Team 13 - Free Agency Valuation Report for Denver Nuggets Executives

Heading into the 2020-2021 season, the Denver Nuggets are in a special position. The young pairing of guard Jamal Murray and center Nikola Jokic have shown that they can help carry the team to successful regular seasons, with the Nuggets finishing 2nd and 3rd in the Western Conference in the last 2 seasons, respectively. The question the Nuggets now face is about how to build around Murray and Jokic to take the team over the top to finally win a championship.

What makes this question complex is the combination of the "soft" salary cap and the upcoming vacancies that the team will face for the next season. The Nuggets will be losing two key frontcourt players and have exactly $26 million to spend on new players. Additionally, the starting power forward, Jerami Grant, has a decision about whether or not to exercise his player option for $9M. Using statistics from past seasons and current contract data, we were able to come up with a model that would assess value to each of the three free agents that the Nuggets are potentially targeting: Danny Glover, David Bowie, and Mike Meyers.

Our team found that the three variables most correlated with average salary (AAV) are the year of the deal (Deal_Year), the age of player (Age), and percent of a player's shots that are from 3-point range (X3Par). Professional sports contracts are often backloaded, with the salary increasing with each additional year of the contract. Due to the competitive nature and quick player turnover of professional sports, typically only the best players can have long careers in the league, so they are able to make more money. Additionally, only players who are especially good at shooting from behind the 3-point line take more of their shots from that distance, and those players, such as Kyle Lowry, can be very valuable. Then, we calculated three variables that are most correlated with each other are Deal_Year, Age, and RFA. As above, the correlation here

also makes sense. The longer the deal, the older the player is. Furthermore, the longer the deal, the higher the chance that the player is eligible to be a restricted free agent.

In terms of modeling, our team determined that a multivariate linear regression using the Lasso method was the most accurate and applicable model. Using this model, we determined that Danny Glover should be valued at $18.436M, Mike Meyers at $12.263M, and David Bowie at $10.813M. How do these valuations compare to the players' previous contracts? The AAV of the previous contracts were $21.667M, $15M, and $7M, respectively. While their previous contracts would make it seem as though these three players are in distinct tiers in terms of value, our model shows that the difference in value is mostly between Glover and the two other free agents.

As in the sports themselves, free agency has many moving parts and dependencies, and fittingly, our recommendation does as well. The first linchpin is whether Jerami Grant exercises his $9M player option. The simpler of the two outcomes is if Grant turns down the player option, which our team believes that he will, because he can get paid much more money being the starting power forward on another team. Normally, a team would want Grant to pick up this option, as it would be a great deal for the team value-wise. However, in the Nuggets current situation, the team should load up on top talent to finally win a championship. For this reason, our team suggests choosing Glover due to his high scoring ability, especially from behind the 3-point line. Although he would be the most expensive option, he previously was not much more overpaid than Meyers according to our model. Especially with a back-loaded contract, $26M should be plenty of money to sign Glover, with enough leftover to fill out the roster with lower quality bench players. Rather than possibly acquiring the lesser Meyers or Bowie, the Nuggets would be setting up a three-headed monster in Murray, Glover, and Jokic to dominate the Western Conference for the next few seasons.