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Peculiarities of the Major League Baseball Posting System

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Abstract

The posting system used in major league baseball to obtain free agent players from Japan has some similarities and many differences from the transfer system used to obtain foreign free agents in European football. This paper uses auction theory to assess the efficiencies (or lack of) in the posting system and to suggest alternatives.

Keywords: posting system, baseball, auction theory, winner's curse

The transfer system in European football is well known and very lucrative for professional clubs. Large amounts of money change hands and world quality players move among clubs such as Real Madrid and Chelsea. Little known to Europe and most of North America is the transfer system used in major league baseball called the posting system. The posting system is currently used only for Japanese players wishing to move to North America (curiously the system does not operate in reverse). The system lacks the suspense and glamour of the European system, but it is growing and it could reach out to other countries in the near future. Indeed, the world took notice in November of 2006 when the Boston Red Sox paid a record \$51 million for the exclusive rights to negotiate with pitcher Daisuke Matsuzaka of the Seibu Lions club. The rules and characteristics of the European transfer market are quite well known to readers of this journal, but the posting system might seem a mystery. Its rules are very different and they were probably set up for different reasons. This paper uses auction theory to explore the differences between the two systems and to assess the efficiencies of the posting system.

1 The Posting System in MLB

The posting system developed as a result of complaints by Japanese professional baseball clubs following the case of Hideo Nomo. Nomo, a pitcher, wished to

⁰ AUTHOR'S NOTE: I would like to thank Steve Easton for valuable comments. All errors and omissions are the sole responsibility of the author. Address: Department of Economics, 4401 University Drive, Lethbridge, Alberta, Canada, T1K 3M4. E-mail: rockerbie@uleth.ca

leave his Japanese club, the Kintetsu Buffaloes, and play for the Los Angeles Dodgers, but could not secure a release from his contract. Since Nomo could release himself from his Japanese contract by retiring, he did so, then promptly signed a new contract with the Dodgers in 1995. Many Japanese baseball fans left their interest in Japanese baseball behind to follow the performances of Nomo in North America. The fear was then that the best Japanese players would follow Nomo, resulting in losses in attendance and television ratings in Japan. The posting system was agreed upon by MLB and Japanese baseball (the *Puro Yakyu* or Professional League) as a way to both discourage Japanese players from moving to major league baseball (MLB) and to provide compensation to Japanese clubs. Japanese players who are without contracts in Japan are not subject to the posting system. The system first came into use in the winter of 1999 with the purchase of Ichiro Suzuki by the Seattle Mariners from the Japanese club Orix Blue Wave.

A Japanese player who wishes to leave his Japanese club and move to MLB must notify his club. The club can then agree to place the player on a posting list with any other players on any other Japanese clubs who also wish to move. Nothing prevents a MLB club from discussing the possibility of posting a player with the player's agent before the posting period closes (November to March). The posting list is then provided to the Commissioner of MLB who notifies all MLB clubs of the posted players. Interested MLB clubs submit a sealed bid to the Commissioner's Office within four days. The Commissioner opens the bids and notifies the Japanese club of the amount of the highest bid, but not who the bidding club is. The Japanese club has 30 days to accept or reject the bid and the bid is not subject to negotiation. If rejected, the player's rights are retained by the Japanese club and the player cannot be posted again until the next off-season. If the bid is accepted, the Japanese player must agree to a playing contract with the winning bidder by the close of the posting period. Only at that time does the Japanese club receive the winning funds. If the player cannot agree to a playing contract, his rights revert back to his Japanese club and no payment is made.

The posting system is not heavily used since only the top Japanese baseball players have any chance of being signed by MLB clubs. Since its inception in November of 1999, only twelve players have used the system and only eight have signed contracts with MLB clubs¹. For the most part, the winning bids are quite low (\$300,000 to \$1 million) compared to European standards, perhaps indicating only a passing interest by the MLB club. Three notable exceptions are the winning bids of \$13 million, \$11 million and \$51 million paid in the years 2000, 2003 and 2006 for the players Ichiro Suzuki, Kazuhisa Ishii and Daisuke Matsuzaka. In these three cases, and most of the others, the player's Japanese clubs were in financial difficulty, requiring the sale of the player to generate needed revenue. MLB clubs are free to bid to their maximum value for the player since the transfer fee does not count towards the team payroll (which is taxed above a threshold level). Revenue sharing is also used with the objective

¹Source: http://www.baseball-reference.com/bullpen/Posting_System

of making the distribution of revenues in MLB more equitable. Any club paying a large amount for a Japanese player, or any other player, will only receive a fraction of the player's contribution towards team revenue.

The rules incorporated in the posting system are in stark contrast to the rules used in the European transfer system. Like the posting system, players can be sold across clubs and the player receives none of the transfer fee. The player must then agree to a new contract with the bidding club before the transfer fee is paid. If unsuccessful, the transfer is voided and the player's rights remain with the original club. Like the posting system, transfers can only be made during specific periods of the year, the months of January and August. Those are the only similarities. The top executive of each country's football league does not get involved in the sale of a player, except to approve the sale in a perfunctory way after all the agreements have been settled. Clubs wishing to sell players can negotiate transfers with any club they choose, although rather oddly, the player's agent is usually involved in negotiating the transfer fee of which the agent may receive a percentage. Players may request to be placed on a transfer list if they wish to leave their club, but clubs may also transfer players without their initial consent. The bidding for players is not restricted to only one bidder and bidding wars are frequent. Transactions are only loosely regulated, if at all, and scandals are frequent².

Major league baseball and Japanese baseball chose to design a very different transfer system from that used in most of the rest of the world. In the next section, we use auction theory to explore the design of the posting system.

2 An Auction Theory Approach

2.1 Private Value Auction

A classic paper that founded auction theory is Vickrey (1961) and we will use the terminology developed there. A private value auction occurs when each bidder has a private valuation of the player's worth that is unique so that there is no common market value attached to the player. In this case, the true value of the player is just equal to the private valuation and the winning bidder will be the one with the highest private valuation. Vickrey (1961) showed that the winning bid will be the same regardless of the type of auction (ascending bid, descending bid, first price sealed bid, second price sealed bid) so that the auctioneer and the seller are indifferent between the type of auction. Club owners may very well assign different valuations to the same free agent player since the player's revenue generating potential may differ across clubs. Unfortunately this sort of auction does not get us very far in explaining the posting system in MLB. The fact that the Commissioner only accepts sealed bids is irrelevant, an old

²For a review of the transfer scandal in England in 2006, see http://news.bbc.co.uk/sport1/hi/football/eng_prem/5398006.stm

fashioned cattle auction would do just as well. The role of the Commissioner as the auctioneer can only be explained as a practice to prevent collusion between a Japanese club and a MLB club. The Japanese club does not learn who the winning bidder is unless the bid is accepted. Why a Japanese club would collude with a MLB club in a private value auction is not clear. If the Japanese club wishes only to secure the highest bid, it will regardless of the type of auction and whether the Commissioner opens the bids or the Japanese club opens the bids. In a private value auction, colluding would only pay off if the Japanese club is willing to accept a bid below the highest bid in exchange for a side payment. Then the value of the lower bid plus the side payment would have to exceed the highest bid. Why would the colluding MLB club not just increase its sealed bid? Many of the interesting features of the posting system cannot be explained well if a private value auction is assumed.

Clearly it is necessary to consider the objectives of the parties involved in the posting system. This is straightforward for the Japanese club selling the player: obtain the maximum amount that any club in MLB is willing to pay - maximize the winning bid. This requires a bidding system where the top clubs in MLB cannot collude and "take turns" winning each auction. The sealed bid approach prevents collusion, since, even if a number of clubs agree to collude, clubs have an incentive to cheat on their agreement since the bid cannot be seen by other clubs and will not be divulged by the Commissioner unless it is the winning bid. If the winning bidder is a cheater, then the return from cheating must exceed any penalty strategy that the other colluding clubs could enforce, if it could be enforced at all. In a repeated game, Eichberger (1993) showed that a cheating strategy will dominate a colluding strategy in the context of a cartel the shorter the expected life span of the cheating firm and the higher the discount rate. This could be the case for MLB where profits might be short-lived.

The objective of MLB clubs is to minimize the winning bid, perhaps to avoid a winner's curse, although these could be considered two separate objectives. Colluding can serve this purpose and the sealed bid auction makes this difficult. Also it might be relatively easy for the Commissioner to detect collusion when opening all of the bids. The objectives of the Commissioner in the posting system are difficult to determine without resorting to some subjective opinion. The posting system was set up to address a problem in the free agent market: the raiding of Japan's best players by MLB. Clearly by agreeing to set up the posting system, the Commissioner is committing to fix the problem. Then again, the Commissioner is voted into office by a majority of MLB owners and may be influenced by them in running the posting system. This influence could be reflected in lowering the winning bid so that more clubs have a chance of being the winning bidder. This sort of "fairness" and equity is reflected in other MLB business practices established and approved by owners, such as revenue sharing, a luxury tax and equal shares in television revenue.

2.2 Public Value Auction

To further motivate our analysis, we will assume that free agent baseball players are sold at common value auctions where the player has a true value that is unknown to the bidding clubs, but is revealed sometime after the auction (when the player plays a significant number of games). We will also assume that the distribution of clubs is known to all bidders, but each club does not know its position within the distribution. Each bidder simply assumes that its bid is the highest bid in the distribution. These assumptions impose a restriction that the revenue potential of a free agent player is the same for all bidders - the bidders may put in differing bids, but when the player's true value is revealed (marginal revenue product), it will be the mean of the bid distribution. The simplest case is that of a uniform distribution of bids. Suppose there are N bidders uniformly distributed from the lowest valuation club to the highest valuation club. The player's true market valuation is not known, but if bidders are rational and utilize all information about the player's worth, we can assume each bidder will assume the true market valuation is the mean of the bid distribution they use. The winning bidder clearly will suffer a winner's curse and bid too high for the player. Knowing this, each bidding club will shade its bid, meaning that it will lower its bid in order to reduce, but not completely eliminate, the winner's curse. Bid shading is tricky since the bidding club with the highest valuation might shade its bid too much and not win the auction.

As Vickrey (1961) notes, there are many different bid-shading strategies that will not change the outcome of the auction, but the important point is that bids will be shaded in a public value auction. This is clearly not in the interest of the Japanese club selling the player. Vickrey (1961) also shows that the fewer the number of bidders, the less each bid will be shaded. It should be in the best interests of the Japanese club to encourage fewer bidders, and in fact, there are typically fewer than five clubs bidding for a player in the posting system (although there is no restriction). What type of auction minimizes the winner's curse and thus increases revenue for the seller? Milgrom and Weber (1982) considered the problem and ranked four auction types according to highest revenue: ascending bid, second-price sealed bid, first-price sealed bid, and last a descending bid auction. The first-price sealed bid auction used in the posting system will increase the winner's curse and thus result in more bid shading. A more profitable method for the Japanese club is to allow MLB clubs to bid directly with the Japanese club in an open auction over the internet or telephone. However the Commissioner of MLB is paid by MLB club owners, can be voted out by MLB club owners and probably acts in the interest of MLB club owners. So the use of the first-price sealed bid auction can be argued as benefiting MLB club owners. Allowing an ascending auction, either through the Commissioner's office or directly with the Japanese club, is not in the interests of MLB.

3 Foreclosure of Competitive Bidding

Whether a private value or public value auction, there is a potential in the posting system for one bidder to foreclose on all other bidders. Foreclosure means that one bidder prevents all other bidders from obtaining the rights to negotiate with the Japanese player, even though the winning bidder has no intention of signing the player to a contract. This strategy could be used by one of two or more clubs that are strong rivals, for instance, the Boston Red Sox and the New York Yankees. The Red Sox owner simply submits a sealed bid that is inflated beyond the reasonable bid submitted by the owner of the Yankees³. Since the Red Sox owner has no intention of signing the Japanese player to a contract, but merely wishes to prevent the Yankees from obtaining the player's negotiation rights, the size of the winning bid has no relevance. The Japanese player cannot re-enter the posting system until the next off-season, so the foreclosure is effective and costless.

If strong rivalries are prevalent in MLB, foreclosing might prevent the posting system from operating at all. MLB clubs that anticipate foreclosing behavior by a rival club simply won't bother making a bid and market failure results. The only players who will make the jump from Japan to MLB will be marginal players that have little impact on the relative strengths of MLB clubs. Rational Japanese clubs that anticipate receiving the much needed transfer revenues would surely anticipate foreclosing behavior and insist that some mechanism be built into the posting system to prevent foreclosure. Allowing MLB clubs to bid directly with the Japanese club will not prevent foreclosure of competitive bidding. One solution is suggested from the insurance literature. MLB clubs could be required to pay a "deductible" for the right to enter the bidding process. Only the winning bidder would lose the deductible if it failed to agree to a contract with the Japanese player. The deductible would need to be high enough to discourage foreclosure and to give the posting system credibility to the Japanese club. Unfortunately the use of a deductible may prevent some lower revenue MLB clubs from bidding, since there is always some positive probability that the honest winning bidder will not be able to reach a contract agreement with the Japanese player. Currently, a deductible is not a feature of the posting system, perhaps for this reason. Alternatively, the posting system could be changed to allow a Japanese player to re-enter the system during the designated posting period if contract negotiations fail. Foreclosure could still occur if the winning bidder drags on contract negotiations to the end of the posting period.

The role of the Commissioner's office in the bidding process may be to prevent foreclosure. The Commissioner assumedly has access to financial data of the winning bidder that the Japanese club does not and may be able to determine if a bid is illegitimate. The Boston Red Sox can afford to pay \$51 million for the negotiating rights to Daisuke Matsuzaka - the Commissioner knows this

³By reasonable, economics suggests that the owner of the Yankees will submit a bid that has an upper bound equal to the anticipated surplus that the player will generate over and above the anticipated salary.

from financial statements. If the lowly Florida Marlins made the same winning bid, the Commissioner might question the legitimacy of the bid based on the Marlin's poor financial statements. In this way, the Commissioner can act as a filter between the winning bid and the Japanese club. If this is indeed the role of the Commissioner in the posting system, there is no reason the Japanese professional league would not agree to involving the Commissioner's Office in the process.

4 The European Transfer System

The European transfer system can best be described, using the terminology of Vickrey (1961), as an ascending bid auction where the winning bid is just slightly higher than the second highest bidder and less than the winning bidder's valuation. Unlike the baseball posting system, football clubs are free to negotiate with each other for transfer fees within the two transfer "windows". If negotiations break down within the transfer window, teams are free to re-enter the transfer market and negotiate a transfer fee with any other interested bidder. In a public value auction, Milgrom and Weber (1982) showed that an ascending bid auction will generate the greatest transfer fee and the smallest winner's curse. This keeps the player's surplus in the hands of the owners who will ideally be willing to bid up to the anticipated surplus. This also keeps player salaries lower than would otherwise be the case with North American type free agency since winning bidders most certainly still suffer a winner's curse and will have less money left over for salaries. The winner's curse is not nearly as painful for European football clubs as it is for MLB clubs in the posting system. Most European clubs are buyers and sellers in a very atomistic market. The "net" winner's curse may be close to zero, but certainly it is reduced by buying and selling, particularly over a number of years. Bid shading will not be very frequent or very large.

5 Conclusions

This paper began by describing the posting system used by MLB and the Japanese Professional League and then posed the question why the posting system was designed the way it is. Why did the posting system not replicate the features of the European transfer system? Three curious features of the posting system were identified: the use of a first-price sealed bid auction, the use of the Commissioner's Office as an auctioneer, and the inability of the Japanese club to learn the identity of the winning bidder until after the bid is accepted. The first-price sealed bid auction maximizes the winner's curse in a public value auction, resulting in more bid shading and lower bids (although the Seibu Lions are probably still very happy with a \$51 million bid for Daisuke Matsuzaka).

This could be to the advantage of MLB clubs who will pay lower transfer fees. The Commissioner as auctioneer could be to prevent foreclosure of competing bids, particularly if two or more rival clubs are considering placing bids. This is to the benefit of the Japanese club and avoids market failure. Maintaining the secrecy of the winning bidder prevents collusion between MLB clubs and Japanese clubs. Such acts of collusion are to the detriment of other bidding clubs and possibly to the Japanese player. In summary, the posting system is a compromise between MLB clubs and Japanese professional clubs.

Why settle for a compromise solution? Could the European transfer system serve as a better model? Not likely. The ascending bid type auction used in Europe minimizes the winner's curse and maximizes the winning bid. If there is a winner's curse, it is small and can be offset through sales of players. This requires a busy transfer market, not a problem in Europe. In contrast, the posting market is just not busy enough and North American players do not frequently move to Japan for a transfer fee, hence there is no opportunity for MLB clubs to offset the winner's curse, so they do so by shading their bids. This sort of asymmetric transfer market does not adapt well to the European system. Trade must go both ways to be beneficial to both parties.

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