New Balance

The weighty issues of salary caps, revenue sharing and luxury taxes in professional sports leagues

By Andrew Zimbalist

The titans are restless. After nearly two decades of labor peace, the owners of National Football League teams and the players' union are once again squaring off. And in the push and shove of negotiations, the NFL's cap on total team salaries – which many observers believe is the linchpin of the most functional system for managing the economics of professional league sports – could be discarded.

Should you care? If you are a football fan, certainly. But even if you are not, the salary cap issue offers a fascinating perspective into the ways in which sports leagues weigh the need for competitive balance against more immediate concerns about how the incredible riches created by modern marketing and mass media coverage are divided.

THE LEVEL PLAYING FIELD

Start with the reality that success for sports leagues depends on reasonable competitive balance. That is, there must be significant uncertainty in the outcome of both individual contests and in league competition to keep fans coming (and paying). There must also be enough opportunity for improvement in team performance to prevent franchises from becoming perennial bottom dwellers in their leagues, lest entire regions of the country abandon the sport.

At first blush, the problem of creating and maintaining balance in a truly competitive environment seems intractable. The cities in which teams are located vary enormously in size, interest and wealth, yet all compete in the same market for players. How can a small-market team with $50 million in local revenue hold its own in buying talent against a large-market team with $400 million in local revenue?

Leagues use a variety of methods to achieve balance, with both varying success and varying consequences for the division of the financial pie among teams and players. One method seems pretty straightforward: all professional leagues in the United States use a reverse-order draft for first signings of amateur players, giving the teams that finish last the right to pick first. Or maybe not so straightforward: the National Basketball Association uses a modified version of this formula in order to reduce any incentive that teams low in the standings may have to lose even more games toward season's end.

Each of the professional leagues in the United States also employs a system of revenue sharing in which the richer clubs transfer a portion of their earnings to the poorer ones. The NFL's system is the most comprehensive, shuffling around approximately three-quarters of leaguewide revenue. Major League Baseball follows, and this shared largesse is growing rapidly. Along with distributing $30 million-plus yearly to each club from its national media and property-contract revenue, Major League Baseball has a supplementary system that will transfer almost $400 million in 2008 from the top-revenue teams to the bottom-revenue teams.

This year, the largest payer will contribute around $120 million and the largest payee will receive around $40 million under the supplementary system. Thus, the poorer baseball teams are virtually guaranteed some $70 million in revenue each before they sell a single ticket. Indeed, if a team lowballs its pay-

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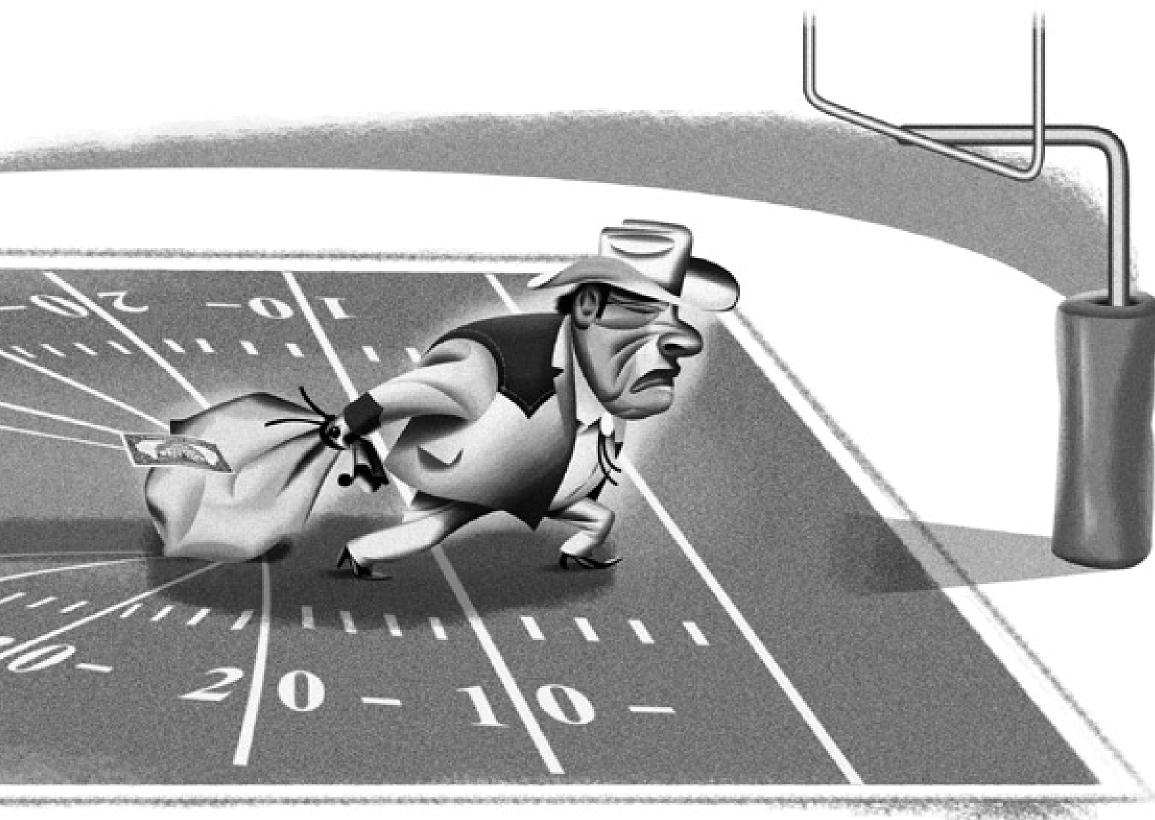
roll, it is almost guaranteed a profit – a reality implying that revenue sharing alone does not provide adequate incentives for competitive balance.

THE DELICATE BUSINESS OF SALARY CAPS

Enter the aforementioned idea of salary caps, which are currently used in professional football, basketball, hockey and soccer in the United States. The cap is a limit on total payroll per team (not per player), and is generally formulated as a percentage of league-wide revenue divided by the number of teams. By setting both upper and lower limits, salary caps (and floors) tend to reduce variation in individual salaries and to compress team payrolls, interfering with the way a free market would allocate players across teams.

Since individual players are likely to generate more value to large-market teams than to small-market ones – think of it as the classic marginal-revenue product, from Economics 101 – the enforcement of a payroll ceiling cuts the revenue advantage that naturally accrues to large-market clubs. Thus, to the extent that a player's performance can be predicted, the result is a more-equal distribution of talent around the league. Of course, the other important attribute of salary caps – one that is often foremost in the minds of owners and the players' negotiators – is that they can serve as an effective instrument to reduce average player compensation.

Note the difference in impact between salary caps and revenue sharing. Sharing revenue under a system with a uniform "tax rate" across the teams (as is practiced in Major



League Baseball) doesn't change the economic reality that the impact on team revenue of employing a star player will vary with the size of the team's local market. Thus, with or without revenue sharing, star player A is likely to generate more revenue for the New York Yankees than if he were playing for the Pittsburgh Pirates, giving the Yankees a strong incentive to outbid the Pirates. So while revenue sharing makes it more profitable to own a small-city franchise, it doesn't necessarily promote competitive balance.

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What a standard revenue-sharing system does, however, is shift income from players to owners. Revenue sharing, after all, reduces the marginal-revenue product of individual players to their own teams, and thus reduces the maximum salary it is worth paying to hire players. Think, for example, of a player whose presence could bring in an extra $10 million in ticket sales and other revenue to a team. If the team faced a 40 percent marginal tax rate – if it were forced to share 40 percent of this extra $10 million – the most a rational team owner would be willing to pay to hire the player would fall from $10 million to $6 million.

In 2006, baseball made the tax rate uniform (previously it had varied according to relative team revenue) and lowered the rate to around 31 percent. The modification seemingly led to a notable increase in balance, as some perennial losers have since become winners. Baseball's balance has also been aided by the introduction of the wild-card berth in the mid-1990s, which adds two additional teams to postseason competition, and by the growing efficiency of some smaller-market teams in getting more performance for less money.

In an average year, the variance in baseball payrolls accounts for about 20 percent of the variance in winning percentage – the highest correlation between payroll and performance among American team sports. This means, of course, that roughly 80 percent of the variance in winning percentage is explained by factors other than payroll; thus, large-market teams might have a leg up, but they are hardly guaranteed success.

Baseball had fiddled with the balance calculus by adding a "luxury tax" and debt limits. The tax is imposed on teams whose payroll exceeds a stated threshold – $155 million this year. The only team with a payroll exceeding this figure is the Yankees, which shells out $209 million in salaries (plus approximately $22 million in luxury taxes). The debt rules cap the amount of debt a team may incur relative to its earnings, as well as require teams to set aside cash to cover deferred-compensation obligations to players.

The Major League Baseball Players Association has always strenuously resisted team salary caps, accepting crippling work stoppages in order to prevent their imposition. Today, baseball is the only major sports league in the United States that does not have a salary cap. It is unclear, however, whether the players' resistance has paid off. Salaries represented just 51 percent of Major League Baseball's $5.7 billion revenue in 2007, compared to 67 percent of $3.4 billion in 2002. Indeed,

football, basketball and hockey, which all operate under salary cap systems, devote a higher percentage of revenue to salaries (between 56 and 60 percent) than does baseball.

This paradoxical outcome is more apparent than real. Baseball, unlike football and basketball, supports a player-development system through its minor league affiliates. And more than 6 percent of Major League Baseball's revenue went toward these minor league player salaries. If this is added to the Major League players' salary share, total player compensation rises to 57 percent.

Baseball's salary-revenue ratio is also influenced by the peculiar "posting" system that the league maintains with Japan's Nippon Professional Baseball league. Under the agreement, teams get to bid for the right to negotiate with a "posted" Japanese player. The winning bidder must pay the bid price to the player's Japanese team if it manages to reach a deal with the player (an arrangement not unlike the way baseball owners skimmed the value from traded players before an arbitrator forced an end to the practice in 1976). To take a glaring example, before the 2007 season, the Boston Red Sox paid $101 million for Daisuke Matsuzaka's services over six years, but $51 million of this went to the Seibu Lions. And that $51 million isn't counted in the official tally of the Red Sox player compensation.

LESS THAN MEETS THE EYE

These adjustments put baseball in the same salary-share range as the sports with formal team salary caps, implying that, counter to conventional wisdom, a negotiated salary cap does not necessarily favor owners over players in the division of the revenues in professional leagues. That raises two prominent questions. First, in light of the fact that a salary cap system would, at least in theory, better promote competitive balance than the current luxury tax, wouldn't it make sense for baseball's Players' Association to abandon its long, costly fight against the institution? By the same token, does it really make sense for the NFL owners (who certainly need competitive balance to sustain a successful collective business) to put the league's salary cap system on the negotiating table?

Muddying the analytic waters here, salary caps have come to mean different things in different sports. The cap in the NBA has long been a "soft" cap. Since its inception in the 1984-85 season, when the cap was set at 48 percent of defined gross revenue (basically ticket and television revenue), the NBA's cap has had a significant loophole, known as the (Larry) Bird Exception: The salary paid to a player who signs a new contract with the team he is currently playing for doesn't count against the cap. This exception enabled some teams to spend more than twice the actual cap.

Not surprisingly, that cap did little to control salaries or to promote competitive balance – though it may have reduced player mobility. After a protracted lockout in 1998 and 1999, the players agreed to a new system that supplemented the soft cap with an escrow tax (directly on players' salaries) and a luxury tax (on team spending for salaries). The incentives created by these taxes have effectively corralled player compensation, so that it has settled at a steady 57 percent of basketball-related income, a more comprehensive measure of NBA revenue.

The NFL salary cap has been in place since 1994. Until 2006, it was set as a share of defined gross revenue, but is now established at 59.5 percent of total leaguewide revenue. The NFL players were the first to suggest a salary cap, in the early 1980s. They did this because there was (and is) so much revenue-sharing in the league that teams, in effect, have no financial incentive to win. With little reason for

teams to pay top value for players, the players' association saw a salary cap system (which, critically, also came with a salary floor) as a way to guarantee that the players would receive a fair share of the revenue that they generated.

The NFL cap has also proved to be somewhat porous in the short run. Teams are allowed to pay players via signing bonuses as well as salaries. And for purposes of salary cap calculations, signing bonuses are amortized over the nominal life of a player's contract. For example, a team could sign a player to a five-year contract that included a signing bonus of $15 million and an annual salary of $2 million. The signing bonus would count as only $3 million toward the first year's cap, along with the $2 million salary. Thus, even though the team paid the player $17 million in the first year, only $5 million of it would count toward the cap.

Note that a team could pursue this strategy with multiple players in successive years and thereby manage to maintain a cash payroll above the salary cap for many years. Nonetheless, the team would be accruing a backlog of unamortized bonuses that would eventually force it to keep current payroll below the cap. Because teams are obliged to make up for overages down the road, the NFL system is generally regarded as a "hard" cap.

Under the NFL's 2006 contract, there is an additional mechanism to ensure that the league does not consistently spend more than 59.5 percent of total revenue on salaries. If the league goes above that level, any team exceeding that percentage will have to make up the overage in the following year.

The salary cap in the National Hockey

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League was introduced after the disastrous 2004-05 player lockout – and only after the players' union negotiator resigned. The NHL cap is set as a progressive share of hockey-related income: 54 percent when the total is below $2.2 billion and gradually rising to 57 percent when it is greater than $2.7 billion. The league cap will reach that top bracket this season. Accordingly, each team's payroll will be limited to $56.7 million next year.

WHAT'S GOOD FOR THE GOOSE

As with the NFL and NBA, the NHL's cap is complemented by a floor – in the NHL's case, $16 million below the cap in 2008-09. It is interesting that the NHL floor in 2008-09 is still well *above* the lowest team payroll in Major League Baseball in 2008 ($21.8 million for the Florida Marlins), which, as noted earlier, doesn't have a cap or a floor. Note, however, that while baseball allows team payrolls to be unlimited (albeit subject to a luxury tax), the openness goes both ways. Thus, the Yankees' opening day payroll in 2008 was roughly 10 times that of the Marlins'!

Individual player salaries are, of course, indirectly constrained by the team caps in football, basketball and hockey. That limit is supplemented by rules that no player may receive more than 25 to 35 percent of the team cap in the NBA (depending on length of service) and 20 percent in the NHL. The leagues with caps also limit the number of years a player's contract may cover. Baseball, by contrast, has limited neither salary nor contract length, with sometimes-spectacular consequences: think of Alex Rodriguez' 10-year contract with the Yankees, worth over $275 million. This, of course, gives baseball teams the latitude to take big risks – risks that are generally undertaken only by high-revenue teams.

When the 2002 baseball contract was being negotiated, the owners offered the Players Association a team salary floor of $40 million as part of the revenue-sharing system. The players rejected the offer for three reasons. First, it ran counter to the free-labor-market strategy that was the basis for the union's longstanding resistance to a salary cap. Second, the association feared that a salary floor would open the door to a salary cap. Third, the $40 million was so low – only three teams were paying less – that the players put little value in it. As it happened, more teams' payrolls fell below the $40 million level in subsequent years, even as baseball's revenue was rising.

The Players Association argues that the drop in the players' share of revenue to 51 percent during the last two seasons is a product of the industry's rapid revenue growth, and that the players' share will catch up as individual players' contracts expire. Perhaps. It is equally likely, though, that a negotiated cap system would have left the players better off collectively than they are today, and in the process done more to improve baseball's competitive balance.

A point to note here: the one thing an open market does that a cap system does not is to help players share in the value of synergies between the team and other businesses of the team owner. Owning an iconic sports team may allow an owner to create a successful regional sports network, a facility-management company or a concessionaire business. Or it may simply elevate the standing of an owner in the community, conferring significant business advantages. In such cases, the player may be more valuable to an owner than calculations made from team revenue implies. Accordingly, an open market may lead to higher payrolls, as well as to greater competitive imbalance.

The Players Association has also argued that it wanted no part of a system limiting the humungous salaries paid to superstars. The

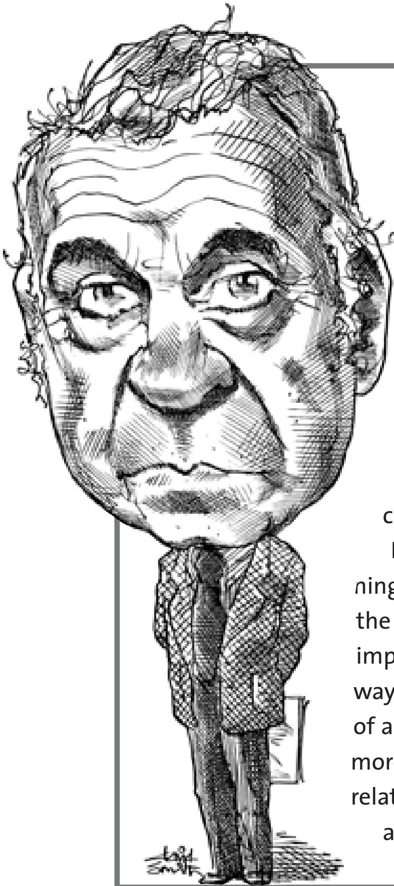
top players in football, basketball and hockey, after all, must content themselves with smaller, shorter-term deals. But there are plainly costs to this defense of the interests of the most desired players: greater inequality in pay, as well as less competitive balance.

Complicating matters further, if a league relies heavily on revenue sharing to balance financial (as opposed to competitive) outcomes, it undermines owners' incentives to invest in their teams via payroll, marketing, facility improvements or player development.

FANS IN THE MIDDLE

While the economics of sports leagues is complex and probably ever in flux, it does seem clear that both players and owners share what amounts to a myth in the power of salary caps to determine the division of the pie between labor and management. The evidence suggests that owners can live without salary caps, while players can thrive with them.

While some professional sports have done better than others in encouraging excellence, competitive balance and profitability, none has found a magic bullet. The politics of league governance, involving both conflicts among owners operating in vastly different markets and struggles between owners and players over the division of revenue between salaries and profits, make it likely that the interests of sports fans will at times take a back seat. M



DAVID SMITH

And the guy on the spine is...

Wassily Leontief, winner of a Nobel Prize in 1973. Born in Germany of wealthy Russian parents, he was raised in what was then (and once again is) St. Petersburg. Leontief decamped for the less hostile climes of Weimar Germany in 1925, then made it to Harvard in 1932.

Leontief was an anti-communist. But, ironically, his crowning intellectual achievement was an economic management tool – input-output analysis – that at the time (the 1940s and 1950s) was heralded as a technique that would make Soviet-style central planning more practical.

In fact, the technique proved almost worthless in large-scale planning because (a) it required vast computational power in an era before the microprocessor was invented, and (b) it ignored the potential impact of price changes, implicitly assuming that there is only one way to combine inputs to make the thousands of good and services of a modern economy. Still, input-output analysis has proved useful in more modest roles – for example, in testing the proposition that the relative scarcity of labor and capital determines what countries import and export.