CHAPTER 31

Auctions in M&A

INTRODUCTION

The *auction* as a method of purchase or sale is important to the M&A practitioner for three chief reasons. First, in one or another guise, it is widespread in business. Examples include control contests (such as hostile takeovers); privatizations of state-owned enterprises; divestitures; liquidations; sale of assets in bankruptcy; rights to exploit natural resource reserves such as oil, timberland, or broadcast spectrum; rights to assets created by regulation such as import quotas, pollution rights, or airport time slots; rare assets such as art, books, and athletic talent; construction contracts; agricultural products such as raw tobacco in North Carolina and cut flowers in the Netherlands; U.S. Treasury bonds; organized equities exchanges; and commodities markets. This chapter outlines the main types of auctions, one of the most prominent auctions in the history of M&A, and some lessons derived from research on auctions.

Second, auctions are siblings of negotiated transactions; to understand auctions is to reinforce one's understanding of negotiation. As emphasized throughout this book, process affects outcomes. Therefore, mastery of the field of M&A depends on understanding the process drivers of transactions such as auctions. This chapter highlights some key process drivers and their implications for practitioners.

Third, understanding the economic implications of auctions is vital to mastering the subject of hostile takeovers, the source of the most visible, contentious, and high-stakes transactions. Numerous popular misunderstandings about takeovers stem from unfamiliarity with basic ideas in auction theory and behavior.

Important practical lessons in this chapter are:

- Auctions differ markedly from negotiations. If a negotiated deal turns into an auction (seen where the entry of a hostile bidder triggers the target board's Revlon duties), you should prepare for dramatic changes in process and outcomes and adopt a new mind-set.
- Auctions invite strategic thinking. The rules of the auction will shape the strategy one may adopt.
- M&A auctions still involve a large element of negotiation. This complicates the strategy making of both buyer and seller, but also opens fresh opportunities to improve each side's gains in the deal.

- In holding an auction, the seller should express clear rules, adhere to the rules, manage the process to ensure credibility and integrity of the outcome, and seek to increase the number of buyers.
- In participating in an auction, buyers should know the rules and develop strategy in their context. This includes knowing your reservation price. Rules, strategy, and reservation price can help you avoid getting caught by the "*winner's curse.*" It may benefit the buyer to challenge the rules or persuade the seller to abandon the auction and consummate a negotiated deal; the buyer has several possible tactics with which to stimulate such a change.

AUCTION STRUCTURES AND MOTIVES

An auction is a process by which an asset is sold by soliciting bids from buyers; the event is public and governed by rules of conduct that culminate in the sale to the highest bidder. Though this is a conventional definition,[1] auctions in M&A do not strictly conform to this model—they may be neither a single event, truly public, ruly, nor won by the highest bid. But to understand how M&A induces such departures, it is necessary to survey the types of auctions and to place them in the broader spectrum of transactions.

The Auction in the Spectrum of Asset Sales

The formal auction is but one method by which a seller can find a buyer. McMillan (1994) outlines four methods and contrasts them on dimensions such as transparency, flexibility, speed, and pricing. The advantages and disadvantages of these methods suggest the comparative appeal of auctions.

1. *Beauty contest.* This is a purely administrative process by which interested buyers are invited to present themselves to the target's directors. Often the judges will request further information from the competing buyers, leading to a process that is drawn out and vulnerable to lobbying by individual buyers. The choice is made behind closed doors. While the beauty contest preserves great flexibility for the seller (in terms of time, discovery of information, and criteria on which a choice is made), its opacity, slow speed, and potential corruption can discourage potential buyers from tendering offers.
2. *Lottery.* Under this method, the seller simply announces a sale at a specified price, and invites potential buyers to enter a random drawing. At the deadline, a name is drawn randomly (e.g., from a hat), and the deal is consummated. The disadvantage with this is obvious: *There is no price discovery by the seller.* The U.S. government allocated cellular licenses by lottery in the 1980s, virtually giving away spectrum rights; in the 1990s, the government realized that it had simply enriched lottery winners, and switched to auctions as the means of distributing spectrum licenses. Furthermore, the seller almost certainly has other concerns than price (e.g., the technical competence of the buyer to operate the target firm in the future). The only advantage of this method is speed.
3. *First come, first served.* The target directors could simply announce that the target is for sale and then pursue a sale with the first buyer to show up. Some

effort at extracting a higher price may be made, but once a buyer discovers that there is no competition (or that the "first served" rules have driven competitors away), the exercise often reduces to discovering what the buyer will pay. This has the same disadvantages (and advantage) as the lottery. While there is almost no hard evidence on the use of this approach, it seems reasonable to speculate that the bulk of M&A transactions fall in this category. For small and medium-sized firms, the paucity of buyers and sizable costs of the other methods will virtually dictate this relatively passive approach.

4. *Auction.* In contrast to these other methods, a true auction is run by rules and a schedule clearly expressed in advance. Commitment to these rules builds credibility about the process in the minds of potential buyers, thus encouraging a wider draw of bidders. Auctions are transparent and relatively fast. But most importantly, they reveal prices. This is the distinctive difference of the auction versus other methods of sale. For this reason, auctions are ideal for use in the sale of any nonstandard item (e.g., a world-class athlete, the painting *Mona Lisa*, or a company).

These four methods entail competition among buyers and imply some initiative on the part of the owners or directors of the target firm to sell it. To flesh out the types of transactions, consider a fifth:

5. *Friendly noncompetitive negotiation.* Anecdotal evidence suggests that many transactions are initiated by the buyer who persuades the target to sell. Like the beauty contest or first come, first served, this method is relatively unstructured. The key difference is that the buyer retains more power owing to the absence of competing bids and deadlines.

How Negotiations and Auctions Compare

Negotiation is the dominant method for selling a company. Why then are auctions on the M&A landscape at all? A comparison of the two methods (see Exhibit 31.1) suggests the complementary role that they play:

- ***Competition.*** Negotiation at its simplest is a discussion between two parties devoid of concerns about competition. Many negotiations are conducted under promises of secrecy and exclusive dealing (even though for sellers such promises warrant critical examination). The auction typically involves multiple buyers (and potential buyers), and may even involve multiple sellers.[2] In short, negotiations are typically *exclusive* in spirit if not in fact, and auctions are typically *competitive*. It is the competition among bidders that helps realize higher prices for sellers in auctions as compared to negotiated transactions.[3]
- ***Structure.*** M&A negotiations have few rules and deadlines. It may be uncertain whether the target will be sold at all. Auctions, on the other hand, are governed by rules, procedures, and deadlines. Simply by establishing the auction, the target board of directors commits to a high probability that the firm will be sold; typically this is not absolutely certain since the board must reserve for itself the right to take the firm off the market if an economically fair bid is not forthcoming.

EXHIBIT 31.1 Comparison of Negotiation and Auction

	Negotiation	Auction
Competition	Low or no competition unless target and buyer can convince each other that they have strategic alternatives to a negotiated transaction (e.g., LBO, liquidation, etc.).	Highly competitive.
Structure	Few rules and deadlines. Some uncertainty about whether target will be sold at all.	Clear rules and deadlines. Strong probability that the target will be sold.
Goals and control	Controlled by target management. Social issues important.	Independent directors control. Price important.
Flexibility	High.	Low.
Speed	Slow.	Fast.

- *Goals and control.* In negotiations, the target's management leads the structuring of the deal, often asserting the importance of social issues in tandem with price and other terms. In auctions, a special committee of independent directors of the board will control the process, and typically will seek to maximize revenue over other objectives (see Chapter 26 that discusses the duties of directors).
- *Flexibility in transaction design.* For the foregoing reasons, a deal is more easily tailored in negotiations than in auctions. Negotiations may be able to accommodate multiple objectives more easily than can auctions.
- *Speed.* Auctions are typically consummated more rapidly than negotiations.

For reasons such as these, the experience of deal makers will differ markedly between negotiation and auction. The comparison suggests that as a deal process moves from negotiation to auction, the buyer (seller) should be alert to three key effects:

1. *Rules and deadlines.* What are they? Can I relax them? (How can I police and enforce them?)
2. *Control.* Who is in charge?
3. *Competition.* What can I do to decrease (increase) the competition? Is it possible to return to (resist returning to) negotiation?

Types of Auctions

Auctions can be classified on a number of grounds:

- *Open versus sealed.* In an open auction, the bidders are able to observe the prices and number of other bidders. Tactics such as collusion, bluffing, and threats to leave may have some influence where bidders can observe each other. In a *sealed bid* auction, the range of bids is observable only by the seller.

- *Single versus double.* In a *single auction*, only the buyers bid. In a *double auction*, the buyers bid, as well as the sellers who offer prices at which they would be willing to consummate a deal. Some organized stock exchanges and commodity markets are, in effect, double auctions.
- *Common value versus private value.* This distinction was originally the focus of research by theorists but has since proved to be of huge significance to practitioners as well. *Common value* auctions exist where the asset being sold has similar use to all potential buyers. A bushel of wheat, for instance, would be viewed by a range of buyers as a factor in production of food products. An acre of land, on the other hand, might have very different values to a farmer, an industrial developer, and an extractor of natural resources. Where values differ by use, the auction is said to be a *private value* auction. The distinction is important because price discovery by the seller is much easier in the case of common value auctions, and much harder in private value auctions. In the common value setting, bidders care to know the other bids because it provides added information about the intrinsic value of the asset. In the private value setting, the other bids convey information about the value of the asset to the respective bidders, but less about the value to you as an individual bidder. It would seem that the vast majority of M&A auctions are the private value type. Yet Cramton and Schwartz (1991) have argued that auctions among horizontal competitors are common value, whereas only auctions to conglomerate or vertical buyers are private value.

McAfee and McMillan (1987) outlined four classic kinds of auctions:

1. *English auction.* This is the classic open auction one observes at art auction houses. The bidding is open for observation by all. It starts at the reservation price of the seller, and rises until no other bids are made. The asset is sold to the highest bidder.
2. *Dutch auction.* This method is used most prominently in the sale of cut flowers in the Netherlands. Here the seller begins with an arbitrarily high price and reduces it until a bidder accepts the offer.
3. *First price sealed bid auction.* This is similar to the English auction, except that each bidder has only one chance to offer, and it takes place outside of the view of the other bidders. The asset is sold to the bidder offering the highest price. The U.S. government uses this method in the sale of rights to exploit natural resources.
4. *Second price sealed bid auction.* This is like the first price sealed bid auction, but the winner pays the second-highest price, rather than the winning highest price. Vickrey (1961) first offered this as a theoretically attractive auction model, though it is rarely used. This auction structure might mitigate the impact of the "winner's curse" among buyers in M&A and thus encourage more buyers and higher prices. More is said about the winner's curse later.

The possible auction structures go well beyond these four types. Mathematical economists have studied numerous variations. As McAfee and McMillan (1987) report in their survey, a surprising result of these studies is that the choice of auction structure does not matter under certain general conditions. The revenue to the seller will, on average, be the same regardless of structure choice as long as (1) bidders are risk-neutral, (2) the auction is a private values type, (3) bidders have similar assessments as to the uncertainty of the asset's value,[4] and (4) payment of the bid is not contingent.

ADVANTAGES AND DISADVANTAGES OF AUCTIONS

Price discovery is the first and most important reason for structuring an asset sale as an auction. In the absence of an auction, the buyer and seller approach each other with private information. Each side knows more about its own assessment of the intrinsic value of the asset (and of the price it would be willing to pay or receive) than about the other side. This information asymmetry raises the possibility that the seller will not maximize revenue from the sale. An active and competitive auction can help to reveal the buyers' assessments of value for the target.

The second important reason is that auctions motivate buyers to bid in ways that are desirable for the seller (i.e., with speed and some determination to win the asset by bidding at the high end of the buyer's feasible range). Clear deadlines and rules by which the auction will be resolved help potential buyers assess the costs of participating in the auction.

McMillan (1994) has outlined other general advantages of auctions in the context of the sale of broadcast spectrum by governments: transparency, fairness, revenue generation, speed and efficiency of process, and flexibility for incorporating a wide range of public policy goals. If auctions are so advantageous, why aren't they ubiquitous? The answer lies in a range of fears and practical considerations:

- ***Reduced discretion in the selection process.*** In an auction, the seller commits to a process for selecting a buyer—usually based on price. But the seller may have other criteria that count, and that cannot be described publicly (e.g., management's desire for job security, compensation, and other social issues). Furthermore, the auction process may reveal more information about the various bidders. But by precommitting to a process, the seller may be unable to respond to the new information in a way other than canceling the auction.
- ***Always a test of wills.*** McMillan (1994, page 14) wrote, "The rules of the auction must not have gaps, for bidders will seek ways to outfox the mechanism." It is in the bidder's interest to drive the auction back toward a negotiation format. Thus, bidders will strive to cancel the auction through a direct appeal to the target board in the form of a "bear hug" letter, or even threatening not to participate at all. Other strategies will include requesting time extensions and requesting exceptions from the qualifying conditions of a bid.
- ***Reputation risk from canceling the auction or deviating from the rules.*** Any other outcome than a sale of the target company can result in a loss of reputation to the target. Cancellation or departure from the rules may suggest to skeptics that the target is in much worse shape than originally implied.
- ***Discourages entry by prospective bidders.*** Because auctions are so successful in maximizing revenue to the seller, some buyers decline to participate in auctions as a matter of policy. Also, since auctions are relatively public events, some buyers may be reluctant to participate simply out of a fear of damage to

their reputation should they lose. These concerns may reduce the economic efficiency of the auction by reducing the number of bidders. From a macroeconomic perspective, the debate over the discouragement of bidders has implications for the effectiveness with which capital markets monitor managers, and the structure of corporate law. Gilson and Black (1995, page 1174) note that "the development of Delaware law . . . has been decidedly pro-auction" in the sense that it permits the use of poison pills and other defenses, and requires waiting periods within which a target can find alternative bidders and start an auction.

AUCTIONS IN PRACTICE: THE CASE OF RJR NABISCO

In actual practice, firms are auctioned in a first price sealed bid structure, but then followed by a negotiation over terms other than price. The seller typically reserves the right to cast off the winner of the auction in the event that the parties are unable to agree on detailed terms in the negotiation. But since casting off the winner of the auction would be a very negative signal to other potential buyers, this rarely happens. In short, the "auction" of a firm is really a hybrid between a classic auction and a negotiation.

Wasserstein (2000) describes the typical auction process:

1. ***Selling memorandum.*** The process starts with the preparation of a "pitch book" and prospectus, prepared by the seller rather than the buyer.
2. ***Initial contact.*** A list of prospective bidders is prepared: These buyers are identified for possible reasons that are strategic (e.g., peer competitor) or financial (e.g., LBO prospects). The prospects are contacted. If interested, they are asked to sign a confidentiality agreement. Upon signing, the prospective buyers receive the information book.
3. ***Indication of interest.*** The book is mainly an appetizer, intended to elicit the interest of bidders in learning more. They may be given more information, or they may be asked to submit a nonbinding value range in which they would be willing to do a deal.
4. ***Second round.*** From the firms who submit nonbinding indications, a subset is chosen to enter a second round of the auction. Here, management of the target will give presentations and tours to the bidders, and access to a data room containing detailed information. Formal rules outline the procedure in this second round: These will state deadlines and the nature of bids that will be deemed to be contenders in the final competition. For instance, the seller may dictate that only cash bids with a firm financing commitment by the buyer will be acceptable. At the deadline, directors of the target will examine the bids and declare a winner.
5. ***Third round.*** Occasionally the seller will return to the few highest bidders in the second round, using the high bid to elicit even higher bids. Wasserstein calls this the ***"dripping wax" auction.*** It can be an effective tactic in maximizing revenue to the seller, but it can also contribute to a negative reputation that in future auctions might prompt buyers to bid relatively low in anticipation of the dripping wax tactic.

6. ***Final negotiations.*** After the auction, negotiations over the definitive agreement begin. New issues may surface. Crafting the definitive agreement invites heightened scrutiny of the target and buyer that could reveal concerns and negotiable issues not previously identified.

A process much like this culminated in the acquisition of RJR Nabisco by Kohlberg, Kravis, and Roberts (KKR) in 1988. The history[5] of the auction began on October 19, 1988, when Ross Johnson, CEO and Chairman of RJR Nabisco, issued a press release announcing his intent to take the firm private in a leveraged buyout. At the bid of $75 per share, the deal would amount to $17.6 billion, the largest LBO in history. In January of that year, Johnson had requested the firm's CFO to undertake a study of possible LBO structures and prices. His chief motivation was that the firm was undervalued, trading at nine times earnings, a value that ignored the profitable Nabisco foods business whose peers traded at 22 times earnings. In July 1988, Johnson had commissioned Shearson Lehman to study the LBO and recommend strategy. In early October, Johnson informed the board of directors of his intent to submit a proposal; thereupon they formed a committee of independent directors to evaluate the proposal. Johnson's LBO proposal was remarkable for two reasons. First, though the bid premium was a respectable 34 percent (RJR Nabisco's shares had traded around $55.875 before the bid), quick analyses suggested that the breakup value of the firm was between $80 and $90 per share. Second, the LBO gave control of the firm to Ross Johnson and his team with no cash investment required of them—most LBOs required cash investments by key managers and gave control to the financial investors.

Within days, four more competing groups surfaced:

1. ***Kohlberg, Kravis, and Roberts (KKR)*** offered $90 per share, for a total deal of about $20.3 billion. The package included a payment of $79 in cash and $11 in pay-in-kind (PIK) preferred stock.
2. ***Hanson Trust and Salomon Brothers*** entertained making a bid. But when the lofty KKR bid was announced, Hanson backed out.
3. ***Forstmann, Little and Goldman Sachs*** explored making a bid, but backed away after concluding that the financing would be too difficult.
4. ***Pritzker Interests and First Boston*** were the last to enter the competition and eventually made a surprising bid.

In October, the special committee of directors organized a due diligence research process for interested groups. In addition, the committee commenced research on the value that might be delivered to shareholders through an internal restructuring—this was a signal to potential bidders that the directors were setting a floor based on the value that the firm could deliver on its own. During October, the special committee sought to determine who else might enter the bidding. KKR and the management group explored the possibility of a joint bid, but separated in a disagreement over control of Newco. In a reply to KKR on November 3, the Ross Johnson/Shearson group offered $92 per share for the firm.

Confident that the firm would be sold, and no doubt counseled by lawyers about the Revlon duties, on November 7 the special committee declared an auction with bids due on November 18. This would be a first price sealed bid auction, intended to be resolved in a single round of bidding. The rules for the auction were:

- Asset sales could not be a condition for the offer. This meant that a bidder could not try to line up purchasers for key assets of the firm, and then, failing to find a buyer, walk away from the deal.
- RJR Nabisco shareholders should retain a "substantial common-stock related interest." The directors wanted shareholders to have the opportunity to participate in the possible gains from restructuring the firm.
- The proposals needed to describe financing for the offer, present commitments for financing (such as commitment letters from banks), and give details on any securities to be offered (e.g., convertible bonds).
- The board of directors of the bidding firm must have approved the bid. This would eliminate any uncertainty about the intent of the buyer.
- The special committee retained the power to revise the rules and to reject any or all bids.

On November 18, the special committee received a number of bizarre offers from unanticipated bidders. Burroughs and Helyar reported that these included a bid of $123 per share from a Toronto banker (who offered each independent director $7 million for his vote), $126 from an individual in Maryland, and $127 from a stockbroker in Winston-Salem (who wrote that though he did not have financing arranged, he was confident that he could find financing in the event that the bid was accepted). The independent committee rejected these bids as lacking credibility to consummate the deal. The more credible bidders raised their offers:

- *KKR* offered $94 per share, or a total of $21.62 billion. The KKR bid carried a full financial commitment from banks.
- ***Ross Johnson/Shearson*** offered $100 per share, or $23 billion. This bid also carried a financial commitment from banks.
- ***Pritzker/First Boston*** entered the competition very late and surprised the committee by offering $105 to $118 per share. This bid was accompanied by no financing commitment.

Rather than resolving the situation as the high bidder, the Pritzker/First Boston bid created confusion. The offer was based on a complex tax provision. None of the directors or their advisers were qualified to render an opinion on the bid. In addition, First Boston's proposal gave no detail about financing. Though First Boston's bid was the highest, it was also the most uncertain. Anticipating shareholder lawsuits if they rejected the First Boston bid, the special committee declared a second round of bidding mainly to give First Boston more time to provide more detail. One director argued that it was in the shareholders' best interests to extend the contest and create more competition. The deadline for the second round would be November 29.

Over the intervening period, KKR nearly dropped out of the competition, though accounts of their behavior suggest that their statements to this effect merely bluffed, in an effort to dampen the tendency of the other teams to bid higher. George Roberts said, "Let's just lay low. We'll put out the word we don't know what we're going to do. It's the truth. There's no reason to say we're really going to go after this deal. Let's let the world know we may not be there."[6]

On November 29, the bids returned:

- Johnson/Shearson team returned with a bid of $101 per share, up modestly from its previous bid of $100. The bid included giving 15 percent of Newco's stock to RJR shareholders. The team would not guarantee the value of its PIK preferred and bonds. And the securities were to be placed on a "best efforts" basis.
- The First Boston team did not return to the bidding, unable to line up a financing commitment satisfactory to the special committee.
- KKR surprised everyone with a bid of $106. The proposal included leaving 25 percent of Newco's stock in the hands of RJR shareholders. The placement of the securities would be fully underwritten.

The next day, the special committee invited KKR to negotiate a definitive agreement. When the Johnson/Shearson team learned this, they exploded in anger, believing they had been deceived by KKR's demurrals. Pressuring the special committee to reopen the bidding, the Johnson/Shearson team gave an unsolicited offer of $108 per share, consisting of $84 in cash, $20 in PIK preferred stock, and $4 in convertible bonds; this bid was divulged to the press. When KKR learned about it from the news ticker, they threatened to walk out of the bidding, unless the special committee guaranteed their expenses. The board agreed to do so, in an effort to buy time with which to analyze the competing bids. At that point the special committee reopened the bidding one more time.

At the deadline for the third round, the Johnson/Shearson team offered $112 per share. The only uncertainty was that their financing included securities that might have a doubtful market that would cause the market value of the securities to fall below the face value—how much the market would discount these securities was uncertain to the special committee. In contrast, KKR boosted its bid to $108 per share, consisting of a mix of $80 in cash, $18 in PIK preferred, and $10 in convertible bonds. Henry Kravis believed this to be a more credible bid and that in market value terms, KKR and Johnson/Shearson were about even. When the Johnson/Shearson team refused to strengthen the terms of their securities (i.e., relieving uncertainty about their demand in the market), the special committee awarded the deal to KKR. But the directors wanted KKR to pay one more dollar (i.e., bid $109), which KKR agreed to do if the directors also returned a signed merger agreement committing themselves to consummate the deal with KKR; Henry Kravis wanted the bidding to stop. The special committee returned shortly thereafter with a signed agreement, and the auction finally closed. KKR consummated its acquisition of RJR Nabisco on February 9, 1989, at a premium more than 100 percent above RJR's trading price before the bidding began.

The case of RJR Nabisco illustrates a number of important lessons about auctions:

1. Auctions are one part of a deal spectrum. Exhibit 31.2 depicts the phases of this case, ranging from negotiation to unsolicited biddings, and concluding in a formal auction. Where one segment ends and another begins is typically fuzzy;

EXHIBIT 31.2 Deal Spectrum: History of Bidding in the Case of RJR Nabisco

Negotiation

October 19, 1988: Seeking a negotiated deal, a team of Ross Johnson and Shearson Lehman extends a private offer of $75 per share to the directors of RJR Nabisco.

Unsolicited Bidding

October 23: KKR makes an unsolicited tender offer of $90 per share.

November 3: Johnson/Shearson offers $92 per share.

Auctions

November 7: Special committee of directors declares an auction for the firm.

November 18: 1st round
KKR bids $94.
Johnson/Shearson: $100.
Pritzker/First Boston: $105–118.

November 29: 2d round
KKR bids $106.
Johnson/Shearson: $101.
Pritzker/First Boston: exit.

November 30: 3d round
KKR bids $108.
Johnson/Shearson: $112 (face value), $108 (estimated market value).

November 30: Johnson/Shearson offers $108.

November 30: KKR and special committee quickly negotiate the final terms of a definitive agreement. Board demands that KKR raise its bid by $1 to $109 in order to dominate the Johnson/Shearson bid. KKR agrees.

the segments link and blend in many ways. Indeed, as the detailed accounts of RJR Nabisco suggest, negotiations continued as a strong undercurrent throughout the entire episode.

2. Consistent with the review of research insights, this case reveals that:
   - Sellers seek to reduce uncertainty about the process (i.e., make rules, enforce discipline), and draw many bidders into the contest.
   - Buyers seek to bend or break the rules to gain some special advantage in the process—in this case, special pressure applied on the committee, the aggressive bids, use of the press, and tactics such as bluffing and threats. The attempted collusion between pairs of bidders was an effort to dampen the bidding dynamics.
3. Psychology remains a potent influence on bidders in an auction. The detailed accounts of RJR Nabisco suggest that deal frenzy amplified the bidding. The special committee was conscious of this psychological effect, and sought to manage it to the shareholders' advantage. Most auctions close when the bidding gets too high for all but one party—reopening the bidding twice, and asking for one more dollar in value were only possible in a context of psychological momentum that could be exploited by the committee.

THE "WINNER'S CURSE" IN M&A: IS IT REAL?

The closing stage of the case of RJR Nabisco suggests psychological momentum, sometimes called "deal frenzy," that can detach the bidder from reality, spurring one to win at any price. This is one of the behavioral dangers to avoid in M&A negotiation. In its simplest terms, the winner's curse implies overpayment for an asset in an auction. McAfee and McMillan (1987) argue that the winner's curse arises in common value auctions. They write, "Each bidder in a sealed-bid auction makes his own estimate of the true value of the item. The bidder who wins is the bidder who makes the highest estimate. Thus there is a sense in which winning conveys bad news to the winner, because it means that everyone else estimated the item's value to be less." (McAfee and McMillan 1987, page 721) Also, the true value of the asset is also probably less if one assumes that the assessments of value are distributed around the true value.

How prevalent is the winner's curse? Evidence of the winner's curse has been found in auctions for publishing rights (Dessauer 1981); offshore oil leases (Capen, Clapp, and Campbell 1971); baseball players (Cassing and Douglas 1980); uncertain technology (Quirk and Terasawa 1984); and takeovers (Roll 1986; Varaiya and Ferris 1987). Thaler's review of the experimental and field research led him to conclude that "the winner's curse may be a common phenomenon." (1992, page 52)

McAfee and McMillan (1987) examined the same studies and challenged Thaler's conclusion. They said that the problem with the hypothesized winner's curse is that it implies repeated violations of rationality in the sense that bidders are regularly surprised with auction results. They argued that if a bidder believed in the pervasiveness of the winner's curse, would it not be rational to *underbid* regularly if one believed one were likely to win? Thaler (1992, pages 61–62) replied, "It is important to keep in mind that rationality is an assumption in economics, not a demonstrated fact. . . . If you react by optimally reducing your bids, then you will avoid paying too much for leases, but you will also win very few auctions. In fact, you may decide not to bid at all! Unless you want to switch businesses, this solution is obviously unsatisfactory."

SOME PRACTICAL ADVICE TO SELLERS IN AUCTIONS

This review of research and of the RJR Nabisco case affords some significant insights for the M&A practitioner. Consider these from the standpoint of the seller (the implications for the buyer are in most cases the exact opposite):

- Choose to auction the asset if the number of assets is limited—in the M&A world, most companies are fairly unique. But if the target company has a closely comparable set of peers, negotiation may be the better path of sale.
- Strive to increase the number of bidders in the auction. You can accomplish this by reducing information and other auction costs to the buyer. This encourages entry. A well-managed data room and due diligence process are vital. Also, it helps to commit to rules and stick by them. This tends to increase the confidence of bidders in the integrity of the auction and thereby attracts bidders.
- Discriminate among bidders (within the rules). For instance, strategic and financial buyers may have different favored deal structures. Permit each to bid from strength.
- If bidders know one another or are affiliated, structure the sale as a first price sealed bid auction—the inability to communicate in real time may promote competition.

SUMMARY AND CONCLUSIONS

An understanding of the basics of corporate auctions is vital to understanding the general behavior of buyers and sellers, and specifically important as a foundation to mastering the subject of hostile takeovers. Furthermore, auction behavior helps illuminate behavior in friendly negotiations and vice versa—this is because in most cases an auction is an important alternative to a negotiated agreement.

It is naive to view auctions as rational processes driven by strict rules and settled solely by price. The price paid is but one consideration within the bundle of attributes that constitutes the M&A deal. In other words, the effective M&A practitioner must master the art of *multi-attribute* bidding in auctions.

In addition, the effective practitioner must master two other major considerations: strategy and psychology. Strategy matters because most auctions in M&A are not settled in one round. Thus, one must think a few moves ahead in entering every bid. Henry Kravis's "head fake" in the bidding for RJR Nabisco is a preeminent example of how strategic signaling can influence the behavior of competitors and win the contest. Strategy is important also because the auction phase is typically ended with an episode of intense negotiation—thus the auction merely gains the buyer the right to deal exclusively with the seller. One's bidding and behavior during the auction phase can frame the expectations of the seller during the final negotiations.

Just as in negotiations, psychology matters significantly in auctions. Again, the case of RJR Nabisco suggests that the special committee of the board sought to create and manipulate a climate of scarcity and competition in order to extract high offers from the bidders. The aversion to losing the competition, and thus sustaining a loss to reputation, supercharged the bidding. Deal frenzy is a behavioral phenomenon well known to experienced M&A practitioners.

NOTES

1. The classic conventional definition is "A public sale in which each bidder offers an increase upon the price offered by the preceding, the article put up being sold to the highest bidder," as given in the *Oxford English Dictionary*, 2d edition, Oxford: Clarendon Press, 1989, Vol. 1, page 778. From an economist's standpoint, this is inadequate: It describes the English auction and ignores others.
2. In a double auction, there are multiple buyers and sellers. But even in the usual practice of auctions, the bidders might set their own reservation prices based on what they *believe* they might be able to buy elsewhere, in different times and places.
3. Competition is one of the factors that produces higher acquisition premiums for targets of hostile takeovers compared to friendly deals (see Chapters 3 and 34). Another driver is affordability: To the extent that targets of hostile takeovers are poorly managed firms, the buyer can afford to pay more as a result of improved efficiency after takeover.
4. McAfee and McMillan (1987) explain that foreign and domestic bidders could look at an asset's uncertainty very differently owing to cost exposures of the two kinds of firms.
5. This section draws substantially on the account in *Barbarians at the Gate: The Fall of RJR Nabisco*, by Burrough and Helyar—I strongly recommend this book to students of M&A.
6. Quoted from Burrough and Helyar, *Barbarians at the Gate*, page 421.