as, and do not necessarily represent, official corporate policy.

convenience, and gift shops) and with them access to a significant class of customers, who would not purchase from the discount outlets. The executives expressed fears that their well-known brands would be used as the focus of promotional campaigns, especially as "loss leaders," by the high volume sellers and that this would make it especially difficult for them to maintain their network of small-scale outlets. Corning officials believed that the extra sales from the discounters would not make up for the lost sales from the reduced number of small outlets.

Secondary reasons offered by the Corning officials complement or reinforce the basic explanation given above. For instance, the executives pointed to substantial economies associated with production of glass-ceramic products that made it important to plan for extended production runs of each item.²⁹ The executives argued that demand was more stable and predictable when the product was widely available in small shops with RPM, and that fewer large distributors were more likely to demand large, but lumpy, orders. They expressed the view that this made it more difficult for the company to plan production runs and control inventory costs without RPM than with it.

Similarly, concern was expressed about the importance of the gift market for many Corning products. A substantial portion of Corning's sales were believed to be destined for the "gift market."³⁰ As gifts, Corning products competed against functional substitutes, as well as many items that could be given as gifts that were not functional substitutes. Corning executives express the view that variations in retail prices reduced the value of a product as a gift, because the value of the gift depended in part on the receiver knowing

²⁹ For instance, Mr. Stenski estimated that the cost of the mold for a \$.69 pie plate was on the order of a quarter of a million dollars and that there were significant fixed costs in preparing for a production run.

³⁰ Mr. Stenski indicated that during his tenure in the Consumer Products Division as much as 50 percent of Corning's fair-traded products were thought to be purchased by consumers as gifts to be given to others. Mr. Kiggen indicated that based on his experience at Corning, an estimate of 50-60 percent of total sales of Pyrex and Corning Ware being purchased as gifts was "very reasonable."

the gift's cost, and Corning presumed that receivers would assume that price to be the lowest available.³¹ Corning officials indicated that RPM was perceived as an effective way to reduce the variation in retail prices, and thereby enhance the gift segment of the demand for Corning products.

In the next chapter, we analyze Corning's RPM practices in economic terms and consider some of these explanations, as well as more traditional economic theories of the practice.

³¹ The importance of the gift market to Corning was also responsible in part for the concern about availability—Corning wanted the product available in outlets that consumers used when considering gift purchases.

IV

An Economic Analysis of Corning's RPM Practices

INTRODUCTION

We now turn to an economic examination of Corning's use of RPM. In particular, we examine the available evidence on Corning's markets and on the changes in the market value, sales and advertising levels of Corning and some of its primary competitors after Corning was forced to drop its RPM policy.

In particular, we consider whether the available evidence is consistent with anticompetitive theories of RPM, which include the dealer and supplier collusion theories (Mathewson and Winter (1985) and Telser (1960))³² and oligopoly theories in which RPM is used as a facilitating practice (Shaffer 1991)).³³ In these theories, RPM is adopted to support supracompetitive pricing by dealers or producers.

We also consider the principal-agent theories of RPM's use, in which RPM is adopted by manufacturers to change the behavior of their dealers in

³² According to the dealer cartel theory, traditional dealers combine to coerce the manufacturer to adopt RPM at supra-competitive levels to protect dealer margins from price-cutters. In the manufacturer cartel theory, RPM is used to fix retail prices to reduce cartel members incentives to cheat on the cartel, because the RPM limits the additional sales received from cutting prices.

³³ In the Shaffer theory, for instance, competitive manufacturers must acquire distribution through concentrated retailers. Some of the retailers find it profitable to unilaterally demand RPM-priced products in order to commit to supra-competitive retail prices, which results in higher profit levels for all the retailers. Manufacturer profits are unaffected in this case.

some way that increases sales. After examining the predictions of the general principal-agent hypothesis, we also briefly discuss the Corning case in terms of four particular examples of principal-agent theories, namely the special services theory (Telser (1960) or Marvel and McCafferty (1984)), in which RPM is used to prevent discount dealers from free-riding on presale services or quality certification of other dealers; the demand risk theory (Rey and Tirole (1986)), in which RPM is used to reduce the risk faced by dealers when consumer demand is uncertain;³⁴ the quality assurance theory (Klein and Murphy (1988)), in which RPM is used to establish a quasi-rent stream that creates incentives for dealers to provide the quality of pre- or post-sale services that the manufacturer wants; and the outlets theory (Gould and Preston (1964)), in which RPM is used to increase the number of outlets willing to carry the product.³⁵ These principal-agent theories illustrate the types of dealer issues that have received increased attention in the recent economics literature on vertical restraints.

AVAILABLE EVIDENCE ON CORNING'S MARKETS

The exercise of market power, either unilaterally or with other market participants, is a necessary condition for RPM to reduce consumer welfare. Thus, we begin our analysis with a brief discussion of the available data on Corning's position in its markets.

³⁴ Simple sale contracts have the effect of transferring all demand risk to dealers. If dealers are more risk averse than the manufacturer, it may be optimal to share some of the risk between the parties, and RPM, which limits the extent of discounting if demand turns out to be low, has this effect.

³⁵ Explicit contracts and direct subsidies to particular types of selling activities (such as direct subsidies for dealer advertising) can also be used to change dealer incentives. Of course, in many circumstances, the cost of writing and enforcing explicit contracts in the courts or monitoring fraud in subsidized activities can be quite high, making these approaches economically inferior to vertical restraints that accomplish the same goals.

Corning's view of its markets or its relative position in them is not publicly available. Price and quantity data sufficient to determine Corning's relevant markets on the basis of calculated price elasticities of demand are also not available. However, by combining information from several public sources, it is possible to estimate Corning's market shares in several potential versions of its relevant markets and to gain some insight into the extent of Corning's possible market power.

Corning regularly reported aggregate consumer product sales on an annual basis. Corning's consumer products include household products for cooking, preparing, serving and storing foods made from heat-resistant glass and glass-ceramic compositions.³⁶ Corning's major products included Pyrex (heat-resistant glass) mixing bowls and related kitchenware items, and cookware, such as pie plates, casserole dishes and cake pans, Corningware (glass-ceramic) cooking pots, coffeepots, and casserole dishes used for baking and serving food, and Centura and Corelle dinnerware, which included plates, cups, saucers, soupbowls, etc., sold individually or in sets, as well as related serving pieces.³⁷ Corning's cookware products substituted for other cookware products made of glass and ceramic, as well as those made of various metals. Corning's dinnerware substituted for other dinnerware made from plastic, glass, ceramics of various types, and china.

First, we will view the market broadly, including within it all cookware, ovenware, kitchen, and tableware made out of all materials. Doing so assumes that regardless of the material used to make the products, they are economic substitutes from a demand perspective, or that firms capable of making products in one of the basic functional groups (cookware, etc.) will

³⁶ Corning Annual Reports, 1966-1979. These products are sold under the Pyrex, Corning Ware, Pyroflam, Pyroceram, Corelle, and Centura trademarks.

³⁷ See footnote 14 for further detail on Corning's consumer product lines. The consumer products category also includes Steuben crystal products. While there are no public data for sales of these high valued crystal products, they do not appear to account for a substantial portion of the consumer product total.

produce products in the other functional groups if the proper economic incentives exist. This assumption is most defensible in a longer-run view of the relevant market.

U. S. total sales for cookware, ovenware, kitchen and tableware can be constructed from domestic shipments data in appendix table A1 and imports data in appendix table A2 for the years 1967 and 1977.³⁸ As shown in Table 1, Corning's market share under this broad definition was approximately 12 percent in 1967 and had fallen trivially to 11 percent by 1977.

These broadly defined market share estimates can be compared to more contemporary estimates of a narrower potential market, namely cookware, provided by the Cookware Manufacturers' Association (CMA).³⁹ According to the CMA, total U.S. (domestic and import) cookware sales were approximately \$1.45 billion in 1982. Of this total, approximately \$350 million was glass and glass-ceramic cookware. Of the \$350 million, the CMA estimates that \$100 million was imported and that approximately 80 percent of domestic glass cookware is accounted for by Corning and Anchor Hocking.⁴⁰ Thus, Corning and Anchor Hocking together account for approximately 13.8 percent of total cookware sales in 1982.

These CMA estimates for 1982 are shown in the top part of Table 2, along with the most comparable figures available from the 1977 Census of

³⁸ The Census of Manufacturers also has data for 1972. However, there were major classification changes in 1972, and for many of the product classes of interest here, no values were reported in the 1972 published volumes. In 1977 the redefined product classes were more extensively reported and information was provided to allow comparability with earlier published data. Thus, the 1972 data are not reported here.

³⁹ Overstreet interview with Paul Uetzman, Association president. The Cookware Manufacturers' Association was formerly the Metal Cookware Manufacturers' Association. Corning Glass is a member of the current association.

⁴⁰ Anchor Hocking is the second largest U. S. supplier of glass cookware. The portion of the 80 percent estimate due to Corning's sales was not available from the CMA.

Table 1 Computation of Corning's Share of Cookware, Ovenware, Kitchen & Tableware Sales, 1967 and 1977 (\$ Millions)

	1967	1977
Value of Domestic Shipments	809.9	2220.5
Value of Imports	105.7	390.0
Total Sales	915.6	2610.5
Corning Consumer Product Sales	107.2	298.1
Corning's Share of Cookware, Ovenware, Kitchen & Tableware Sales	11.7%	11.4%

DATA. Corning data from Corning Annual Reports.

Domestic shipments from *U.S. Census of Manufacturers, Series MA30D and MA32E*, and *Industry Series for Products and Product Classes, Quantity and Value of Shipments by all Producers*, U.S. Department of Commerce, Washington, D.C., 1967, 1977. See appendix table A1.

Imports from *Tariff Schedules of the United States*, U.S. International Trade Commission, Washington, D.C., and *U.S. Imports for Consumption and General Imports, TSUSA Commodity by Country of Origin*, U.S. Dept of Commerce, Bureau of the Census, Washington, D.C., 1967, 1977. See appendix table A2.

Table 2 Estimates of Corning's Share of Cookware Sales, 1977 and 1982 (\$ Millions)

	1977 (Census)	1982 (CMA)
Total Cookware Sales	1569	1450
Glass/Ceramic Cookware Sales		
Domestic	468 ¹	250
Import	75	100
Total	543	350
Corning's Consumer Product Sales	298	372
Corning's Share of Cookware Sales-I ²	10%	13%
Corning's Share of Cookware Sales-II ³	NA ⁴	12%
Corning's Share of Glass/Ceramic Cookware Sales-I ²	27%	53%
Corning's Share of Glass/Ceramic Cookware Sales-II ³	NA ⁴	49%

NOTES. ¹ The SIC categories for glass include cookware with other kitchen and tableware, and thus overstate 1977 domestic glass cookware sales.

² Assumes that half of Corning's consumer product sales are cookware.

³ Based on the Cookware Manufacturers' Association (CMA) estimate that 80 percent of domestic glass/ceramic cookware was produced by Anchor Hocking and Corning and the assumption that Corning constitutes 86 percent of this total.

⁴ When applied to the 1977 Census figures, these assumptions lead to an estimate of Corning's glass cookware sales that exceeds Corning's sales for all consumer products. This may be due to the inclusion of glass kitchenware in the Census figures.

Manufacturers and the imports data from appendix tables A1 and A2. These 1977 estimates reflect all 7-digit SIC categories and import TSUSA categories that include cookware. Some of the 7-digit classifications also include kitchen and tableware, so that the 1977 estimates probably overstate cookware sales somewhat, especially for glass categories.

To estimate Corning's share of total cookware sales, we assume that the ratio of Anchor Hocking's to Corning's sales of cookware remained about the same from 1978 to 1982, and that the data for SIC 3229, Pressed and Blown Glassware, NEC, accurately reflects this ratio. Given these assumptions, Corning sales accounted for about 86 percent of the sum of Corning and Anchor Hocking's sales.⁴¹ Thus, Corning's share of cookware sales is estimated to be approximately 11.9 percent ($.86 \times 13.8$). The CMA estimates indicate, however, that Corning's share of glass cookware sales is on the order of 50 percent.

Thus, we now have various views of potential markets in which Corning's products might compete. Without more specific data about demand elasticities, we cannot determine which view is most relevant. However, the various estimates imply that if the relevant market includes nonglass as well as glass products, then Corning's share, while nontrivial, is certainly not that of a dominant firm. Its estimated share was approximately 11 percent in the very broadly defined market and 13 percent in the cookware-only market. Yet, in glass cookware Corning may have accounted for as much as 50 percent of total U. S. sales including imports. For glass cookware to be a sensible view of the market requires that there is a low own-price elasticity for glass cookware, that is, that a price increase for glass cookware would not cause much substitution to other types of cookware. If glass cookware was a relevant market, and if entry or expansion in glass cookware production was

⁴¹ Economic Information Systems, Inc., Industry Reports, 1978 Data. Corning's sales in SIC 3229 are reported as \$949.4 million. Anchor Hocking's sales are reported as \$149.8 million.

difficult,⁴² Corning would be a dominant firm in this market and might possess substantial market power in it.⁴³

STRUCTURAL EVIDENCE AND THE COLLUSION HYPOTHESES

In this section, we discuss the available structural evidence as it relates to the collusion hypotheses before turning in the next section to the market evidence on the effects of the case on Corning and its competitors.

Did RPM Support Dealer Collusion?

One of the primary anticompetitive theories of RPM relates to its use to support collusive margins for dealers.⁴⁴ Under this theory, Corning would have been induced to use RPM by its dealers, because the dealers had credibly threatened a group boycott of Corning products. This dealer collusion hypothesis could apply to either Corning's wholesale or retail dealers.

Several types of evidence suggest that the dealer collusion hypothesis should be rejected in this case at both the retail and wholesale levels. The first evidence concerns the heterogeneity of Corning's dealers. As shown in Table 3, Corning's consumer products were sold through several types of wholesale dealers in 1971, and these wholesalers supplied a number of retailer

⁴² Approximately 29 percent of glass cookware sales in 1982 were imports (\$100 million/\$350 million), suggesting that if glass cookware is a market in an antitrust sense, it is not just a U. S. market. However, the possibility that tariffs might be increased could reduce the ability of foreign producers to discipline the market. See *Competitiveness in the Glassware Industry*, Committee on Commerce, Science and Transportation, U. S. Senate, October 30, 1989, for a recent hearing on the significant expansion of imports during the 1980s and the extent of and demand for further tariff protection for some glass cookware products.

⁴³ The 1984 *Department of Justice Merger Guidelines* indicate that a firm with 35 percent or more of a relevant market is to be considered a dominant firm for the purposes of merger analysis (see, section 3.12). See also, 1992 *Department of Justice and Federal Trade Commission Horizontal Merger Guidelines*, section 2.22.

⁴⁴ For instance, see Mathewson and Winter (1985) for a discussion of this theory.

Table 3 Types of Wholesale Distributors for
Corning's Consumer Products, 1971

Type of Wholesaler	Number of Dealers
Hardware	137
Cooperative	17
Specialty Housewares	85
Service Distributor	93
Variety, Gift, China & Glass	16
Jewelry	6
Parts & Repair	4
Unidentified by Type	2
Total	360

SOURCE. *In the Matter of Corning Glass Works*, 82 FTC 1075, 1733-47.

types, including hardware, specialty houseware, grocery, variety, gift, china and glass, and jewelry outlets.⁴⁵ When the final order was issued in the case in 1975, Corning distributed over 30,000 letters to its retailers notifying them of the conditions of the order.⁴⁶ Corning's retailers included large department store chains, such as Sears and K-Mart, large drug store chains, large supermarket chains, as well as many small hardware, drug, grocery, variety and gift stores.⁴⁷

⁴⁵ See 82 FTC 1675, 1733-47 for a list of Corning's wholesale distributors.

⁴⁶ Corning did not have a list of its retailers in 1975, because Hurricane Agnes had destroyed relevant company documents in 1972. The letters were distributed through Corning's wholesale distributors. As a result, we were not able to get any quantitative information about retailer types.

⁴⁷ *Stemski interview*, op cit.

This considerable variety of dealer types suggests heterogeneous dealer incentives, which would limit the likelihood of either explicit or tacit collusion. Such a range of dealer types is likely to have faced considerably different demand and cost conditions in selling Corning's products, which would tend to make any agreement on price and an effective threat of a group boycott more difficult to achieve and maintain. In the absence of some mechanism for control, such as an active trade association or restriction on dealer entry, successful agreement of such a large number of disparate dealers seems unlikely. Neither the FTC files nor other sources revealed the existence of any facilitating retailer organization.

A second type of evidence relevant to the dealer collusion hypothesis is the length of time the practice was used and the changes in dealer composition that occurred during that time. Corning first used RPM contracts in 1936 on Pyrex and continued to maintain retail margins for its major consumer products for nearly 40 years.⁴⁸ Even if Corning initially used RPM in response to organized dealer pressure, such a dealer group would have had to maintain control over dealers for nearly four decades. During this interval, there were substantial changes in the structure of retail distribution, including the development of many retailing forms capable of selling Corning's products, such as chain department stores, modern grocery supermarkets, catalogue showrooms, and mass distribution discount organizations. A cartel of retailers organized in the late 1930s would have had to bring these emerging retail organizations into the cartel to remain effective.

As was true of many fair traders, Corning had no aversion to selling to known discounters as long as the discounters would abide by the fair-trade prices on Corning products.⁴⁹ Even assuming that Corning originally had been coerced into RPM by its dealers in the late 1930s, over time as each of

⁴⁸ FTC (1945) and *Stemski interview*, op cit.

⁴⁹ *Stemski interview*, op cit.

the innovative retailing types became well-established, Corning would have had opportunities (as well as incentives) to defy the cartel by allowing the new types of dealers to discount Corning products or by reducing the RPM price to competitive levels. During the period, major retailing innovators entered by competing against established retailers primarily on price, and thus presumably would have lowered prices on Corning products if allowed to do so.⁵⁰ The available evidence all indicates, however, that Corning was committed to enforcing its RPM contracts throughout the fair-trade era and fought to preserve the policy when legally challenged.

Finally, from 1964 to 1975 Corning's fair-trade program was the subject of five broad scale investigations by government antitrust enforcement authorities. At the request of the Attorney General, in 1964 the FTC conducted an investigation of Corning's compliance with the final judgment entered in *U.S. v. Hartford Empire Co., et al.* (Civil No. 4426, N.D. Ohio W.D.). The focal point of the investigation was whether Corning's fair-trade program fully reflected the legal limitations on fair-trade contracts in free-trade and signer-only states. In 1966-67 the Department of Justice held a grand jury investigation of Corning's fair-trade program out of Kansas City, Missouri. In 1968 and 1969 the FTC investigated Corning's price advertising in Maryland, Virginia and the District of Columbia, nonsigner, signer-only, and free-trade areas, respectively. In 1967-68 the Department of Justice investigated whether Corning Ware was a commodity "in free and open competition with other commodities of the same general class," and thus eligible to be fair traded. Finally, in 1970 the Department of Justice conducted an economic survey of RPM, and in the course of the survey obtained detailed information from Corning with respect to its fair-trade program. None of these investigations led to legal proceedings.⁵¹ While each of these investigations had a somewhat different focus, if Corning had

⁵⁰ For discussions of innovations in retailing and competitive responses, see Palamountain (1968), Pickering (1974), Hendrickson (1979), and Steiner (1985).

⁵¹ *Ughetta and O'Brien interviews.*

been victimized by dealers sufficiently well organized to credibly threaten Corning, it seems likely that this would have been discovered during at least one of these formal investigations.

Taken together, the evidence on the absolute number of retailers and wholesalers, the substantial diversity among the dealers, especially over time, the absence of evidence of any dealer coordinating device or entry restrictions, the duration of the RPM, Corning's attempts to preserve the policy, and the failure of multiple government investigations to result in legal proceedings, all supports the inference that the dealer cartel hypothesis for Corning's RPM is inconsistent with available structural evidence.

Did RPM Support Supplier Collusion?

The second major anticompetitive theory of RPM relates to its use to support collusion among manufacturers.⁵² According to this theory, Corning would have adopted RPM together with its major competitors to protect supracompetitive manufacturer margins by making cheating less profitable.

Again the available evidence does not support this explanation for Corning's RPM use. First, if we adopt the broader view of Corning's markets to include products made from nonglass materials, such as plastic or metals, the potential for supplier collusion seems quite limited. Such a collusion would have had to include many firms which varied substantially in size and which used different production techniques with different cost structures.

Moreover, by the time of the complaint against Corning, many of these firms did not use RPM, which is a necessary condition for the standard collusion theory to apply. For instance, General Electric, Sunbeam, and Westinghouse all produced electric cookware products but had discontinued fair-trade contracts by 1958.⁵³ Westbend, another major cookware producer,

⁵² See Telser (1960) or the reviews in Overstreet (1983) or Ippolito (1988).

⁵³ See Overstreet (1983), 158.

had abandoned fair trade before 1972, though the precise date is uncertain.⁵⁴ In cookware, Wearever, Ekco, and Regalware had all discontinued fair-trade pricing by the late 1960s.⁵⁵ Descoware aluminum cookware was never fair-traded.⁵⁶

From a theoretical perspective, the potential for supplier collusion supported by RPM is more plausible for producers of the most similar products, such as glass cookware, to the extent that there is pricing discretion for such producers. Corning's share of glass cookware sales is more substantial, and there were fewer direct competitors using more similar technologies to produce glass cookware. By the time of the FTC suit, however, the largest glass cookware competitor for Corning was Anchor Hocking, and this firm had not used RPM for its products for some time. Further, Anchor Hocking's glass cookware was sold without RPM through many of the same outlets that sold Corning's products with RPM.⁵⁷

Thus, the available structural evidence is not consistent with the standard supplier collusion hypothesis of Corning's RPM use in either the broad view of Corning's markets, in which many firms did not use the practice, or in the glass-ceramic cookware market, where the other major producer did not use the practice.

⁵⁴ Overstreet interview with E. Hackney, General Counsel, West Bend Corp.

⁵⁵ Overstreet interviews with David Freilich, Wearever legal counsel; Kenneth Petrine, Ekco Housewares, Counsel; and Philip Ketter, Regalware official.

⁵⁶ Overstreet interview with Gorden Ericson, counsel, Descoware.

⁵⁷ Anchor Hocking's Annual Reports and 10K reports for 1970 through 1978, Overstreet interview with Donald Liebert, legal counsel for Anchor Hocking, and *Stemski interview*, op cit. Mr. Liebert contacted Anchor Hocking employees with tenure back to 1936, and all claimed that Anchor Hocking had never used fair-trade contracts. However, Anchor Hocking is listed by the Retail Jeweler's Association as a fair trader in 1952 (Overstreet (1983), 183).

EVIDENCE ON THE EFFECTS OF CORNING'S RPM

The structural evidence discussed in the previous two sections is the type of evidence typically available in antitrust investigations. This evidence suggests that Corning's use of RPM was not designed to support collusion by its dealers or by Corning and its competitors. However, this type of evidence does not allow us to test the anticompetitive theories more broadly, in which RPM reduces the pressure to compete, even if not through direct collusion, leading to lower sales levels and higher prices than would otherwise exist. Moreover, this type of evidence does not allow any tests of the principal-agent theories of RPM, in which the practice is adopted by manufacturers to change dealer incentives in a way that increases product sales or services.

Viewed this broadly, these two competing hypotheses – the anticompetitive hypothesis and the principal-agent hypothesis – have direct implications that should allow tests of these hypotheses with other types of data. For instance, if RPM is being used to support supracompetitive pricing and the practice is ended by a legal ruling, the anticompetitive theories predict that the quantity sold should rise, and profits and prices should fall, for all firms in the industry. In contrast, if RPM is being used to resolve a principal-agent problem related to increasing distribution, the principal-agent theories predict that a legal decision banning RPM would cause the quantity sold and profits to fall for firms using RPM in this way. The quantity sold and profits would be unchanged or rise for competitors, who had a different production function for distribution that did not use RPM.

Moreover, in the principal-agent case, if the RPM is being used to generate sales by providing information or other sales efforts, the affected firms would be expected to substitute other selling methods for those that had been generated by RPM. Thus, we would expect advertising or other selling costs to rise for these firms, once the RPM is eliminated. Available theories are not clear in predicting whether other competitors would be induced to change their marketing practices as well in response to the change by the

former RPM firm (for instance, by increasing advertising as well, if Corning increased its advertising).

These hypotheses, as well as the possibility that the firm made an error in continuing its RPM policy, are examined below in the Corning case. We first present evidence on Corning's sales and on the sales of some of its competitors for which data are available for the period when Corning employed RPM and after it was forced to abandon the policy. We then present evidence on advertising expenditures and stock market reactions for Corning and these competitors surrounding the events that led to Corning's change in RPM policy.

Changes in Sales for Corning and Its Competitors

In the principal-agent theories, RPM is adopted to protect dealer margins in order to induce dealers to change their performance in some way that increases sales of the manufacturer's products.⁵⁸ Thus, if RPM was used by Corning for these purposes, the FTC's order requiring Corning to abandon the practice should have led Corning to adopt less effective distribution methods.⁵⁹ If significant, these changes should have led to lower sales quantities (after a period of adjustment).⁶⁰ In contrast, if RPM had been

⁵⁸ In at least one of the principal-agent theories, the desired dealer effort directly affects the quality of the good, which may affect the market price as well as the quantity sold. However, since this "quality-enhancing" theory does not appear relevant for goods sold by Corning, we will focus only on the principal-agent theories that deal with selling efforts.

⁵⁹ In 1974 Corning independently decided to drop its wholesale RPM policy. Since this was not the result of a legal decision, the change presumably reflects a business decision by Corning based on changed market conditions that affected the most profitable methods of wholesale distribution, and thus cannot be used to test RPM theories.

⁶⁰ When RPM is first dropped, sales may temporarily increase as firms advertise what appear to consumers to be unusually low prices. Since we only have annual sales
(continued...)

used to support supracompetitive pricing by either dealers or manufacturers, sales quantities would be expected to increase, once the practice is prohibited.

The dollar value of annual sales is available for Corning's consumer products, which include the products covered by RPM. If the manufacturer's (factory) price was not affected by the RPM policy, then movements in the value of sales should closely parallel movements in the quantity of goods sold. The manufacturer's price may be affected, however, and the hypotheses for sales data must be considered more carefully.

In the case where RPM is supporting supracompetitive pricing by dealers and the RPM is prohibited, Corning's sales quantity will increase and its prices may also increase as bargaining power shifts to Corning. Thus, if RPM is supporting supracompetitive pricing by dealers, the dollar value of sales will increase in the post-RPM period.

In the case where RPM is used to support supracompetitive pricing by suppliers, the price of Corning's goods should fall and the quantity sold increase, when the RPM is ended. In this case, the dollar value of Corning's sales might fall when the RPM is banned, because the drop in the price of the goods might mask the increase in sales quantity. In this case, however, if the competitors sell sufficiently homogeneous goods, all competitors in the market should experience the same type of price reduction, resulting in a similar movement in the value of their sales. In particular, in this case, Anchor Hocking and Corning's other major competitors should also experience a

⁶⁰(...continued)

data, we accommodate this issue by using the 1976-80 period as the post-RPM period. RPM was changed in April 1975 as a result of adverse legal rulings. Results are similar if 1975 is used as the start of the post-RPM period.

In choosing a post-event period that extends for several years, we allow time for the full adjustment to occur as dealers drop out of or are added to the distribution system in reaction to the policy change. This reflects an assumption that it takes time for dealers to judge the profitability of the Corning line under the new system. If the full adjustment takes place immediately, a shorter time period may be appropriate. We present data for the reader to judge the issue.

reduction in the value of their sales, once the RPM supporting the supracompetitive pricing is removed. Similarly, if the price reduction is not sufficient to dominate the increase in sales quantity, then the value of Corning's sales should increase, as should their competitor's sales. Thus, if RPM is supporting supracompetitive pricing by suppliers, all competitors should experience similar movements in sales when the RPM is removed.

In the principal-agent case, the potential bias is clear and allows for a one-sided test. If RPM was used to increase distribution in some way, and if selling activity would have to be shifted more to the manufacturer once the RPM was prohibited, the manufacturer's price would rise to reflect this added cost of distribution in the post-RPM period. This price rise could mask any reduction in quantity that occurred. Thus, if dollar sales fell following the prohibition of RPM, despite the price change, the evidence would be consistent with the principal-agent hypothesis; if dollar sales did not fall, the evidence would be inconclusive. Corning's competitors that did not use RPM, such as Anchor Hocking, should be unaffected or their sales should increase as they gain some of Corning's lost customers.

Thus, as summarized in Table 4, movements in value of sales data following the required change in RPM policy may give us evidence on the rationale for the practice in this case. If Corning's sales fall, the evidence is inconsistent with the anticompetitive dealer theories. If Corning's sales fall but Anchor Hocking and the other competitors' do not, the evidence is inconsistent with the anticompetitive supplier theories and consistent with the principal-agent theories. If Corning's and its competitors sales all fall, the evidence is consistent with the anticompetitive supplier theories but not with the principal-agent theories.

If Corning's value of sales rise, but its competitors' do not, the evidence is inconsistent with the anticompetitive supplier theories but consistent with both the anticompetitive dealer and the principal-agent theories. If Corning's and its competitors' sales all increase, we cannot distinguish among the theories.

Table 4 Consistency of Sales Evidence With Alternative RPM Theories

Theory	Corning's Sales (\$)			
	Increase		Decrease	
	Rivals' Increase	Rivals' Do Not	Rivals' Decrease	Rivals' Do Not
Anticompetitive Dealer Theory	Yes	Yes	No	No
Anticompetitive Supplier Theory	Yes	No	Yes	No
Principal-Agent Theory	Yes	Yes	No	Yes

Annual value of sales data for Corning's consumer products for the years 1966 through 1980 were compiled from annual reports.⁶¹ Similar data were also collected for Anchor Hocking, Mirro Aluminum, National Presto Industries, and Revere Copper and Brass, Inc.⁶² To examine changes in sales following the change in RPM policy, we use the following simple trend model estimated with ordinary least squares regression:

⁶¹ In the years of interest, Corning reported sales by four lines of business: *consumer products*, which includes the products of interest in the case; *consumer durable components*, which includes components used in the manufacture of consumer goods, such as television bulbs, etc.; *capital goods components*, which are products linked to capital investments, such as refractories, chemical process systems, electronic products and optical waveguides; and *health and science products*, such as clinical instruments and diagnostic testing systems.

⁶² In each case, we chose the reported line of business that included the relevant consumer products, as noted in the footnotes to Table 5.

$$\text{Sales}_t = a + bN + cN*D_{76-80} + dD_{76-80} + e_t \quad (1)$$

where

Sales_t = Sales of consumer products in year t (\$ Millions 1967), for year t = 1966, ..., 1980,^{63 64}

N = Year - 1965, that is, N = 1 in 1966, 2 in 1967, etc.,

D_{76-80} = 1 for the years when RPM was prohibited, that is, when t = 1976, ..., 1980,
= 0 otherwise,

a, b, c, d = coefficients to be estimated, and

e_t = a random error term in year t.

The coefficients c and d measure whether there was any change from the trend in the years following the change in RPM policy. A similar model and interpretation is used for the competitors. Our search of the trade literature did not reveal any other major events affecting the industry during this period.

The results shown in Table 5 indicate that Corning had a significant positive trend in dollar sales throughout the period. An F-test of the joint hypothesis that the coefficients on the post-event terms are both zero ($c = d =$

⁶³ The line of business used for Corning's competitors was chosen to be the best match for *consumer products* available in the reported data and is noted in Table 5. In 1975 Anchor Hocking acquired Amerock Corporation, a decorative hardware producer. Amerock sales are excluded. For 1975 and 1976 these were reported explicitly. In 1976, *consumer and technical products* were split into two categories: *household products* and *hardware products*. Amerock sales accounted for 99.6 percent of 1976 hardware sales, so household product sales are used in later years.

⁶⁴ Sales data are deflated using the producer price index for durable finished goods (1967\$). See *Economic Report of the President*, Washington, D. C.: U. S. Government Printing Office, February 1985, p. 297. The results are not sensitive to the use of other standard deflators, such as GNP.

Table 5 Sales Trends Before and After Change in RPM Policy For
Corning and Competitors, 1966-80 (\$ Millions)

Variable	Corning ¹	Anchor Hocking ²	National Presto ³	Revere ⁴	Mirro ⁵
Constant	78.2 (19.33)*	64.0 (17.49)*	39.8 (5.24)*	23.9 (8.48)*	52.7 (4.30)*
N	14.2 (21.79)*	5.8 (9.77)*	1.1 (0.96)	1.1 (2.50)*	0.6 (0.44)
N * D ₇₆₋₈₀	-20.0 (-10.60)*	1.0 (0.54)	-11.8 (-2.82)*	-0.4 (-0.28)	0.2 (0.12)
D ₇₆₋₈₀	207.5 (8.36)*	-11.1 (-0.49)	162.3 (3.18)*	6.3 (0.37)	-5.3 (-0.29)
F _{RPM}	93.8* (-)	.14 (+)	8.03* (+)	.12 (+)	.66 (-)
Adjusted R ²	.98	.96	.64	.61	.12
Mean Sales	169.9	110.5	53.2	33.3	58.2

NOTES. Sales deflated by the producer price index for durable finished goods (1967\$). t-statistics are in parentheses. * indicates significance at the 95 percent level of confidence.

¹ Corning sales for *consumer products* from annual reports.

² Anchor Hocking sales for *consumer and technical products*.

³ National Presto sales reported for its *commercial operations*, which includes electrical appliances and housewares.

⁴ Revere Copper and Brass sales for *utensils and other products*, which includes cookware products.

⁵ Mirro sales for *other aluminum products*, which includes cookware products.

Line of business data are not available for 1966-71.

0) is highly significant ($F = 93.8$), indicating that there was a structural shift in this trend in the years following the FTC case. The estimated difference in expected sales in the post-RPM period is given by $-20 * N + 207.5$, which is negative throughout the post-RPM period ($N = 11, \dots, 15$). By 1978, the expected difference in sales is \$52.5 million, which is 30 percent of the mean sales during the years of the study.⁶⁵

Anchor Hocking, Corning's closest competitor, also had a significant positive trend in sales during the period preceding the case, but there was no change in this trend following the case. Of the other competitors, only National Presto showed any significant change in the trend model, and its sales increased in contrast to Corning's decrease.

Deflated annual sales for Corning and Anchor Hocking are shown in Figure 1. With the exception of 1976, the year immediately following the change in

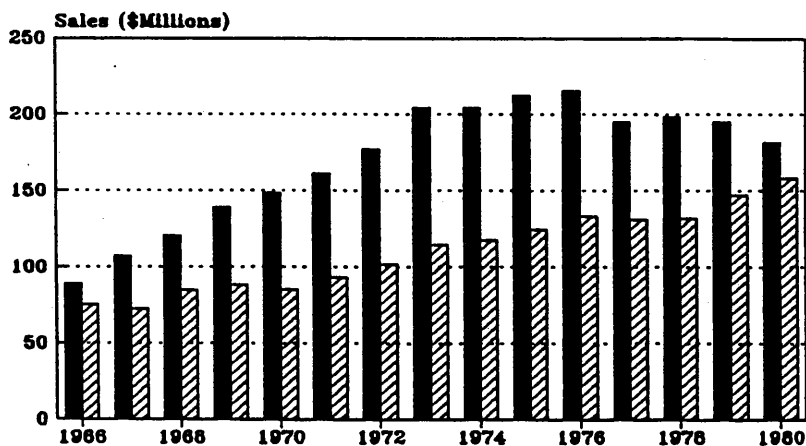


Figure 1 Consumer Product Sales (\$1967)

⁶⁵ Steiner (1985), 177 cites the Corning case as an example of marketing inertia based on Congressional Record testimony from 1975 indicating that Corning's sales increased following the abandonment of RPM. Sales did rise initially as discounting occurred, but as shown here, this increase was a temporary phenomenon that was reversed.

RPM policy in which Corning's sales increased marginally, Corning's value of sales (in addition to the trend in its sales) was lower in each year of the post-RPM period, but Anchor Hocking's was not.

Thus, the evidence from the sales data indicates that Corning lost sales in the 5 years following the FTC case. With the exception of National Presto, which increased its sales, the other competitors showed no change in sales trends during the post-RPM period. While the sales evidence permits no definitive linkage between patterns exhibited and the change in RPM policy, the evidence is consistent with the principal-agent theories of RPM but inconsistent with the anticompetitive theories for both dealers and suppliers.

Changes in Advertising by Corning and Its Competitors

In the principal-agent theories, RPM is used to change dealers' behavior in ways that the manufacturer finds desirable. For instance, according to these theories, RPM might be used to induce greater dealer sales effort or more extensive distribution of the product through a larger number of outlets. If RPM was used for these purposes and then prohibited, Corning would have incentives to shift to other promotional methods to sell its products. One alternative selling method, for which data are available, is manufacturer advertising.⁶⁶

Annual advertising expenditures for Corning and its major competitors are available in *National Advertising Investments*.⁶⁷ These data represent advertising expenditures in magazines, newspaper supplements, network television, network radio, spot television, and outdoor advertising. For major advertisers, such as Corning, these data are often reported by brand or by product group. For this study, Corning's advertising expenditures for the

⁶⁶ Existing economic theories are unclear in predicting whether competitors will react by increasing their advertising if Corning increases its advertising expenditures.

⁶⁷ *Leading National Advertisers, Inc. (LNA)*, Norwalk, Connecticut, 1967 through 1980.

years 1967 through 1980 were collected for all glass, china, or cookware products, as well as any multi-product advertising classified by LNA in these product categories. Comparable advertising series were also constructed for Anchor Hocking, National Presto, Revere Copper and Brass and Mirro Aluminum. Advertising expenditures were deflated by the Overall Index of National Advertising Expenditures (1967 = 100).⁶⁸

In these advertising series, it is apparent that Corning's advertising expenditures for its china products followed a different pattern than for its other consumer glass and cookware products. This reflects the relatively large advertising expenditures made beginning in the early 1970s for the introduction of Corning's Corelle Livingware china product lines. For this reason, the analysis of Corning's advertising for glass and cookware products is reported separately from that for its chinaware products.⁶⁹

A simple trend model for advertising expenditures was estimated as in equation (1), which allows a direct test of whether advertising expenditures by Corning and its competitors changed in the post-RPM period. As shown in Table 6, the model indicates that there was a negative (but insignificant) trend in advertising expenditures for Corning's glass and cookware products during the period. An F-test of the joint hypothesis that the coefficients on the post-RPM terms are both zero ($c = d = 0$) is highly significant ($F=9.7$), allowing us to reject the hypothesis that there was no structural change in the trend model in the post-RPM period. The estimated difference in expected advertising expenditures in the post-RPM period is given by $-167 N + 2848.3$, which is positive throughout the period ($N=10, \dots, 14$). At the midpoint of the post-event period in 1978, the expected difference in advertising expenditures is \$844,300 (1967\$), which is 78 percent of the mean advertising expenditures

⁶⁸ *Statistical Abstract of the U. S.*, U. S. Department of Commerce, Bureau of the Census, Washington, D. C., 1975 and 1990. Results are similar if deflated by overall advertising expenditures or GNP.

⁶⁹ The other competitors had virtually no advertising broken out for chinaware products.

Table 6 Advertising Trends Before and After Change in RPM Policy For Corning and Competitors, 1967-80 (\$1000)¹

Variable	Corning ²		Anchor Hocking	National Presto	Revere	Mirro ³
	Glass/Cook	China				
Constant	995.8 (5.45)*	148.6 (0.75)	320.9 (5.57)*	672.1 (1.47)	192.1 (4.01)*	630.9 (8.13)*
N	-27.6 (-0.85)	58.7 (1.68)*	-32.5 (-3.15)*	51.5 (0.63)	-6.3 (-0.74)	-20.8 (-1.51)
N * D ₇₆₋₈₀	-167.0 (-1.96)*	20.0 (0.22)	42.0 (1.55)	-1435.4 (-6.66)*	-19.3 (-0.86)	-32.6 (-0.66)
D ₇₆₋₈₀	2848.3 (2.91)*	-454.8 (-0.43)	-239.7 (-0.78)	18424.0 (7.51)*	312.2 (1.22)	391.5 (0.70)
F _{RPM} ⁴	9.7* (+)	0.4 (-)	4.9* (+)	30.8* (+)	1.5 (+)	0.3 (-)
R ²	.73	.35	.54	.87	.23	.44
Mean Advertising	1085.8	511.9	175.0	1487.0	173.9	490.2

NOTES. t-statistics are in parentheses. * denotes significance at the 95 percent confidence level. N = Year counter beginning at 1 in 1967.

¹ Data from Leading National Advertisers, 1967-80, for china, glassware, cookware and other appliance categories, deflated by the Overall Index of National Advertising Expenditures (1967=100).

² For Corning, the advertising series for china is reported separately; this series is dominated by advertising for Corelle, introduced in 1971. The others have no reported china advertising.

³ Based on 1967-79 data, since virtually no advertising reported in 1980. Joint test gives similar results if 1980 included.

⁴ Test statistic for hypothesis that post-event coefficients are zero. Sign indicates effect at post-event midpoint.

throughout the period of the study. The difference in advertising was largest immediately after the change in policy and fell throughout the period, though in 1980 the expected difference was still 47 percent above the average expenditure throughout 1967-1980.

The results are quite different for Corning's chinaware advertising. The significant positive trend in Corning's china advertising (due to the growth of its Corelle advertising, introduced nationally in 1971) fell insignificantly in the post-RPM period. Thus, with the exception of the advertising for Corning's new chinaware line, Corning's advertising expenditures are consistent with the principal-agent theories that predict a shift to other selling mechanisms if RPM is prohibited.⁷⁰

Results for Anchor Hocking are also shown in Table 6 and indicate a significant structural change in advertising expenditures in the post-RPM period. The significant negative trend in advertising expenditures prior to 1975 was reversed in the post-RPM period, and advertising levels were higher than predicted by the pre-event model.

Advertising expenditures for Corning and for Anchor Hocking are shown in Figures 2 and 3. These data indicate that the significant change in the Anchor Hocking's advertising model is primarily a reflection of the unusually low levels of advertising in the early 1970s, that is, advertising levels in the late 1970s are at approximately the same level as the average in the late 1960s. This contrasts with the data for Corning, which show that advertising levels in the post-RPM years were consistently above prior levels.

Estimates for the other competitors besides Anchor Hocking show a mixed pattern of results. Only National Presto had a significant change in the post-RPM period, and this was the result of extensive TV advertising campaigns for two products, its "Fry Baby/Fry Daddy" fryers and its "Burger Maker" in

⁷⁰ If the regression is conducted for all consumer products advertising, that is, for cookware and china together, advertising also increases in the post-RPM period, but the significance of the joint test is 90 percent instead of 99 percent.

Figure 2 Corning Glass/Cookware Advertising*

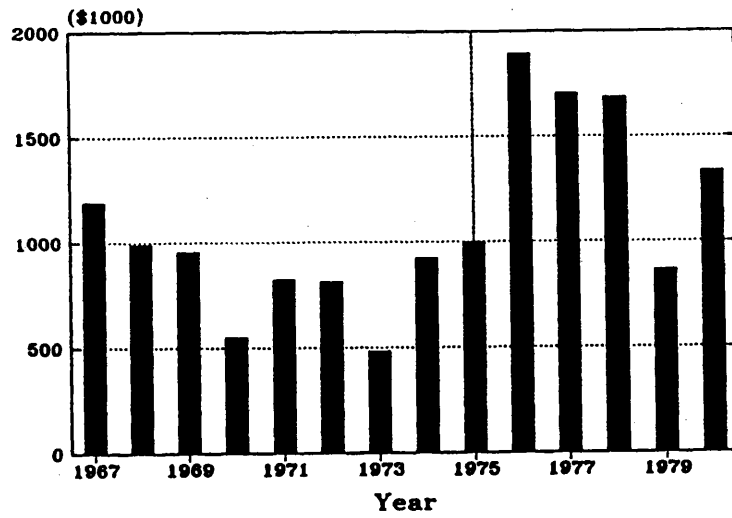
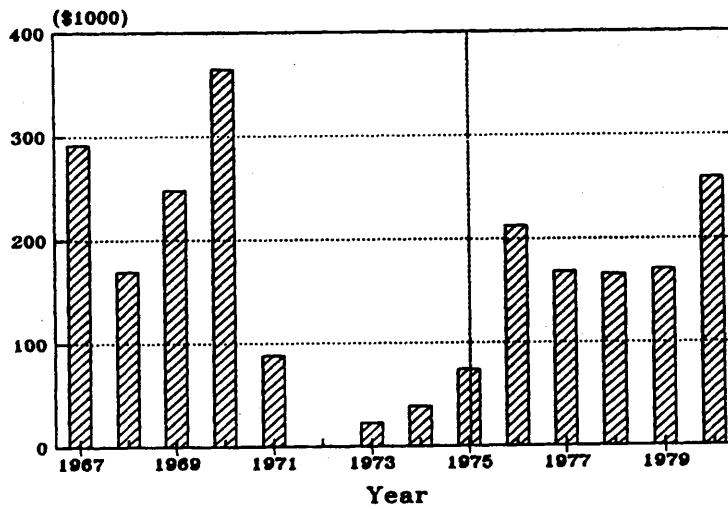


Figure 3 Anchor Hocking Advertising*



* Advertising deflated by the Overall Index of National Ad Expenditures (\$1967).

1976 and 1977, rather than a general increase in advertising for its products. By 1979 and 1980, National Presto advertising levels were back to pre-1975 levels. Revere and Mirro had no significant change in the post-RPM period.

Thus, the evidence indicates that Corning increased its advertising once it was required to abandon its RPM policy, as predicted by the principal-agent theories where RPM is used to generate selling services. The evidence from Corning's competitors indicates that this was not an industry-wide phenomenon, and thus, probably not due to some overall change in market conditions.

Stock Market Evidence for Corning and Competitors

Background

Events that affect the future profitability of a firm are presumably reflected in the market's valuation of the firm's stock. For this reason, measurement of stock market reactions to events has become a standard methodology for measuring the likely effects of policy changes or legal events on a firm's profitability.⁷¹

In this study, stock market reactions to the FTC's case are used to gauge the market's assessment of the effect of Corning's use of RPM on Corning's profitability and on that of some of its competitors. This type of study is complicated somewhat by the fact that any legal case is not a single event but a series of events that leads to the ultimate outcome of the case. Each of these interim events in the case is expected to affect stock values to the extent that it changes expectations about the ultimate outcome of the case. Before proceeding to the particular events for study in the Corning case, we first present a brief discussion of the predictions of the major economic theories of RPM for the profits of Corning and its competitors.

⁷¹ See Fama (1976) for a general discussion of the theory of efficient capital markets, which is the basis for this methodology. Examples of regulatory studies that use this methodology include Hughes, Magat and Ricks (1986), Mathios and Plummer (1988), Peltzman (1981), and Schumann (1988).

In the principal-agent theories of RPM, as well as in the supplier anticompetitive theories, RPM is adopted voluntarily by a manufacturer to increase its profits. Under any of these theories, Corning's profits, and thus its stock value, would be expected to fall whenever information was released to the market that increased the probability that Corning would be forced to abandon its RPM policy. In contrast, under the dealer collusion theory, Corning would have adopted RPM at the behest of its dealers. In this case, success by the FTC would have been expected to help Corning by legally requiring it to stop enforcing the dealer cartel. Thus, in the dealer collusion case, information that increased the perception of the FTC's chances of success would have led to higher Corning stock values.⁷² Finally, if Corning had been mistaken in adopting its RPM policy, information increasing the perception of the FTC's chances of success would also lead to higher stock values.

Information that increased the likelihood that Corning would be forced to abandon its RPM policy could also affect Corning's competitors' stock values. In the principal-agent theories, competitors that were not using RPM (presumably because it was not the most effective distribution arrangement for them) would be expected to be unaffected by the decision, or possibly, to experience an increase in stock value because of the reduced effectiveness of Corning as a competitor. Alternatively, if the RPM had been supporting supracompetitive pricing by suppliers, then competitors would also lose stock value if Corning had to abandon its RPM policy. Finally, if the RPM had been the result of dealer collusion, the effect on Corning's competitors would parallel the effect on Corning if they too had been required to use RPM by the dealers. There would be no effect or a positive effect on Corning's competitors that were not using RPM, because the case would increase their access to dealers once the collusion was weakened or eliminated. These predictions are summarized in Table 7.

⁷² This prediction assumes that the dealer cartel would not have been able to induce other major producers to enforce the cartel and to boycott Corning products after the case.

Table 7 Predicted Effects of Successful FTC Case on Stock Values Under Alternative Economic Theories

Economic Theory	Corning	Anchor-Hocking	Other Competitors
Dealer Collusion	+	0 or +	0 or +
Manufacturer Collusion	-	-	-
Principal-Agent Theories	-	0 or +	- If using RPM 0 or + If not using RPM

In the course of the FTC case, several events stand out as occasions when information was released to the market that could have caused market participants to revise their assessments of the probability that Corning would have to abandon its RPM policy. The first of these events occurred on Friday, October 8, 1971, when the FTC announced a proposed complaint charging that Corning had illegally fixed prices in some states with its fair-trade practices.⁷³ This event was reported in the afternoon *Washington Star* on October 8, the *Washington Post* on Saturday, October 9, and in the *Wall Street Journal* on Monday, October 11. The event presumably increased the probability that Corning would be forced to significantly modify its RPM policy.

The second event occurred on December 27, 1972, when an Administrative Law Judge (ALJ) filed the initial decision in the case, ruling in Corning's favor by dismissing all counts of the complaint. This decision was announced

⁷³ The complaint was actually issued on January 13, 1972. Since this formal filing was announced earlier, we expect no stock market reaction on this date, and there was none.

two weeks later in an FTC Press release on Tuesday, January 16, 1973 and was reported in the *Wall Street Journal* and the other major newspapers on January 17. This event should have reduced the perception that Corning would be required to modify its fair-trade practices.

A third event was the Commission's appeal decision, dated June 5, 1973. The Commission unanimously reversed the ALJ decision on Count II of the complaint, the key RPM issue. This decision was made public in an FTC press release on Sunday June 17, 1973 and was reported in the *Wall Street Journal* and other major papers on Monday, June 18. This decision presumably increased the probability that the FTC would end Corning's RPM policy.

The fourth event is the decision by the U. S. Court of Appeals, Seventh Circuit, dated January 29, 1975, upholding the FTC decision. We could not find any major newspaper accounts of this decision, but presumably it became public some time after January 29. Again, this event should have increased the probability that Corning would be required to end its RPM policy.

Careful searches of the *Wall Street Journal*, the *New York Times*, and trade press indices did not reveal any other events related to the Corning Company that would act to confound the effects of these four legal events on the price of Corning's stock.

On March 5, 1975, the Corning Board of Directors made the decision not to pursue appeals of the RPM issue and to abandon its retail RPM policy.⁷⁴ Unfortunately for research purposes, on March 6, 1975, Signetics Corporation, a company in which Corning owned 70 percent of the stock, announced a preliminary agreement to be acquired by U. S. Phillips Trust.⁷⁵ This

⁷⁴ Corning had voluntarily abandoned its wholesale RPM policy in early 1974. As discussed above, this voluntary decision by Corning does not allow us to test RPM theories from this event. There was no significant movement in Corning's stock value around this time.

⁷⁵ *New York Times*, March 7, 1975, 45.

proposed sale would be expected to increase Corning's stock value. As an additional complication for events during March and April 1975, Anchor Hocking was planning to acquire the Amerock Corporation during this period. The proposed purchase was announced in the *Wall Street Journal* on March 5, 1975 and filed with the FTC in early April.⁷⁶ Because there is no way to separate the effects of the events reliably, it is not possible to examine the RPM issue using the stock market's reaction on the days surrounding the Board's decision to end RPM.⁷⁷

The decision to end retail-level RPM was first announced in a public forum on March 24, 1975, when Corning announced the decision to its sales managers at an annual trade show. While we could find no other announcements dealing with the Signetics sale, Amerock purchase, or other events in immediate proximity to this announcement, its position between events in the Signetics sale and Amerock purchase makes us doubtful that this event is a reliable indicator of the effects of Corning's RPM.⁷⁸

⁷⁶ Anchor Hocking signed the agreement to acquire Amerock Corporation on February 28, 1975, but this agreement was reported in the *Wall Street Journal* on March 5. FTC clearance of the purchase was requested in early April and granted later in the summer.

⁷⁷ In 1-, 3- and 5-day windows following March 6, 1975, there are significant positive abnormal return in Corning's stock price. This result is consistent with the results found in most studies of takeovers, namely, the stockholders of the selling company (Corning in this case) receive a premium from the sale.

⁷⁸ Corning's abnormal return around this date is qualitatively consistent with the results found for the other Corning events presented below, that is, the stock lost value. In 1-, 3-, 5-, and 10-day windows following this announcement, Corning's stock value experienced negative abnormal returns, though these results are not statistically significant at conventional levels ($t = -.8, -.9, -1.4, \text{ and } -.7$, respectively). Anchor Hocking also tended to show negative returns for comparable windows, which is inconsistent with results below in 3 of 4 cases, though again these were not significant at traditional levels ($t = 0.1, -1.7, -1.4, \text{ and } -1.0$, respectively). The March 24th announcement is 9 trading days before the final decision in the Signetics sale and 12 trading days after the Signetics announcement and first publicity in the proposed Amerock purchase.

Corning's decision to end RPM was announced to the public on April 7, 1975 and was reported widely in the press.⁷⁹ On April 8, 1975, the Corning Board of Directors voted to approve the preliminary agreement to sell the Signetics Corporation.⁸⁰ Thus, again events related to the Signetics sale make it impossible for us to examine reliably the effects of Corning's RPM policy by examining movements in stock value around this day.⁸¹

Thus, we will examine the stock market reaction to the four legal events in the FTC's case against Corning for which we could find no information about other Corning events near these dates.

To examine whether an event had an effect on the stock value of Corning or its competitors, the firm's "abnormal" return around the day of the event is estimated using the following ordinary least squares regression:

$$R_{it} = a_i + b_i R_{mt} + c_i D + e_{it}$$

where

R_{it} = the percentage return to firm i on day t ,

R_{mt} = the percentage return to a market portfolio on day t ,

D = 1 for days in the event window, 0 otherwise,

e_{it} = a random error term for firm i on day t .

The coefficient on the market return variable, b_i , is an estimate of the systematic risk of the firm, and the coefficient c_i on the event dummy D represents the average one-day abnormal return to the firm during the event window. Thus, the cumulative abnormal return (CAR) during the event

⁷⁹ See, for instance, *Wall Street Journal*, April 8, 1975, 8.

⁸⁰ *Wall Street Journal*, April 9, 1975, 14.

⁸¹ Corning had an insignificant positive abnormal return around this date, a result that is again consistent with stock market studies of takeovers.

window is computed by multiplying the coefficient c_i by the number of days in the event window.⁸²

This equation is estimated using daily stock price data from the Center for Research on Security Prices (CRSP) for 200 trading days prior to the event day and 20 days after the event day. A value-weighted portfolio of stocks from the New York and American Stock Exchanges is used for the market portfolio. In all cases, results are reported for 1-, 3-, 5- and 10-day windows anchored by the stated event day. For events reported in the *Wall Street Journal* or for FTC actions, these windows are chosen to include the day of the story or action and the requisite number of days *preceding* the day to allow for the possibility of leakage of the information. Thus, for example, a 3-day window includes 2 trading days before the story or decision, as well as the day itself. For decisions of the Administrative Law Judge and the federal appeals court, we report results for windows that *follow* the filing of the formal decision.⁸³ When the date of the formal action is more than a few days before the *Wall Street Journal* story, the analysis is conducted for both dates. The nature of the window used is indicated when results are reported (B denotes "before" and A denotes "after").

Results

FTC Announcement of Corning Complaint

The estimated cumulative abnormal returns (CARs) for Corning's stock are reported in Table 8 and illustrated in Figures 4 through 7 for the key events in the Corning case. The largest and most significant movement occurred at the initial announcement of the FTC's intention to file the complaint. Corning's

⁸² In this approach, the CAR is calculated as an arithmetic average, rather than as a more technically correct geometric average. The difference between the two will be small for the length of window examined in this study.

⁸³ Our examination in the Corning case did not indicate any significant movements in stock values before these types of legal events.

Table 8 Changes in Corning Stock Value At Events in Corning Case

	Cumulative Abnormal Return			
	1-Day	3-Day	5-Day	10-Day
1. FTC Announces Complaint¹				
Press Release - B ² (10/8/71)	-.016 (-1.17)	-.049 (-2.09)**	-.122 (-4.13)**	-.160 (-3.74)**
2. ALJ Dismisses Case				
Decision Filed - A (12/27/72)	.032 (2.68)**	.018 (0.86)	.012 (0.42)	.068 (1.73)*
Wall St. J. Story - B ³ (1/17/73)	-.001 (-0.08)	.006 (0.29)	.034 (1.23)	.064 (1.62)
3. FTC Reverses ALJ				
Decision Filed - B (6/5/73)	-.014 (-1.05)	-.017 (-0.76)	-.055 (-1.86)*	-.110 (-2.62)**
Wall St. J. Story - B ³ (6/18/73)	.003 (0.25)	-.015 (-0.64)	.008 (0.26)	.014 (0.31)
Day After WSJ Story	-.023 (-1.74)*			
4. 7th Circuit Upholds FTC				
Decision Date - A ⁴ (1/29/75)	.021 (0.79)	-.015 (-0.32)	-.042 (-0.72)	.021 (0.25)

NOTES. t-statistics are in parentheses. * indicates significance at the 90 percent level of confidence and ** at the 95 percent level.

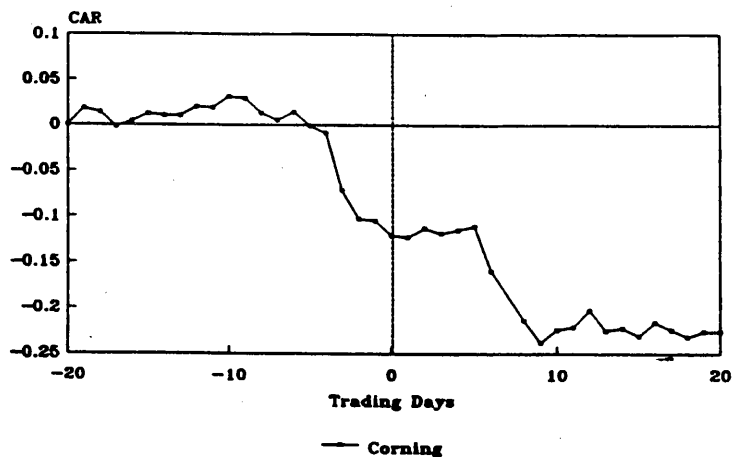
¹ The *Washington Star* carried the story on Friday afternoon, October 8; the *Wall Street Journal* on Monday, October 11.

² B indicates that the window for the cumulative average return begins the required number of days *before* the event and ends with the event day. A indicates windows beginning at the event day with the required number of days *after* the event.

³ FTC press releases issued on the day before the *WSJ* stories.

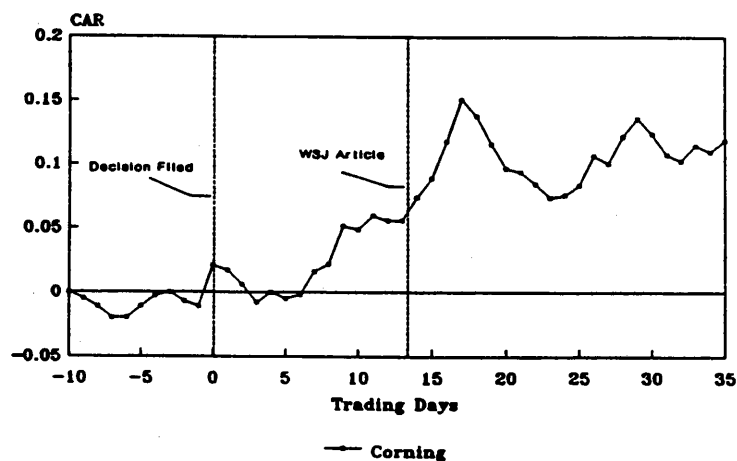
⁴ There was no *Wall Street Journal* story for this event.

Figure 4 FTC Announces Corning Complaint - October 8, 1971¹



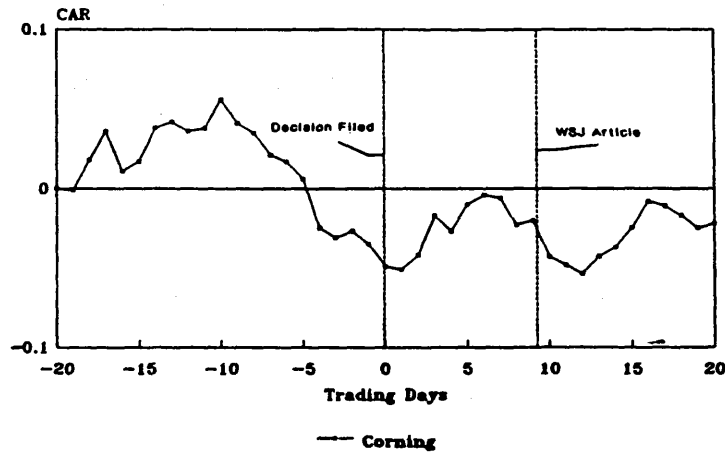
¹ Wall St. J. article appeared on Oct. 11, the first business day after FTC press release.

Figure 5 ALJ Decision in Corning's Favor - December 12, 1972²



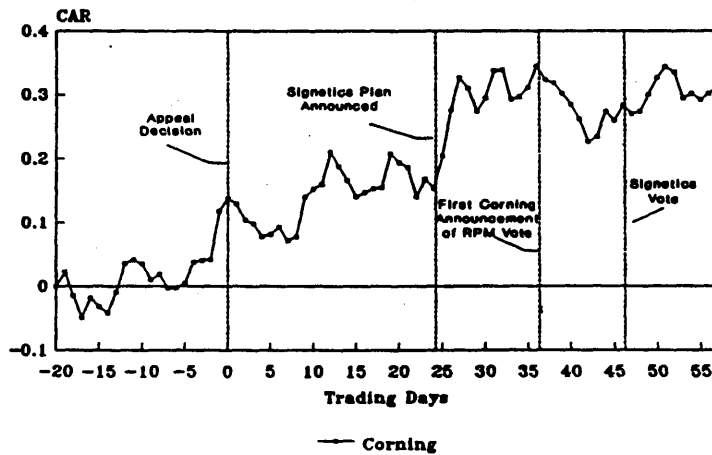
² Wall St. J. story appeared on Jan. 17, one day after the FTC press release announcing the decision to the public.

Figure 6 FTC Reverses Administrative Law Judge - June 5, 1973¹



¹ Wall St. J. article appeared on June 18, the first day after the FTC press release.

Figure 7 Appeal Decision & End of RPM - January 29 & March 24, 1975²



² Corning decision to end retail RPM first announced to sales managers on March 24.

stock experienced an abnormal return of negative 12 percent in the 5-day window preceding the filing of the FTC's decision and negative 16 percent in the 10-days preceding the decision. Actual stock prices and trading volumes are shown in Table 9.⁸⁴ Figure 4 presents the cumulative abnormal returns for Corning's stock during the 40 trading days surrounding the FTC decision. This figure demonstrates that the abnormal loss in value was sustained over this period.⁸⁵ If attributable to the FTC case, this evidence suggests that the market expected Corning's profits to suffer if the FTC was successful in forcing Corning to abandon its RPM policy.⁸⁶

Tables 10 and 11 present abnormal return evidence for the Anchor Hocking Corporation, the second largest U. S. glassware producer, and for an equally weighted portfolio of cookware competitors for which data are available over the period, namely Anchor Hocking, Mirro Aluminum, National Presto, and Revere Copper and Brass, Inc. The CARs for Anchor Hocking are all

⁸⁴ The *Wall Street Journal* reported that a secondary offering of 100,900 shares of Corning common stock reached the public market on Tuesday, October 5, 1971, three days prior to the FTC announcement. The newspaper account says only that the stock offering was placed on behalf of unidentified shareholders, that the price had fallen significantly the day before the offering, and that Corning Glass did not receive any of the sale proceeds. This offer raises the possibility that insiders at Corning were anticipating adverse news for the company. There is no objective way to determine whether this was the FTC case or some other event, such as the forthcoming earnings report discussed in the next footnote.

⁸⁵ On Tuesday October 19, trading on Corning stock was suspended for a day following the posting of an earnings report for the previous quarter in which Corning's earnings per share declined from \$1.37 to \$1.23. The day of the earnings report is Day 7 on Figure 1 and is followed by a decline in stock value on the next two days. It is possible that the decline preceding the FTC announcement reflected insider knowledge of the forthcoming poor earnings report, but we could find no evidence to indicate that this was the case. An examination of the trading volume data in Table 9 indicates that there were two separate bursts of activity, one preceding the FTC announcement and one around the earnings report, suggesting two separate events.

⁸⁶ Included in this loss of profits is the expected cost of litigation and other related costs.

Table 9 Volume and Price of Corning Stock On Days Surrounding
FTC Announcement of Complaint (October 8, 1971)

Day	Volume (100s of shares)	Closing Price (\$)
Friday Oct. 1	26	236.50
Monday Oct. 4	20	235.25
Tuesday Oct. 5	175	220.00
Wednesday Oct. 6	433	215.00
Thursday Oct. 7	43	215.00
Friday Oct. 8*	42	210.00
Monday Oct. 11	25	209.00
Tuesday Oct. 12	17	211.75
Wednesday Oct. 13	16	209.25
Thursday Oct. 14	17	207.75
Friday Oct. 15	43	207.50
Monday Oct. 18	44	196.00
Tuesday Oct. 19	— ¹	—
Wednesday Oct. 20	202	182.00
Thursday Oct. 21	92	177.50
Friday Oct. 22	38	179.75

DATA. *Wall Street Journal*, October 1-22, 1971.

NOTES. * Date of FTC complaint announcement.

¹ Trading was suspended for the day following an earnings report in which Corning's earnings per share declined from \$1.37/share to \$1.23/share.

Table 10 Changes in Anchor Hocking Stock At Events in Corning Case

	Cumulative Abnormal Return			
	1-Day	3-Day	5-Day	10-Day
1. FTC Announces Complaint¹				
Press Release - B (10/8/71)	.001 (0.09)	.033 (1.32)	.032 (0.99)	.077 (1.64)
2. ALJ Dismisses Case				
Decision Filed - A (12/27/72)	-.015 (-1.08)	-.030 (-1.24)	-.041 (-1.32)	-.063 (-1.41)
Wall St. J. Story - B (1/17/73)	.016 (1.16)	-.008 (-0.34)	-.026 (-0.85)	-.041 (-0.92)
3. FTC Reverses ALJ				
Decision Filed - B (6/5/73)	.013 (0.76)	-.075 (-2.62)**	-.076 (-2.02)**	-.053 (-0.99)
Wall St. J. Story - B (6/18/73)	-.007 (-0.41)	.004 (0.12)	.020 (0.49)	.042 (0.72)
Day After WSJ Story	-.012 (-0.64)			
4. 7th Circuit Upholds FTC²				
Decision Date - A (1/29/75)	.037 (1.69)*	.023 (0.60)	.010 (0.19)	-.071 (-1.01)

NOTES. t-statistics are given in parentheses. * indicates significance at the 90 percent level of confidence and ** at the 95 percent level.

¹ See footnotes in Table 7 for notation. Except as reported in footnote 2, no other events related to Anchor Hocking were reported in the *Wall Street Journal* or *New York Times* near the case events.

² On Feb. 28, 1975, Anchor Hocking agreed to acquire Amerock Corp, which was reported by the *WSJ* on March 5. This event may confound the interpretation of the 7th Circuit Appeal decision.

Table 11 Changes in Portfolio of Competitors' Stock Value At Events in Corning Case¹

	Cumulative Abnormal Return			
	1-Day	3-Day	5-Day	10-Day
1. FTC Announces Complaint				
Press Release - B (10/8/71)	-.001 (-0.07)	.004 (0.33)	.006 (0.34)	-.009 (-0.34)
2. ALJ Dismisses Case				
Decision Filed - A (12/27/72)	-.000 (-0.03)	.014 (0.87)	.013 (0.64)	.023 (0.82)
Wall St. J. Story - B (1/17/73)	.008 (0.85)	.004 (0.26)	.002 (0.09)	.022 (0.75)
3. FTC Reverses ALJ				
Decision Filed - B (6/5/73)	-.000 (-0.05)	-.026 (-1.64)	-.028 (-1.35)	-.021 (-0.72)
Wall St. J. Story - B (6/18/73)	.005 (0.51)	.002 (0.09)	.018 (0.86)	.003 (0.84)
Day After WSJ Story	-.003 (-0.35)			
4. 7th Circuit Upholds FTC				
Decision Date - A (1/29/75)	.007 (0.61)	-.005 (-0.27)	.017 (0.64)	-.031 (-0.80)

NOTES. t-statistics are given in parentheses.

¹ See footnotes in Table 7 for notation. The portfolio of competitors is an equally weighted sum of the stocks of Anchor Hocking, Mirro Aluminum, National Presto, and Revere Copper & Brass, Inc.

positive for the various windows considered around the FTC announcement. The firm had a positive CAR of approximately 3 percent for the 3-day window (but significant at only an 80 percent level) and of 7.7 percent for the 10-day window (significant at an 89 percent level). For the portfolio, there was no significant reaction for any of the windows. If the movement in the Anchor Hocking stock reflects a reaction to the FTC case, the evidence indicates that the market expected Anchor Hocking, which did not use RPM at this time, to benefit if Corning was required to drop its RPM policy; there was no effect on competitors more generally.

Administrative Law Judge Rules Against the FTC

The first legal ruling in the case was favorable to Corning and should have caused the market to reduce its estimate of the probability that the FTC would be successful against Corning. The ALJ issued the decision on December 27, 1972, but the press release announcing the decision was released by the FTC nearly three weeks later on January 16, 1973. The *Wall Street Journal* story on the decision appeared on January 17. Thus, the information that the first legal decision was in Corning's favor probably did not reach the market before December 27, 1972 and was widely reported by January 17, 1973.

Table 8 gives the estimates of Corning's abnormal returns for windows following the filing of the ALJ's decision and for windows preceding the *Wall Street Journal* story. There was a significant, positive CAR of 3.2 percent (significant at the 99.6 percent level) for Corning on the day the ALJ's decision was filed. However, this stock market reaction faded in the days immediately following the decision, before beginning to rise again in the days surrounding the *Wall Street Journal* report. During the 10-day window following the ALJ decision and during the somewhat overlapping 10-day window preceding the *Wall Street Journal* story, Corning experienced an abnormal return of approximately 6 percent (significant at the 89 percent level). Figure 5 illustrates the abnormal return for Corning's stock during the 40-day period surrounding this initial judicial ruling. As shown in the figure,

Corning's stock value experienced a sustained abnormal return of approximately 10 percent during this 40-day period.

The abnormal returns for Anchor Hocking, reported in Table 10, again show an opposite reaction during the days following the ALJ's ruling in the Corning case. During the 10 days following the ruling, Anchor Hocking's stock experienced an abnormal decline of approximately 6 percent (significant at the 84 percent level). As shown in Table 11, the portfolio of competitors experienced no significant abnormal movement in stock value.

FTC Reverses ALJ's Ruling

The next legal ruling in the case occurred when the FTC overturned the key RPM finding in the ALJ's decision. This adverse ruling for Corning should have increased the market's estimation of the probability that Corning would be forced to abandon its RPM policy. As shown in Table 8, Corning suffered a negative abnormal return of approximately 11 percent (significant at the 99 percent level) in the 10-days preceding the filing of the FTC's decision. This decline eroded somewhat in the days following the decision. Nonetheless, as shown in Figure 6, the drop in value was only partially offset. Overall, Corning lost approximately 4 percent of its value during the 40-day window surrounding the FTC's ruling.

In contrast to the previous two events, Anchor Hocking's stock value did not experience an opposite reaction to Corning's stock in this case. In the 3- and 5-day windows preceding the FTC's decision, Anchor Hocking's stock lost approximately 7 percent of its value (significant at the 95 percent level).⁸⁷ This loss in value was mitigated somewhat in the days that followed the decision, but was not eliminated. Similar, but weaker, results are

⁸⁷ We should note that the Anchor Hocking reaction did not occur on the same day as the Corning movement but followed it by two days, which could indicate that the two movements could correspond to different events. Our search of the *Wall Street Journal* and other trade press indices did not discover any other events, however.

reported in Table 11 for the portfolio of competitors, though this result is due primarily to the movement of Anchor Hocking's stock. Thus, in this case, both Corning and its closest competitor appear to lose stock value in the days preceding the FTC's unfavorable decision for Corning. A search of the trade press did not reveal any other potential explanation for this movement.

Appeals Court Upholds FTC Decision

The FTC decision was appealed by Corning to the federal courts and on January 29, 1975, the Seventh Circuit filed its decision upholding the FTC, thus, again ruling against Corning. There were no major newspaper reports of the decision, and as shown in Table 8, there was no significant market reaction observed in Corning's stock value. In Table 10 Anchor Hocking is seen to exhibit a significant positive abnormal return on the day of the appeal ruling upholding the FTC's decision against Corning's RPM, a finding that again suggests that the bad news for Corning was good news for Anchor Hocking. The magnitude of the CAR eroded in the days that followed. As shown in Table 11, the portfolio of competitors did not experience any abnormal reaction following the decision.

Figure 7 illustrates the abnormal movements in Corning's stock value in early 1975, with the appeal decision and the announcement of the decision to end retail RPM to Corning's sales managers indicated in the figure.⁸⁸

Summary of the Stock Market Evidence

For the first three events in the Corning case, the stock market evidence for Corning's stock is consistent and significant, and suggests that the market expected Corning profits to fall if Corning was required to modify its RPM

⁸⁸ The Amerock purchase by Anchor Hocking also occurred during this period; the deal was signed on day 20 and was first reported in the Wall Street Journal on day 23. The Board decision not to appeal the RPM ruling and to end retail RPM occurred on day 23, and the press conference announcing the end of retail RPM to the public took place on day 45 on the graph.

policy. The last Corning event is colored by its proximity to the Signetics sale, but indicates that Corning's stock exhibited no significant movement in the days immediately following the appeals court ruling.

In the first two events in the Corning case, Anchor Hocking experienced opposite reactions to those observed for Corning's stock, though these movements were not quite significant at conventional levels. This evidence suggests that the market expected Anchor Hocking to benefit somewhat if Corning was forced to drop its RPM policy. However, this opposite reaction was not found in the third event in the case, where like Corning, Anchor Hocking exhibited a significant (but smaller) abnormal loss in stock value in the days surrounding the event. The last event is potentially colored by Anchor Hocking's acquisition of Amerock Corporation, but again shows that Anchor Hocking was expected to gain if Corning was prohibited from using RPM. The portfolio of competitors generally did not experience significant movements in stock value during any of the events in the case.

Thus, the stock market evidence suggests that the market expected Corning to lose value if required to drop its RPM policy. Certainly, there is nothing in the stock market evidence to suggest that Corning would benefit by dropping its RPM policy. Thus, as shown in Table 7, this evidence fails to support the anticompetitive dealer theories. It also fails to support the possibility that Corning had simply made an error in continuing its RPM policy.

The evidence for the competitors does not support the anticompetitive theories for producers. These competitors did not show any systematic tendency to lose value as the probability increased that Corning would be required to abandon its RPM policy. The only (nearly) significant movements for competitors near events in the case occurred for Anchor Hocking. The evidence from the first two and the fourth events does not support the anticompetitive manufacturer theories but is consistent with the principal-agent theories, but the third event does not follow this pattern. We cannot resolve

these conflicting Anchor Hocking results given the limited number of events available for study.

Why Did Corning Use RPM?

Overall, the evidence discussed above, including evidence on the structure of Corning's markets, the fact that major competitors did not use RPM, the movement of sales after the practice was prohibited, and the stock market evidence, fails to support the anticompetitive hypotheses of RPM's use in the Corning case. The available evidence is generally consistent with a principal-agent explanation for RPM in which the practice is used to increase distribution of the product. In particular, the evidence indicates that Corning's sales suffered when the practice was prohibited (but its competitors' sales did not), and that Corning's stock value fell at early events in the case that were adverse to Corning, but increased when the ruling was in Corning's favor. The legal events in the case produced no effect on the stock value of a portfolio of Corning's cookware competitors, and three of the four events for Anchor Hocking, one of Corning's closest competitors, are consistent with this theory. Finally, the evidence indicates that Corning increased its advertising expenditures in the post-RPM period, a result that is consistent with the shift to other selling methods. Other cookware competitors did not systematically increase advertising expenditures during this period, however, suggesting that a change in market conditions is not likely to explain the increase.

While this evidence points towards a principal-agent explanation for Corning's use of RPM, it does little to indicate which of the various principal-agent theories is the most likely explanation for the practice. Distinguishing among the various principal-agent theories is difficult, however, because these theories depend on information characteristics of the products involved, risk characteristics of demand, the effectiveness of dealer selling efforts relative to producer efforts, and other characteristics of the distribution system that are often difficult to observe. Despite these difficulties, we will briefly discuss the plausibility of several of the major principal-agent theories in the Corning case.

The most widely known of these theories is the "special services" theory (Telser (1960)), in which manufacturers mandate minimum dealer margins in order to prevent free-riding on information services provided by some dealers. For this theory to explain Corning's use of RPM, dealers would have to be the best method of providing consumers with generic information about the product, which consumers could then use when buying the product from discounters.⁸⁹ These information services could be direct services, as with information provided by informed salesmen who directly educate customers, or could be indirect, as when the quality of the goods is certified by the very fact that a high reputation dealer carries the line (Marvel and McCafferty (1984)). This theory has considerable plausibility for Corning's innovative products in the early years of the products' introduction, but it seems less plausible as the explanation for Corning's use of RPM on well established lines, such as Pyrex products.⁹⁰ The need for dealers to inform consumers of the characteristics of long-marketed products, such as measuring cups and pie plates, seems to us too limited to be the sole basis for an active RPM policy for these products, though we have no evidence that deals with this issue directly.

The quality assurance theory of RPM (Klein and Murphy (1988)), in which RPM is used to assure that dealers who can affect the delivered quality of the good have appropriate incentives to provide the desired service quality, also seems relatively implausible as a major explanation for RPM in the Corning case. For the glass and ceramic products at issue here, the quality of the

⁸⁹ In most cases, RPM used to resolve principal-agent problems, such as its use to provide information to consumers, would increase efficiency, and thus, consumer welfare. Under some conditions, however, a manufacturer with market power could provide "too much" information or other service through its use of RPM, and under these conditions, welfare would not be increased by the use of RPM (Comanor and Kirkwood (1985)).

⁹⁰ In the early years of its new product lines, Corning provided some of these in-store demonstrations directly with Corning Company employees for some of its major retailers (*Stemski interview, op cit.*).

products received by the consumer is not strongly affected by the dealers' actions.⁹¹ This contrasts, for instance, with products such as food, where dealer preparation and handling can have significant effects on quality and for which consumers cannot easily distinguish the source of poor quality.

The demand risk theory of RPM (Rey and Tirole (1986)), in which RPM is used to reduce the dealers' risk in markets where there is substantial uncertainty about demand, also seems implausible as a major explanation for the use of RPM in this case. For demand risk to be important, there must be considerable uncertainty about the demand dealers will face on a product and significant costs if estimates of expected sales turn out to be incorrect. This type of situation is most likely to occur in markets for idiosyncratic goods, such as for "fashion" or "fad" goods, or for movies or other entertainment items, where sales for a particular item are difficult to predict, or in markets where there is a strong seasonality to sales (such as goods for which Christmas sales are important), since the cost of holding the goods for the next season will be high compared with goods sold in continuous markets. Corning executives did indicate that a significant portion of Corning sales were destined for the gift market.⁹² However, Corning products were used predominantly for wedding, shower, and housewarming gifts, and as such, sales occurred throughout the year. Inaccurate estimates of sales would not generate the level of costs associated with more seasonal gift sales.⁹³ Thus,

⁹¹ Of course, some dealer actions, such as the determination of the breadth and depth of dealer inventory, can affect consumer overall satisfaction with the product line.

⁹² For instance, *Stemski interview*, op cit.

⁹³ One version of the demand risk theory that might apply in the Corning case deals with "loss leaders." Because Corning's products were well known to many consumers, they might be a convenient item for large mass merchandisers to use for "special promotions." This possibility has the effect of introducing uncertainty into the demand functions for all other dealers operating in the same market, reducing their incentives to carry the product at all, and for those who continue to carry the goods,
(continued...)

the demand risk theory does not seem to us to be the likely explanation for the practice, though again there is no evidence to reject the theory directly.

The outlets theory for RPM (Gould and Preston (1964)),⁹⁴ in which minimum resale margins are mandated to provide the level of returns necessary for additional outlets to carry the goods, seems a more likely explanation for the practice though there is little evidence to test the theory directly. There is evidence in the case record that Corning's products were carried by a wide range of retail outlets, including mass merchandisers, department stores, hardware stores, and large and small drug, grocery and gift stores. It seems quite likely that such a wide range of outlets would have had considerably different costs of distributing Corning products. Thus, it is certainly plausible that without RPM, some of the higher cost outlets would not have been willing to carry the products, because the resulting dealer margins would have been too low for profitability. If this loss of convenience for consumers led to lower overall sales for Corning, RPM would have been useful to increase the number of outlets willing to carry the products. In interviews ten years after the case, Corning executives indicated that one of the primary results of the case was Corning's loss of many of its smaller outlets. We could not get the data necessary to confirm either cost differences among retail outlets or the reported reduction in the number of Corning outlets following the case, though the overall sales evidence indicates that Corning sales fell following the change in policy.

⁹³(...continued)

reducing the dealers' optimal inventory at each point in time. If dealers exhibited reluctance to carry Corning's products due to such sales behavior, RPM might be the most effective means of altering these dealers' incentives.

⁹⁴ The outlets theory has not been fully developed in the modern literature, though the requirements of such a theory are reasonably clear for the case of goods sold through multi-product retailers. In the outlets theory, efficiency comes from the reduction in consumers' shopping costs associated with more convenient availability of the products through a variety of outlets. See Ippolito (1992) for a discussion of such a model. For a different treatment of the outlets theory, see Reagan (1986).

V

Conclusion

What can we learn from the *Corning* case? First, from the standpoint of better understanding legal institutions and changes in legal standards, the case illustrates the potential for governmental agencies, like the FTC, to influence the evolution of the law. The case was a significant legal event in the sense that the courts held illegal a contractual convention that had been widely adopted and legally enforced by fair traders for over 20 years. This convention, the inclusion of secondary boycott clauses in fair-trade contracts, made enforcement of RPM feasible in the multijurisdictional legal environment in which the firms operated. Without it, the exemption to the federal antitrust statutes that had allowed RPM under state fair-trade contracts was essentially meaningless for most firms. Thus, the case illustrates that government enforcement agencies do sometimes push the frontiers of the law.

From an economic perspective, the *Corning* case is of interest primarily because of the products involved. *Corning* did not sell the types of "complex" products most often cited as raising concerns about an efficiency rationale for RPM. Yet, although the available evidence is not free of ambiguities, a close examination of that evidence suggests to us that *Corning's* use of RPM appears to have been motivated by an interest in increasing distribution of its products and not by anticompetitive concerns.

Available structural evidence is inconsistent with the anticompetitive explanations for RPM's use in the *Corning* case. Many of *Corning's* competitors did not use the practice at the time of the case. There was no evidence of any coordination mechanism among *Corning's* dealers, retailing changed considerably over the years of *Corning's* use of RPM, making a stable collusion unlikely, and *Corning* fought to maintain the policy. Multiple government investigations failed to find evidence of collusion. Finally, stock

market movements for Corning and some of its competitors at the events in the case do not support the anticompetitive theories.

Instead, the available market evidence points towards a principal-agent explanation for Corning's use of RPM as a means to achieve greater distribution of its products. The evidence indicates that Corning's stock value fell at adverse events in the case and increased at the initial favorable ruling. Clearly, Corning stockholders did not benefit from the case, and in fact, their holdings lost value. There was no consistent stock market reaction for Corning's competitors, thus, leading us to believe that Corning's lower stock value was not attributable to a collapse of supracompetitive pricing or some other market-wide explanation in Corning's product markets. Further, the evidence indicates that Corning's sales fell, once RPM was prohibited. Corning's competitors' sales showed no unexpected movements during these years. Finally, the evidence indicates that Corning increased its advertising expenditures for many products in the post-RPM years, evidence that is consistent with a movement to other forms of promotion, once RPM was prohibited. Corning's competitors did not consistently increase advertising during this period, tending to rule out exogenous changes in market conditions as the explanation for the advertising increases.

These results in the Corning case are consistent with the theory that RPM may at times be used as a method of increasing the distribution of "simple" products sold through multiproduct dealers, because it can sometimes affect the number and types of outlets willing to carry the product.⁹⁵ If valid, the use of RPM to expand a product's distribution network is another example of a growing list of relatively intangible, but potentially important, distribution services whose provision may be enhanced by vertical practices, such as RPM. Increased sales effort, the reduction of dealers' risks, quality assurance, and quality certification are other examples of such services, which were noted here.

⁹⁵ Of course, there is nothing in the evidence here to indicate whether Corning would find it optimal to use RPM in today's retail market.

Until recently, the problems of product distribution have not received much serious economic study, in part, because features of an effective distribution system are often difficult to articulate and to measure. However, a considerable body of theoretical literature has now developed suggesting that a host of information, risk, and other issues implicit in selling goods through agents may often make it difficult to achieve an efficient distribution system without vertical restraints. Additional empirical studies, in the form of other case studies, and ultimately, more general assessments, would be very useful in helping to build a body of evidence on which to judge which economic theories of vertical restraints are most important, the conditions under which they apply, and their ultimate effects on market performance. Such evidence would also help to give form to these economic theories, and thus help to generate more serious consideration of distributional issues in antitrust policy debates on the best treatment of vertical business practices.

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APPENDIX

TABLE A1 Value of Domestic Shipments of Cookware, Ovenware, Kitchen and Tableware (\$ Millions)

SIC Number	Product Class	Value of Shipments ¹	
		1967	1977
3079700	Plastic dinnerware, tableware & kitchenware	205.2	608.8
3229125	Pressed and blown glass, n.e.c. (machine made: cookware, ovenware, kitchen and tableware)	107.1	355.6
3229133	Same as above, but handmade	(D)	15.2
3231635	Glassware, etched, ornamental, bent, etc. (tableware except tumblers, goblets and other stemware, including tableware made from flat glass)	3.3	NA
3231636	(Other table, kitchen, art & novelty glassware, such as cookware, ovenware, kitchenware, ornamental or decorative glassware, and smokers accessories)	18.7	NA
3262014	Vitreous china & porcelain table and kitchen articles (tableware, household)	20.3	40.0
3262052	(Kitchenware for cooking, preparing & storing food and drink) ^{2,3}	2.8	16.2
3263012	Fine earthenware food utensils etc. (tableware for serving food and drinks)	44.6	77.1
3263052	(Kitchenware for cooking preparing & storing food and drink)	2.1	12.3
3269041	Pottery products n.e.c. (stoneware table & kitchen articles for serving, cooking, preparing & storing food & drink)	1.9	34.7
3461113	Vitreous enameled products (household, cooking and kitchen utensils) ⁴	26.7	34.0

Table continued on next page.

TABLE A1 (Continued)

SIC Number	Product Class	Value of Shipments ¹	
		1967	1977
3461413	Stamped and spun utensils cooking and kitchen (aluminum range utensils) ⁵	104.3	187.9
3461415	(Bakeware, pastryware, and misc. household utensils) ⁶	28.4	81.7
3461503	Stamped and spun utensils cooking and kitchen, except aluminum (stainless steel: range utensils) ⁷	48.9	191.7
3461404	(Stainless steel: bakeware, pastryware & misc. household utensils) ⁸	37.1	11.8
3461523	Stamped and spun utensils, cooking and kitchen, except aluminum (tinware) ^{9,10}	16.3	49.4
3461500	(Other metals)	4.2	9.2
3469598	Other stamped and spun utensils, cooking and kitchen, including copper	NA	66.9
3361071	Cast aluminum pressure cookers and cooking utensils, except electric ^{11,12}	8.0	44.6
3634314	Electric housewares (auto. coffeemakers, vacuum, percolators and urn type) ^{13,14}	71.6	152.8
3634342	(Frying pans and skillets) ¹⁵	28.3	52.9

Table continued on next page.

TABLE A1 (Continued)

SIC Number	Product Class	Value of Shipments ¹	
		1967	1977
3634349	Other household electric cooking & heating appliances (pressure cookers, casseroles, nonautomatic coffeemakers, automatic sauce pans, food warmers, immersion heaters, faucet attachment water heaters, steam radiators) ¹⁶	30.1	176.7
Total Value of Domestic Shipments		809.9	2220.5

SOURCE. *U.S. Census of Manufacturers, Series MA30D and MA32E, and Industry Series for Products and Product Classes, Table 6A, Quantity and Value of Shipments by all Producers. n.e.c. = not elsewhere considered; nsk = not specified by kind; D = disclosure; NA = not available.*

¹ Includes interplant transfers.

² Includes \$1.4 million of vitreous china food utensils nsk that were reported separately in 1967 in SIC 3262000.

³ In 1972 SIC 3262052 was redefined to include some vitreous china food utensils nsk previously classified in SIC 3262000.

⁴ In 1972 this product class was renumbered as SIC 3469527.

⁵ Renumbered in 1972 to SIC 3469411.

⁶ Changed in 1972 to SIC 3469414.

⁷ Changed in 1972 to SIC 3469507.

⁸ Changed in 1972 to SIC 3469509.

⁹ Includes items classified in SIC 3461525.

¹⁰ Changed in 1972 to SIC 3469521. For comparability with 1967 values, the 1977 SIC includes items from SIC 3469524.

¹¹ Includes items classified in SIC 3361075.

¹² Changed in 1972 to SIC 3361273.

¹³ Includes values from SIC 3634315.

¹⁴ SIC 3634314/15 were changed in 1972 to SIC 3634520/21.

¹⁵ Changed in 1972 to SIC 3634542.

¹⁶ Changed in 1972 to SIC 3634549.

TABLE A2 Value of Imports of Cookware, Ovenware, Kitchen and Tableware

TSUSA Number	Description of TSUSA Classification	Net Value ¹ (\$ Millions)	
		1967	1977
5331100	Earthenware or stoneware, coarse grain for food, beverage, etc.	.04	.19
5331400	Earthenware, fine grain household, art, not over \$1.50/doz.	.44	.05
5331600	Earthenware, fine grain, household, art, over \$1.50/doz.	.29	.70
5332300	Earthenware, fine grain, tableware, not over \$3.30/set	.06	.07
5332500	Earthenware, fine grain, tableware, \$3.30 - \$7.00/set	.45	.21
5332600	Earthenware, fine grain, tableware special sets \$7 - \$12/set	NA	.56
5332700	Earthenware, fine grain, tableware, over \$7/set	16.11	NA
5332800	Earthenware, fine grain, tableware special sets over \$12/set	NA	85.20
5333300	Tableware, nes, fine grain earthenware, special low value	1.17	.05
5333500	Tableware, nes, fine grain earthenware, special medium value	.59	.21
5333600	Earthenware, fine grain tableware, nes, cups \$1 - \$1.70/DPC	NA	2.20
5333700	Tableware, nes, fine grain earthenware, special high value	5.82	NA

Table continued on next page.

TABLE A2 (Continued)

TSUSA Number	Description of TSUSA Classification	Net Value ¹ (\$ Millions)	
		1967	1977
5333800	Earthenware, fine grain tableware, nes, cups, over \$1.70/DPC	NA	34.18
5334100	Bone chinaware chiefly for preparing, serving, etc. food & beverages	6.62	15.56
5336500	Chinaware nonbone household, special sets, under \$10/set	2.33	.48
5336500	Chinaware, nonbone household, special sets, not under \$10, under \$24/set	26.61	.90
5336600	Chinaware nonbone household special sets, over \$24, under \$56/DPC	NA	32.05
5336700	Chinaware nonbone household, special set, over \$24/set	10.52	NA
5336800	Chinaware nonbone household special sets, over \$56/DPC	NA	40.01
5336900	Chinaware nonbone household, special sets, nes, valued over \$8/set	.18	4.54
5337300	Tableware, nes, nonbone chinaware, special low values	2.20	2.05
5337500	Tableware, nes, nonbone chinaware, special medium values	1.01	2.23
5337700	Tableware, nes, nonbone chinaware, special high values	1.43	17.26

Table continued on next page.

TABLE A2 (Continued)

TSUSA Number	Description of TSUSA Classification	Net Value ¹ (\$ Millions)	
		1967	1977
5463800	Glassware, nes, pressed, toughened, tempered, household for food & beverages	.29	8.39
5465100	Glassware, nes, not over \$1/each	12.53	NA
5465200	Glassware, nes, valued not over \$.30 each	NA	9.29
5465300	Glassware, nes, over \$1 not over \$3/each	5.51	NA
5465400	Glassware, nes, valued over \$.30, not over \$1	NA	23.74
5465500	Glassware, nes, not cut or engraved, over \$3/each	2.11	NA
5465600	Glassware, nes, valued over \$1, not over \$3	NA	17.52
5465700	Glassware, nes, not cut or engraved, over \$3/each	1.45	NA
5465800	Glassware, nes, cut or engraved, valued over \$3/each	NA	3.15
5465900	Glassware, nes, valued over \$3 except cut or engraved	NA	12.48
6539520	Stainless steel cookware not coated or enameled	1.51	13.65
6539560	Iron or steel cookware except stainless steel, not enameled	NA	7.79

Table continued on next page.

TABLE A2 (Continued)

TSUSA Number	Description of TSUSA Classification	Net Value ¹ (\$ Millions)	
		1967	1977
6539720	Iron or steel enameled cookware, nes	3.50	30.47
6540520	Copper cookware, nes not coated	.48	3.96
6541005	Aluminum cast cookware not enameled or glazed or with nonstick finish	NA	1.96
6541010	Aluminum cookware not cast not enameled, glazed or with nonstick finish	NA	9.30
6541020	Aluminum cookware not coated	1.75	NA
6541045	Aluminum cast cookware enameled or glazed or with nonstick finish	NA	.43
6541050	Aluminum cookware, not cast, enameled, glazed, or with nonstick finish	NA	7.03
7720600	Tableware, plates, cups saucers, etc., rubber or plastic	.64	2.16
Total Value of Imports		105.65	390.02

SOURCE. U. S. International Trade Commission, Tariff Schedules of the United States, and U. S. Department of Commerce, Bureau of the Census, U. S. Imports for Consumption and General Imports, TSUSA Commodity by Country of Origin.

NOTES. DPC denotes dozen pieces. nes = not elsewhere specified. NA = not available.

¹ Net value equals port of entry value plus U. S. tariffs.

CORNING'S FAIR-TRADE CONTRACTS

AUTHORIZED DEALER APPOINTMENT AND FAIR TRADE AGREEMENT

of the _____ day of _____ 19____ at Corning, New York, CORNING GLASS WORKS, a New York Corporation, hereinafter called "Corning", hereby appoints

Name _____ TYPE OF STORE: HARDWARE APPLIANCE
 VARIETY DEPARTMENT
 OTHER (Please Specify) _____

ADDRESS _____ CITY _____ STATE _____
 hereinafter called "Dealer", as an AUTHORIZED FIBREK WARE AND CORNING WARE PRODUCT DEALER upon and subject to the terms of this agreement.

Corning and Dealer accordingly hereby agree as follows:

1. **TERM** — The term of this agreement shall be from the date of its signing by Corning until termination pursuant to paragraph 6 below.

2. **PRODUCTS** — The products to which this agreement refers are hereinafter referred to as FIBREK ware and CORNING WARE products and are those products listed in Schedule A to this agreement as such schedule may be constituted or supplemented from time to time by Corning. FIBREK ware and CORNING WARE products are produced by Corning, are identified by trademarks, brands or names owned by Corning and are in free, fair and open competition with commodities of the same general class produced or distributed by others.

3. **AUTHORIZATION AND ACCEPTANCE, USE OF TRADEMARKS** — So long as this agreement is in effect and so long as Dealer here to be Dealer's exclusive importer, Dealer is authorized to represent that Dealer is an AUTHORIZED FIBREK WARE AND CORNING WARE PRODUCT DEALER and to use as selling aids the Corning trademarks, brands or names identifying FIBREK ware and CORNING WARE products provided, however, that the Dealer shall not make any use of Corning trademarks, brands or names which will in any manner injure or destroy their value to Corning.

4. **SALES AID** — Corning agrees to provide Dealer from time to time with sales literature, display materials and other selling aids as well as to cooperate with Dealer in the interest of developing Dealer's maximum sales potential of FIBREK ware and CORNING WARE products.

5. **TERMINATION AND AGREEMENT TO REPURCHASE** — Either party may terminate this agreement at any time by written or telegraphic notice to the other effective upon receipt of such written or telegraphic notice. Effective as of the date of notice of termination, Dealer hereby agrees to remove FIBREK ware and CORNING WARE products from sale to others, and he hereby offers to sell his entire inventory of FIBREK ware and CORNING WARE products listed on the Schedule A effective on the date of termination to Corning and Corning hereby agrees to purchase such inventory at Dealer's original invoice cost at the time of receipt of such notice.

6. **FAIR TRADE AGREEMENT** — As to each state and as to each sales where it is lawful so to agree that not a-where or where: (1) Dealer agrees that it will not (except as specifically permitted by statute) directly or indirectly advertise, offer for sale or sell any FIBREK ware or CORNING WARE products at prices less than the fair trade price now or hereafter established and set forth in Schedule A to such Schedule may be constituted from time to time exclusive of all applicable state and local laws. Such Schedule may be amended or supplemented at any time by Corning upon ten (10) days' written notice to Dealer by direct mail or by adding or deleting items. (2) Dealer agrees that it will not sell or transfer FIBREK ware or CORNING WARE products to any reseller unless such reseller has agreed with Corning to maintain Corning's fair trade price. (3) Dealer as authorized by Schedule A or any amendment thereof or supplement thereto (a) the offering or giving of anything of value by Dealer or any reseller in connection with the sale of any of the products in Schedule A or (b) the offering or making of any statement in connection with any such sale or (c) the sale or offering for sale of any of the products in connection with any other merchandise shall constitute a breach by Dealer of this agreement. Termination shall not affect the rights or obligations of either of the parties hereunder under any applicable Fair Trade Act or by reason of any other contract made pursuant to such Act and this agreement shall remain in full force and effect with respect to all FIBREK ware and CORNING WARE products in the hands of, on order by or in transit to the Dealer at the time of such termination.

7. **APPLICABLE LAW** — This agreement, entered between Corning and Dealer at Corning, New York, is governed by the laws of the State of New York. The agreements contained in the Fair Trade Agreement set out in paragraph 6 hereof shall apply only to sales, offers or advertisements only when and where agreements of the character of those therein contained shall be lawful as applied to interstate transactions under any statute, law or public policy, now or hereafter in effect, in the State in which such sale is to be made or to which products are to be transported for such sale.

8. **ENTIRE AGREEMENT EFFECTIVE DATE** — No change in the printed terms of this agreement shall be of any force or effect. This agreement shall become effective upon Corning's signing the same after Corning's receipt of two (2) copies executed by Dealer and any and all Fair Trade Agreements with reference to FIBREK ware and CORNING WARE products between Corning and Dealer prior to the effective date of this agreement are hereby cancelled and superseded.

IN WITNESS WHEREOF, the parties have executed this agreement as of the day and year first above written.

STORE NAME: _____ CORNING GLASS WORKS
 BY _____ BY _____
 (Signature of sole proprietor, corporate officer or partner)
 TITLE _____ TITLE _____

**CORELLE® Livingware, PYREX® WARE
and CORNING WARE® Products**

**AUTHORIZED DEALER APPOINTMENT AND
FAIR TRADE AGREEMENT**

As of the _____ day of _____ 19____ at Corning, New York, CORNING GLASS WORKS, a New York Corporation, hereinafter called "Corning," hereby appoints

NAME _____ TYPE OF STORE: HARDWARE MASS MERCHANDISER
 VARIETY DEPARTMENT
 OTHER (Please Specify) _____

ADDRESS _____ CITY _____ STATE _____ ZIP _____

hereinafter called "Dealer" as an Authorized CORELLE® Livingware, Pyrex Ware and Corning Ware Products Dealer upon and subject to the terms of this agreement. Corning and Dealer accordingly hereby agree as follows:

- 1. TERM**—The term of this agreement shall be from the date of its signing by Corning until termination pursuant to paragraph 5 below.
- 2. PRODUCTS**—The products to which this agreement relates are hereinafter referred to as CORELLE Livingware, Pyrex Ware and Corning Ware products and are those products listed in Schedule A to this agreement as such schedule may be constituted or supplemented from time to time by Corning. CORELLE Livingware, Pyrex Ware and Corning Ware products are produced by Corning, are identified by trademarks, brands or names owned by Corning and are in free, fair and open competition with commodities of the same general class produced or distributed by others.
- 3. AUTHORIZATION AND ACCEPTANCE, USE OF TRADEMARKS**—So long as this agreement is in effect and so long as Dealer limits up to Dealer's obligations hereunder, Dealer is authorized to represent that Dealer is an Authorized CORELLE Livingware, Pyrex Ware and Corning Ware Products Dealer and to use as labeling onto the Corning trademarks, brands or names identifying CORELLE Livingware, Pyrex Ware and Corning Ware products provided, however, that the Dealer shall not make any use of Corning trademarks, brands or names which tend in any manner to mislead or detract their value to Corning.
- 4. SALES HELPS**—Corning agrees to provide Dealer from time to time with sales literature, display materials and other selling aids as well as to cooperate with Dealer in the interest of developing Dealer's maximum sales potential of CORELLE Livingware, Pyrex Ware and Corning Ware products.
- 5. TERMINATION AND AGREEMENT TO REPURCHASE**—Either party may terminate this agreement at any time by written or telegraphic notice to the other effective upon receipt of such written or telegraphic notice. Effective as of the date of notice of termination, Dealer hereby agrees to remove CORELLE Livingware, Pyrex Ware and Corning Ware products from sale to others, and he hereby offers to sell his entire inventory of CORELLE Livingware, Pyrex Ware and Corning Ware products to Corning and Corning hereby agrees to purchase such inventory at Dealer's original invoice cost at the time of receipt of such notice.
- 6. FAIR TRADE AGREEMENT**—As to each state and as to each sales where it is lawful so to agree that not elsewhere or otherwise: (1) Dealer agrees that it will not (except as specifically permitted by statute) directly or indirectly advertise, offer for sale or sell any CORELLE Livingware, Pyrex Ware and Corning Ware products at a price less than the fair trade price now or hereafter designated and set forth in Schedule A as such Schedule may be constituted from time to time in accordance with all applicable laws and use laws. Such Schedule may be amended or modified at any time by Corning upon ten (10) days' written notice to Dealer by changing prices or by adding or deleting items. (2) Dealer agrees that it will not sell or transfer CORELLE Livingware, Pyrex Ware and Corning Ware products to any reseller unless such reseller has agreed with Corning to maintain Corning's fair trade prices. (3) Except as authorized by Schedule A or any amendment thereof or supplement thereto (a) the offering or giving of anything of value by Dealer or any reseller in connection with the sale of any of the products in Schedule A or (b) the offering or making of any concession in connection with any such sale or (c) the sale or offering for sale of any of the products in compliance with any other merchandise shall constitute a breach by Dealer of this agreement. Termination shall not affect the rights or obligations of either of the parties hereto under any applicable Fair Trade Act or by reason of any other contract made pursuant to such Act and this agreement shall remain in full force and effect with respect to all CORELLE Livingware, Pyrex Ware and Corning Ware products in the hands of, on order by or in transit to the Dealer at the time of such termination.
- 7. APPLICABLE LAW**—This agreement, entered between Corning and Dealer at Corning, New York, is governed by the laws of the State of New York. The agreements contained in the Fair Trade Agreement set out in paragraph 6 hereof shall apply solely to sales, offers or advertisements only when and where agreements of the character of those therein contained shall be lawful as applied to interstate transactions under any statute, law or public policy, now or hereafter in effect, in the State in which such resale is to be made or to which products are to be transported for such resale.
- 8. ENTIRE AGREEMENT EFFECTIVE DATE**—No change in the printed terms of this agreement shall be of any force or effect. This agreement shall become effective upon Corning's signing the same after Corning's receipt of two (2) copies executed by Dealer and any and all Fair Trade Agreements with reference to CORELLE Livingware, Pyrex Ware and Corning Ware products between Corning and Dealer prior to the effective date of this agreement are hereby cancelled and superseded.

IN WITNESS WHEREOF, the parties have executed this agreement as of the day and year first above written.

STORE NAME _____

BY _____ BY _____
(Signature of store proprietor, corporate officer or partner) CORNING GLASS WORKS

TITLE _____ TITLE _____

HEADQUARTERS NAME _____ (If Applicable)
ADDRESS _____ CITY _____ STATE _____

This contract covers above store. Additional retail outlets of same company must be specified individually on each of this sheet or covered in separate contract.

SUBMITTED BY _____ SIGNED _____
(Date/Time) (Signature of Sales Manager or Other)