

# The Peculiarities of Labour Relations in Professional Football – are Players' Wages 'Fair'?

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## Abstract

*Public opinion on professional football in Europe tends to the view that the salaries of athletes are 'too high'. Existing empirical studies, as well as economic theory, suggest the opposite is true. Only a few players earn high wages, due most likely to innate characteristics of the market both on the demand and production sides. A substantial rise of salaries during the second half of the 20th century came chiefly from the introduction of TV broadcasting and the increased interest in watching sports as a form of entertainment. While the peculiar institutional setup of the labour market long contributed to the underpayment of athletes, reforms over the last several decades have improved player wages. Moreover, it is difficult to present a strong argument for limiting athletes' salaries, from the perspective either of fans or society.*

## Introduction

According to Kahn (2000), as well as Rosen and Sanderson (2000), analysis of sports labour market might provide conclusions of more general use. Due to availability of the various data on players' performance and abundance of institutional peculiarities it allows for conducting natural experiments. On the other hand, the specificity

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of this market as such is a strong argument against generalisation of the outcomes and their application to other labour market. Moreover, one has to bear in mind that compared to 'American sports' – baseball, basketball, hockey and American football, the analysis of European version of football is relatively scarce. The main reason is the lack of data on individual wages. Nevertheless, the analysis of the European labour market in the professional football is surely worthwhile.

Fort (2005) cites a survey conducted in 1994 in the United States that showed that in public opinion professional athletes earn 'too much' – more than 70 per cent of surveyed thought so. At the same time, little more than 50 per cent of questioned said the same about club owners. One could also provide substantial anecdotal evidence on the public view on the salaries level (as well as transfer fees), citing not only anonymous fans, but also respected journals<sup>1</sup>, and high-power officials<sup>2</sup>. Assuming that the public opinion is right, it would mean not only that wages are 'unfairly high' but also that labour markets in professional team sports (including European football) are inefficient.

The main reason for the before mentioned critics is the strong growth of wages during the past decades. One can also add the conviction about lesser loyalty of the current players than of the 'past masters'. In this case, however, as Fort (2005: 278–279) aptly pointed it's difficult to talk about faithfulness when any movement is forbidden. It should also be mentioned that even in case of increasing absolute quality one could come to a conclusion that the opposite is accurate. If the first is true and at the same time is accompanied by the intensification of competition there would be less instances of periodic dominance of one team. Therefore, some could reach a conclusion that there were more stars in the game earlier.

The aim of the article is to discuss the reasons of the before mentioned intense growth of payers' salaries and make an attempt to formulate an opinion whether their level is 'fair' or not. While the problem of salaries level has already been discussed in the sports economics literature<sup>3</sup> and the analysis of athletes' productivity began with the seminal work of Scully (1974). The article is constructed as follows: at first

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<sup>1</sup> Papal state's newspaper *L'Osservatore Romano* criticised the record transfer fee paid by Inter Milan to Lazio Rome for Christian Vieri in 1999 calling it 'disgusting'.

<sup>2</sup> FIFA president Sepp Blatter publicly criticised Roman Abramowicz for purchasing players from all over the World for exorbitant transfer fees.

<sup>3</sup> See, e.g., Fort (2005), Leeds, von Allmen (2004) and Szymanski (2009). The latter poses the question about 'fairness' of athletes' salaries but the author of this article believes that this issue could be extended.

the reasons of the high level of salaries is discussed. After that a comment on the wages distribution is made. The second part of the article is devoted to the problem of 'fairness' analysed with a use of economic concepts. To sum up some conclusions are provided. It should be emphasized that the author of this article abstracts from perspectives other than the economic ones, most notably of the psychological or philosophical nature.

## Why Are the Wages so High?

Rosen and Sanderson (2000) and Fort (2005) compare 'social values' stemming from teaching with those arising from the work of an athlete. The latter explained that while the former seems to be incomparably greater (which translates into demand for their services), a rigid supply of sports stars implies that their wages are much higher. Moreover, the sports event is a so-called club good, which means that its quality does not decrease with increasing the number of consumers, but it is possible to effectively prevent behaviours such as free-riding. This means that if demand is increasing in terms of quantity (i.e., number of potential viewers), and not quality, one should expect the occurrence of the increasing economies of scale. Importantly, such a nature of production in the sport can be justified only in case of direct transmission of visual spectacle. In the pre-TV times, ability to satisfy the demand were arbitrarily limited by the capacities of the sports facilities. Their expansion is associated with large fixed costs and, more importantly for this part of the analysis, the quality of the meetings depended strongly on the type of object and location of the viewer (in other words the marginal utility for the audience was decreasing). For this reason, the development of the media may be one of the reasons for the rapid growth of players' wages (assuming that wages are at least proportional to marginal productivity) and their disparities. Increasing demand for sport could be (and sometimes is) also attributed to an increase in the general wealth level, resulting in the rise of households' expenditures on the entertainment and cultural services.

Furthermore, as Szymanski (2009: 95–96) suggests, the rise of athletes' salaries could be partly attributed to growing bargaining power of players that lead to the increase of their revenue share. Szymanski cites occurrences of the threats of strikes since 1960s as a sign of that. Nevertheless, he points out as well that the growth of

revenues, resulting from the introduction of TV broadcasts, had much stronger<sup>4</sup> impact than the increase of revenue shares.

Another important feature of the sports sector mentioned by Rosen and Sanderson is very high labour intensity of the production process, which also contributes to the high salaries of athletes. One could also point to the fact that due to the higher technological level of production of sports (broadcasting and better support for pharmacological and equipment), resulting in the enhanced labour productivity, their share in value added should increase as well. This relation can be illustrated by the ratio of wages to revenues top English clubs in recent years (see Table 1).

**Table 1. Wages/turnover ratio of chosen clubs in the English Premiership**

	Arsenal	Chelsea	Everton	Liverpool	Manchester City	Manchester United	Tottenham
1994/1995 or 1995/1996	48.0	44.4	59.2	48.3	50.6	No data	33.3
1999/2000	55.5	68.6	79.4	86.1	54.2	38.6	54.6
2004/2005	53.6	78.6	51.4	52.4	61.4	60.8	47.0
2007/2008	52.7	84.5	58.8	56.4	65.9	56.7	46.1

Source: [www.footballeconomy.com](http://www.footballeconomy.com)

One should note that the wage/turnover ratio concerns all the employees, not only athletes. Nevertheless the vast part of the salaries is paid to the sports staff – players, coaches and managers.

Another phenomenon that should be clarified in this context is the effect of superstars. Rosen (1981) provided a model that explains how small differences in the talent of competing manufacturers translate into much greater differences in their revenues. This is due to imperfect substitutability between ‘performers’<sup>5</sup>, which is the reason for the difference in the quality of goods and, therefore, for the consumption choices of the consumers. As a result, the value of the marginal product of manufacturer’s talent is increasing. As Rosen assumes that the market is competitive, this model is in line with previous observations, that it is rather applicable in situations when consumption is possible through the broadcasts. A crucial assumption of the model is the existence of at least one type of the disadvantages

<sup>4</sup> In the example cited by Szymanski it was around six-fold stronger.

<sup>5</sup> Rosen as the examples of his model’s application gives the markets of comedians, musicians and authors of the basic economic textbooks.

of scale: internal, arising from the increasing marginal costs, or external, resulting from a slight reduction of quality services from each of the following consumer<sup>6</sup>. In a situation where only one of those effects is in power there is only one of these effects the multiplying effect is greater. Thus, much better football team than your opponent is able to achieve much higher revenue. As players of one team are complement each other, a team consisting of a few stars can obtain a much stronger effect. What’s more, if the quality of the sports product (e.g. a game) is an increasing with the total talent hired by both teams, revenues of two very good competitors will be even more magnified<sup>7</sup>.

An interesting expansion on the above model was presented by MacDonald (1988). The author, using two-period stochastic model, justified why a large number of potential stars at a young age decide to work on wages lower than available for them in other industries and to carry out difficult tasks that only give a small increment of utility to the recipient. The motivation is the chance to become a future star. In comparison with ‘young’, group of ‘old masters’ is small, and their wages high. The model in a formalized way shows a fairly intuitive phenomenon, showing why many young people decide on a difficult and highly uncertain career needing specific human capital obtained through long and arduous training. Over time, successive claimants to being the stars give up and move to other markets<sup>8</sup>.

One might draw further conclusions from the Rosen’s and Macdonald’s models – without institutional measures used in American leagues that increase the lowest wages of sportsmen, the disparities between them should be significant. That would mean that a majority of athletes do not earn a lot despite diminutive differences in talent when compared to the top stars. Furthermore, those disparities are usually impossible to observe several years in advance – i.e. when the decision about future career is made. Unfortunately, due the lack of individual level data for football players it is impossible to test this hypothesis empirically for European League. However, Major League Soccer Players Union (operating in Canada and United States) has

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<sup>6</sup> This would correspond to an earlier reflections on the negative changes in quality of show at the too large sports facility. Although this is no longer the only way to meet the demand for services of the club, it still constitutes a significant source of revenue, even in case of the richest clubs – Football Money League (2008).

<sup>7</sup> In this context, the commonly held perception that ‘in football anything is possible’ gains new interpretive possibilities – with a little difference of quality, the chances of victory may be similar, while revenues diverge drastically.

<sup>8</sup> In this respect one could point to the work by Levitt, Venkatesh (2000) that discusses the motivation of drug sellers.

been publishing the information about MLS players since 2007<sup>9</sup>. Using this dataset, one can observe that for example in 2009 around 25 percent of 322 athletes earned less than the average personal income in USA. Although such situation is a result of a specific institutional setup that eliminates the competition between MLS clubs on the labour market<sup>10</sup>, it provides some insight into the problem of wage disparities. In that year, the best-paid player earned more than 300 times more than the least paid ones. One can interpret such a situation in two ways. The first is that the most of the athletes were unable to avoid strong monopsonistic exploitation, while the best ones had an alternative of playing in Europe and, therefore, could have negotiated salaries closer to their productivity levels. On the other hand it could simply mean that the impact on revenues of the first group is immensely lower than of the stars, which would be consistent with the Rosen's model. While most probably it is necessary for those two effects to be in power to obtain disparities as the cited one, one conclusion is obvious – a lot of athletes do not receive considerably high wages.

An important aspect of the superstar effect is the fact that part of the income does not come directly from the fans, but is derived from the demand for 'talent' of the player. Namely, contracts for advertising and sponsorship agreements often exceed the wages of sportsmen<sup>11</sup>, This might provoke allegations that in this way the star not only receives a salary for their work, but also benefits from popularity of a given sport or club. On the other hand, empirical work indicates the opposite – a strong external effect of superstars on the entire industry. As mentioned before, those concentrate rather on team sports other than football, mainly due to the lack of obvious criteria for singling out stars in the latter sport.

Among the most interesting are the analysis of basketball. Hausmann and Leonard (1997) presented the estimates of positive external effect on other teams' away revenues meetings of the biggest stars of the NBA in season 1991–1992. According to their findings, the greatest positive effect concerned Michael Jordan. Due to his popularity, the revenues of any other team than the Chicago Bulls, due to the increased ticket sales, broadcast television viewing and sale of souvenirs, grew by \$53,300,000. Such an amount, however, is the effect of the redistribution of the income from the sale of official memorabilia (the factor responsible for the external

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<sup>9</sup> <http://www.mlspayers.org/>

<sup>10</sup> MLS acts as a single entity and players negotiate their contract with the league, not the clubs.

<sup>11</sup> According to Fort (2005), the case of Michael Jordan, who was ranked as one of the top earners among sportsmen for several years after finishing his playing career shows the long-term sustainance of the superstar effect.

effects in the form of more than \$15 million) and nationwide broadcast. Berri and Schmidt (2006) presented the research on the influence of the 'guest' team's quality and its stars on the number of spectators in the NBA in 1992–1996. The results confirm a significant, positive impact of all these variables. Nevertheless, the general quality of the team (measured by the number of wins) had a greater influence than the popularity of its stars. The authors also present estimates for the 25 biggest stars of the NBA 1995–1996 season. The largest positive externality is generated by Michael Jordan and was over \$930,000. This suggests that at least the superstars are unable to earn as much as they create in terms of value added of the whole industry. Therefore, additional income from using their image might be perceived as some kind of compensation.

Compared to the analysis of the impact of superstars on the demand for spectator sport in North American professional leagues, the market for football in this context was rarely tested. Brandes, Franck and Nüesch (2008) presented the results of an econometric analysis of panel data on the number of spectators at the German Bundesliga games in 1995–2004. Controlling the economic and demographic characteristics and using the approximations of long-term reputation of the team, the authors estimated the impact of match statistics and presence of the 'media superstars' and 'local heroes'<sup>12</sup> on the demand for tickets.

The analysis pointed to a positive and statistically significant effect of the weighted average of goals and assists by a 'superstar', both during the games as 'domestic' and played 'away'. At the same time, this second effect is weaker. In the case of 'local heroes' the only significant and positive impact on the number of spectators in the stadium during the 'home' games was measured by the number of mentions about the player in national and local newspapers. The possible interpretation is that stars attract audience of their own club but only when they really play well they are able to appeal to the 'away' fans. Moreover, only in such a case they are paid significantly more. Furthermore, when the authors changed the threshold for qualification for being a 'superstar' to 5 percent or 8 percent, the stardom effect became irrelevant. This confirms that an element of uniqueness is affiliated only with a very small group of players. The authors estimate that the positive externality of average 'superstar' amounted to 430 thousand euro.

The effect of football superstars in the market was supported by the individual level data by the work of Lucifora and Simmons (2003). When regressing players'

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<sup>12</sup> An 'superstar' players acknowledged receiving a salary of 2 percent. highest in the league. 'Local heroes' were called the highest-paid players in the team if it had not 'superstars'.

match statistics (based on data from the Serie A season 1994–1995) on their basic wages a convex dependence on the career record of goals and assists (the second only in case of strikers) was obtained. Using a binary variable for a certain threshold of goals scored the authors could assign the stardom effect to only six players among the 533 respondents.

## Are Athletes Overpaid?

According to popular belief, in the absence of institutional constraints, the wages of the players would grow excessively. According to the most elementary economic theory, under perfect competition any worker would be rewarded according to his productivity. If the labour market was monopsonic, wages would be lower. Moreover, as already mentioned, the product market rather is not perfectly competitive. Monopoly on the product market would further reduce employment and wages, by restricting the supply of the product.

Empirical research on the productivity of individual players makes use of the assumption coming from the pioneering work by Scully (1974), stating that the impact of labour on the revenues is equal to its marginal product multiplied by the marginal revenue. The author, while controlling the variables describing the team's quality, estimated the impact of successful plays of each player on the chance of winning the game. The percentage of victories, in turn, combined with (among others) the analysed market size, the quality of the stadium and possible discrimination against dark-skinned players, explains the level of club's revenues. Comparing players' salaries with the obtained values indicated strong monopsonistic wage exploitation. Subsequent work has followed this line of reasoning by enriching the model with a differentiation of professional players according to their experience<sup>13</sup>. The resulting estimates indicated a greater exploitation of younger players who are not allowed to change employer even without a valid contract (see Leeds, von Allmen 2004: 276–277, MacDonald, Reynolds 1994).

A fundamental problem in analysing the productivity of individual players is the necessity of assumptions about the supposed goals of a sports club. While before

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<sup>13</sup> In Major League Baseball (MLB) the institutional constraints of labour mobility are decreasing with years played by a given player.



mentioned works assumed profit-maximising behaviour, some (mainly European but not exclusively – see, e.g., Késenne 2007: 4–5) authors believe that some owners seem to be more fans than the entrepreneurs. In this case a more appropriate assumption would be maximization of the percentage of victories. In such case, the productivity of each player would not depend on the marginal impact on revenue of victories – it might be either lower or higher than the one in the case of profit optimization. Wages and employment of talent would, however, be higher.

One could argue that professional athletes (that have not become media superstars) usually can only obtain a high level of productivity as employees in the sports market, which stems from the specificity of human capital and a long-term nature of the investment process. This means that they are bereft of comparable sources of remuneration. On the other hand, in case of limited competition in the labour market (and assuming either a high degree of heterogeneity of the labour supply or constituency of an effective players association, which takes place in North American professional leagues), a proper theoretical model for determining the remuneration would be a negotiation game. According to it, the lack of comparable employment alternatives for the players greatly reduces their negotiating power and ultimately wages.

In addition to monopsonistic exploitation and undercut negotiation position, the reason of the underpaying of the athletes one should mention the institutional restrictions on the labour flow.

The most significant restraint in European professional football is the transfer system. Its main aspect is the fact that a player cannot change the team that she or he plays for while she or he has a valid contract. Furthermore, by 1995 even the lack of a valid contract did not mean that players had been allowed to change employer without the latter's consent. Moreover, not in every case a fee was set that would automatically lead to the release of the athlete. In practice, this meant granting clubs monopsonistic power over players.

The major breakthrough was the case of Jean-Marc Bosman who appealed in 1995 to the Court of Justice in Luxembourg when his then-club had not allowed him to move despite the absence of a valid contract. Since then the players were able to negotiate with other clubs for half a year before the end of their contract and their current clubs could not claim for any compensation. If the players had valid contracts, the club having the rights to them had to agree for a transfer (usually for a fee, determined by negotiation)<sup>14</sup>.

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<sup>14</sup> For the discussion of the reforms of transfer system in football see Feess, Muehlheusser (2002).

The main postulate for the regulations of labour markets in team sports was an alleged positive correlation between the demand of spectators and the balance of teams. However, the significance of such a relation is not obvious. Both institutional analysis and empirical research provided arguments against perceiving so-called competitive balance as an important determinant of the demand for professional football in Europe (See e.g. Zimbalist 2002, Forrest, Simmons 2002, Garcia, Rodriguez 2002, Benz, Brandes, Franck 2006, Forrest, Simmons, Buraimo 2006, Alavy, Gaskell, Leach, Szymanski 2006. Moreover, the effectiveness of transfer system in dealing with the supposed imbalance of teams is ambiguous. Rottenberg (1956) formulated so-called *invariance principle* that postulated that the rights for best players would be eventually possessed by the clubs located in the major markets, irrespective of their initial distribution. Thus, allocation of production factors is the same as it would be in case of unrestrained market allocation. The difference lies in the fact that part of the product is redistributed from the 'big' clubs and players to those 'small' clubs that initially have more talent than efficient. As Sloan (2006: 4) points out, the *invariance principle* might be perceived as a specific case of Coase theorem, although it had been published around four years earlier.

As was shown by Késenne (2007) and contrary to the invariance principle, the transfer system would affect positively the competitive balance, but in order to do so the clubs should maximize the percentage of victories and the 'small' ones should initially possess rights to a sufficiently large part of the talent. The appropriateness of the first condition is ambiguous and, as Fort and Quirk (2004: 27) pointed out, it might be impossible to falsify. The latter requires either the use of so-called draft (described later) or the concentration of the youth training in the 'small clubs'. The latter, due to the limitation of resources, seems unlikely.

In 2001, the European Commission forced the FIFA and UEFA to the further adjustment of the transfer system. Depending on the age and the time elapsed since the signing of the contract the player might leave the club, with which she or he has a valid contract. The club would receive a transfer fee and/or compensation for training. The two-year ban from playing would be only put on those players who have broken the contract within two years after its signing (See Feess, Muehlheusser 2002).

Whether the transfer system in its present form (i.e., restricting the mobility of players with valid contracts or sufficiently young) affects the salaries level is not obvious when one takes into account the long-term perspective. If a few years ago, it could be assumed that each club was a monopoly for its fans the same could be said about its position on the market of training for potential players. For many years, however, clubs from Western Europe have been seeking out the potential

stars from the whole World in order to recruit them (often circumventing the law), train and then hire or sell for a transfer fee. For this very reason, the current system, which makes the clubs are co-owners of human capital of players, could potentially have a positive impact on wages. Namely, if clubs were deprived of the contractual protection against loss of this capital the spending on training would most likely be reduced. To avoid the hold-up problem it would require individual financing by the potential players. Even if the restrictions on the labour movement of youth were upheld, the problem still would not be solved. At a time when the club would not be institutionally protected against the loss of players anymore (i.e., when they cease to be trainees) further investment in human capital would require them to participate in the costs - to the greater extent the greater would be the likelihood of their departure. Thus, the salaries would be lower. For this reason, long-term impact of the current transfer system on wages is ambiguous.

Fees and Muehlheusser (2002), using the two-clubs model of the labour market with integrated, stochastically modified development process of young, talented players, pointed out that the three regimes of the transfer (the one before the Bosman case, in force until 2001 and the one after) lead to the same level of talent development. The prerequisite, however, was the permissibility of any length of contract. In the oldest system, the player share in supernormal profits could be too low so the players would have less incentive to develop their own talent. Therefore, the club would hesitate to invest in it. On the other hand in the newest system, the player share might be too high. Given the club's lesser incentive to invest and a more motivated player, the net effect is ambivalent.

In order to find the possible solutions of the labour market problem in European football one might draw from the experience of the American professional league. The institutional system include a broad spectrum of regulations, such as guaranteed minimum wages, maximum wages, maximum and minimum ratio of all wages in relation to takings (salary cap), defined the permissible maximum length of contracts and centralized negotiations regarding these conditions, often backed by real threat of a strike by the players or a lockout by employers. The extensive description could be found in many sources, e.g. in Fort (2005) and Leeds, von Almen (2004).

To sum up, despite the problems in determining the actual productivity of the athletes, it is expected to surpass the salary level. On the other hand, the observed opening of product and labour markets, both through legal and technological changes, most probably led to an increase in employment, productivity and wages. Nevertheless, a pure comparison of pay and efficiency is not enough to discuss the

problem of 'fairness'. The next paragraphs constitute an attempt to broaden the hitherto, possibly overly simplistic approach.

## Is the Level of Athletes' Wages Fair?

The departure from the approach basing on comparison of wages and productivity level does not mean adopting psychological concepts. Most of all the fair-wage efficiency formulated by Akerlof and Yellen (1990) that takes into account a subjective perception of fairness is not considered. The comment on the impact of players' salaries on the well being of fans and, more generally, society is made instead.

The answer to the question 'whether the level of athletes' wages is vital for the fans' welfare?' which would be crucial in determining whether is it 'fair', is ambiguous. The often-cited argument against the high salaries is their impact on ticket prices. However, if better wages are correlated with greater value of the product (through increased productivity of workers), the increase in ticket prices should not be regarded as 'exploitation' of fans. Common problem with too low supply of tickets for games of some of the best teams, even in case of the extremely high prices seems to confirm this. Matheson (2003) presents the English market analysis using Granger causality tests, which indicate that rather higher revenues and wages lead to better results on the pitch, not vice versa. Moreover, 'exploitation' of fans by the owners could only occur in case of a limited market competition, which in turn results in the reduction of wages. In fact, Walras equilibrium model developed by Késenne (2007) suggests the negative impact of pay per unit of talent employed on the price of tickets. Lower wages result in an increase in demand for talent, which in turn will lead to an upward shift in the demand for tickets. The ticket price in equilibrium, in case of profit-maximisation, will therefore be higher. The crucial assumption of the model, however, is that clubs are price takers in the labour market and price makers in the goods market. Therefore, the model assumes perfect competition between the players and the clubs monopolisation of their own markets for sports entertainment. Nevertheless, it might be concluded that even if the level of players' wages influences the prices of tickets, the impact is rather negative. Furthermore, as Szymanski (2009: 120–121) points out, the level of salaries influences the incentives to cheat. While high wages might lead athletes to doping, they discourage from match-fixing. Which form

of cheating is worse depends on the possibilities of screening them and, to some extent, on fans' preferences.

Moving to a broader social context, one has to acknowledge that the size of the professional sports industry is not substantial, at least when measured in monetary terms. As Fort (2005: 2) shows in 1994 revenues of the whole league (MLB) were almost three times smaller than the value of the production of cardboard boxes. Whereas the influence of sports is supposed to exceed their financial size, one can conclude that is difficult to expect a direct impact of any considerable scope on either national economy or society. Similarly, as was pointed out during the analysis of superstar effect, only few athletes earn really high salaries.

An important issue is the specificity of sport as a segment of the labour market and its requirement when it comes to skills. It might be argued that for some extreme cases this could be the only legal way possible to obtain high-wage jobs. By simplifying reality, if a person with high productivity of 'physical' kind in comparison with any other (or with little prospect of investing in human capital other than sports-specific as a result of external conditions) is to choose a career path described by Levitt and Venkatesh (2000) and a sporting career, it seems that the latter is better from the social viewpoint.

An alternative point of view is provided by work of Chung and Cox (1994). They show that the distribution of records sold by top musicians and bands could be sufficiently well described by a stochastic Yule-Simon model. The main conclusion is that celebrity status can be a result of random consumer choices. What is crucial, there are no assumptions about any individual characteristics of producers. The consumption choices are sequential and the probability of purchase of every recording is proportional to the number of copies bought previously by other consumers. Chance of selling any CD for the first time is constant. This process implies, therefore, herd behaviour of consumers, which is motivated by minimization of the cost of finding a possibility to talk about a given artist. The article's conclusion is to follow Simon with stating that the diversity of biological, social and language phenomena that can be described by this distribution, suggests a similar underlying process of stochastic nature. Was the same applicable to professional sport, it would mean the high salaries of top athletes could be perceived as randomly distributed. In other words, the significant discrepancies between incomes might not result from small differences in talent (as explained by Rosen), but from 'luck'. Therefore, one could argue that some players earn 'unfairly' high wages. The only losing side in this situation, however, are the other athletes. On the other hand it does not necessarily mean that any kind of redistributive measure should be taken. As shown by

MacDonald (1988), such high wages might be necessary to entice young adepts to this industry. Moreover, the high demand for professional sports in the most developed countries suggests that fall in the supply of athletes' talent resulting from decrease in training effort would most probably decrease the well-being of consumers.

A contrasting view was presented by Szymanski (2009: 98–99). Namely, the prospect of high wages and a demanding training means that educational effort is minimized. Moreover, while it is not significant from the point of view of the whole society, it might be significant on the individual level. From the argument of Szymanski one additional conclusion could be drawn. Namely, the quality and complexity of youth training is vital. Therefore, one can commend policies of at least some of the European football clubs that provide their youngster not only with sports education but also with the general one. Moreover, assuming that process of becoming a professional athlete relies rather on innate skills and gift than pure luck, development of talent assessment system becomes vital not only for the profitability of clubs. Another example of a similar attempt is the American system basing on high school and college leagues. In this case, however, young athletes are strongly discouraged from the participation in the latter by the complete ban on paying salaries. Furthermore, one could argue that the decision made by youngsters (or their parents) to pursue a career in sports might be a rational albeit risky one. On the other hand one could argue that the same could be said about numerous other educational and occupational choices. Nonetheless an empirical study of the effect suggested by Szymanski might be an interesting one.

## Conclusions

The arguments presented in the article suggest that there it is difficult to provide an argument for the hypothesis that wages of professional athletes (with special attention paid to football players) are 'unfairly' high. First of all, their increase does not lead to increase of ticket prices. It does not harm fans in any other way. In case of an efficient anti-doping system higher wages might decrease incentives to cheat. Secondly, one cannot argue that it influences economy or society in any negative way. Therefore, the main issue is how are the incomes and any other benefits distributed between athletes and owners. Cited researches, as well as more general economic theories, suggest that the wages of the first are rather unfairly low.

An indirect argument for the latter is the activity of players' unions across the Western countries. It is highly probable that the publication of salaries in MLS is a response for a monopsonistic exploitation. Apart from the well-documented labour disputes in American leagues one could recently observe threats of strikes in Europe in December 2010 and January 2011. Moreover, those were in two of the three best football leagues (Italian Serie A and Spanish Primera Division). It is worth mentioning that they did not solely deal with issues of wages level or labour movement restrictions but also with problems such as a right to have a Christmas break. This shows that the athletes as a group should not be perceived as stars but as employees in any other industry.

While institutional changes led to the increased well-being of athletes the technological change seems to be more significant in this aspect. Nevertheless the question about the relations between them remains open. In essence, one could argue that the introduction of TV broadcasts redefined both labour and product market and led to shift of bargaining power. On the other hand the institutional reforms, such as those imposed by the European Commission, might have influenced the technological processes in the industry. Such considerations remain subject to future research.

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