Very interesting piece here today from Gary Benz. In it, he tries to make sense of a column in Saturday's Wall Street Journal. According to the article, Shapiro and a former Pepsi executive turned baseball consultant, Vince Gennaro, are using a cutting edge analysis that places its focus directly on not just the player

The signing Friday by the Cleveland Indians of free-agent-to-be pitcher Jake Westbrook is undoubtedly seen by many as proof that owners Larry and Paul Dolan are not the cheapskates that they often are portrayed to be. To be sure, the size of the contract suggests an unusually robust commitment to payroll that the Dolans, to this point, have been reluctant to demonstrate. But an article in Saturday's Wall Street Journal, while not specifically mentioning this signing, nonetheless puts it into context and provides perhaps the best insight into the way GM Mark Shapiro really operates. And to those who still believe baseball is just a game and not a multi-billion dollar business, the way he operates may not bring them much comfort.

(*Note: The article is considered "premium content" and thus not available on the Journal's web site without an on-line subscription. A copy can be obtained by purchasing the Saturday edition.*)

According to the article, Shapiro and a former Pepsi executive turned baseball consultant, Vince Gennaro, are using a cutting edge analysis that places its focus directly on not just the player's value to his results in the box scores, but to his potential impact on the team's bottom line. It is the kind of analysis, as Russell Adams, the article's author notes, that can easily result in a team being satisfied with profitable mediocrity rather than unprofitable success.

It's not secret, as Adams writes, that teams these days are using all manner of statistical analysis to determine a player's performance and hence his worth. That's why teams chart everything from where fly balls land to "calculating complicated data-heavy metrics like 'Wins Above Replacement Player ("WARP").'" Call it the further outgrowth of the analysis Billy Beane and his "Moneyball" approach has brought to the game.

But to Cleveland fans, it is the use of this new analysis that is most intriguing, both because of its unusual nature and because Cleveland appears to be the only team currently fully engaged in the process. Adams notes in his article that the process was really an outgrowth of Gennaro's time with Pepsi's Midwest bottling operations headquartered in Cleveland. Apparently as the Indians were moving into Jacobs Field, Gennaro signed a contract with the Jacobs to have Pepsi replace Coke as the exclusive drink offered at the park. The contract was for $850,000 per year which was seen then as an above-market deal. However, with the Indians success in the early and mid-'90s greatly increased its attendance and hence its revenue. When the contract came up for renewal, having exclusivity was now even more important because the on-field success would generate more sales. Pepsi ultimately paid nearly double, or $1.6 million a year, under its new contract.

This apparently validated a theory that Gennaro, a part time M.B.A. candidate, was working to develop—that there is a direct and quantifiable link between winning and revenue. That sounds simplistic enough, but as applied by Gennaro, who is now working directly with Shapiro, to players both on the roster and in the free agent market it allows the Indians to determine how the value of what they offer to a player will impact the team's overall profitability. It's not just a question of direct payroll costs as much as it is the embodiment of how much profit might be realized by investing in a particular asset, in this case a player. In this way, then, it's not merely a question of whether the team's payroll can sustain the signing of a particular player but whether that signing will ultimately improve or at least sustain profitability.

According to the article, Gennaro builds upon the widely accepted WARP formula (available at www.baseballprospectus.com Note: Baseball Prospectus has some free content but is generally a subscription-based site). WARP attempts to quantify how many wins a team may realize by having a certain player rather than a theoretical below-average player. But Gennero then takes this statistic and translates it into revenue to determine the real dollar value to attach to a player. For example, if Player X can add 5 wins per the WARP formula and that means an extra $5 million in additional revenue, you then compare that to the cost of the player in the first place in order to determine his real value to the club. If his salary is less than the extra revenue his presence generates, you have an undervalued player. On the other hand, if a player's salary

exceeds the additional revenue his presence brings, then he's overvalued. Thus, it is not just the salary of the player that is important; the key is the delta between salary and additional revenue.

While Adams' article goes into a fair amount of depth about several players, he notes that Gennaro would only speak to him on the condition that they not discuss any players currently on the Indians roster, which is too bad. But in terms of the players they did discuss, Gennaro identified Derek Jeter as severely undervalued and Alex Rodriguez as overvalued. For example, Jeter's WARP number is 10, meaning his presence contributes to an additional 10 wins vs. the theoretical replacement player. Each extra Yankee win is worth about $2.92 million (although how this number was reached is not disclosed) and thus Jeter's value overall is $29.2 million. Because his salary is $22 million per year, he his undervalued per the formula at $7.2 million. A-Rod, on the other hand is worth about 6 wins, according to his WARP number. That translates to $19.3 million in additional revenue against a salary of $27 million, meaning that he is overvalued by $7.7 million.

Gennaro's groundbreaking work has a great many implications, as Adams notes. For example, the differences in revenue between baseball teams are driven by two main components: attendance and broadcasting. If it's true, and it certainly seems to be, that wins translates into greater interest in the team, then greater interest translates into increased attendance and higher ratings for both the team's radio and television partners. When a team like Cleveland also owns the network broadcasting the games, higher ratings allows it to charge more for advertising. From there, it's just a matter of calculating total revenue per win. Then if a player can be expected to contribute more wins then his theoretical replacement, you can then calculate how that translates into additional revenue to determine his real value to your ball club. Of course, the economics of each team vary greatly and, accordingly, so does the theoretical value of any given player.

To what extent Shapiro is using these metrics to make his decisions is left unsaid by the article but it is clear that it is a key component in his thinking. In Westbrook's case, according to Baseball Prospectus, his expected win total is 13 a year but even more telling is that the team's expected win total in games he starts is 17 and that the Indians should expect to win 54% of the games he starts. This means that Westbrook not only is a consistent winner but he also keeps his teams in the game even when he doesn't get a decision. His WARP is in 2006 was a relatively high 6.4. What is unknown is the revenue per win number the Indians are using but one can easily conclude that the $11 million a year that Westbrook will receive provides an ample profit margin for the Indians. In other words, it is unlikely Shapiro would have signed

Westbrook had his expected WARP in relation to his new salary projected him being overvalued out of the gate.

If you extrapolate this to two other key potential free agents, C.C. Sabathia and Travis Hafner, there are additional conclusions to draw. With respect to Sabathia, according to the Baseball Prospectus analysis, his win total is only expected to be one higher than Westbrook's and the team's expected win total in games he starts is the same, 17. But the team does tend to win 60% of the games started by Sabathia, which is 6% more than Westbrook. This translates into a couple more wins overall, assuming a similar number of starts. Not surprisingly, then, his WARP is higher than Westbrook, 7.0 to 6.4.

Unquestionably, then, Sabathia's presence on the roster generates a few more wins for the Dolans and therefore can be expected to generate even more revenue than will Westbrook but that doesn't necessarily mean that signing Sabathia is a more profitable move. The key will be the difference in salary that Sabathia might command. Considering Sabathia's status, the Indians can realistically project that signing him will cost anywhere between $3-9 million a year more than Westbrook. This difference clearly eats into the additional revenue that would result from the additional wins Sabathia would generate and may ultimately make him overvalued and thus cause the Indians to take a pass on signing him. In fact, the argument could be made that finding another Westbrook at a similar price is the much better move, something that certainly must have crossed Shapiro's mind.

Travis Hafner presents a similar dilemma for Shapiro. His VORP, or value over a replacement player, according to Baseball Prospectus, is 79, meaning he can be expected to generate about 79 more runs than the theoretical replacement. His WARP is even higher than Sabathia, at 7.2. Again, though, the key is the salary he can command measured against the additional revenue that would be generated from the wins that result if he remains with the club and performs as he has. Projecting this essentially two years in advance for either Sabathia or Hafner is a difficult task, one made even more difficult by the crazy signings by several teams this last off season.

And that is where the rub in this analysis lies. It helps one draw conclusions about which players to sign but it also creates as many questions as it answers. The Adams article points out that other teams are somewhat skeptical of this analysis for all the reasons that most would be skeptical of a purely analytical view of a player. As Adams notes, a team's fortunes and thus

its underlying economics vary from year to year and players who might otherwise be overvalued do bring other intangibles that may pay dividends even after a player is signed. Adams quotes J.P. Ricciardi, general manager of the Blue Jays, who while seeing some merit to the analysis, said that teams still have to occasionally bite the bullet in order to realize long-term revenue and win goals and “even to create a culture of winning.”

And that’s exactly the situation that Shapiro faces as he relies more and more on these kinds of metrics. The decision to sign Westbrook or anyone else is no longer just about Westbrook. It’s also about what Shapiro projects for the rest of the team during the years Westbrook will be in the fold. His current value is so much a product of the current make-up of the team. Change any of those parts and the economic analysis changes as well. For example, if neither Hafner nor Sabathia is signed and their replacements fall well below their productivity, the Indians will win less no matter how well Westbrook personally pitches. Thus what may look like a good value today could easily turn into a nightmare in a year or two. And that assumes that everyone remains healthy and performing as they have. Any number of injuries or other failures, whether by Westbrook or others, will also determine whether the Westbrook contract makes sense.

Today, many fans are rightly applauding the commitment by the Dolans to someone like Westbrook. But behind the scenes the signing wasn’t so much a feel good move by the Dolans to let the fans know that they are committed to winning so much as an icy business move that their best analysis tells them will make the team profitable. The questions that really need to be asked, though, relate to what the Dolans and Shapiro project the rest of the team to look like during Westbrook’s tenure. While Shapiro isn’t likely to offer anything more than generalities to such questions, it is the key to the signing and, ultimately, to whether Hafner and Sabathia will be retained as well.

But one thing is for certain. With Shapiro himself recently signed to a new 5-year contract, it signals that this is the way the Indians intend to conduct business going forward. Get used to it.