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**ANATOMY OF THE RISE AND FALL OF A PRICE-FIXING
CONSPIRACY: AUCTIONS AT SOTHEBY'S AND CHRISTIE'S**

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Anatomy of the Rise and Fall of a Price-Fixing Conspiracy: Auctions at Sotheby's
and Christie's

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Abstract

The Sotheby's/Christie's price-fixing scandal that ended in the public trial of Alfred Taubman provides a unique window on a number of key economic and antitrust policy issues related to the use of the auction system. The trial provided detailed evidence as to how the price fixing worked, and the economic conditions under which it was started and began to fall apart. The outcome of the case also provides evidence on the novel auction process used to choose the lead counsel for the civil settlement. Finally, though buyers received the bulk of the damages, a straightforward application of the economic theory of auctions shows that it is unlikely that successful buyers as a group were injured.

Keywords: auctions, price-fixing, cartels, antitrust, commissions

JEL classifications: D44, K21, L41

1.0 Introduction

Prior to 1995, Sotheby's and Christie's, the world's largest auction houses, were in fierce competition for consignments from sellers. At times, they would drastically cut commission rates paid by sellers, make donations to sellers' favourite charities, and even extend financial guarantees to sellers. In March of 1995, this competition abruptly ended. Christie's announced that it would charge sellers a fixed, nonnegotiable commission on the sales price, and a month later Sotheby's announced the same policies. Detailed documents kept by Christopher Davidge, Christie's former chief executive, show that the abrupt change was due to a price-fixing conspiracy. Christie's cooperated with the US Department of Justice in their investigation, and Sotheby's ultimately pleaded guilty to fixing sellers' commissions but maintained innocence with respect to fixing buyers' premiums.¹ Because it ended in a public, criminal trial, this lawsuit provides an extraordinary window for viewing the operation of successful price conspirators.

In September of 2001, a civil suit was also settled when Sotheby's and Christie's agreed to each pay two hundred and fifty-six million dollars to the plaintiffs. The lead counsel for the civil suit, Boies, Schiller and Flexner, was chosen by an extraordinary auction process engineered by Judge Louis A. Kaplan. This civil suit alleged that in addition to fixing sellers commissions, Christie's had also conspired since 1993 to fix buyer's commissions. Thus, this class-action suit comprised anyone who had bought items in the United States from Christie's or

¹ Auctioneers earn revenues by collecting fees from buyers and sellers for their market making services. Fees are typically expressed as a percentage of the "hammer price" at which an item is sold. The hammer price corresponds to the figure the auctioneer announces as the winning bid. A fee paid by a buyer is called a "buyer's premium," while a fee paid by a seller is called a "seller's (or vendor's) commission." The hammer price plus the buyer's premium is called the "buyer's price," while the hammer price less the seller's commission is called the "seller's price."

Sotheby's between January 1, 1993 and February 7, 2000, and anyone who had sold items between September 1, 1995 and February 7, 2000.

Both the criminal trial and the civil settlement provide a unique window on a number of key economic and antitrust policy issues, and they demonstrate the important role that the theory and empirical analysis of auctions can have for these issues. First, because of the public trial, the defendants provided detailed evidence as to how the price fixing actually worked, when it was started, and when it began to fall apart. Some models of cartel formation predict dissolution to be more likely in downturns (Green and Porter (1984)), while others (Rotemberg and Saloner (1986)) predict the reverse, while the empirical evidence on this issue is mixed. The direct evidence available here provides credible evidence that establishment of the price-fixing agreement was, in part, the result of a downturn in the auction market for art and that the agreement began to fall apart in the subsequent upturn.

Second, the direct evidence also permits us to examine how and why the conspiracy was revealed. The justice department's policy of granting amnesty to co-conspirators in exchange for supplying the state's evidence appears to have been important to obtaining a conviction in this case.

Thirdly, we detail the auction mechanism that was used in choosing the lead counsel and discuss the incentives and outcome of that auction. The auction process appears to have resulted in a resounding success for the class action participants as a group. The damages were estimated to total between \$50 and \$75 million for each plaintiff over the 5 years of the conspiracy. Even after tripling these damages, as the US statute requires, the plaintiffs were very well rewarded given that they did not even have to risk a trial. Furthermore, a relatively low proportion of the damages went to the lead attorneys.

Finally, we show that the civil settlement was, in general, misguided. A very straightforward application of the economic theory of auctions shows that successful buyers, as a group, are unlikely to have suffered any injury from the collusion. However, they received the bulk of the damages. This mismatch between harm and the award of damages fails, therefore, to provide the proper incentive to private parties who seek the enforcement of the antitrust laws against price fixing.

We begin the paper in Section 2 by describing the details of the price fixing scheme, how it worked, and why the behaviour of Christie's and Sotheby's was eventually discovered. In section 3, we discuss who was injured by the price-fixing, showing how the incidence of commissions in auction sales falls primarily on the seller. In section 4 we discuss some potential policy implications, and in section 5 we conclude our discussion.

2.0 Price Fixing at Christie's and Sotheby's²

Allegations of price fixing between Christie's and Sotheby's have a long history. When buyers' premiums of 10% were first implemented in 1975 by Christie's, Sotheby's immediately followed suit. As described in Mason (2004) The Society of London Art Dealers and the British Antique Dealers Association hired legal counsel to try to stop Christie's and Sotheby's from imposing these premiums on the grounds that they had illegally colluded over the premiums. By 1981, the dealers' legal expenses had risen to £150,000. As the maximum penalty that Sotheby's and Christie's would have to pay under British Competition law was only £2000, the dealers stopped their campaign and settled with Christies for only £75,000.

The late 1980s were a boom period for the auction houses. However, in late 1990, the market collapsed. The early 1990s were very difficult periods for the

² Much of the discussion that follows is based on Mason (2004). Other references used in the discussion are *In Re Auction Houses Antitrust Litigation* (2001) and Stewart (2001).

auction houses. Not only were fewer items being brought to auction, but fierce competition was taking place between Sotheby's and Christie's over consignments. The competition took the form of drastically cutting commission rates paid by sellers, in many cases to zero, extending non-recourse loans that amounted to financial guarantees to sellers, and also making donations to a seller's favourite charity if an item sold over a specified amount. While Sotheby's net profit in 1989 was \$113 million, by 1991 it had fallen to only \$3.9 million.

In March of 1995, this competition abruptly ended. Detailed documents kept by Christopher Davidge, Christie's former chief executive, show that the abrupt change was due to a price-fixing conspiracy. By admission, the conspiracy involved at least Christopher Davidge and Diana (also known as Dede) Brooks, Sotheby's chief executive, and it was alleged to have involved Sir Anthony Tennant and A. Alfred Taubman, the chairmen of Christie's and Sotheby's, respectively. In fact, after a lengthy criminal trial, Taubman, a US citizen, was convicted of price fixing, which is a felony in the US. Although Tennant, a UK citizen, was also indicted in the US, price fixing is a civil offence in the United Kingdom and, as there are no provisions for extradition in such a case, he was not tried. Christopher Davidge (and in some cases Sir Anthony Tennant) had kept detailed records describing the conspiracy.

The venue where the price fixing took place is interesting in itself. Beginning in 1993, Sir Anthony and Mr. Taubman had breakfast meetings at Taubman's London flat in St. James and in Taubman's residence in New York. Evidence from the trial showed that they met on twelve occasions. Davidge and Brooks also met secretly on several occasions. On one important occasion, in which the exact details of the price fixing agreement were agreed between the two, Davidge took the Concorde from London to New York, arriving at 9:25 a.m., where Brooks met him in her private car.

They then sat in the parking lot for two hours in Brooks's car, until Davidge caught the 12:30 p.m. Concord back to London.

How exactly did the conspiracy work? After having had several meetings with Davidge, Sotheby's abandoned the practice in 1994 of offering interest-free advances and abandoned the practice of donating to charities in order to win business. Then, in March of 1995, Christie's issued a press release announcing that as of September 1st, it would charge sellers a fixed nonnegotiable sliding-scale commission on the sales price (see Table 1 below).

Table 1
CHRISTIE'S COMMISSION CHARGES FOR SELLERS

Effective September 1, 1995

ANNUAL SALES ACHIEVED	COMMISSION (% of final bid price)
Up to \$99,999	As now*
\$100,000-\$249,999	9%
\$250,000-\$499,999	8%
\$500,000-\$999,999	6%
\$1,000,000-\$2,499,999	5%
\$2,500,000-\$4,999,999	4%
\$5,000,000 and above	2%

*That is, 10% for most consignments, but retaining existing higher rates for lots selling for less than \$75,000.

Source: Mason (2004) *The Art of the Steal*

Sotheby's did not respond immediately, and in the meantime, as is predictable, because of the difference in commission rates, Sotheby's won a very significant jewellery consignment worth nearly \$10 million. Allegedly, Davidge at one point feared that Brooks had double-crossed him (Mason (2004), p. 167). However, on April 13, 1995, Sotheby's also announced its own new sellers' commission rates, which were very similar to Christie's, as presented in Table 2 below.

Table 2
SOTHEBY'S COMMISSION CHARGES FOR SELLERS

Effective September 5, 1995

DOLLAR AMOUNT	PRIVATE	DEALER	MUSEUM
0- \$99,999	Current commission rates		
\$100,000-\$249,999	9%	6%	5%
\$250,000-\$499,999	8%	6%	5%
\$500,000-\$999,999	6%	6%	5%
\$1,000,000-\$2,499,999	5%	5%	3%
\$2,500,000-\$4,999,999	4%	4%	2%
\$5,000,000-\$9,999,999	2%	2%	2%
\$10,000,000-\$24,999,999	lower of 2% or 50% of expenses		
\$25,000,000+	lower of 2% up to \$25 million and 1% on any amount of \$25 million or 50% of expenses		

Consignment-related expenses, such as those for insurance and illustrations, will continue to be charged to sellers at the current rates.

Source: Mason (2004) *The Art of the Steal*

After publication of Sotheby's commission charges, Christie's revised their charges for museums.

Christie's and Sotheby's adhered to these commission charges and did not negotiate with sellers until early in 1997. At that time, the art market had recovered and several major collections of art were being auctioned. Sotheby's had offered to waive its commission on a sale of Impressionist pictures from the estate of John Langeloth Loeb, and his wife, Francis Lehman Loeb. Representatives of the Loeb estate inquired of Christie's whether they would match this offer, and hence Christie's became aware of Sotheby's digression from the cartel agreement. Rather than waiving the seller's commission, Christie's agreed to make a large donation to the Loeb family foundation, thus restarting the practice of charitable donations, which Sotheby's and Christie's had earlier agreed to stop (Mason, pps. 205-207)

Soon after the publication of the commission tables, in June of 1996, the UK Office of Fair Trading announced that informal inquiries were being made into

possible anti-competitive practices at Sotheby's and Christie's that were in violation of Britain's Fair Trading Act of 1973 and the Competition Act of 1980. The authorities were concerned with the identical and non-negotiable commission rates. Then, in May of 1997, the U.S. Justice department issued subpoenas to Sotheby's, Christie's, and a number of art dealers that demanded all documents created since 1992 which relate to communication between auction houses. The subpoenas included but were not limited to documents relating to sellers' commissions, buyers' premiums and other conditions of sale at auction. For a while, it looked as if the investigations would fizzle. However, in late 1999, Christie's lawyers, in preparation for the government investigation, began to uncover evidence of a conspiracy. Several people at Christie's had suspected that price-fixing was occurring, and assiduous questioning by Christie's lawyers confirmed that it had occurred. This took place as Christopher Davidge was being replaced as Christie's chief executive. Working quickly, in January of 2000, Christie's lawyers agreed to an amnesty for Christie's conditional on Christie's cooperation with the Justice department's inquiry. Part of the amnesty was conditional on getting Davidge to cooperate with the government and, indeed, he was paid a large sum of money by Christie's conditional on his doing so.

3.0 The Criminal and Civil Settlements

3.1 The Criminal Settlement

The case progressed as follows (see especially Stewart (2001) for a detailed description). Davidge testified for the US government and was granted amnesty along with Christie's. Tennant could not be extradited because price-fixing was at that time not a criminal offence in the UK. Dede Brooks, now former president and chief executive of Sotheby's, pleaded guilty to one felony count of price-fixing on October

5, 2000, and promised to cooperate fully in the government's investigation. She was sentenced in April of 2002 to three years' probation, including six months home detention, one thousand hours of community service and a criminal fine of \$350,000. Taubman was convicted of price-fixing and sentenced to a one year jail term, and ordered to pay a fine of \$7.5 million.

The Justice Department agreed in January of 2000 not to prosecute Christie's in return for its cooperation in the case. In September of 2001, Sotheby's agreed to plead guilty to conspiring with Christie's to fix sellers' commissions, and agreed to pay a fine of forty-five million dollars over five years. Sotheby's maintained their innocence with respect to fixing buyers' premiums.

3.2 The Civil Settlement

Immediately after news of Christie's admission of price-fixing, Christie's customers began filing civil suits. In April of 2000, Judge Louis A. Kaplan agreed to class-action status for the suits, and furthermore announced that the lead counsel would be decided by auction. The law firms were asked to name a dollar amount that was the minimum sum they expected they could win for the plaintiffs, excluding fees or expenses. The law firm with the highest bid would then win the position of lead counsel, and would receive 25 percent of any settlement in excess of that dollar amount. The remaining 75 percent of the excess would go to the class members.

In September of 2001, the civil suit was settled when Sotheby's and Christie's agreed to each pay two hundred and fifty-six million dollars to the plaintiffs. The class in this law suit comprised anyone who had bought items through Christie's or Sotheby's in the United States between January 1, 1993, and February 7, 2000, and those who had sold through either of the two companies between September 1, 1995, and February 7, 2000.

In view of the way that fees were set, it is interesting to consider the legal fees that were paid to attorneys for the class members. The lead council received \$26.75 million, which was only about 5 percent of the total recovery. As pointed out by Mason (2004), in a suit in 1998 against NASDAQ, the plaintiff's lawyers had received \$143.7 million, which was 14 percent of the settlement. Thus, the auction designed by Judge Kaplan appears to be very successful.

The settlement of the civil suit is interesting, but appears to be misguided. Although Sotheby's did not admit to fixing buyers' premiums in the criminal settlement of the case, both Christie's and Sotheby's agreed to each pay \$256 million to both buyers and sellers. According to the settlement, this amount was calculated taking the price-fixing of buyers' premiums into account. According to *In Re Auction Houses Antitrust Litigation* (2001), "The proposed plan of allocation estimated the overcharges to sellers as 1 percent of the hammer price, and those for buyers to be 5 percent of the hammer price up to and including hammer prices of \$50,000, and \$2,500 for buyers at hammer prices exceeding \$50,000. The net settlement fund would be distributed to class members pro rata based upon each class member's overcharges during the relevant period." Even if Sotheby's had admitted to price fixing buyers commissions, as we show below, the settlement does not coincide with the injury that resulted to buyers and sellers.

4.0 Injury

4.1 The Effect on the Buyers

So, who was injured by the Sotheby's -Christie's price-fixing conspiracy? Let's first take the case of buyers' premiums.

4.1.1 An Initial Analysis

As pointed out in Ashenfelter and Graddy (2003) the usual theory of private value auctions implies that, to first order, buyers deserve no compensation due to increased commissions. This applies whether or not the increase is in sellers' commissions or buyers' premiums. The following is the reason why. When a buyer decides to bid in an ascending price (or "English") auction, his strategy should be to bid up to his reservation price, if necessary. The price that the winning bidder has to pay is essentially (epsilon above) the reservation price of the second highest bidder. For example, if the reservation price of the highest bidder is v_1 and the reservation price of the second highest bidder is v_2 , and there are no commissions, the winning bidder wins the auction at approximately v_2 . These reservation prices do not change with changes in sellers' commissions. When buyers' premiums are implemented, each buyer should reduce his reservation price by an equivalent amount, resulting in a reduction in revenue to the seller by the amount of the buyers' premium. For example, if commissions are charged at 10% of the hammer price, the bidder with the highest reservation price is now willing to pay a price, p_1 , such that $v_1 = p_1 + p_1 * .10$, or rearranging, $p_1 = v_1 / 1.1$. The price that the bidder with the second highest reservation price is willing to pay is affected similarly. Thus the hammer price becomes (epsilon above) $v_2 / 1.1$. The higher the commission, the more the buyers reduce their bids. Hence, the entire increase in buyers' commissions should fall on the seller.

There is some evidence to support the view that buyers' premiums are shifted to sellers. Ashenfelter (1989) studies the difference in prices at Sotheby's and Christie's wine auctions when the former charged a 10% buyers' premium while the latter charged no buyers' premium. Indeed, hammer prices at Christie's were 10% higher than at Sotheby's during this period, but this difference disappeared when Christie's adopted the same buyers' premium charged by Sotheby's. In short, both

the conventional theory of private value auctions, and the available evidence, support the view that buyers would not have been injured by the price fixing.

4.1.2 Complicating Factors

This analysis would be complete if the sellers did not set reserve prices and if the number of buyers and sellers in the auction were fixed. However, in practice, sellers set a secret reserve price, so that some items go unsold because the bidding does not reach this (seller's) reserve price. To the extent that buyers are unconstrained by the reserve price, because the item sells for a price higher than the reserve, the analysis above is unaffected.

As Ginsburgh, Legros and Sahuguet (2004) show, for the situation where the reserve price is binding, however, it is possible that the buyers will end up paying a higher price because of the existence of the buyer's premium. However, if the presence of a reserve price causes the number of bidders participating in the auction to decrease, then prices can be pushed down. This can occur if a buyer's cost of participating is greater than his expected surplus. Ginsburgh, Legros, and Sahuguet (2004) provide an example where the decreased participation of resulting from higher commissions actually helps the buyer!

Buyers who fail to purchase or participate in the auction because of the higher commission rates are worse off. In any case, however, this is a second order effect and any harm done to those who do not purchase is not capable of empirical identification. Overall, Ginsburgh, et. al. conclude that ex-ante, the welfare of all bidders is the same, regardless of the commission.

The above analysis does not take into account the possibility that if sellers' supplies are elastic, some sellers may not offer their objects for sale due to the increased commissions. This could result in more buyers competing for the same

item, if buyers are willing to substitute between items, and the increase in the number of bidders for each item may push up the price paid by the winning bidder.

It is reasonable to suppose that participation effects and the effect of strategic manipulation of reserve prices are small relative to the effects that higher commissions have directly on sellers and buyers. To date, the theory upholds the initial reasoning that increased commissions should have a minimal effect on buyers, with the incidence falling fully on the sellers.

4.2 Sellers' Commissions

Certainly to first order, the sellers were injured, as they had to pay a higher commission rate on any sale that they made. It is possible that increased buyer competition resulting from fewer items being brought to market partially compensated sellers that actually sold for this increased commission. However, it is also possible that increased commissions decreased buyer participation, forcing sellers to pay dearly for the increase in commissions. Sellers that withheld their items from the market certainly lost out, but these sellers would not be identifiable.

4.3 Sotheby's and Christie's

Sotheby's as a company was clearly injured by the \$45 million criminal fine, and the \$256 million civil fine. The civil fine represented approximately 5 years of profits. Without Taubman's personal contribution of \$186 million, the fine could have bankrupted the company. Sotheby's shareholders suffered a 15% drop in the stock price the day after the headline that Christie's was cooperating with the government regarding price-fixing with Sotheby's, and the stock dropped another 15% the day after Taubman and Brooks resigned. It is difficult to calculate the exact amount of the total drop that was due to the scandal as other forces also affect the stock price, but it was clearly significant.

Although it is difficult to quantify, some portion of the full costs of the settlement were borne by Sotheby's employees. As stock options made up a large amount of compensation for senior staff, the senior employees at Sotheby's paid some portion of the cost of the settlement from their loss. Because of the fines, there was also considerable financial tightness at Sotheby's, resulting in lay-offs of some employees and less generous benefits for others. Finally, it was reported that many employees felt physically ill because of the betrayal they felt from their chief executive and chairman (Mason, p. 273)

While Christie's avoided the criminal fine, Christie's was still required to pay the \$256 million civil settlement. Christie's was a privately held company, and the large fine clearly affected the value of the company and its major shareholders. In May of 1998, Francois Pinault, a French billionaire investor, became Christie's largest shareholder. He was apparently not pleased to have purchased the company at the price that he did, in ignorance of the antitrust issues and the future fines that he and Christie's would bear.

4.4 Key Participants

Alfred Taubman was probably the participant who ended up being injured most by the price-fixing agreement. He still maintains his innocence, but he was convicted of price-fixing by a federal jury. He spent nearly a year in jail (his one year and one day sentence was reduced by 54 days due to good behaviour), and he forfeited nearly 1/5 of his personal fortune in fines. He was forced to step down as chairman from Sotheby's, though he remains the controlling shareholder.

Anthony Tennant resigned as chairman of Christie's in May of 1996, at the expiry of his first 3-year term. The resignation was not in connection with the price-fixing. As price-fixing is not a criminal offence in the United Kingdom, Tennant

appeared to suffer very little from the scandal, though his reputation as a businessman was undoubtedly damaged. He resigned as deputy chairman of Arjo Wiggins Appleton, an Anglo-French paper company with extensive American holdings because he could no longer travel to the United States. If he were to enter the United States, he could be detained due to his role in the price-fixing agreement. However, he remained a senior advisor to Morgan Stanley's London branch.

Dede Brooks avoided a jail sentence, though she was sentenced to three years probation, including six months of home detention during which she had to wear an electronic ankle bracelet, one thousand hours of community service and a criminal fine of \$350,000. Furthermore, she was forced to resign as CEO in October of 2000, just before her guilty plea, and to forfeit all stock options and Performance Shares owned in the company. She entered into an agreement with Sotheby's in March of 2000 that required her to pay \$3.25 million to Sotheby's. This represented all of the after-tax compensation she had earned with Sotheby's since 1993. She was also responsible for all of her legal fees. Brooks was also forced to resign from a number of other boards, including the board of the Yale Corporation, the charitable foundation of Yale University, and the board of Morgan Stanley Dean Witter.

Christopher Davidge was not injured from the price-fixing scandal. He was granted a severance payment of £5 million (\$8 million), but with the condition that he had not brought Christie's into disrepute or broken any law. However, this condition was dropped as the government wanted him as a witness in the Taubman trial, and convinced Christie's into producing him as a part of their amnesty deal. Davidge agreed to testify only on the condition that he unconditionally receive his full severance payment, and that he be fully indemnified in any civil litigation (Mason, p.

286). He also received a retirement pension consisting of a capital payment of \$1.6 million plus \$339,000 per year (Mason, p. 362).

5.0 Economic and Policy Implications

5.1 Theories of cartel stability

Alternative models of cartel formation imply different predictions for the determinants of cartel stability. Green and Porter (1984) argue that in a world of fluctuating demand, cartel policy often involves trigger prices. In theory, when a firm observes a price below the trigger price, it could be because of an unexpected downturn in business, or it could be that another member of the cartel is cheating. Whenever a lower price is observed, firms must respond by lowering their prices in order to punish any possible cheaters. In equilibrium in their model, no firms actually cheat, but the cartel breaks down during times of low demand as firms lower their prices in order to enforce their cartel agreement.

Alternatively, Rotemberg and Saloner (1986) argue that firms find it much more profitable to cheat on a cartel agreement when business is booming. More business is to be gained from cheating during booms; furthermore the punishment phase is likely to occur afterwards, only as the economic cycle starts to head downward. While collusion may be sustainable during booms, it will be at much lower prices relative to collusion during bust periods. Thus, overall, cartels are more likely to break up during times of high demand.

The empirical evidence on when collusion begins or breaks up has been mixed. A very detailed survey of this evidence has recently been provided by Levenstein and Suslow (2002). Some case studies, such as Porter's (1983) study of railways, conclude that cartelization breaks down during economic downturns while others, such as Eswaran's (1997) and Gallet and Schroter's (1995) studies of the

rayon industry, indicate the reverse. Larger scale cross-section studies, which date from Posner's (1970) pioneering work, seem primarily to find that unstable product markets lead to unstable cartel arrangements and are likewise inconclusive.

The Christie's - Sotheby's agreement clearly was started as a response to a very weak auction market, and it started to break up only once the market had improved. As the market improved Christie's and Sotheby's were both very keen to obtain high profile consignments as these would be very profitable, and they felt it in their interest to cheat. This case provides evidence for collusion breaking up during boom times, and thus adds to the debate on cartel stability.

5.2 Amnesty

In 1978, the Antitrust Division announced that it would consider lenient treatment of corporations or officers that voluntarily report their involvement in price fixing prior to government detection. Leniency was not automatic, but was conditional, and was only granted to the first firm to come forward. Even after this announcement, applications for leniency only averaged one a year. The Antitrust Division then revised the policy in 1993, which resulted in more frequent use. Under the revisions, leniency would be automatic if the corporation satisfied six requirements. Furthermore, and perhaps most important, the new laws granted amnesty even in cases where the government had already started an investigation. After these changes, and in the presence of higher criminal fines that were implemented in the late 1990s, applications for amnesty averaged about two per month. Kobayashi (2001) provides a detailed explanation of the new laws.

Would the price-fixing at Sotheby's and Christie's have come to light without the amnesty laws? Our best guess is, probably not. First of all, a federal investigation had already begun into price-fixing at Christie's and Sotheby's. Hence, under rules in

effect prior to 1993, neither firm could be granted amnesty. Thus the firms would not have had any incentive to report their collusion to the government. Secondly, as discussed in Mason (2004), it appears that most of the wrongdoing was discovered by Christie's lawyers, as they were preparing to answer questions raised by the government's antitrust investigation. Without the race to report collusion (as in this case only the first firm to do so has the ability to claim amnesty), it seems unlikely that Christie's lawyers would have been so assiduous in their questioning of Christie's employees. Hence, it appears that a key factor in this case was the change in the 1993 treatment of price-fixing investigations.

At first glance, it may appear that the ability to declare amnesty also resulted in a very uneven distribution of those who were required to compensate for the damages paid to the plaintiffs. However, when civil and criminal damages are considered together, Sotheby's total fine was \$301 million (\$256 million of civil damages plus \$45 million of criminal damages); while Christie's fine consisted only of the \$256 million of civil damages. Nonetheless, Christie's fine was 85% of Sotheby's total fine, which is significant.

The fact that Tennant and Davidge, as participants, were not injured at all, while Taubman and Brooks suffered severe damage due to their participation in the price-fixing scheme, is a more obvious case of unbalanced penalties. No doubt part of this difference is due to the key advantage given to individual participants who are the first to provide the government with evidence. However, in this case there is a further complication introduced by the stark difference between the US and UK antitrust laws, which certainly played some role in the differential treatment. Davidge may not have received his \$8 million from Christie's in severance payments without the amnesty clause, but, as the \$8 million was received from Christie's, this amount was

equivalent to an increase in Christie's fine. And, absent the amnesty clause, it is unclear whether, as was the case with Sir Anthony, it would have been possible to try Davidge in the criminal case. Thus, the amnesty clause was instrumental in identifying price-fixing, but it did not result in very different financial penalties for the parties, and it does not appear to be entirely responsible for the lopsided damages placed on the individual participants.

5.3 The Auction Process for Lead Counsel

At first glance, the auction process that appointed Bois, Schiller and Flexner as lead counsel appears to be a resounding success that resulted in a very large civil settlement to the class. Although remarkably candid about her role in the fixing of sellers' commissions, Ms. Brooks did not provide any evidence of collusion with respect to buyers' premiums or of damages that such collusion might entail. Ms. Brooks estimated that the collusion on sellers' commissions resulted in higher profits to Sotheby's of some \$10 to \$15 million per year. Assuming that Christie's received the same increased profits implies that total damages suffered by sellers would be on the order of \$20 to \$30 million per year. Assuming the conspiracy lasted 5 years (approximately the time period involved) suggests total damages of \$100 to \$150 million. Since price fixing damages are, by statute, tripled, it appears that the plaintiffs were amply compensated for the harm they incurred, especially in view of the fact that they did not have to proceed to the uncertainty of a trial. Furthermore, as discussed above, the legal fees, at \$26.75 million, were a relatively small part of the settlement.

Whether, from the point of view of public policy, as opposed to the narrow interests of the plaintiffs, the auction system was a success is more difficult to assess. If the auction process was successful because the legal counsel best equipped to

estimate the potential damages was appointed, then this auction process was truly a success because it ensured that antitrust injury was aligned with the damages assessed and did not incur the costs of a trial. However, it is unclear whether this is the mechanism by which the auction process works. An alternative explanation is that the auction process may have altered the bargaining power of the plaintiffs relative to the defendants by ensuring that the plaintiffs had more aggressive attorneys than would otherwise be the case. Because the plaintiff's lawyers would not be compensated at all if the settlement fell below their bid level, it is likely that attorneys with the greatest taste for risk would submit the winning bid. Though this may have generated a greater settlement for the plaintiffs than would otherwise be the case, it is unclear that this provides the best method for aligning penalties with antitrust injury.

Nevertheless, given the success that Judge Kaplan's innovative method for the selection of legal counsel attained, it is surprising that it has not been experimented with more often. Only further experience with such a method can provide the evidence to assess its effectiveness.

5.4 The Compensation of Buyers at Auction

Buyers ended up with the great proportion of the settlement, despite the fact that is unlikely that successful buyers as a group were harmed at all. Could this be avoided in the future? The problem here seems simply to be that the economic analysis of the damages was faulty. It is unclear whether this was simply a result of ignorance of the relevant theory and empirical methods, or whether there is some unexplained political or bargaining issue that led to the settlement that resulted. Buyers at auction, regardless of whether the buyer's premium was changed, should not have participated in the settlement.

At what point should this have been brought out? Sotheby's and Christie's would have had no interest in pointing out the incidence of commissions, as the amount of damages would be the same, whether they were awarded to the buyers or the sellers. The lawyers who represented the sellers should have been primarily responsible for ensuring that their clients were properly compensated, but to the extent that buyers and sellers were represented jointly, it is unclear that the attorneys had any incentive to bring this issue forward. Ironically, Judge Kaplan, in approving the settlement, remarked on how unlikely it was that that injury to the buyers could be proven:

No one, as far as the Court is aware, has admitted price-fixing on the buyer side....Thus, while there is a prospect of a recovery as high as \$600 million on the buyer side, a finding of liability is not assured and likely would be established only after considerable time and additional effort....³

He approved the settlement in any case because it was voluntarily negotiated by the parties, who should have more knowledge of the facts and risks associated with a trial than he did. Possibly he was wrong in this presumption!

6.0 Conclusion

The Sotheby's-Christie's price-fixing scandal that ended in the public trial of Alfred Taubman provided a rare glimpse into the world of collusion. It provides evidence of the market conditions under which the collusion began and the market conditions under which the collusive agreement began to fall apart. It also allows an evaluation of the government's amnesty program in light of the settlements and the alleged conduct of the conspirators.

³ *In Re Auction Houses Antitrust Litigation* (2001), section C.

The civil settlements, and the way in which they were conducted, provide equally interesting case studies for economists. Based on this example, more public discussion and academic research directed at the question of whether the auction is a useful format for choosing the lead attorneys would be useful. Furthermore, in this case the split up of the civil settlement between buyers and sellers was grossly misguided. It would be interesting to know how often such misguided analyses are present in similar legal situations.

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