



## *Diamond Dollars Case Competition*

# Who is Baseball's Most Valuable Position Player?

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*This case was prepared by Vince Gennaro and is developed solely for the purpose of a case discussion. It contains various assumptions that are generated for illustrative purposes and is not intended to serve as a source of primary data.*

You have always wanted an opportunity to show a big league general manager that you know baseball and have the chops to work in a front office. Now you finally have your chance. You've gone through a couple of rounds of interviews with the Assistant GM, the Director of Baseball Analytics, the VP of Player Development, and several other baseball operations staff members. You are at the final stage of the process and you have one final task ahead of you. In your meeting with the GM, he was able to quickly validate much of the positive feedback he received about you from his staff members. There was one problem: he and his staff viewed you and a second candidate as equals. They need a tie-breaker, a true differentiator that would enable them make the best hiring decision for the club. They want to hire someone who they believe could not only embrace the culture of their organization and learn from their rotational development program for new baseball ops hires, but they also want to bring in a person they believe has real "stretch" to ultimately grow into a more responsible leadership position with the club. To help them choose the right candidate for the job, they posed a problem—one that would give them great insights into how you and the other candidate think. They hope to learn how you structure problems, process information, blend data and intuition and communicate your point of view. The latter includes balancing confidence in your analysis with the acknowledgment of the unknowns and risk factors.

The GM laid out the problem and asked for the answer to be presented to him and his key staff members in 4 or 5 days. Here's what the general manager had to say to both you and the other candidate:

"I'd like you to rate and rank the top 3 'position player assets' in the game today. I'm not just looking for you to identify the 3 *best* position players, because there's a *value* component to my question. Joey Votto may be one of the top position players in the game today, but he's also signed for seven more years for a total of \$172 million. Given that the next seven years represent his age 34 to 40 seasons, he may even be overpriced. So, from the standpoint of his value as a team asset, he will not likely match up to a stud young position player, who is under cost control and playing at a discount to his free agent valuation, over the next several years. We are not as concerned about learning who you believe will have the best Hall of Fame career. We're more interested in understanding who are the best assets to have on our roster today—the ones that provide the most value. Your top position player should be expected to generate the greatest value to a team over the balance of his control years (or years under contract), beginning with the 2017 season. Position players who have signed extensions are fair game, as long as you think they can still deliver the value over the length of their contract. We're looking for you to identify the position player—actually the top 3 position players—who are expected to generate the greatest surplus value (i.e., asset value) during the years for which they are under the control of a team. I'm defining surplus value as the difference between the market value of the player's performance and the amount you expect him to be paid by the team that owns his rights."

The GM went on to expound on the scope of the question: "One aspect we would like to understand is how you evaluate talent, using the information available to you from any publicly available source. What do you like about these position players? It's fine to cite their results on the field, but we really want to know what you value about *how* they play the game and *how* they get their results. What is it about their game that makes them special? Evaluating talent and potential is often different from projecting performance, which is also a key part of this task. How does their skill set and the way they perform—their strengths and weaknesses—project into the future. Given the age and experience of the position players you ultimately select as your top 3, we expect you to understand the arc of their career trajectory over the years in which they are under team control. Another key component will be your method of placing a dollar value on the expected performance,

as well as their expected salary (or known salary if they are signed for the remainder of their control years), including for their arbitration years.

The GM added, "Be sure to weigh-in on the risk factors associated with your choices. How certain or uncertain are you about the expected performance of the position players you selected? How did the risk factor impact your valuation of your position players? Did you incorporate the risk of injury, particularly career-interrupting injuries that would impact the value of the player to a team during its control years? In the end, we are particularly interested in how you balance and integrate the quality of the position player (i.e., his expected performance) and the riskiness of your projections, with the number of control years remaining. Something to consider—if you select a position player with minimal (or no) big league experience, you need to be prepared to defend your projections and acknowledge the level risk associated with the player. We recognize that there is only a slim chance that any of the position players you recommend will become available in a trade scenario, but nonetheless we believe addressing this question will give us great insights into your thought process and your approach to solving problems."

"A few more things for you to consider...judging young players from the standpoint of their total dollar value as assets to the team *is a balancing act*. Less service time is better because it generally means the player can be paid at a discount to his market value for a longer period of time. But more experience is better because the longer track record gives us more confidence in your projections. Younger is also better (all else being equal) because a 23-year old has more years of ascent, than say, a 28-year old, who may enter his decline phase in just a few years, when considering the aging curve. Also, one of the important considerations when evaluating a position player is his durability. If two guys perform equally well, but one has a history of frequent injuries, it could be a differentiating aspect of their value."

The GM finished by saying, "You'll have free reign to examine this problem however you see fit, but the one key assumption I'd like to standardize is the market value of a marginal win (WAR) in the free agent market. Since you'll need this to translate a position player's expected performance into his value on the open market, please use \$7 million per marginal win for the 2017 season. You should inflate that number in future years by 5% per year. I trust you have a good understanding as to what we are looking for in your analysis and presentation. In the end, the way in which you approach this problem and your ability to concisely, convincingly convey your thoughts will tell us a lot about you and are probably more important than the answer you come up with. I want to wish you good luck and my staff and I are looking forward to hearing your presentation on Friday."

### **The Case Problem**

Your case assignment is to assess which three position players—ranking them 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup>—are the most valuable position player assets in the game today. Your output for this case assignment should be in the form of a powerpoint presentation to support a 20-minute oral presentation to a panel of judges. The presentation should include your:

- **Performance forecasts for the top 3 position players on your list**—be sure to clearly rank them and provide the scale for your evaluation. In other words, how large is the gap between #1 and #2, and between #2 and #3? (Note: a designated hitter is considered a position player)
- **Process**—the methodology used in your evaluation of the position players, including:
  - Your overall approach to evaluating pitching talent
  - Your approach to developing performance projections for the players
  - Your approach for translating his performance into a dollar valuation

- **The key factors you evaluate when rating a position player**— A summary of your analysis of the characteristics that differentiate these position players from each other and from the rest of the league, including your keys to rating the quality and future success of a position player
- **Your valuation methodology**—in order to gauge the "value" of a position player, you will need to make some assumptions about his salary over his control years. How did you estimate his expected salary?
- **An assessment of the risk of your performance projections**—It's one thing to develop a point estimate of a player's future performance. But in order to provide context, your projection requires some measure of the uncertainty associated with your forecast. Please share your approach to rating the riskiness of the projection.
- **Any remaining calculations and thought processes** you used to justify your answers to the above questions, including your thoughts on any personal attributes or "makeup qualities" that are important in any player evaluation.

The 20-minute oral case presentation will be followed by a 10-minute Q & A by the judges.

The judges criteria will focus on the quality of your *decision process*, more than any single "right answer." The ideal decision process has a logical flow, and is inclusive of the key factors that are expected to have a true impact on the decision. More specifically, there are several key areas that will be a focus for the judges:

- The reasonableness, defensibility, and depth of information and data used in player performance evaluations and projections included in your presentation
- Your methodology and process for projecting expected performance, including the career trajectory you are forecasting for the players
- Your methodology for translating a player's performance projections into his value as a team asset
- Your overall level of creativity, particularly in your assessment of the risk factor associated with your valuations of the players
- The quality and clarity of the presentation of your analysis and recommendations

A final comment regarding "rules" of the case and the competition:

- The intent of the competition is that team members are competing against other team members. This means that assistance from professors or non-members of the team is not permitted. Also, do not contact any MLB team or league personnel for advice on any of the case issues.
- You are encouraged to use the internet to help you with the case, particularly as a source of data, but be prepared to add your own insights, including quantitative analysis to the material you choose to draw from on the internet.
- One of the most common pitfalls for Case Competition participants is the over-reliance on analysis published on the leading analytical websites. While it is often valuable to consider these analyses, student teams have lost points by relying solely on these sites for answers to key case questions. We are looking to understand *your* analyses of the case questions.

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