Chapter 19: Salary Determination: Bidding and Bargaining

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Auctioning Player Talent

The market for free agents is a private value auction.

In private value auction the value of what is being sold varies across potential buyers (in this case teams).

Recall that a player's value is their marginal revenue product (MRP), and MRP is equal to

$$MRP = MR * MP$$

where MR is marginal revenue and MP is marginal product associated with the players contribution to the teams performance.

Keep in mind that MRP for a player will vary across teams, thus teams will value a player differently.

As we said before, MRP is affected by two factors, marginal productivity and marginal revenue. For marginal productivity:

- Each player's productivity depends on the productivity of his teammates and the quality of the coaches.
- Other factors, like home field, can also affect a players MRP to a team.

Second, the marginal revenue of additional wins that may be attributed to a player's productivity will vary across teams because of different local market conditions.

Auctions

Types of auctions:

- **Unsealed Bid:**
  - **English:** participants make increasingly higher bids. The highest bidder wins the auction at the final amount bid.
  - **Dutch:** price is set by the auctioneer at a level sufficiently high to deter all bidders, and is progressively lowered until a bidder is prepared to buy at the current price.
- **Sealed Bid:** bidders place their bid in a sealed envelope and simultaneously hand them to the auctioneer
  - **First Price:** individual with the highest bid wins, paying the amount bid.
  - **Second Price:** individual with the highest bid wins, paying a price equal to the second-highest bid.

English Auction

In such auctions if buyers act rationally (i.e. do not bid beyond how much the asset is worth to them), then the asset will go to buyer who values it the most, but he will only pay as much as what the second highest bidder values the asset at.

Example.

- Let's say that Melissa, Laura, and Tim are bidding over a painting.
  - Tim places a value of $4,500 on the painting.
  - Laura places a value of $5,000 on the painting
  - Melissa places a value of $5,500 on the painting.

  Therefore, as soon as there is a bid over $4,500, Tim stops bidding.

  Next Melissa and Laura will try to outbid each other until the bid hits $5,000. Once the bid hits $5,000, Laura will stop bidding, and thus Melissa will get the painting at $5,000 (Laura's value).

A "feature" of English auctions is that a seller usually can't extract the full value of what is being sold. In our previous example, Melissa valued the painting at $5,500, but only paid $5,000.

Only in the exceptional case in which the seller knows the (reservation) value of the painting to Melissa, he could set starting bidding price at a level that is equal to that value. If the reserve price in an auction is not met, the seller can remove the item from the auction.

Player and coach auctions in the sports markets resemble English auctions.

Player Auction

We need to consider the economic value of an offer when we look at player auctions. For example, suppose that a player prefers to play on the east coast.

Now suppose that he gets two offers: a five year contract for $60 million to play with the Yankees, and a five year contract for $70 million to play with the Giants. You would think that the player would choose the Giants offer since $70 million is greater than $60 million; however, given his preferences, he might be inclined to accept the Yankees offer.

This implies that, there are other reasonable factors that need to be considered when a player evaluates an offer.

Another thing to notice is that the players themselves are the assets, and the team (or team owners) are the buyers. An agent of a player can act as a "seller" of the player, and can work in the players behalf to extract the highest offer (see the Barry Zito example in the book).

How do teams know how much to bid?

They use a number of factors (such as the players stats, his age, his history of injury, etc.) and estimate the value that a player will bring to the team.

(https://public.econ.duke.edu/ psarcidi/multiable.pdf).

We will not get into any methods used to determine this value as it is beyond the scope of this course.

There are many cases when the actual value of a player to a team is far below the expected or estimated value that the team calculated before negotiating an offer. This may be due to the team not taking into account some factors that affect a players value, or just being unlucky (for example, a player getting injured).

Forbes: The NFLs Five Worst Contracts: https://www.youtube.com/watch?v=fVv3rxrRK1k

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Bidding for Coaches

Bidding for coaches is similar to bidding for players. Coaches not only need to take into account the nominal amount of an offer, but also other factors that could affect their utility like opportunity to win, loyalty to a team, and location of the team. The book gives a few examples of decisions made by coaches of whether to accept or reject an offer.

Observe that every coach has a different utility function (and thus values different factors differently). One college football coach might accept a high offer from a mediocre NFL team, whereas a different coach might try to wait for an offer from a better NFL team.

Also, coaches contracts are often renegotiated to preempt competition (from other teams).

Top College Football Coach Salaries

Rank	School	Conference	Coach	Salary
1	Alabama	SEC	Nick Saban	$11,132,000
2	Clemson	ACC	Dabo Swinney	$8,526,800
3	Michigan	Big Ten	Jim Harbaugh	$7,004,000
4	Ohio State	Big Ten	Urban Meyer	$6,431,240
5	Arizona	Pac-12	Rich Rodriguez	$6,031,563
6	Florida State	ACC	Jimbo Fisher	$5,700,000
7	Stanford	Pac-12	David Shaw	$5,680,441
8	Texas	Big 12	Tom Herman	$5,486,316
9	Texas Christian	Big 12	Gary Patterson	$5,104,077
10	Texas A&M	SEC	Kevin Sumlin	$5,000,000

Bargaining

In a simple bargaining setting, two parties try to reach an agreement on how to split a sum of money that will exist if they reach an agreement but will disappear if they fail to reach an agreement.

For example, suppose a golf tournament will earn an expected profit of $5 million if Tiger Woods shows up to the tournament, and only get an expected profit of $1 million if he does not. Reaching an agreement will result in a $4 million surplus.

Bargaining is used to decide who gets what portion of this surplus. In this case, each party wants as much of the surplus they can get without jeopardizing Tigers participation (since the surplus disappears if the offer to him is too low).

Notice that there are usually multiple solutions to this problem.

Bargaining can be seen in the sports market (for both players and coaches).

For the player's case, he (or his agent) uses bargaining to negotiate a better contract. Some of the items that are bargained over are:

- Time period of the contract Salary
- Incentives
- Salary guarantee

Coaches also use bargaining to negotiate better contracts. Again, some of the items that can be bargained over are:

- Time period of the contract
- Salary
- Incentives
- Salary guarantee