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THE ECONOMICS OF BLOCK BOOKING*

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I. INTRODUCTION

BLOCK booking involves “the practice of licensing, or offering for license, one feature or group of features on the condition that the exhibitor will also license another feature or group of features released by distributors during a given period.”¹ This contractual arrangement, common in the American motion picture industry from as early as 1916,² was declared illegal in two Supreme Court decisions, *Paramount Pictures*,³ where blocks of films were rented for theatrical exhibition, and *Loew’s*,⁴ where blocks of films were rented for television exhibition.

The primary legal objection to block booking is that the practice “extends monopoly power.” In *Paramount* the Supreme Court stated that block booking “adds to the monopoly of a single copyrighted picture that of another copyrighted picture.”⁵ Similarly, in *Loew’s*, the Court asserted that a distributor cannot use the market power granted by the copyright in a “desirable” film to force exhibitors to license a second “undesirable” film, stating that “the antitrust laws do not permit a compounding of

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¹ United States v. Paramount Pictures, Inc., 334 U.S. 131, 156 (1948).

² Terry Ramsaye, *A Million and One Nights: A History of the Motion Picture 750–51* (1926).

³ United States v. Paramount Pictures, Inc., 344 U.S. 131 (1948).

⁴ United States v. Loew’s, Inc., 371 U.S. 38 (1962).

⁵ *Paramount*, 334 U.S. at 156–57, quoting the district court.

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the statutorily conferred monopoly."⁶ George Stigler has trenchantly criticized this extension-of-monopoly argument by asking the obvious economic question: Why can the distributor not collect just as much revenue by using his "market power" to set the price of the desirable film?⁷ If the undesirable film is "overpriced," then the desirable film must be "underpriced."

Although the monopoly extension analysis makes no sense, a satisfactory alternative economic explanation has not been developed. The commonly accepted analysis is that block booking is a subtle form of price discrimination. This explanation dates back to the Aaron Director "oral tradition" at Chicago, where the block booking practiced in *Paramount* was considered similar to IBM's "tie" of tabulating machines and cards.⁸ In 1956 Director published the hypothesis that block booking was a "method of charging different prices to different customers,"⁹ but he did not formalize or test it. In 1963 Stigler applied the hypothesis to the Loew's case, presenting the theoretical argument in more detail together with some apparently confirming evidence.¹⁰ Director and Stigler's price discrimination explanation for block booking has been widely, if uncritically, accepted¹¹ and has led to the general acceptance of price discrimination as a major economic motivation for "bundling."¹²

The price discrimination hypothesis assumes that films vary in their relative appeal across market areas. A distributor may find it difficult to

⁶ Loew's, 371 U.S. at 52. Justice Goldberg also based his objection to block booking on a "market foreclosure" argument, stating that "[t]elevision stations forced by appellants to take unwanted films were denied access to films marketed by other distributors who, in turn, were foreclosed from selling to the stations." *Id.* at 48-49. This argument is clearly inapplicable to the Loew's case where the blocks together accounted for a small fraction of total television station programming. At the time of the case feature films constituted less than 8 percent of a typical station's programming. *Id.* at 47. In addition, since we are dealing in the Loew's case with films that had already been produced, the marginal cost of extending their use to TV stations was a very small portion of the total license fee. With such cost conditions it is difficult to see how one distributor could possibly set up a "barrier to entry" to another distributor.

⁷ George J. Stigler, *United States v. Loew's, Inc.: A Note on Block Booking*, 1963 Supreme Court Review 152.

⁸ *International Business Machine Corp. v. United States*, 298 U.S. 131 (1936).

⁹ See Aaron Director & Edward H. Levi, *Law and the Future: Trade Regulation*, 51 Nw. U. L. Rev. 281, 292 (1956).

¹⁰ Stigler, *supra* note 7.

¹¹ See, for example, Ward S. Bowman, Jr., *Tying Arrangements and the Leverage Problem*, 67 Yale L. J. 19 (1957); Lester G. Telser, *Abusive Trade Practices: An Economic Analysis*, 30 Law & Contemp. Prob. 488 (1965); and Robert H. Bork, *The Antitrust Paradox: A Policy at War with Itself* 377-78 (1978).

¹² See William J. Adams & Janet L. Yellen, *Commodity Bundling and the Burden of Monopoly*, 90 Q. J. Econ. 475 (1976).

gauge this variation as closely as the buyers can and therefore sets uniform prices across markets for each film. If, however, films that are more highly valued in some markets are the less highly valued ones in other markets, distributors may increase their revenue by assembling films into blocks, which are priced uniformly. The prices set are "discriminatory" because, although there is only one price per block, the implicit price paid for individual films will vary across markets.

This simple price discrimination explanation for block booking, although ingenious, is inconsistent with the facts of *Paramount* and *Loew's*, for the prices of the blocks varied a great deal across markets. For example, evidence in *Loew's* indicates that an eighty-five-film package distributed to television stations by National Telefilm Associates sold for \$700,000 in New York City and \$1,600 in Lake Charles, Louisiana.¹³ There were similar price differences in the theatrical exhibition contracts in the *Paramount* litigation, with a possible first-run exclusive showing rental fee of \$150,000 and a last-run rental fee on the same film of only \$10.¹⁴ This large price variation undermines the uniform price assumption of the simple price discrimination hypothesis.¹⁵

One could rescue the price discrimination hypothesis by recasting it in terms of a uniform pricing formula rather than a uniform price per block.¹⁶ If buyers' relative values on individual films vary across markets, and the distributor sets prices in each market according to a general "average value" pricing formula (for example, in the television case a price based on the advertising rates of stations in the different markets), then he will underprice some films in some markets and other films in other markets. However, if the demand for a block of films is more closely related to the factors in the distributor's pricing formula than are the demands for the individual films in the block, the distributor can capture a larger total revenue by block pricing. Block booking then appears to be a device which aids in the distributor's pricing decision and implies price discrimi-

¹³ National Telefilm Associates, Exhibit 11, "Dream Features," Record at Exhibits 778, 803-06, *Loew's* 371 U.S. 38 (1962).

¹⁴ Michael Conant, *Antitrust in the Motion Picture Industry* 72 (1960).

¹⁵ Telser, *supra* note 11, at 493, notes that "[i]t takes a somewhat complicated mathematical analysis to state precisely the conditions that would make block booking more profitable than single pricing. Roughly speaking, block booking is more profitable if the variation of the revenue for the combination among cities is not too large." In a more recent article, Lester G. Telser, *A Theory of Monopoly of Complementary Goods*, 52 *J. Bus.* 211 (1979), he presents a formal analysis of the demand conditions under which tie-ins of complementary goods can be used by a monopolist to increase its return. But once again he assumes that prices are identical across markets, which makes the analysis inapplicable to the block booking cases.

¹⁶ See Stigler, *supra* note 7.

nation across markets in terms of deviations of implicit individual film values from what would be given by the distributor's pricing formula.

Even this more subtle statement of the price discrimination hypothesis is inconsistent with the facts of *Loew's* and *Paramount*. The analysis implicitly assumes that prices are "set" by distributors rather than determined competitively. Yet in most markets there was more than one potential buyer of the distributor's product. The contract employed by distributors in *Loew's* granted one television station an exclusive right to broadcast the given group of films in each market area. In negotiating this contract distributors could and did in fact rely on competitive bidding among stations in each market to determine price. If, as Stigler assumed, the stations have more information about individual films values than the distributor, the distributor could just let this information be revealed by competitive auctions in multiple station markets. There is no reason for the distributor to set imperfect prices on the basis of estimated demand and hence no reason for block sales. Similarly, during the period covered by the *Paramount* litigation most cities had more than one theater that could potentially exhibit any individual film. These theaters could, in principle, compete with one another for exhibition rights to a film. There does not appear to be any reason for distributors to set uniform or formulaic rental fees.

To develop an explanation for block booking that is consistent with the facts of *Loew's* and *Paramount*, we first consider the arrangement employed by De Beers to market gem-quality rough diamonds. The basic economic forces are identical in all three cases. To economize on transaction costs a group of goods of individually uncertain and difficult-to-measure quality are average priced. Such block packaging can operate only if sufficiently high brand-name capital exists. Sellers are shown to choose the particular contractual arrangement that minimizes these brand-name costs in addition to other transaction costs.

II. DE BEERS

A. *The CSO Marketing Arrangement*

The Central Selling Organization (CSO) of the De Beers group markets most of the world's gem-quality uncut diamonds. Its share in 1980 was estimated at 80–85 percent, with total sales of approximately \$3 billion.¹⁷ However, only about 40 percent of the gems sold by the CSO come from

¹⁷ Timothy Green, *The World of Diamonds* 65 (1981). Apparently much of the approximately 20 percent of gem-quality diamonds that are not marketed through the CSO is stolen merchandise. Michael Szenberg, *The Economics of the Israeli Diamond Industry* 14 (1973).

the seventeen mines owned or leased by De Beers.¹⁸ The rest are purchased from independent mine owners under long-term (five to ten year) exclusive-dealing, monthly quota production contracts. If an independent producer's monthly output is higher than the particular quota fixed by De Beers for the month, the producer is required to stockpile the excess.¹⁹

Why do independent mine owners market through De Beers when it appears to be more profitable for them individually to expand production and sell their output on the open market? We suggest that the cartel enforcement mechanism that has prevented the deterioration of the CSO's dominance in wholesale diamond marketing is the efficiency of the CSO's selling practices. These cost savings, related to the minimization of buyer "oversearching" for information, appear to exceed any potential extra revenue to a diamond producer from marketing outside the CSO arrangement.

The details of the CSO marketing arrangement are important for understanding our analysis. Several million rough diamonds from all sources pass through the CSO's selling office each year. The CSO sorts these stones first by shape (six categories), then by quality (about seven categories), by color (about eight categories), and, finally, by weight, resulting in more than two thousand categories.²⁰ The variance in the value of stones within each category is nonetheless substantial. Independent producers are paid according to the number of stones of each category they provide, with the price of the stones in each category determined by the actual selling price received by the CSO during a representative period.²¹ The long-term exclusive sales requirement, in addition to controlling total supply, prevents mines from searching through their output and selecting the best stones within each category for sale on the open market rather than through De Beers.²²

The CSO's customers consist of approximately three hundred invited diamond traders and cutters. These customers are of two types: manufac-

¹⁸ Green, *supra* note 17, at 64.

¹⁹ Godehard Lenzen, *The History of Diamond Production and the Diamond Trade* 190 (F. Bradley trans. 1970).

²⁰ De Beers Consolidated Mines, *The Diamond Mines of the De Beers Group* 33 (1963); and Paul Gibson, *De Beers: Can a Cartel Be Forever?* 123 *Forbes* 45 (1939).

²¹ Lenzen, *supra* note 19, at 190.

²² Such selection would result in a negative externality on all other producers of stones in the particular category because compensation is related to average quality supplied by all. In addition to preventing such free-riding distribution effects, exclusive dealing saves the real resource costs of such "cherry picking." For a further examination of exclusive dealing as a mechanism to prevent wasteful preselection in a nonmonopsony context, see Edward C. Gallick & Benjamin Klein, *Exclusive Dealing, Specialized Assets, and Joint Ownership: A Study of Tuna Fishing Contracts* (Working Paper, UCLA, Dep't Econ. 1983).

turers who have their own cutting and polishing facilities and a few dealers in each cutting center in the world who supply small manufacturers.²³ Each customer is expected to buy regularly and, since average annual sales per customer are approximately \$10 million, is screened to be financially sound.²⁴

Each of the CSO's customers periodically informs the CSO of the kinds and quantities of diamonds it wishes to purchase. The CSO then assembles a single box (or "sight") of diamonds for the customer. Each box contains a number of folded, envelope-like packets called papers. The gems within each paper are similar and correspond to one of the CSO's classifications. The composition of any sight may differ slightly from that specified by the buyer because the supply of diamonds in each category is limited.

Once every five weeks, primarily at the CSO's offices in London, the diamond buyers are invited to inspect their sights.²⁵ Each box is marked with the buyer's name and a price. A single box may carry a price of up to several million pounds.²⁶ Each buyer examines his sight before deciding whether to buy. Each buyer may spend as long as he wishes, examining his sight to see that each stone is graded correctly (that is, fits the description marked on each parcel). There is no negotiation over the price or composition of the sight. In rare cases where a buyer claims that a stone has been miscategorized by the CSO, and the sales staff agrees, the sight will be adjusted.²⁷ If a buyer rejects the sight, he is offered no alternative box. Rejection is extremely rare, however, because buyers who reject the diamonds offered them are deleted from the list of invited customers.²⁸

Thus stones (*a*) are sorted by De Beers into imperfectly homogeneous categories, (*b*) to be sold in preselected blocks, (*c*) to preselected buyers, (*d*) at nonnegotiable prices, with (*e*) buyers' rejection of the sales offer leading to the withdrawal by De Beers of future invitations to purchase stones.

B. Oversearching

Because the De Beers sorting procedure implies a substantial variance in the value of stones within each quality category, stones within such

²³ Green, *supra* note 17, at 148. Given the fixed cost of traveling to London, it will not be economic for small manufacturers located in the cutting centers to deal directly with the CSO. In addition, as we shall see, it is economic for the CSO to limit the number and therefore the minimum size of customers.

²⁴ *Id.*

²⁵ Gibson, *supra* note 20, at 46.

²⁶ H. L. Van der Laan, *The Sierra Leone Diamonds 95–96* (1965); and Gibson, *supra* note 20, at 49.

²⁷ Green, *supra* note 17, at 151.

²⁸ Szenberg, *supra* note 17, at 14.

categories therefore can be said to be average priced. Consumers faced with such a situation will have an incentive to search for undervalued goods and to find the exceptional values first. For example, consider a bin of oranges. If the oranges vary in quality but sell for a uniform price, each potential buyer has an incentive to inspect more oranges than he wants to buy, hoping to find those of unusually high quality (which are therefore undervalued). The problem is that the prices set by the seller for different qualities of oranges are not equal to market clearing prices and consumers will search out the higher quality oranges and leave the poorer quality oranges behind. A Gresham's Law type of phenomenon is created.²⁹

The average price set by the seller is determined by his knowledge. Unless he is omniscient and costlessly knows the exact market value of each stone, we can expect buyers to search for the underpriced stones. While such prepurchase inspections consume real resources, they can be assumed to lead only to wealth transfers between consumers and the seller with no allocative effects.³⁰ The attempt by buyers to obtain an informational advantage over the seller can thus be labeled "oversearching."³¹

²⁹ Gresham's Law was originally applied to full-bodied metallic currency. The law stated that when both good (full weight) and bad (light, clipped, or sweated) coins circulate at par, the "bad coins will drive out the good." People will remove the "undervalued" full-bodied coins from circulation and use the metal for nonmonetary purposes (including foreign trade). This same effect occurs with the oranges. Early arriving shoppers will expend real resources to find the most undervalued oranges, and shoppers arriving late will find that the average quality of the remaining oranges has fallen. Note, however, that if consumers differ in their ability to search out different qualities and this ability is related to elasticity of demand, the bunching of different qualities together by the seller may be intentional price discrimination.

³⁰ We are assuming that price-adjusted high- and low-quality units of the good are perfect substitutes. For example, the quality of oranges may be measured solely in terms of amount of juice, and an average high-quality orange may yield twice as much juice as an average low-quality orange and sell for double the price. However, if one type of orange is preferred for a particular use (for example, juicing), some search would be socially valuable.

³¹ Our analysis of excess search for quality information is equivalent to the Hirshleifer analysis of speculative oversearch, Jack Hirshleifer, *The Private and Social Value of Information and the Reward to Inventive Activity*, 61 *Am. Econ. Rev.* 561 (1971); to the analysis regarding the overinvestment in education as a screening device, Michael Spence, *Job Market Signaling*, 87 *Q. J. Econ.* 355 (1973); and, more generally, to the competition for the establishment of property rights, see Don Gordon, *The Economic Theory of a Common-Property Resource: The Fishery*, 62 *J. Pol. Econ.* 124 (1954); Steven Cheung, *The Structure of a Contract and the Theory of a Nonexclusive Resource*, 13 *J. Law & Econ.* 49 (1970); and Edmund Kitch, *The Nature and Function of the Patent System*, 20 *J. Law & Econ.* 265 (1977). In these cases, as in ours, the return to an investment is assumed to be purely distributive. Barzel has noted, in the spirit of our analysis, "The fact that many information situations have the potential for waste does not necessarily mean that waste actually occurs. If, in the aggregate, these actions produce a negative product, arrangements that successfully restrain them or reduce their impact will generate a positive return." Yoram Barzel, *Some Fallacies in the Interpretation of Information Costs*, 20 *J. Law & Econ.* 291, 292 (1977). In this context he discusses briefly the De Beers's selling practices and the supposed

Since buyers will have to examine the stones before they are cut (the exact placement of each flaw, chip, and inclusion must be discovered to determine the size of the largest finished gem that can be cut from each diamond), it may seem as if buyer inspection is necessary and hence Gresham's Law oversearching is costless. However, buyer search produces two costly effects: duplicative buyer inspections and induced increases in seller sorting.

The search for underpriced stones within a quality classification implies that some stones will be inspected and not purchased. Whether there is a social cost associated with persons' examining the quality of goods they do not then buy depends on the goods and buyers in question. When buyers have different tastes, duplicate inspections are necessary for each buyer to acquire the particular units that most closely satisfy his particular desires. Tastes vary considerably among people considering, for example, the purchase of a diamond engagement ring, and duplicate inspections are necessary for allocative efficiency.

In contrast, we may assume that each wholesale buyer places essentially the same value on rough uncut stones offered for sale by De Beers within the various quality categories. With a reasonable amount of search, all would agree very closely on the relative value of the different stones; they would agree on how to cut and set the stones and how long it would probably take to sell them (that is, on the inventory costs).³² Because wholesale search is not necessary for the stones to go to the highest valuing ultimate user, and because whoever purchases the stones must inspect each closely no matter how much prepurchase inspection was done in the aggregate by other potential buyers, duplicate inspections in such a situation waste real resources.

On the other hand, very large stones weighing more than 14.8 carats, where presumably estimates of value vary considerably among buyers, are not included in the CSO sights. Instead of being sold on a fixed average-price basis, they are offered to particular buyers on an individual stone, negotiated-price basis. The buyers offered large stones are free to reject them without endangering their relationship with the CSO.³³

gains which result from prepackaging of gems, *id.* at 304. Our analysis, which emphasizes the importance of prespecified buyers earning rents within a repeat-sale/brand-name enforcement mechanism, builds on his insightful work.

³² Since the sight holders are purchasing stones for resale in fairly thick markets, the presumption that each values the same stones equally is reasonable. The hypothesis that the De Beers scheme is a method of interbuyer price discrimination, see, for example, Kenneth W. Clarkson & Roger L. Miller, *Industrial Organization: Theory Evidence and Public Policy* 244 (1982), is therefore highly unlikely to be correct. De Beers can neither take advantage of different consumer surpluses between buyers nor, in the long-run, appropriate the quasi rents between different-skilled cutters.

³³ Until his death in 1978, Harry Winston, a New York diamond dealer, was usually given the first opportunity to examine and purchase these stones. Green, *supra* note 17, at 152.

The attempt by buyers to discover underpriced stones would lead to lower total revenue to De Beers. After the buyer search, if underpriced stones within a classification were purchased and overpriced stones rejected, the CSO would be forced to lower its price to sell any of the remaining stones of lower than average quality—and buyer oversearching would begin again. To prevent this costly adverse selection process, the CSO could be expected to increase their initial classification effort. Increased expenditures on the quality sorting process would result in more accurate average prices, that is, a reduced variance in the value of stones within each quality classification, and hence higher total revenue received in the face of oversearching.

Oversearching will be eliminated entirely only if the seller is omniscient and can perfectly set the correct (market-clearing) price and buyers learn this. With any finite expenditure of resources by the diamond seller, gems will not be valued perfectly. Rather, gems will be categorized, with some remaining variance of quality within each classification. Therefore, some units of detectably different qualities will be offered at the same price and the potential for buyer oversearch remains.

More important, much of the quality search conducted by De Beers in attempting to set prices very accurately would be duplicative. Because the specific information required by the cutter to cut each stone optimally cannot be costlessly communicated by De Beers, we can reasonably assume that the cutter will have to examine the stone more closely no matter how much information De Beers collects in setting prices. Rather than engage in excessive quality search necessary to price each stone accurately, we can expect the CSO to adopt an alternative arrangement to minimize buyer oversearch. A marketing arrangement that prevented oversearching could increase the profitability of De Beers by the real resources they and their buyers expend on duplicate inspections.

C. Preselected Buyers Earning a Premium Stream

The CSO does not sell diamonds in average-priced quality classification bins through which buyers are permitted to search. Rather, the CSO assigns each sight of diamonds to a particular preselected buyer. However, if buyers could “freely” reject the sights they were assigned, they would accept only those they considered undervalued. The rejected sights would presumably have to be repriced at a lower level and assigned once again to another buyer, implying duplicative oversearch. In addition, De Beers would receive a lower price for its diamonds than the average of the value of all stones represented within each of its classifications.

Given that it is not economic for De Beers to spend the large amount of money that would be necessary to price sights perfectly, they must devise

an alternative way to discourage buyers from rejecting their assigned sights. The CSO accomplishes this by pricing in such a way that buyers on average are earning rents the present discounted value of which is greater in almost all cases than the short-run profit that can be achieved by rejecting the sights of lower than average quality. Since these rents are lost if the buyer decides to reject a sight and is terminated from the list of invited buyers, a wealth-maximizing buyer will not generally reject sights, with the implied duplicative search, but will examine and purchase his own allotted sight.

This is analytically identical (but the transactors are reversed) to the Klein-Leffler case of a seller with a valuable reputation who is prevented from cheating a buyer.³⁴ In that case the seller receives a premium stream for the continued provision of high-quality goods to the buyer. In this case, the seller (the CSO) "pays" a premium to its buyers by selling diamonds at less than (costless-search) market-clearing prices. This premium serves to encourage the buyer to take low-quality goods occasionally. The payment of the premium is offset by savings in marketing costs, that is, the avoidance of oversearching, made possible by encouraging buyers to go along with the CSO's marketing scheme. The right to be on the CSO's list of invited buyers appears to be a valuable asset, the capital value of which is greater than any short-run incentive for buyers to search and reject overpriced sights.³⁵

The CSO can minimize the costs of this arrangement by reducing the number of buyers on their list of invitees. This can be seen by assuming that the CSO intends to sell m stones each period forever. Let X_i equal the quality of the i th stone, measured in dollars. Assume further that the qualities of the stones marketed each period are identically, independently, and normally distributed random variables with means μ and variances σ^2 :

$$X_1, \dots, X_m \sim N(\mu, \sigma^2). \quad (1)$$

³⁴ See Benjamin Klein & Keith Leffler, *The Role of Market Forces in Assuring Contractual Performance*, 89 J. Pol. Econ. 615 (1981).

³⁵ Our argument is analogous to the economic rationalization for a manufacturer to have retailers earn a profit premium with the use of resale price maintenance and entry restrictions. See Benjamin Klein, Andrew McLaughlin, & Kevin M. Murphy, *The Economics of Resale Price Maintenance: The Coors Case* (Working Paper, UCLA, Dep't Econ. 1983). The existence of excess demand to be on the CSO list of invited buyers is evidence that presence on the list is a valuable asset. A number of qualified dealers have stated that they would like to be able to buy directly from the CSO. Van der Laan, *supra* note 26, at 98. De Beers does not sell this right to be an invited buyer for an initial lump-sum payment because of the additional "seller cheating" incentives that are created. (Intentional supply of low quality stones with buyer termination and resale of purchase rights by De Beers.) For further discussion of seller cheating see Section *E infra*.

Let P_i equal the price set by the CSO on the i th stone, such that

$$P_i = X_i - c + \epsilon, \quad (2)$$

where X_i equals the quality or “true” value of the i th stone to a buyer, determined after buyer inspection; c is a constant; and ϵ is a random variable distributed $N(0, \sigma_\epsilon^2)$. The expected premium to the buyer from acceptance of the CSO sale offer of the i th stone is $X_i - P_i$, or c .³⁶

Consider two alternative marketing arrangements: (1) the CSO offers the m diamonds per period to m different buyers, that is, one stone per buyer, and (2) the CSO sells the m diamonds per period by offering $n(>1)$ stones per period to each of $j(<n)$ buyers, where $n = m/j$.³⁷ In arrangement 1, where each buyer is assumed to purchase one stone per period forever, the expected present discounted value to a buyer of remaining on the CSO list of invited buyers is

$$\begin{aligned} PV_1 &= \frac{E(X_i - P_i)}{r} = \frac{E(c - \epsilon)}{r} \\ &= \frac{c}{r}. \end{aligned} \quad (3)$$

The capital cost to a buyer of rejecting an individual stone after examination and being blacklisted by the CSO is therefore c/r . Hence, a buyer will reject an individual stone if and only if

$$P_i - X_i > \frac{c}{r}. \quad (4)$$

Under arrangement 2, where each buyer is offered n stones per period forever, the expected present discounted value to the buyer of remaining on the CSO list of invited buyers is

$$\begin{aligned} PV_2 &= \frac{nE(X_i - P_i)}{r} = \frac{nE(c - \epsilon)}{r} \\ &= \frac{nc}{r}; \end{aligned} \quad (5)$$

³⁶ Note that, more realistically, the expected premium is not a constant but is determined by past CSO behavior. Therefore, for example, if the buyer receives a stone where P_i is greater than X_i , the anticipated premium can be expected to fall. This will be discussed further in Section *E infra* when we consider the possibility of intentional deception by the CSO.

³⁷ We are not assuming here that the n stones are offered to the buyer on a “block” (single price, take it or leave it) basis. We want to consider only the effect of decreasing the number of buyers or, equivalently, the repurchase period. Section *D infra* considers the “blocking” question.

and a buyer will reject an individual stone if and only if³⁸

$$P_i - X_i > \frac{nc}{r}. \quad (6)$$

It is therefore obvious that the expected number of stones rejected will be different for the two arrangements. The probability that a buyer in arrangement 1 will reject an individual stone is

$$\begin{aligned} P_r(1) &= P_r\left(P_i - X_i > \frac{c}{r}\right) \\ &= P_r\left(\epsilon - c > \frac{c}{r}\right) \\ &= P_r\left(\epsilon > c + \frac{c}{r}\right). \end{aligned} \quad (7)$$

The probability that a buyer in arrangement 2 will reject an individual stone is

$$\begin{aligned} P_r(2) &= P_r\left(P_i - X_i > \frac{nc}{r}\right) \\ &= P_r\left(\epsilon - c > \frac{nc}{r}\right) \\ &= P_r\left(\epsilon > c + \frac{nc}{r}\right). \end{aligned} \quad (8)$$

These rejection probabilities are represented by the cross-hatched areas in Figure 1. The CSO can decrease the probability that stones will be rejected (and hence duplicative quality inspection will occur) by (i) increasing expenditure on presale classification, and thereby decreasing σ_ϵ ; (ii) by increasing the share of the marketing cost savings, the premium per stone, c , going to buyers; or (iii) by increasing the number of stones offered to each buyer per period n .

Decreasing the number of buyers (and hence increasing the number of stones each buyer receives per period) while keeping the expected premium per stone constant, raises the capital value to each buyer of remain-

³⁸ Expression (6) actually underestimates how much an individual stone must be overpriced in order for the buyer to reject it, since it excludes the lost premium on additional stones offered "this" period. It should more properly be considered the rejection point for the "last" stone offered in the current period. In addition, it underestimates the necessary overprice for rejection, because the expected value to a buyer of playing this game is greater than nc/r . Even if c equaled zero, buyers would obtain an expected return from the ability to reject, that is, from the ability to determine the last period. The expected value would be an average of the underpriced and slightly overpriced stones accepted before rejection; nc/r represents the total expected return given the absence of any rejection, which turns out to be our equilibrium condition.

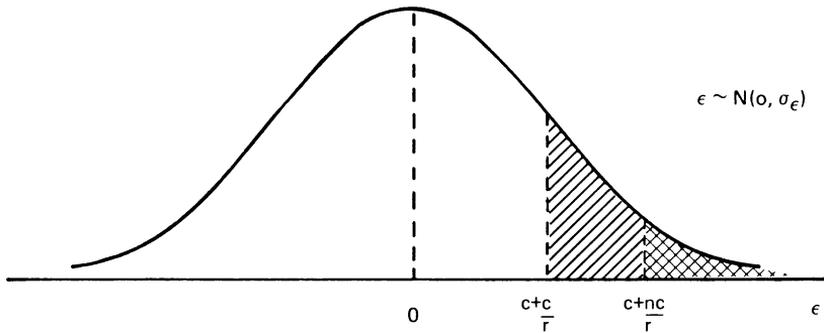


FIGURE 1.—Rejection probabilities, one versus n stones per period

ing on the CSO list of invited buyers. He is therefore less likely to reject any individual stone. Alternatively, for any given rejection probability the CSO can decrease the premium per stone as the number of buyers is also decreased. What limits this economizing process short of one or a few buyers the diseconomies of scale in cutting the stones. Given the fairly small scale of manufacture,³⁹ limiting the sale of rough diamonds to a few buyers would imply reselling of the stones before they are cut and hence oversearching.

Given the number of continuing buyers, the CSO wealth maximizing decisions concern (a) how much should be spent on categorizing and evaluating stones, thereby affecting the distribution of the actual values of stones around anticipated values,⁴⁰ and (b) how much of the total marketing cost savings should be shared with buyers by pricing stones at less than anticipated values. Given a particular sharing decision (that is, a given expected premium stream received by buyers), a greater categorization expenditure will reduce the variance of the value of stones and hence the number of stones rejected (and therefore the extent of duplicative searching). On the other hand, given a particular categorization expenditure and hence quality variance of price standardized stones, a greater share of the marketing cost saving that is passed on to buyers (that is, a greater price premium stream) will also imply fewer rejections and less duplicative searching.⁴¹

³⁹ For example, in 1961 the majority of people employed in the Israeli diamond cutting industry, which accounts for 30 percent of the world's output, worked in firms with thirty to ninety-nine employees. Szenberg, *supra* note 17, at 17, 60.

⁴⁰ The CSO "warranty" that gross classification "mistakes" will be corrected can be seen as a means of economizing on categorization expenditures in producing the desired underlying variance in stone quality within each stated classification.

⁴¹ The premium per stone necessary to prevent rejection is quite small. Given the CSO physical classification process and the fact that mistakes are adjusted by the CSO, the

D. Block Selling

If the qualities of the individual stones within a classification are assumed to be independent, as seems reasonable, block selling does not generally decrease the incentive of buyers, each of whom is assumed to be receiving a given total number of stones per unit time and hence a given future premium stream, to reject stones. This can best be seen by continuing to assume that the CSO wishes to sell n stones per period forever to each of j buyers and, from equation (5), the present value to a buyer of remaining on the CSO list of invited buyers is nc/r , where c is the expected premium per stone. As we have seen, if an individual buyer is offered an individual stone, he will reject it only if it is overpriced by more than nc/r (eq. [6]) and the probability of this occurring is given by equation (8).

Alternatively, if the individual buyer is offered n stones this period at a block price of P_B , take it or leave it, the buyer will reject the package if and only if

$$P_B - n\bar{X}_B > \frac{nc}{r}, \quad (9)$$

where \bar{X}_B is the average quality of a stone in the block. That is, once again a buyer will reject the package if and only if its price exceeds its total value by more than the present discounted value of the expected premium stream of remaining on the list of invited buyers. Since

$$P_B = n\bar{X}_B - nc + \sum \epsilon_i, \quad (10)$$

the probability that the block will be rejected by a buyer, $\text{pr}(B)$, is equal to

$$\begin{aligned} \text{pr}(B) &= \text{pr}\left(\sum \epsilon_i - nc > \frac{nc}{r}\right) \\ &= \text{pr}\left(\sum \epsilon_i > nc + \frac{nc}{r}\right). \end{aligned} \quad (11)$$

That is, in order for rejection to occur, the total error of the n stones in the block must exceed n times the expected premium per stone plus the same critical capital value of the future premium stream value.

distribution of the value of stones within a category is not likely to be approximated by a normal distribution but rather by a distribution with much smaller tails and possibly a finite range. If, for example, the underlying distribution of an average value sight of \$1 million is uniform between \$.5 million and \$1.5 million and there are ten sights a year, a premium per sight of only \$5,000, or .5 percent of the average value, would be sufficient to prevent rejection of any sight if the interest rate were 10 percent. Only if a buyer underestimates the future expected premium stream or overestimates the quality deviation relative to the CSO estimates will a sight be rejected and the buyer be terminated by the CSO. We have not been able to find any examples of such buyer behavior and CSO punishment.

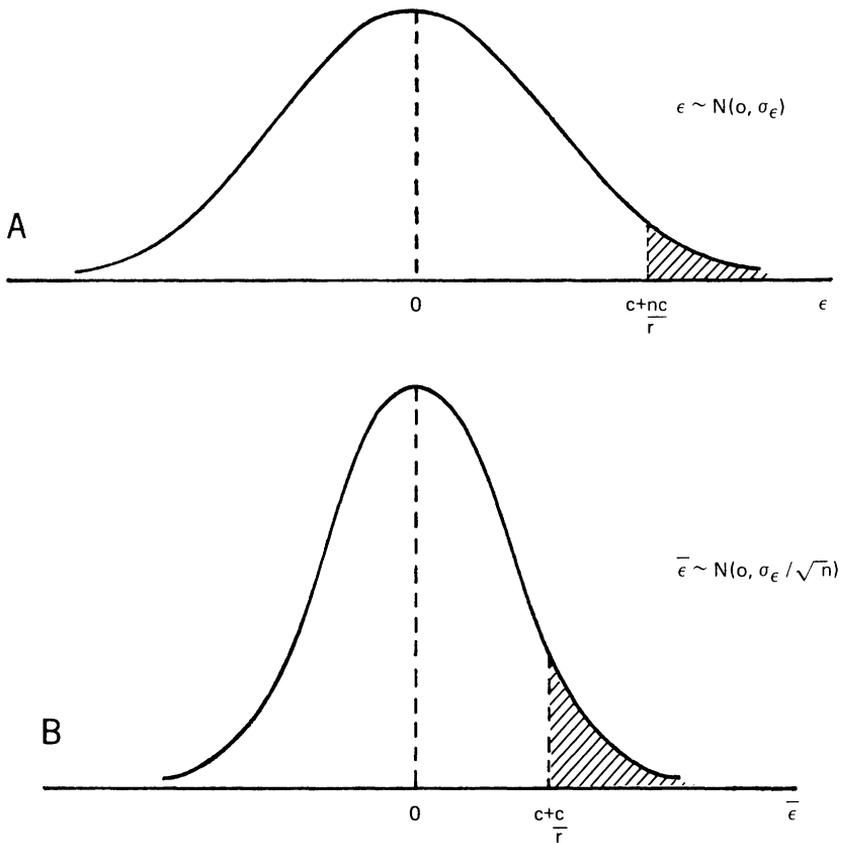


FIGURE 2.—Rejection probabilities, single stone versus block: A, single stone, equation (8); B, block, equation (12).

To compare the single stone and block experiments more easily, equation (11) is rewritten in terms of the average error of stones in the block:

$$P_r(B) = P_r\left(\bar{\epsilon} > c + \frac{c}{r}\right), \tag{12}$$

and the rejection probabilities given by equations (8) and (12) are represented by the shaded areas in Figure 2.

Whether the block will be rejected more or less frequently is not obvious from examination of Figure 2. Although the standard error of the average random error of the stones included in the block is less than the standard error of the random error of an individual stone, the critical rejection value for the average error is less than that for the individual stone error. The question is whether $c + c/r$ in Figure 2B is more or fewer

standard deviations from zero than $c + nc/r$ in Figure 2A. Because $\sigma_{\epsilon}^- = \sigma_{\epsilon}/\sqrt{n}$, we can standardize our rejection probability expressions in equations (12) and (8) by multiplying the critical point for the block case by \sqrt{n} . That is, the block will be less likely to be rejected [$pr(1) > P_r(B)$] if and only if $c(r + n)/r$, the critical value from equation (8), is fewer standard deviations away from zero than $c(r + 1)/r$, the critical value from equation (12), or

$$\frac{c(r + n)}{r} < \frac{c(r + 1)\sqrt{n}}{r}, \quad (13)$$

or, equivalently, when

$$r > \sqrt{nc}. \quad (14)$$

Since the rate of interest is unlikely to be greater than \sqrt{nc} , equation (14) indicates that it is generally not the case that the block will be less likely to be rejected. It is generally much more likely that a buyer will reject a block than an individual stone. The intuitiveness of this result can be seen as follows. We have assumed that the value of the future premium stream, nc/r , is the same in the case of both the individual stone and the block.⁴² It follows that if this premium stream value is substantial, the probability of rejecting an individual stone must be essentially zero. If, for example, individual stones are priced at \$1,000 and nc/r is \$10,000, it is impossible that an individual stone will ever be rejected. Each individual stone by itself supplies such a small amount of information that a buyer will never reject solely on the basis of the individual observation.⁴³ On the other hand, because the variance of the *total* value of stones in a block is necessarily larger, the likelihood that a block will be overpriced by nc/r , and hence the probability of rejection, is necessarily larger.

Although not blocking appears to reduce the probability of rejection, it is far from obvious what such a selling arrangement would consist of.

⁴² As we noted above, see note 38 *supra*, the lost premium stream resulting from rejection is identical in the two cases only if we consider the individual stone to be the last stone offered in the current period. However, we want to assume that the buyers in the two cases are offered the same number of stones each period to avoid the effect that increasing the number of stones per period, whether blocked priced or not, has on decreasing rejection probabilities. Therefore, in general, the value of the lost premium stream will be greater in the individual stone case than indicated in the text. (For example, if the stone is the first stone of the period we must add $(n - 1)c$ as the lost premium this period to the nc/r lost in the future.) Hence, modifying our analysis in this manner would reinforce our results—it would be even less likely that an “average” individual stone will ever be rejected.

⁴³ It appears that the CSO can continue to supply low quality stones without any danger of rejection. However, if the expected premium per stone is assumed more realistically not to be a constant but to be endogenously determined by past CSO behavior, the expected premium stream and critical rejection value will decrease over time.

Presumably, rather than one price being given for the entire sight, each stone would be individually priced. However, since there are thousands of very small diamond chips in many sights, in terms of increased transaction costs this would be analogous to putting a price tag on each kernel in a can of corn. As an alternative, at very little additional transaction cost we could certainly imagine separate prices on each individual diamond packet ("paper") in the sight.

How are the individually priced stones or packets in the sight to be offered to nonblock buyers? One obvious alternative would be a sequential presentation of the stones with rejection of any individual stone leading to immediate termination of additional sales in this and future periods. This arrangement is similar to what we have analyzed above and implies that an individual stone will be less likely to be rejected. For that reason sequential presentation increases the seller's potential to cheat buyers by supplying a nonrandom (overpriced) sample of stones. As opposed to block pricing, or the presentation of all of this period's stones before the buyer purchases any stones, buyers do not see the entire period's supply. A cheating seller can assume that buyers who would reject an entire period's package of stones if it were made available for them to inspect would initially accept some overpriced stones when they are offered and examined sequentially. As an extreme case, if the buyer's entire promised lifetime supply were sold in a block this period, then seller cheating would not be possible. With sequential pricing buyers are, in a sense, locked into past decisions regarding acceptance.

Although a theoretical framework of sequential search is "natural" to an economist familiar with the standard models of, for example, labor market search,⁴⁴ such a framework is difficult to consider as a realistic marketing alternative. The transaction costs of instituting such a sequential arrangement generally would be prohibitive. The idea of a produce man in a grocery store handing each customer individually priced oranges one at a time, or the CSO salesman's presenting a sight to each buyer one individually priced stone or paper at a time, is extremely counterintuitive. The marketing costs of such an arrangement would be so high as to make the suggestion close to nonsense.

A reasonable alternative definition of nonblock sales may be the presentation to the buyer of a package of n individually priced stones, where the buyer is not forced to accept the entire package on a take it or leave it basis. Buyers could be told that if they rejected any individual stone in the package they would not be invited in the future to purchase stones, but in

⁴⁴ S. A. Lippman & J. J. McCall, *The Economics of Job Search* (pts. 1,2), 14 *Econ. Inquiry* 153, 347 (1976).

principle they would not be facing a blocked marketing arrangement this period. Yet such a marketing alternative implies greatly increased costs of oversearching. If CSO priced each of the stones in a sight individually and let buyers search through their sights and reject any individual stones they wished to, such a nonblocked arrangement would increase the last period gains to a buyer rejecting stones and substantially increase rejection probabilities.

In terms of our previous framework, a buyer will reject a block if and only if it is overpriced by more than the future expected premium, or, rewriting equation (9),

$$\sum_i (P_i - X_i) > \frac{nc}{r}. \quad (15)$$

With separate prices a buyer will reject some stones if equation (15) holds, but also more generally, if

$$\sum_{(X_i - P_i) > 0} (X_i - P_i) > \frac{nc}{r}. \quad (16)$$

That is, even if equation (15) does not hold, if the sum of the deviations of all underpriced stones in the package is greater than the capital value of the future expected premium stream, it will pay for the buyer to search through and separate out these stones and take his return now by rejecting the remaining stones in the package. Rather than increasing its categorization expenditures or the premium per stone it pays to buyers, the CSO prevents such increased rejection by demanding purchase or rejection of the entire sight.⁴⁵

More generally, the exact manner in which this period's n stones are priced is not as important as the fact that this period's transaction is not isolated but rather is part of a long-term continuing relationship. The crucial element of the De Beers marketing arrangement is not the block price in the current period but the large block sale over time to prespecified buyers. A limited number of repeat buyers are promised n stones per period forever, on which they expect to earn a valuable premium per stone. These rents and the termination provisions established by the CSO encourage buyers not to search and reject any particular sight, whether the sight consists of an individual stone or of a larger

⁴⁵ Even if eq. (15) held and stones would be rejected whether block priced or not, there is no reason to permit a buyer who determined his entire sight was so significantly overpriced as to reject it then to select out and purchase the most underpriced stones in the package. This would merely transfer wealth from the CSO to last-period buyers before they are terminated.

subset of the promised total “lifetime” supply. While separate pricing of the n stones supplied in any period eliminates the conditional tie-in sale within that period, it is the temporal conditional tie-in sale between periods of seller selected stones that is essential for the marketing arrangement.

E. “Blind” Selling and Seller Brand Names

The CSO could prevent buyer rejection of sights and hence oversearching without any rent sharing (buyer premium) merely by prohibiting buyer search, that is, by completing the contracting process and demanding payment before the buyer has an opportunity to examine the stones. Although this may seem unusual, it is a fairly common marketing practice. For example, a seller of potatoes may prepackage and sell them in opaque bags. Because hiding the quality information eliminates the incentive for buyers to search, such a policy by the seller may be both profit maximizing and socially efficient.⁴⁶ More generally, some element of blindness is present in all transactions where buyers do not know fully every characteristic of the product being sold or where contract specification and enforcement is not perfect, that is, every transaction where buyers rely on seller brand names to some extent.

The problem involved in prohibiting all consumer prepurchase inspection is that it creates an increased incentive for the seller to cheat buyers and hence the necessity for increased brand-name capital. If goods are sold blindly, sellers can intentionally supply a very low quality product and earn an extra short-run profit. This extra profit occurs only for a short period of time because buyers that are so cheated will refuse to purchase on such terms from the seller in the future.

The “seller cheating” problem in the case of the marketing of diamonds is the intentional supply by the CSO of low-quality (overpriced) gems. When such cheating is detected, buyers will refuse to purchase from the CSO on the same basis. Therefore, cheating is prevented if the extra

⁴⁶ An example where a producer deliberately made prepurchase quality inspection more difficult can be found in *FTC v. Adolph Coors Co.*, 83 FTC 32 (1973). Coors, a producer of beer with a limited shelf life, resisted a suggestion by the FTC that it open-date its product by marking each can with a packaging date. The additional cost of open-dating would be small, since each can was already marked with the packaging date in code. Coors’s resistance may be rational because the open-dating would encourage inefficient search by prospective purchasers and the necessity for a sliding scale of prices or a costly dispensing mechanism. With the dates in code, purchasers are forced to take a “random” sample from the seller’s shelves. In addition, open dating would “advertise” the beer’s limited shelf life and possibly decrease consumer demand. See Klein, McLaughlin, & Murphy, *supra* note 35. In addition to preventing inefficient oversearch, blind packaging reduces search and hence the uncompensated damage to goods that occurs in the process.

short-run profit that could be earned by the CSO is less than the present discounted value of the cost savings of their marketing arrangement.⁴⁷

Under blindness the capital value of short-run profit from intentionally supplying stones of a lower quality than anticipated is likely to be greater than the discounted value of the lost marketing cost savings after the selling arrangement collapses. While extreme forms of cheating, for example, placing gravel in packets and selling it as diamonds, could be prevented by explicit contractual specification of sale terms, the remaining short-run cheating potential is enormous. Given the CSO's imperfect classification process and somewhat subjective categories, the CSO's ability for short-run deception of blind purchasers of contractually specified grades of diamonds appears to be sufficiently high to prevent the use of blindness without some additional costly, firm-specific, nonsalvageable investments by the CSO.

Permitting prepurchase inspections reduces the CSO's short-run cheating potential but, as we have seen, makes it necessary to share the marketing cost savings of the CSO selling arrangement with buyers to prevent rejection of sights. For the CSO this is cheaper than the increased brand-name capital investment required under blindness. In equilibrium the present discounted value of the marketing cost savings net of the premium paid to buyers is greater than the lower short-run cheating potential under a system of buyer inspection.

The CSO can be thought of as possessing two distinct "brand names"—the expected discounted value of the net marketing cost efficiencies associated with their selling arrangement, which assures buyers that they will not cheat, and a reputation that it will share these marketing cost savings with buyers in the future, which prevents buyers from "cheating" them. De Beers's "monopolistic" return can be thought of as a normal return on these brand-name assets, and the likely economies of scale in creating these assets explain the stability of the marketing arrangement.

III. THE PARAMOUNT CASE

A. *The Economic and Legal Setting*

During the 1930s and 1940s, before the introduction and growth of television, movie attendance in the United States was substantially

⁴⁷ This is analogous to the mechanism used to prevent reverse franchisor cheating on franchisees by unfair termination. See Benjamin Klein, *The Borderlines of Law and Economic Theory: Transaction Cost Determinants of "Unfair" Contractual Arrangements*, 70 *Am. Econ. Rev. Papers & Proc.* 356 (1980).

greater than it is today.⁴⁸ On average, about five hundred feature films were produced yearly, with each of the eight largest motion picture distributors releasing between twenty-five and sixty films a year. The five “majors” named in the Paramount suit accounted for 73.3 percent of domestic film rentals in the 1943–44 season.⁴⁹ Distributors were fully integrated backward into production and partially integrated forward into theatrical exhibition.

Exhibition consisted of a series of separate runs over time, with contractually specified clearance periods between each run within designated geographical zones. First-run exhibition accounted for between 30 and 50 percent of total receipts, with later runs accounting for smaller and smaller fractions of revenues.⁵⁰ The last-run or neighborhood theater was the closest thing to television viewership today. While first-run theaters generally supplied a single feature program in elaborate surroundings for a variable period of time, often a few weeks, neighborhood theaters catered more to families and usually offered a program of double bills, shorts, and newsreels, changing their programs frequently, often twice a week. Of the approximately 18,075 theaters in operation in 1945, the eight largest distributors had an interest in 3,137, or 17 percent. However, their representation in first-run exhibition was large, controlling more than 70 percent of the first-run theaters in the nation’s ninety-two largest cities.⁵¹

First-run admission prices were higher than later-run prices, with film licensing contracts specifying minimum admission prices for each exhibitor and run. Distributor-set prices combined with the geographically and chronologically separated exhibition schedules implied by distributor-set run and clearance terms created a fairly transparent marketing arrangement to facilitate price discrimination among consumers.

Film rental terms generally were stated in contingent form, that is, percentage of gross revenues for earlier run showings and flat fee per time for later runs. Percentage rental terms were generally stated as a simple fraction of admissions revenue until some dollar amount, or splitting point, after which the rental percentage would be increased. (Sliding per-

⁴⁸ Average weekly movie attendance peaked during the immediate postwar period (1945–48) at 90 million, a figure greater than half of the total U.S. population. By 1953, weekly attendance had dropped nearly 50 percent to 46 million, clearly reflecting the growth of television ownership. Recently the market has become even more limited in size and also in the age of customers. Weekly attendance in 1976 was about 18 million people, 74 percent of whom were under thirty years of age. Cobbett S. Steinberg, *Film Facts* 45–46 (1980).

⁴⁹ Conant, *supra* note 14, at 36. Current annual U.S. production is approximately two hundred films, Steinberg, *supra* note 48, at 43, and distribution is less concentrated.

⁵⁰ The actual number of runs depended on size of city, with, for example, eleven runs in the 1930s in Chicago and fewer runs in smaller cities. Conant, *supra* note 14, at 69–70, 155.

⁵¹ *Id.* at 48–50.

centages of gross as a positive function of revenues—that is, multiple splitting points—sometimes existed.) Films were generally grouped in four or five categories or “classes” (determined largely by budgetary considerations) with different rental terms for each category. Percentage rental terms also declined with length of run and were sometimes specified to be lower for midnight shows.⁵² Percentage rentals generally ranged up to a maximum of 50 percent, after the split point, for the first week and first run of the best films.⁵³

Contracts between distributors and theaters for the exhibition rights to films typically covered a group or block of several different films. Since these “block-booked” contracts were made prior to the films’ production, they were also said to be “blind sold.” It is important to recognize that a common description of the usual block booking contract as an arrangement where “an independent exhibitor had to agree to license the distributor’s entire yearly output of features or he could license none,”⁵⁴ is clearly an inaccurate description of the practice. Only in the case of the small, late-run neighborhood theaters was demand sufficiently large for the exhibitor to choose to license the entire annual stock of several distributors. More generally, early-run theaters, including those owned by producer-distributors, contracted on a block basis for the “best” films available from various distributors to fill out their annual schedules. Contracting for a distributor’s entire schedule was therefore relatively rare.⁵⁵

⁵² See *id.* at 70; Howard Lewis, *The Motion Picture Industry 191–200* (1933); and Brief for the United States, app. *United States v. Paramount*, for a description of the contracts.

⁵³ See Brief for the United States, app. *United States v. Paramount*. *Gone With The Wind* was licensed at the very unusual rate of 70 percent. See *Motion Picture Films (Compulsory Block Booking and Blind Selling): Hearings on S. 280 Before the House Comm. on Interstate and Foreign Commerce, 76th Cong., 3d Sess. 542* (1940) (hereinafter cited as 1940 Congressional Hearings) (statement of William F. Rodgers). Today, film rental terms range up to 90 percent of gross, after deducting a contractually specified amount to cover exhibition costs (that is, the “house nut”). However, average film rental fees remain quite similar, with a 34 percent average rate paid currently (Steinberg, *supra* note 48, at 40); the average rate paid by the affiliated theaters to the eight distributor defendants was 27 percent, Brief of the Warner Defendants to the Supreme Court at 138, *U.S. v. Paramount*.

⁵⁴ Conant, *supra* note 14, at 77.

⁵⁵ Twentieth Century–Fox sold its entire output of fifty-two films in 1938–39 to less than 20 percent of their accounts. The bookings for the fifty-two films distributed by Paramount during the 1938–39 season ranged from 14,261 to 4,408 with a median of 7,855 (1940 Congressional Hearings, *supra* note 53, at 469, 584 (testimony of Charles C. Pettijohn and Hammond Wooper, respectively)). The Famous Players–Lasky Corp. (predecessor of Paramount) licensed their entire annual film output to only 4.6, 2.6, and 4.7 percent of the exhibitors they dealt with in 1922, 1923, and 1924, respectively. Lewis, *supra* note 52, at 158–59. Part of the confusion regarding the nature of the practice may be due to the fact that the original “trust” method of distributing films pre-1920 appears to have involved complete “program booking”; that is, the distributor’s films were rented on an all or nothing basis. See Ralph Cassady, *The Impact of the Paramount Decision on Motion Picture Distribution*

Most exhibitors dealt with too many different distributors to exhibit all of each distributor's films, shorts, and newsreels.⁵⁶

After an unsuccessful earlier attempt by the Federal Trade Commission to outlaw block booking,⁵⁷ in 1938 the Department of Justice brought a monopolization case against the industry and certain of its trade practices. In 1940 the government and the five major film distributors agreed to a consent decree that ostensibly eliminated block booking and blind selling. It required, among other things, that exhibition contracts be limited to five or fewer films and that every film be shown to exhibitors in each district prior to licensing.⁵⁸ Although the distributors followed the terms of the decree, the marketing of films remained largely unchanged. Exhibitors kept their designated runs, rented approximately the same number of films from each distributor as they had previously,⁵⁹ and almost never attended trade showings.⁶⁰

The government reactivated the Paramount case in 1944 in an attempt to modify the decree. The district court's opinion, issued in 1946, required an end to minimum admission prices, "unreasonable" runs and clearances, and block booking and the institution of a system of competitive bidding film by film in each run, open to all theaters regardless of past

and Price Making, 31 S. Cal. L. Rev. 150, 154 n.30, 155 n.46 (1958). This "full-line forcing" method of distribution had vanished by the time of the Paramount litigation.

⁵⁶ The fact that exhibitors almost universally licensed films from more than one distributor is inconsistent with the hypothesis that block booking served the purpose of preventing exhibitors' free riding on the brand name of the distributor. While it is true that the brand name of the distributor was relatively more important to consumers than it is today, block booking does not appear to have served a purpose similar to the use by a franchisor of an exclusive requirements contract on an important input. Neighborhood theaters, changing their double bill programs twice a week, demanded more than two hundred films a year, or more than three times the annual output of the largest distributor. Hence exclusive input supply was impossible. However, this "brand name" analysis of block booking can explain the use of block-booking-type contracts by the television networks. Free riding on the audience flows between programs in the absence of block booking is demonstrated by the supply of substantially lower-quality programming by the affiliates (that is, lower audience ratings) when the block was broken by the FCC prime time access rule. See William Jennings, *The Economic Effects of the Prime Time Access Rule* (1983) (unpublished manuscript, Cal. State Univ., Northridge, Dep't Econ. 1983).

⁵⁷ *FTC v. Paramount Famous-Lasky Corp.*, 57 F.2d 152 (2d Cir. 1932).

⁵⁸ *United States v. Paramount Pictures Inc.*, [1940-43] Trade Reg. Rep. (CCH) at S56;072 (S.D.N.Y. 1940).

⁵⁹ For example, prior to 1940 the State Theater in Norfolk, Virginia rented almost all its films from Loew's and United Artists. After the decree in the 1943-44 season the same theater rented thirty-six of its thirty-eight films from the same two distributors. See Loew's Brief to the Supreme Court, app. 2 at xii, *Paramount*, 334 U.S. 131.

⁶⁰ See testimony of William J. Kemper, general sales manager, Twentieth Century-Fox, *Supreme Court Briefs & Records*, *Paramount Trial record* at 1178-79, 334 U.S. 131 *United States v. Paramount*, 66 F. Supp. 323 (S.D.N.Y. 1946).

status or affiliation. Blind selling was permitted, but exhibitors were given the right to reject 20 percent of films licensed if distributors chose not to offer prior trade showings.⁶¹

The Supreme Court affirmed in 1948 the lower court rulings on the illegality of the trade practices, including block booking, but reversed the lower court's competitive bidding requirement. The Court maintained that competitive bidding would necessitate detailed regulation of the industry to evaluate and monitor essentially incomparable bid terms. Instead, the Court directed the lower court to reconsider divestiture of theaters as a more workable remedy.⁶² On remand the district court ordered the distributors to sell their theaters and, while not requiring a system of open competitive bidding, prohibited discrimination against small independent exhibitors in the licensing of films.

B. Prespecified Blind Buyers

Potential exhibitors during the period of the Paramount litigation contracted for their films blindly. Although they had some information about production budget estimates, likely writers, actors, and directors of each film title and the past year's gross rentals of the studio's films, they could not view the product they were purchasing. This is similar to the De Beers marketing arrangement where stones are ordered blindly. A major difference between De Beers and *Paramount* is that to economize on brand-name costs sight holders are permitted to check the quality of the diamonds they order before paying the CSO. Diamond buyers are, in principle, permitted to reject what they order while film exhibitors were not. Film rentals are fully blind, thereby increasing the short-run cheating potential and required brand-name capital of the distributor.⁶³ However,

⁶¹ *United States v. Paramount Pictures*, 66 F. Supp. (S.D.N.Y. 1946). *Paramount*, 334 U.S. at 163.

⁶² The Supreme Court also rejected competitive bidding on the grounds that such a system would place those exhibitors with "the longest purse," namely the defendants and the large circuits, at an advantage. *Paramount*, 334 U.S. at 164.

⁶³ Hammond Wooper, general manager of Twentieth Century-Fox, recognized the brand-name mechanism when he testified at the 1940 Congressional Hearings in opposition to legislation that would have prohibited "blind" selling. He stated that "[t]here is a belief that we sell, as it is commonly expressed, a pig in a poke. In reality that is not the way pictures are sold. We sell pictures the same as other articles of merchandise are sold. If you are the owner of a Buick car and you paid a certain price for it, and the time comes to repurchase a car, you either place your confidence in the machine you own or you change the type of machine that you are going to buy and this is the way motion pictures are negotiated for." 1940 Congressional Hearings, *supra* note 53, at 585. The necessity for brand-name capital explains one of the sources of the apparent relative economies of scale in current film distribution, namely, that small independent producers generally distribute through a "major," and the fact that blind selling currently is utilized only by the majors. See David Lees & Stan Berkowitz, *The Movie Business* 135 (1981).

the fact that the film rental payment is contingent on quality supplied, that is, stated as a share of gross, reduces the distributor's short-run cheating profit and his necessary brand-name capital.

Film licensing in the 1930s was similar to the CSO marketing arrangement in another respect. Distributors did not conduct a competitive auction among exhibitors for blind films, but rather dealt with de facto prespecified buyers. Given the elaborate discriminatory marketing arrangement of runs, zones, and clearances, theaters in particular geographical locations were predesignated in terms of run and all theaters could not freely bid on all films without creating an extremely complex scheduling problem. During the selling season, which began each fall and continued over the next few months, hundreds of unproduced films were fitted into the schedules of thousands of theaters. Each theater generally dealt with the same distributors each year, contracting in advance for the following exhibition season, for approximately the same number of films rented in the current season. The rental of films by theaters, very far from a competitive auction, was closer to a continuing franchise relationship.⁶⁴

Within this franchising environment it is unlikely that blind selling was employed to prevent prespecified exhibitors from searching to obtain an informational advantage over distributors. While films are average priced, oversearching does not appear to be important because distributors are much more likely than exhibitors to have information on the marketability of individual films. Prerelease screenings are not likely to supply much valuable information to an exhibitor. (If they did, the exhibitor would have a comparative advantage in production-distribution and should change his line of business.) In fact, as we have noted, when presale trade showings were required by court decree for a brief period of time, exhibitors did not attend them.⁶⁵

Rather than preventing the buyer from taking advantage of an informational asymmetry, the primary purpose of blind selling appears to be substantial inventory-cost savings. Given the necessity of scheduling exhibitors months in advance of release, trade showings, while supplying little or no valuable information, would increase distribution costs substantially.⁶⁶ The main impact of the 1940 decree requiring such trade

⁶⁴ Explicit franchise agreements giving the exhibitor exclusive rights to license the distributor's films over a period of time, usually more than one year, were entered into with affiliated circuits. See Brief for Plaintiff, app. at 50–58, *United States v. Paramount* 334 U.S. 131 (1948); and 1940 Congressional Hearings, *supra* note 53, at 645 (Statement of R. H. Poole).

⁶⁵ Nonattendance may have been due also to exhibitors' fear of losing their valuable run designation if they attended such showings. But we have not been able to find any evidence to support the existence of such a threat by distributors.

⁶⁶ Hammond Wooper testified at the 1940 Hearings that "each producing company would have to increase its inventory 50 to 100 percent to meet the requirements of the bill and that

showings appears to have been an increase in the inventory cost to distributors and an increase in the number of visits and hence the number of salesmen required to service exhibitor accounts.⁶⁷

C. Block Booking

The *Paramount* marketing arrangement appears to differ from the De Beers arrangement in the absence of search by buyers for an informational advantage over the seller. Although films are average-priced, rejection of individual films from the group ordered and supplied does not appear possible. Sales are blind, and even if they were not, prerelease search, such as attendance at a trade showing, yields little valuable information. However, one point in the transaction process is completely analogous to the De Beers arrangement in terms of the ability and incentive of buyers to take advantage of an informational asymmetry.

After initial first-run results become available, the limited information conditions under which the licensing agreements had been made are altered drastically and a significant exhibitor contract-reneging problem is created. In particular, after the initial marketing results are available, the films are no longer blind and exhibitors have a potential informational advantage over distributors. Exhibitors could increase their return if they could select a subset of the originally licensed films to exhibit. This would be equivalent to the rejection after examination of overpriced diamonds in the De Beers marketing case. Rejection by an exhibitor of films contracted for creates scheduling problems, entails a costly recontracting process and rearrangement of the planned run scheme, and leads to lower average license fees on the distributor's total film output. Blocking was used solely as a way to prevent exhibitors from engaging in this postcontractual rejection of overpriced films.⁶⁸

would require at least \$100,000,000 to \$200,000,000 of new capital. . . ." 1940 Congressional Hearings, *supra* 53, at 585.

⁶⁷ H. Huetting, *Economic Control of the Motion Picture Industry: A Study in Industrial Organization* 122–23 (1944 repr. 1971). Our analysis of blind bidding implies that both distributors and exhibitors would generally favor the practice. This appears to be consistent with the available evidence at the time. At the 1940 Congressional Hearings numerous independent theater representatives and owners voiced strong opposition to a proposed legislative end to blind bidding (and block booking). Support for the legislation primarily came from "disinterested" civic and religious consumer groups concerned about theater owners being "forced" to exhibit "immoral" films. The recent state legislative movement to outlaw blind-bidding arrangements, on the other hand, has been supported by exhibitor trade associations and is more difficult to explain.

⁶⁸ Postcontractual substitution of films by theaters within a zone also could prevent group and distributor maximization. For example, if two theaters in a particular zone are showing different films, say A and B, with weekly revenues of \$1,000 and \$200, individual exhibitor maximization may lead the second theater to substitute to film A from film B. This substit-

Block booking existed as a means of enforcing contractual commitments and thereby preventing exhibitors from rejecting films after initial run results became available. If a theater owner attempted to refuse to exhibit a film licensed on a percentage of gross basis, the block contract defined the liquidated damages. Once an exhibitor contracted for a particular group of films within a category and a total price was agreed on, the blocked contract stated that refusal by an exhibitor to accept a particular previously agreed-on film would require the exhibitor to pay $1/n$ th of the total agreed-on block price to the distributor.⁶⁹ Since the film of unanticipated low quality that the exhibitor would choose to reject will likely have a true value of less than $1/n$ th of the package price, the liquidated damage block-booking clause can be viewed as a disguised penalty clause. Block booking, or the intentional overpricing of ex post unexpectedly poor quality films, can be thought of in this context as a way of enforcing blindness, effectively preventing exhibitors from searching out and rejecting the poorest-quality films after their first-run results become available.⁷⁰

Block booking existed also in the sense of average pricing. Observers have generally described block booking as a practice where distributors systematically underpriced their good movies and overpriced their poor movies.⁷¹ This ex post result occurs whenever anticipated quality within a

tion may lead to a reduction in joint weekly revenue below \$1,200—say \$1,000 (\$500 at each theater). Distributors and consumers alike would seek ways to prevent this. If the contract were with an exhibitor in a one-theater town, postcontractual substitution would not be disruptive and hence would be permitted as long as rental fees were not reduced. 1940 Congressional Hearings, *supra* note 53, at 553 (statement of William F. Rodgers).

⁶⁹ Lewis, *supra* note 52, at 196; 1940 Congressional Hearings, *supra* note 53, at 430, 585 (Twentieth Century-Fox License Agreement and statement of Hammond Wooper, respectively).

⁷⁰ In addition to this contractual mechanism distributors could have used a quasi-rent stream mechanism similar to that employed by De Beers to prevent rejection. By reclassifying the theater's run designation, distributors could reward or punish exhibitors. See Conant, *supra* note 14, at 61–69; and *The American Film Industry* 164 (Tino Balio ed. 1976). The magnitude of the theater owners' investment was dependent on run and, given the complex scheduling arrangement, generally not costlessly and immediately transferable to another distributor. See, for example, 1940 Congressional Hearings, *supra* note 53, at 714 (statement of William G. Ripley), at 643 (statement of R. H. Poole), and at 600–601 (testimony of Roy L. Walker), for evidence that an exhibitor's run assignment was considered a valuable right. It is interesting to note that of the 450 arbitration cases filed between 1941 and 1946 under the terms of the 1940 Paramount decree (which established a system of arbitration tribunals where independent exhibitors were permitted to bring complaints against distributors) more than 400 were related to clearance or run designation disputes rather than to contract disputes. See Conant, *supra* note 14, at 96; and *Paramount*, 334 U.S. 131, 1860 (1948).

⁷¹ See, for example, Lewis, *supra* note 52, at 163; Bertrand Daniel, *The Motion Picture Industry: A Pattern of Control* 5–6 (1941). Conant, mirroring the explanation given by the court, notes that “[b]lock booking involved the transfer of monopoly power from popular

group cannot be measured perfectly *ex ante* and average pricing is employed. However, since most rental terms were set on the basis of actual performance of individual films *ex post*, why were more accurate pricing formulas not devised to minimize the extent of the average pricing present? The answer appears to hinge on the creation of optimal incentives for the supply of exhibition services.

D. *Optimal Incentives*

Flat lump-sum film rental fees appear to be the most efficient. The alternative, percentage rental contracts, entails two distinct costs—the costs of checking reported box office receipts and the costs of inducing exhibitors to supply optimum cooperative input levels. Since the costs of monitoring to assure accurate revenue reports by exhibitors are somewhat invariant to theater gross, flat rental fee contracts were generally used for the small, low-grossing, later-run theaters.⁷² Flat rental fees maximize exhibitors' incentive to supply cooperative inputs such as local advertising, cleanliness of physical facilities, competent ushers and projectionists, the number of shows, length of run, and program design.⁷³ Many of these exhibition services have a significant but not easily measurable effect on total attendance. Even if the optimum level of services were known *ex ante*, their supply could not be contractually specified in a precise, enforceable manner.

Flat rental fees can solve the exhibitor incentive problem only if the fee is totally independent of performance. The lump sum cannot be determined *ex post* on the film's results, since knowledge of the formula on which such a payment is to be made would defeat its purpose of not influencing marginal incentives. The lump sum cannot even be a particu-

pictures and actors of great public preference to inferior pictures and unknown actors. Distributors charged less than the highest possible price for superior films and more for inferior films than if sold singly." Conant, *supra* note 14, at 79.

⁷² See Conant, *supra* note 14, at 71; and Lewis, *supra* note 52, at 193–95 for a discussion of the magnitude of the monitoring of revenue receipts problem, including the problem of monitoring the monitors. Lewis concludes that "the rentals involved in many theaters were not large enough to warrant the expense involved in checking." *Id.* at 195.

⁷³ If the first or A film of a double feature bill was rented on a percentage of gross basis, the second or B film selected by the theater was required to be contracted for on a flat fee basis. Frank H. Ricketson, *The Management of Motion Picture Theaters* 194 (1938). To eliminate the incentive by exhibitors to rent lower than optimal quality B films, their flat rental fee was generally deducted from the gross before the sharing percentage was applied. This created an obvious contrary incentive on the part of the exhibitor to rent higher than optimal quality B films. Therefore some contracts contained a limit on the rental that could be deducted for the second feature. See, for example, Brief for the United States, app. at 127, *United States v. Paramount*.

lar amount per day because it would then distort incentives regarding length of run. The lump sum must be a one-time payment based *ex ante* on anticipated quality, related, say, to the film's production budget. Because film quality is so unpredictable, we would have a substantial variance within each anticipated quality/initial lump-sum payment classification. With such extreme *ex ante* average pricing, exhibitors would have the same desire to renege on contractual commitments by selecting individual films and rejecting others after initial results became available. However, since payment would presumably already have been made, renegeing would not be possible.

Although flat rental fees maximize exhibitor incentives and minimize monitoring costs, they may not be optimal for two reasons. First, such an arrangement would require an increased amount of distributor brand-name capital. Given blindness, exhibitors must rely on the brand name of distributors to supply the optimum type and magnitude of film quality and promotional services. A distributor's ability to increase in the future the average lump-sum rental fees on its films if it supplies an exceptionally high level of services in the current period (and the necessity to lower its rental terms when supply is lower than anticipated) is an expensive policing mechanism. The brand-name capital required for the mechanism to work is large, because the short-run cheating potential on the part of the distributor is substantial. Quality is not easy to specify contractually *ex ante*, and there is a large random element in audience acceptance. Thus the exhibitor cannot know cheaply, even *ex post*, whether low quality has been supplied intentionally. A contingent payment arrangement, by decreasing the distributor's short-run cheating potential, economizes on the required brand-name capital costs.

The producer-distributor's incentive problem is completely analogous to the exhibitors' incentive problem. The distributor could rely on the brand name of the exhibitor alone to supply the optimum levels of cooperating inputs in the production process, but presumably the required exhibitor premium stream and specific capital investment are too large, and a contingent payment economizes on the required brand-name capital.

When both parties to a transaction must supply important inputs that cannot be prespecified cheaply by contract and when brand name costs are nontrivial, a sharing arrangement, while it creates potential moral hazard problems, may be the most efficient solution. In a world of imperfect foresight, measurement, and enforcement, some combination of specification, brand name, and disincentive costs will be associated with any contractual arrangement. The efficient solution entails choosing the

particular arrangement that minimizes the sum of these transaction costs.⁷⁴

A second factor, in addition to increased distributor brand-name costs, that may make a flat-fee arrangement nonoptimal is that exhibitor disincentives (and hence required exhibitor brand-name capital) do not vanish under lump-sum rental fees. Given the elaborate distribution system of multiple runs, early-run exhibitors renting films for a flat fee will have an incentive to exhibit the film for too long a period and interfere with profit-maximizing price discrimination. Theoretically, flat fees produce no distortions only when property rights are fully defined. In this case they are not; a theater owner deciding to exhibit a film for a longer period of time produces an externality on later-run theater owners who have purchased exhibition rights.⁷⁵

An ingenious solution to this problem was the distribution contract with the large theater circuits. These circuits consisted of up to several hundred theaters under common ownership. The contract specified payment for licensed films based upon a percentage of the film's national gross (so-called formula deals). The circuit's actual success with the film did not affect the price paid,⁷⁶ so that the decreased average pricing of an accu-

⁷⁴ The contractual form and the particular share settled on will depend on the relative importance and contractual specificity and enforceability of the cooperating inputs involved. When particular services are extremely large and not easily contracted for, flat fees may be the full-cost-minimizing solution (including transaction costs). For example, although first-run theaters generally rented films on a sharing basis, when the exhibitors supplied live entertainment, the films were often rented on a flat-fee basis. See 1940 Congressional Hearings, *supra* note 53, at 983 (statement of Austin C. Keough). Alternatively, theaters were sometimes able to deduct the cost of a stage show, up to some maximum amount, from the gross in calculating percentage rental fees. Brief for the United States, app. at 131. Exhibitor risk aversion, rather than transaction-cost minimization, is an alternative, not mutually exclusive, hypothesis for the presence of sharing arrangements. However, one should in general be hesitant to accept risk-aversion explanations for contractual terms. Risk explanations are logically equivalent to relying on tastes to explain behavior. They ignore the separate insurance market that may develop in response to such tastes and the fact that many similar sharing contracts are observed in situations where risk considerations alone would appear to imply lump-sum payments (for example, royalty contracts made by publishers with authors). If both parties to a contract can shirk, a partial sharing arrangement may be shown to be optimal under fairly general measurement and transaction-cost conditions within a risk-neutral environment. See Benjamin Klein, Kevin M. Murphy, & Ben T. Yu, *Measurement Costs and Sharing Contracts* (1983) (unpublished manuscript, UCLA, Dep't Econ.).

⁷⁵ Vertical integration of first-run exhibition may possibly be explained by the fact that it had the largest variability of run length, in addition to the largest amounts of other cooperating inputs. The distributors could have been expected to use their reciprocal transacting positions with one another to assure exhibitor performance in all first-run theaters. See Benjamin Klein, Robert G. Crawford, & Armen A. Alchian, *Vertical Integration, Appropriate Rents, and the Competitive Contracting Process*, 21 *J. Law & Econ.* 297, 305 (1978).

⁷⁶ Conant, *supra* note 14, at 74.

rate ex post contract was combined with the incentive structure of a lump-sum contract. Since these circuits had theaters in various runs, the problem of unnecessary holdovers between runs would be solved. Contractual arrangements similar to these formula deals are still used with the large circuits in England.⁷⁷

Because these forces are likely to imply the use of a percentage of gross licensing arrangement, accurate ex post rental terms, as opposed to more approximate individual film average pricing (or blocking), would create severe exhibitor incentive problems. In particular, as the quality of an individual film increases, it is unlikely that the marginal rental percentage can likewise rise without disturbing exhibitor incentives. For example, consider a hypothetical case where it costs ten cents for the exhibitor to clean a theater seat and that it is worth twenty cents to the consumer to have the seat cleaned. If the film rental licensing fee is 50 percent (or lower) the seat will be cleaned. But if the rental fee of a higher-grossing film is raised beyond 50 percent the exhibitor will not clean the seat. Only if exhibitor services are supplied solely by a fixed cost, with no variable costs related to audience size, can the distributor increase the marginal rental percentage for higher-quality films without creating additional disincentives regarding the supply of exhibition services.

That block booking in the sense of ex post average pricing is related to exhibitor incentives is consistent with the fact that United Artists, which distributed films supplied by many independent producers and therefore required accurate measures of individual film values, licensed each film separately and extensively employed complex contracts with sliding rental percentages.⁷⁸ All distributors have now adopted similarly precise rental agreements. However, film licensing in England, which does not have the legal legacy of the Paramount decree, continues to have relatively simple contract terms with the maximum rate at 50 percent.⁷⁹

E. Product Splitting

If the Paramount litigation was designed to encourage allocation of films by competitive bidding, it was unsuccessful. In the period immediately following the final decree, open competition occurred in perhaps several hundred cases out of approximately 15,000 or more potential

⁷⁷ U.K., House of Commons, Monopolies Commission, *Films: A Report on the Supply of Films for Exhibition in Cinemas* 12 (1966).

⁷⁸ Brief on Appeal of Appellant United Artists Corporation to the Supreme Court at 25, *United States v. Paramount*; and Brief for the United States, app.

⁷⁹ U.K., House of Commons, *supra* note 77, at 8.

selling transactions,⁸⁰ and these instances were arranged so that the distributors would avoid the risk of suit by disgruntled exhibitors.⁸¹ Whenever possible distributors divided their films among competing theaters, either by assigning the films of a particular distributor or by assigning shares of the films of a particular distributor to competing exhibitors, with one exhibitor breaking the distributor's films into groups and the other distributor choosing first.⁸²

This "product splitting" instituted by the distributors strongly supports our analysis. It was a natural reaction to the final decree, representing an obvious attempt by distributors to continue the *de facto* franchise relationship that existed with exhibitors during the 1930s and 1940s. However, given the radical changes that occurred in the film industry in the 1950s, it is difficult to understand why the practice persisted and remains fairly common today. In particular, the multiple-run scheduling considerations that required long-term exhibitor relationships largely disappeared with the introduction and growth of television. Film attendance, the number of theatrical films, especially B films, the number of theaters, and the number of runs declined dramatically. Price discrimination via second- and later-run exhibition is accomplished today primarily with cable and then network television release.

In addition, as we have noted, during the postdecree period, pricing of films moved from an average block regime to one where individual films

⁸⁰ Cassady, *supra* note 55, at 161. One general sales manager of a large distributor stated in 1956 that competitive bidding occurred in only 3.2 percent of the selling situations. Motion Picture Distribution Trade Practices, Hearings Before a Subcomm. of the Select Comm. on Small Business, U.S. Senate, 84th Cong., 2d Sess. 372 (1956) (hereinafter cited as 1956 Senate Hearings) (statement of Charles M. Reagan).

⁸¹ As one company official stated, "The plain fact was that . . . [we] lawyers felt very keenly that the only way we could eliminate these endless legal disputes . . . was to have some system like competitive bidding which will afford the company an immunity. . . ." Problems of Independent Motion Picture Exhibitors relating to Trade Distribution Practices, Hearings Before a Subcomm. of the Select Committee on Small Business, U.S. Senate, 83d Cong., 1st Sess. 582 (1953) (statement of William Zimmerman). An antitrust division spokesman stated in 1953 that there were more than one hundred private antitrust suits pending against the major distributors, *id.* at 655 (statement of Philip Marcus). One company stated that it used competitive bidding only at the "specific request of one or more competing exhibitors or at the request of an exhibitor that he be licensed pictures on a run which had been formally licensed by his competitor." 1956 Senate Hearings, *supra* note 79, at 372 (statement of Charles M. Reagan).

⁸² Cassady, *supra* note 55, at 164; James Gordon, Horizontal and Vertical Restraints of Trade: The Legality of Motion Picture Splits under the Antitrust Laws, 75 Yale L. J. 239, 240 (1965); Cassady at 165 and Gordon at 241 n.5 make extremely weak attempts to rationalize this practice. Film licensing in England consists of quite explicit product-splitting arrangements in the form of right of first refusal agreements by the two major exhibition circuits, ABC and Rank, each accounting for approximately one half of all first-run releases. U.K. House of Commons, *supra* note 77, at 15.

were priced more accurately by complex sliding percentages. Interfilm variances in the length of run and in grosses increased, and the predictability of the value of a given studio's annual output decreased. In this period exhibitors complained less frequently that they were forced to rent overpriced bad films in order to rent (presumably underpriced) good films and more frequently that distributors demanded excessive amounts for their better films.⁸³

Yet as the industry and marketing arrangements have changed, product splitting has mysteriously survived. It is unlikely that a monopsonistic exhibition industry has imposed product splitting on reluctant distributors. Distributors initiated, and acquiesced in, the arrangement as an attempt to imitate the essential conditions, namely prespecified buyers, prohibited by the Paramount decree; and distributors could terminate it as easily by playing one exhibitor against another. Some exhibitors within each city are outside the split, and most split agreements include a provision for competition among alternative exhibitors if the distributor rejects the split designee. Alternatively, the distributor could bring suit against exhibitors who persisted against their desires for competitive bidding.⁸⁴ In cities where product splits are present, such distributor behavior is totally absent.⁸⁵

Instead of monopsony, a likely rationale for product splitting is as a substitute for average block pricing in creating correct marginal exhibitor

⁸³ Conant, *supra* note 14, at 150.

⁸⁴ The argument that distributors might be reluctant to bring suit against exhibitors and damage their good will in continuing relationships makes little sense. There already exists a substantial amount of litigation between these parties concerning underreporting of receipts and other claims regarding contractual breach, and a large number of private antitrust actions. See Ralph Cassady, Jr. & Ralph Cassady III, *The Private Antitrust Suit in American Business Competition: A Motion Picture Industry Case Analysis* (Occasional Paper No. 4, UCLA Bur. Business & Economic Research 1964).

⁸⁵ Most litigation with regard to splitting has involved suits by exhibitors excluded from the split. See, for example, *Viking Theater Corp. v. Paramount Film Distribution Corp.*, 320 F.2d 285 (3d Cir. 1963). There are a number of cases where distributors have claimed the illegality of product splits, but, as far as we know, these represent counteractions. For example, *General Cinema Corp. v. Buena Vista Distribution Co., Inc.*, 532 F. Supp. 1244 (C.D. Cal. 1982) represents a counterclaim by Buena Vista against General Cinema's original claim that a minimum film rental based on a per capita charge represented illegal price fixing. (This contractual term appears to be designed to prevent exhibitors from underpricing admission and overpricing a complementary input, such as popcorn, on which no licensing fee is paid.) The court dismissed the original complaint and ruled on the counterclaim that General Cinema's participation in split agreements was per se illegal. This decision is contrary to most recent opinions. See, for example, *Greenbrier Cinemas, Inc. v. Attorney General of the United States*, 511 F. Supp. 1046 (W.D. Va. 1981), which represented an exhibitor's challenge to the Department of Justice April 1, 1977, change in policy regarding the legality of splits. Distributors are, however, cooperating with the Department of Justice in their most recent attack on the practice of splitting in Milwaukee, *United States v. Capitol Service, Inc.* Civil Action no. 80-C-407 (E.D. Wisc).

incentives. In nonbidding situations, including cities where product splits occur, distributors engage in renegotiation, that is, adjust rental terms downward if the film performs poorly.⁸⁶ This behavior would be extremely unlikely if distributors were facing exhibitors imposing an artificially low monopsonistic price. Renegotiation serves the purpose of mitigating the increased marginal disincentives regarding the supply of exhibition services created by the accurate, single-film, complex pricing schedule. Although the supply of exhibition services cannot be specified fully in an ex ante contractual manner, the distributor will presumably know ex post if the exhibitor “did a good job” and this will be reflected in the final adjustment.⁸⁷ Such renegotiation is not possible in bidding situations without violating the terms of the auction that the film go to the highest bidder, thus opening the distributor up to a discrimination suit by an exhibitor that submitted a failed bid.

Although the evidence is unclear whether the existence of a split depresses rental terms,⁸⁸ it appears to have an unambiguous effect on lowering guarantees—minimum, nonrenegotiable, up-front rental payments for the film run. Although complex sliding-percentage rental terms now price individual films more accurately, they do not set prices perfectly. Therefore, given the absence of block booking, guarantees are an alternative means of preventing exhibitors from renegeing on contracts after initial poor attendance results become available. Money payments up front create the correct marginal exhibitor incentives regarding the supply of cooperating inputs, including run length and number of shows. The de facto long-term franchise arrangements with particular exhibitors implied

⁸⁶ See Cassady, *supra* note 55, at 176–77. Renegotiation only goes one way, namely, noncontractually required payments made by distributors to exhibitors.

⁸⁷ During the 1930s, renegotiation, although rarer and of a smaller magnitude, did occur when an entire block was, ex post, priced “unjustly.” See Loew’s Inc., 20 *Fortune Magazine* 25, 110 (August 1939); and 1940 Congressional Hearings, *supra* note 53, at 547. Contracts also contained provisions for reducing the percentages of gross in each price quality class if the aggregate receipts from films within that class fell below a contractually determined level. For example, for each film in the two highest percentage categories, if the theater did not earn a profit equal to at least one-third of the total film rental paid, the film automatically reverted to the next lowest category. Rickettsen, *supra* note 73, at 32–33; and Brief for the United States, app. at 131, *United States v. Paramount*.

⁸⁸ We would expect that a split would be accepted by a distributor only if rental terms are not lower. Charles M. Reagan, general sales manager and vice president of Loew’s Inc., stated that “. . . we have indicated a willingness to eliminate competitive bidding whenever possible in situations where returns from the theaters are comparable by licensing our pictures on a split basis, that is, dividing our product between or among competitors,” 1956 Senate Hearings, *supra* note 81, at 373 (statement of Charles M. Reagan). The evidence presented in *United States v. Capital Service*, Civil Action no. 80-C-407, indicates an unambiguously sharp decline in guarantees after the establishment of the split in Milwaukee (see exhibit GX9 and GX) but disagreement regarding the effect of the split on film rentals (see trial testimony of Ben Marcus and Irving Palace and exhibit DX509).

by product splitting with the possibility of distributor renegotiation reduce the necessity for such guarantees.⁸⁹

IV. THE LOEW'S CASE

A. *The Economic and Legal Setting*

Many of the films produced during the 1930s and 1940s, covered by the theatrical exhibition contracts declared illegal in *Paramount* became the subject of new litigation as they were released by the major motion picture producers for television exhibition. Among the approximately 2,500 feature films made available for television by 1956 were major portions of the pre-1948 film libraries of MGM, RKO-Radio Pictures, Columbia, United Artists, and Warner Brothers.⁹⁰

Distributors licensed feature films directly to local television stations. Each station renting a film received the exclusive right to air that film in its market area for some stipulated period of time. After a distributor announced the availability of a well-known library of films through advertisements in trade magazines (such as *Variety*) and direct mail advertising to local stations, the distributor's salesmen visited the stations offering a number of blocks of films. The contents of each block were named by the distributor, with each block consisting of a fairly representative subdivision of the entire library, and were uniform in composition throughout the country. Prices for the blocks were established by salesman negotiations with the stations in each market area, with the negotiating process often consuming several months.⁹¹

Not all license agreements covered distributor-selected blocks. Some stations were allowed to choose films from the entire library, cutting across the blocks. For example, only 113 of the 203 contracts made by Loew's and television stations between June 1956 (when they decided to release for television distribution their pre-1948 feature film library) and

⁸⁹ The common argument that guarantees are used as a means of reducing distributor's risk (see, for example, Film Studios Theater Retaliation against States Banning Blind Bids, *Los Angeles Times*, June 1, 1981, § 4, at 1, 3, 5) makes little intuitive sense given the relative asset positions of distributors and exhibitors, the ready access of distributors to more generalized capital and insurance markets, and the fact that they are used much less frequently in product splitting situations.

⁹⁰ *United States v. Loew's Inc.*, 189 F. Supp. 373, 382 (S.D.N.Y. 1960).

⁹¹ The description of a "typical" contracting sequence is a composite of testimony from the trial court case Civil Action no. 119-24, reproduced in *Court Records and Briefs*, Loew's, 371 U.S. 38. In particular see the testimony of Oliver A. Under, president of National Telefilm Associates Inc., *id.* at 5825-944.

March 1960 involved preselected packages of films or block booking.⁹² Nevertheless, in 1957 the government brought six separate civil antitrust actions against the six major distributors of motion picture films for television (Loew's, C&C Super Corporation, Screen Gems, Associated Artists, National Telefilm Associates, and United Artists) alleging that refusal to license films on other than a block-booking basis violated the Sherman Act. As opposed to the Paramount litigation, there were no allegations of conspiracy.

The suits were consolidated and tried beginning in March 1960. The government demanded that the defendants be required to license feature films to television picture by picture and station by station. The district judge ruled that even one instance of refusal to license motion picture films other than by block-booking was a violation and granted injunctive relief.⁹³ The Supreme Court upheld the decision and imposed the government's desired remedy, although it permitted a distributor to refuse to offer for sale to one station an individual film that was part of a block of films over which negotiations were currently in progress with a competing station.⁹⁴ The effect of this reservation was to allow the distributors to continue their existing selling practices: trying to negotiate block sales but permitting deviations.

B. Contractual Cheating

One possible explanation for block sales is contractual cheating. Many films are made with contracts requiring compensation of actors, directors, writers, and investors out of the film's profits. When a block of films is rented, the distributor may attempt to hide profits on an individual film by allocating the rental receipts for the block arbitrarily among the individual films. If some films in the block are not profitable or do not contain profit-sharing clauses, producers and distributors could attempt to assign them the lion's share of the proceeds from the block's price and thereby reduce the contractually obligated profit-sharing compensation they must pay on the successful films.⁹⁵ However, this form of contractual cheating is

⁹² The 113 block licenses included sixty-three contracts for the entire 723-film library, nine contracts for either preselected half of the library, thirty-six contracts for one or more of the three preselected groups of one hundred films, and five contracts for a group of sixty-seven films preselected by Loew's. Information about the Loew's contracts is from Court Record, Exhibits 626, Loew's Exhibit 21, Civil Action No. 119-24, Loew's, 371 U.S. 38. The information about the relative quantities of the various Loew's packages is found in Court Record at 675, 4869.

⁹³ Loew's, 189 F. Supp. 373 (1960).

⁹⁴ Loew's, 371 U.S. at 55.

⁹⁵ This may explain Twentieth Century-Fox's alleged violation of the Paramount decree in 1978 by forcing theaters to exhibit the unsuccessful film *The Other Side of Midnight* in

likely only if some unanticipated contingency occurs, not easily avoided contractually. If the potential cheating is anticipated, actors and investors would negotiate for an allocation device.⁹⁶ The Loew's case involved movies made in the 1930s and 1940s, when the possibility of future television sales must have seemed quite remote. Therefore explicit contractual protection against this form of opportunism must have been rare.

Although this explanation is appealing, it is not consistent with the facts of *Loew's*. The pre-1948 films in question were made under the "studio system." The actors, writers, and directors were on long term exclusive employment contracts and were paid a flat weekly salary.⁹⁷ Executive compensation for some of the producers and others employed by the studio was based in part on total studio profit and an agreement was reached by the distributors and the guild not to claim royalties on these television sales. All the evidence indicates that the distributors had, or acquired, full and exclusive rights to the films licensed for television use.⁹⁸

C. Price Discrimination

The most commonly accepted theoretical explanation for block booking is that it is a subtle form of price discrimination, where distributors use a block to set prices on films that unpredictably vary in relative value across geographical markets. This theory is intuitively appealing. Stigler found that first-run theatrical grosses of several different movies released during 1946–47 varied significantly across different U.S. cities. He hypothesized that the aggregate value of a group of films was more predictable and related to general factors of the particular market.⁹⁹ In fact, block-sale prices in *Loew's* appear to be fairly predictable across markets.

order to rent the highly successful film *Star Wars*, in which George Lucas had a 40 percent share of net revenues.

⁹⁶ An example of a contractual solution to an anticipated cheating opportunity can be found in *United States v. Columbia Pictures Corp.* 189 F. Supp. 153 (S.D.N.Y. 1960). The government challenged an agreement between Universal Pictures and Screen Gems, a wholly owned subsidiary of Columbia Pictures, in which Universal granted to Screen Gems a fourteen-year exclusive license to distribute for television exhibition approximately six hundred pre-1948 Universal feature films. Since Screen Gems also distributed for television substantially all of Columbia's pre-1948 films, the agreement further required that films in the two libraries would be classified before distribution into categories of comparable quality and that the Universal films would not be sublicensed to TV stations by Screen Gems for less than the Columbia films of comparable quality. The court recognized that without such an agreement it would have been possible for Screen Gems to shift profit from Universal to Columbia by offering TV stations Universal films at lower prices if they also rented Columbia films at correspondingly higher prices. See Robert H. Bork, *The Rule of Reason and the Per Se Concept: Price Fixing and Market Division*, 75 *Yale L. J.* 373, 461–64 (1966).

⁹⁷ See Balio, *supra* note 70, at 376–77.

⁹⁸ For example, Oliver A. Unger testified that both Loew's and Columbia owned their negatives fully. Court Record at 5840, *Loew's*, 371 U.S. 38.

⁹⁹ See Stigler, *supra* note 7, app.

TABLE 1
LOEW'S TELEVISION LICENSING CONTRACTS, JUNE 1956-MARCH 1960

	Loew's Selected Block Sales	Customer Selected Nonblock Sales	Total
One-station markets	a) 21 (29)	b) 31 (23)	52
Multiple-station markets	c) 92 (84)	d) 59 (67)	151
Total	113	90	203

SOURCE.—Data from Court Record, Exhibits 626, Loew's exhibit 21, Civil Action No. 119-24, Loew's, 371 U.S.; and Quigley Publications, *International Television Almanac* (1960).

one-station markets. In such a situation, which obtained in many regional markets in the late 1950s, distributors face monopsonistic buyers of their films. Therefore they obviously cannot leave it to competition to determine the final price of their films. The distributors must bargain, and superior knowledge of the value of a block of films compared with the value of each individual film separately may produce a relative bargaining advantage for them.¹⁰²

The evidence from the *Loew's* record indicates that the exact opposite occurred. Distributors were less likely to break preselected blocks in multiple-station markets, where interstation competition could be used to reveal valuations, than in single-station markets, where the supposed increased predictability in the valuation of the block was necessary for the distributor to counteract the superior information possessed by the monopsonistic buyer on the valuations of individual films.

Table 1 presents a two-way classification of each of the 203 Loew's contracts, reflecting whether the transaction involved a Loew's-selected

¹⁰² This assumes that buyers have better information than sellers about the relative appeal of individual movies. Otherwise buyers will also want to depend on their knowledge of the value of the block in striking a bargain. The existence of such asymmetrical information seems unlikely. Monopsonistic buyers in one-station markets may appear to be able to bargain price down to the seller's marginal cost, which in this case of previously produced films with essentially no alternative use is essentially zero. However, the seller can be assumed to make a firm commitment not to sell unless he receives his asking price, which he sets equal to the market-clearing price given by the estimated equation in note 100 *supra*. Such a commitment will be credible because the various regional markets are tied together by the exchange of price information and therefore an individual transaction is not isolated. As opposed to the standard bilateral bargaining problem, a seller who cuts the price below his commitment price in one single-station market loses revenues in other single-station markets as other monopsonistic buyers adjust their estimates of the seller's ability to keep his commitment. This potential loss in revenues in other markets serves as an incentive for the seller to maintain his commitment in any one market. The single station observation residuals in our estimated equation are not generally negative or very large.

block or a customer-selected film or group of films and whether the transaction was with a television station in a multiple station or single station market. Our restatement of Stigler's price discrimination theory predicts that cell *a* (Loew's "block" sales, one-station markets) and cell *d* (customer selected sales, multiple-station markets) would show more than the chance number of contracts. The chance numbers (in parentheses) are calculated on the assumption that there is no relation between the number of stations in a market and Loew's behavior. Since 56 percent of all Loew's transactions were block sales (113/203), we would naively expect 56 percent, or 29 of the 52 sales in one-station markets and 84 of the 151 sales in multiple-station markets also to be blocks. If the Stigler price discrimination hypothesis were correct, we would expect more than 56 percent of sales in one-station markets and fewer than 56 percent of sales in multiple-station markets to be blocks. Instead, only 40 percent of the sales in one-station markets (21/52) and 61 percent of the sales in multiple-station markets were blocks. The evidence indicates a significantly non-random distribution of transactions in the *opposite* direction one would expect from the price discrimination hypothesis.¹⁰³

D. Product Standardization

The films licensed to television stations in *Loew's* generally were of relatively low individual value. Although Justice Goldberg used *Gone with the Wind* in his decision as the hypothetical example of a desirable film with monopoly power to which sellers would tie less desirable films,¹⁰⁴ such exceptional films were not part of these agreements. The average three-year rental price for films in the National Telefilm Associates block discussed above was less than \$200 and in some markets it was less than \$20.¹⁰⁵ The films were generally "time fillers," randomly used by the stations at the end of the program day in, for example, the 11:30 P.M. time slot.

These films were of highly uncertain individual value. Potential purchasers could not merely check the original theatrical gross in the particular market of the individual film in question (reported in trade magazines such as *Variety*) and hope to obtain with some simple conversion formula an accurate estimate of the film's current TV license value. Very dramatic demographic changes had occurred in particular markets over the years

¹⁰³ Using a χ^2 test, the null hypothesis that there is no relation between single or multiple stations in a market and the presence of block sales can be rejected at a .05 level of significance ($\chi^2 = 5.807$).

¹⁰⁴ *Loew's*, 371 U.S. at 52.

¹⁰⁵ Court Record at 803-06, Exhibits 778, *Loew's*, 371 U.S. 38.

since original release and the values of the films had depreciated at widely different rates.¹⁰⁶ In addition, they could not rent the films on an ex post contingency basis, such as for a share of advertising revenue, because audience flows and the need to standardize for the presence of competitive programming made quality measurements difficult.

However, individual film values were not economically important. The station owners often programmed by choosing individual films randomly from the block, and advertisers purchased blocks of time without knowing during which film their ads would appear. As opposed to the De Beers case—where seller search for individual product quality information was duplicative because buyers would eventually have to determine value accurately when cutting the stone—in this case neither the distributor nor the station owner requires the information for any allocative purpose. All quality search, by both buyers and sellers, would be wasteful.

Information regarding the average value of films is economically relevant in determining price, and blocking can be expected to reduce these information costs. If Director's and Stigler's insight is correct, films' values are individually highly uncertain but are predictable in the aggregate. Distributors packaged films in a manner similar to De Beers's random selection of stones for sights, attempting to give buyers an average representation of the quality of the distributor's library. For example, Associated Artists Productions divided its entire library of 754 pre-1948 Warner Brothers films into thirteen groups of fifty-eight films each, with each group intended to be of the same overall quality and to be "balanced" to contain a similar mix of musicals, comedies, dramas, and westerns.¹⁰⁷ As a result, any buyer with an estimate of the overall quality of the Warner Brothers library also had an estimate of the "value" of each of the thirteen groups.

As opposed to the De Beers and Paramount situations, there may not appear to be a seller brand-name repeat-sale mechanism present to assure buyers that the films in the block are selected randomly. Some of the distribution companies in this case were formed solely for the one-time sale of the old film libraries to television stations. However, because we are dealing with a standardized product and therefore information collected from one transaction can be transmitted cheaply across markets, a

¹⁰⁶ George Hartford, vice president and general manager of Station WTOP testified that some older films, particularly musicals, were badly dated and would no longer be well received by the audience, Court Record at 391, Loew's, 371, U.S. 38. However, many of these musicals were later edited, spliced together and rereleased theatrically by MGM with great success as "That's Entertainment."

¹⁰⁷ See the testimony of Eliot Hyman, president of Associated Artists Production, Court Record at 5581, Loew's, 371 U.S. 38.

repeat-sale mechanism is present. If a nonrandom selection of films were made by the distributor, such information could be expected to be discovered after the first few sales and to be reflected in prices paid for the same block in other markets over time.¹⁰⁸

Films within these distributor-created packages were average priced. If buyers searched through these randomly created blocks and purchased individual films selectively, a negative externality would be created on the buyers of the remaining films in the block. In addition to knowing about the average value of a distributor's quality, buyers are familiar with the transaction price of the block in other markets and hence have information about the particular block's value. Given the predictability of block values across markets, we are dealing with a product that is standardized intermarket. Attempts by individual buyers to find exceptional values within the average-priced block destroy the standardization and create increased uncertainty about the value of the remaining films in the block.

Because Loew's had a fixed supply of films available for license and the marginal cost of licensing a film to an additional station was low, the license fee was almost a pure rent. Buyers' inspection costs would be borne almost entirely by the seller, who would have the incentive to choose selling practices that reduced search costs. Since breaking a block destroys valuable information and could be expected to induce increased buyer search, distributors would resist buyers' offers to purchase a part of a prepackaged block.

This information-cost theory of block booking is consistent with the evidence presented in Table 1. We would expect significantly more blocks to be broken in one-station markets than in multiple-station markets, because when a block is broken other buyers in the same market area can no longer use the knowledge of the average quality of the distributor's library and the price information generated on sales of the particular standardized package in other markets. Buyers in single-station markets, on the other hand, do not impose such externalities.

V. CONCLUSION

Although it is generally the case that there are many different economic reasons for the existence of any particular marketing practice, the essen-

¹⁰⁸ There is some indication that buyers in the various markets were in contact with one another. For example, Oliver A. Unger (of National Telefilm Associates, Inc.) testified that "[t]his is a business of so few people that you [as a film distributor] can do something in New York at 8 o'clock in the morning and you will hear about it in Seattle at 3 that afternoon. This is the fastest underground there ever was." Trial Record at 5870, *Loew's*, 371 U.S. 38. Since the stations in each of the 240 regional TV markets were not in competition with each other, they may have shared information with one another. In addition, transactions for the various standardized blocks and transaction prices were regularly reported in trade journals such as *Variety*.

tial rationale for block booking is the same in all three of the cases we have examined. Blocking serves to prevent buyers from rejecting parts of a package of products that has been average-priced. In the De Beers case, if stones in each sight were individually priced and buyers were permitted to search through and select the particular stones they wished, the probability of rejection would increase and De Beers would be able to sell the remaining stones in each quality category group only at a lower price. Similarly, in the Paramount case buyers cannot be permitted, after the initial exhibition results become available, to pick through the group of films originally contracted for at a particular average price per film and select the subset they wish. And similarly, in the Loew's case buyers must be discouraged from searching for exceptional individual film values within randomly selected groups of films that are priced on the basis of a fairly well-known average value.

The extent of average pricing required in these cases is substantial because of the degree of the underlying quality variance. The goods we have examined are unique in that the quality of the particular good is not easily known or cheaply controlled by the supplier. A precise estimate of the value of individual rough diamonds would require costly, duplicative examination costs. Similarly, the values of films are notoriously variable and not related very predictably to production costs, and accurate presale measures of individual product quality are costly and wasteful.

Average pricing could be eliminated, in principle, by the use of an ex post contractual mechanism such that the value of the good and hence its price would be determined only after final sale of the product to consumers. Even in the presence of substantial ex ante uncertainty regarding values of individual goods, there would presumably be no uncertainty ex post. However, all ex post contracts entail measurement costs in separating out the effects on final value of cooperating inputs in the production process. These costs of accurate ex post pricing are prohibitive in De Beers and *Loew's* and entail substantial incentive problems in *Paramount*.

Finally, in our cases, buyers must rely on the brand name of the supplier. This is not unusual in itself; for almost any good it is prohibitively costly to know before purchase or to specify in an enforceable way every element of quality. However, in the usual case it is generally assumed that sellers know the quality of the goods they are selling and their brand name assures the buyers that this quality will not be less than anticipated.¹⁰⁹ In our cases, sellers do not know very accurately individual product quality before sale, and their brand names assure performance in the sense that buyers have confidence that they have selected a random sample of goods

¹⁰⁹ See Klein & Leffler, *supra* note 34.

from the underlying quality distribution on which the average price is based. Seller brand names then prevent buyers from taking advantage of the informational asymmetries present within such average-pricing schemes.

The particular contractual arrangements chosen by the parties in the various cases are designed in part to minimize these brand name costs. To economize on brand-name capital De Beers has chosen to share their marketing cost savings with buyers, the distributors in *Paramount* have chosen an ex post pricing mechanism, and the distributors in *Loew's* have standardized their products. Sellers are optimizing so as to minimize transaction costs, recognizing that performance called for in every transaction is partially guaranteed by costly private brand-name capital mechanisms and partially guaranteed by costly government-enforced contractual mechanisms.¹¹⁰ The results of our analysis demonstrate that difficult-to-explain contractual terms can be analyzed rigorously rather than merely labeled as "noncompetitive." Although the contractual arrangements examined are incompatible with the perfectly competitive model, they provide us with an opportunity to improve our understanding of the competitive economy.

¹¹⁰ See Klein, *supra* note 47; and Oliver E. Williamson, Transaction Cost Economics: The Governance of Contractual Relations, 22 J. Law & Econ. 233 (1979).