

**Westfälische Wilhelms-Universität Münster**

Wirtschaftswissenschaftliche Fakultät

**IÖB-Diskussionspapiere**



## **Macro-Analysis of Transfer Fees and Investments in Sports**

Alexander Dilger

IÖB-Diskussionspapier 2/05

Dezember 2005

Prof. Dr. Alexander Dilger  
Westfälische Wilhelms-Universität Münster  
Institut für Ökonomische Bildung  
Schlossplatz 4  
D-48149 Münster

Tel.: +49-251/83-25330

Fax: +49-251/83-28429

e-mail: [alexander.dilger@uni-muenster.de](mailto:alexander.dilger@uni-muenster.de)

Homepage: <http://www.wiwi.uni-muenster.de/ioeb/organisation/Dilger.html>

# **Macro-Analysis of Transfer Fees and Investments in Sports**

## **Summary**

Systems of transfer fees can be designed in different ways. Their effects have been analysed in detail, particularly in connection with the Bosman-ruling. However, the analyses were only conducted on a microeconomic level and therefore limited to one player and two clubs, one club taking the player in and the other releasing the player. In a macro-analysis covering all players and clubs, new aspects arise. First of all, it is evident that the sum of all paid transfer fees is equal to the sum of all received transfer fees. Hence, there is no redistribution from the players to the clubs, at least no large redistribution anywhere as high as the sum of the transfer fees. The sum of salaries is determined essentially by the revenues of the clubs, not by the design of the transfer system. Admittedly, there are effects on the training investments, the distribution between players and the risk allocation. The transfer system after the Bosman-ruling seems to be best regarding these aspects.

JEL-Codes: L83, M52, J33

## **Makroanalyse von Transferzahlungen und Investitionen im Sport**

### **Zusammenfassung**

Transferzahlungssysteme können unterschiedlich ausgestaltet werden. Ihre Auswirkungen wurden bereits detailliert analysiert, insbesondere im Zusammenhang mit dem Bosman-Urteil. Diese Untersuchungen fanden jedoch auf mikroökonomischer Ebene statt und waren daher auf einen Spieler und zwei Vereine – einen, der den Spieler zu sich holt, und einen, der den Spieler freigibt – beschränkt. Im Rahmen einer makroökonomischen Analyse, welche alle Spieler und Vereine einbezieht, tauchen neue Aspekte auf. Zunächst einmal ist es offensichtlich, dass die Summe aller geleisteten Transferzahlungen der Summe aller empfangenen Transferzahlungen entsprechen muss. Es gibt daher keine Umverteilung zwischen Spielern und Vereinen, zumindest nicht annähernd im Umfang der Transferzahlungen. Die Summe der Gehälter wird hauptsächlich von den Einnahmen der Vereine und nicht von der Ausgestaltung des Transfersystems bestimmt. Es gibt allerdings Auswirkungen auf die Investitionen in das Training, auf die Aufteilung zwischen den Spielern sowie auf die Risikoverteilung. Mit Blick auf diese Aspekte scheint das Transfersystem nach dem Bosman-Urteil am besten geeignet zu sein.

Im Internet unter:

[http://www.wiwi.uni-muenster.de/ioeb/forschen/IOEB\\_DP\\_02\\_2005.html](http://www.wiwi.uni-muenster.de/ioeb/forschen/IOEB_DP_02_2005.html)

# Macro-Analysis of Transfer Fees and Investments in Sports\*

## 1. Introduction

There are plenty of examinations regarding the possible effects of transfer fees in professional team sports (see e. g. Feess/Mühlheuser 2003, 2002a and 2002b, Schellhaaß/May 2002, Antonioni/Cubbin 2000, Szymanski 1999, Simmons 1997 or Frick/Wagner 1996). Particularly the Bosman-ruling and the new EU- or FIFA-transfer regulations respectively are subject of speculation on the question who benefits the most from which kind of arrangement, the players or the clubs. Both the Bosman-ruling and the new regulations have restricted the clubs bargaining power, thus it has been suggested that the players have won and the clubs have lost.<sup>1</sup> Hübl/Swieter (2002, pp. 111-112, my translation) argue as follows: “From a club’s point of view, a player’s expected yields do not only have to cover the costs in the form of the player’s pay, but also the payable transfer fee. If there is no obligation to disburse transfer fees, these payments can flow into the player’s salaries, so that the player can finally get a remuneration as high as his marginal value product.“ (See also e. g. Lehmann/Wiegand 1999 or Büch/Schellhaaß 1978 already.)

This may be correct as long as one considers a single interaction between one player and one or two clubs only. In this article, however, the perspective is on the macro level, meaning the entirety of all relevant players, clubs and leagues of one sport. In economic matters an advice can appear valid on the micro level while it has to be analysed differently on the macro level. For instance, the virtue of individual saving can be harmful from the perspective of the whole economy. Hence, also for transfer payments in sports new aspects appear on the level of macro-analysis.<sup>2</sup>

The following section deals with the sum of all salary payments and transfer fees. It turns out that the direct effect of transfer systems on the sum of salaries cannot by any means be as large as the relation between salary payments and transfer fees with regard to single sportsmen, as the transfer fees of one club are received by other clubs. Nevertheless, the definition of the transfer system can of course have important effects in reality, e. g. on the training investments. These, together with the distribution effects that result from training investments, are the subject of the third section. However, on the macro level, concerning all clubs and leagues, a decrease of training investments is to be judged completely different than from within the partial analysis of single actors only. Indeed, lower investments are to be judged much more positively. The fourth section contains an analysis of the risk allocation, which is influenced by the rules of the transfer system. Here it is possible to give recommendations for welfare-improvements. The fifth section concludes.

---

\* I would like to thank Sabine Fier, Carolin Münker and the participants of the 2003 meeting of the “Arbeitskreis Sportökonomie” in Munich. This paper is an improved version of my contribution to the conference proceedings in German: Makroanalyse von Transferzahlungen und Investitionen im Sport, in: Klaus Zieschang, Herbert Woratschek and Klaus Beier (Eds.): *Kooperenz im Sportmanagement*, Schorndorf 2004, 153-162.

<sup>1</sup> Before the Bosman-ruling in 1995, a club was allowed to take transfer fees from another club even if the contract between the former club and the concerned player had been run out. After the judgement, transfer fees were allowed only during current contracts, while the new FIFA regulations of 2001 generally limit the running time of contracts (and their binding effect for the players) and the validity of transfer fees.

<sup>2</sup> See Ericson (2000) for more wrong conclusions by neglecting the macro level and Dilger (2001) for their criticism.

## 2. Sum of Salaries and Transfer Fees

It is analytically true and therefore appears to be almost trivial that on the macro level the sum of all transfer fees paid by clubs enrolling players is exactly equal to the sum of the transfer fees received by the clubs delivering these players. This, however, has far-reaching implications. Thus, the sums of all remaining revenues and costs of a club, which are not transfer fees, are not influenced by the amount of these payments, at least not directly. Hence it follows, in opposition to the results of partial models, that the salaries will not simply increase by the amount of the transfer fees if these are abolished. On the contrary, the sum of salaries will barely change.

The existence of transfer fees virtually leads to an increase of the money in circulation in one sport but not to a change of the real variables (in corresponding magnitudes). If, for example, in a transfer system € 2,000,000 of transfer fees were paid for a player, and in addition to this the player earned € 1,000,000 in wages, the player must be worth € 3,000,000 in this system. If transfer fees are abolished without substitution, the player will not receive a salary amounting to € 3,000,000. Where should this money come from, if the league's receipts do not treble? Instead it is to be expected that the player will still get a salary of € 1,000,000, because his marginal productivity is to be judged newly with € 1,000,000. The single player will merely benefit appreciably if he alone or with a few others is exempted from the transfer system (as a so-called "free agent").

Thus, more money circulates between the clubs with the existence of transfer fees, which is comparable to an inflationary effect. The appendix deals with the conclusions from this comparison in detail. Other related analogies, which shall not be studied in greater depth here, were the multiplier effect of consumption spending or the creation of credit by banks.<sup>3</sup> Inflation has in any case real effects, but not in the same magnitude as the nominal price change. Likewise, the design of the transfer system in sports has allocative and distributive effects, but they are very different from the clubs withholding the players from salaries to the amount of the transfer fees. A club receiving transfer fees can spend them again on salaries and transfer fees. As the latter can anew be used for paying salaries and transfer fees by the club receiving them, and the sum of all transfer fees cancels itself out on the macro level, the sum of all salaries would be equal in each transfer system, if clubs had no other expenditures than salaries and revenues were not affected by the transfer system.

There is no evidence that the transfer system has a direct effect on revenues. Indirectly it may have some effects, e.g. by the league's balance or the investment in trainees, but such effects are anything but undisputable and in any case much smaller than the sum of all transfer fees. When it comes to expenditures, the investments in trainees seem to be relevant the most (see section 3), besides of course the salaries. Expenditures for stadiums etc. are likely to be unaffected, at least for the short term. Furthermore, credits could become necessary for financing large transfer fees. These credits are secured at least partially by the acquired rights on the players but lead to interest payments which are lost for all participants interested in the sport. Profits do usually not accrue. In non-profit clubs there is by definition no one who has the right to acquire profits, and therefore there is no one who has an interest in profit maximization. Stock holders, like those of Borussia Dortmund, are vested only with weak rights opposite to an ideal club interested mainly in sporting successes. If there are owners

---

<sup>3</sup> A completely different analogy is the taxation of public servants. All taxes paid on the gross salaries disbursed by the state flow back to the state again, so that in fact the state pays out exactly the net salaries. Nevertheless, it could have some real effects if public servants received their net salary directly and tax-free, e.g. because different levels of a federal state pay the salaries and benefit from the taxes.

with real powers and profit motives like in the US major sports leagues, there are also revenue sharing schemes in place and no large changes with or without transfer fees to be expected.

Besides the average amount of receipts and expenditures, their risk structure is of economic importance, which is discussed in the fourth section. First, however, possible effects regarding training investments as well as distribution effects will be analysed in the next section.

### **3. Training Investments and Distribution Effects**

In regard to the possible influences on the club's expenditures by the transfer rules, a shift between salary expenses and training costs seems to be most probable and significant. Such a change is to be expected for two reasons. First, the design of the transfer system results in distribution effects between the clubs on the one hand, and the players amongst one another on the other hand (but scarcely, as often maintained, between clubs and players as groups of actors). Second, the inter-temporal allocation is influenced.

The sum of salaries can change by competition with the sum of training costs for the sum of revenues. Even with inclusion of the macro level, the rule remains reasonable that the marginal costs have to correspond to the marginal revenues. If (potential) players are cheaper than their expected marginal revenues, the club should purchase them or contract or train them respectively; if they are more expensive, the club should employ less or train less.<sup>4</sup> Overall, without transfer fees the costs and earnings have to balance each other in each period. For a transfer system this rule is valid in regard to the corresponding discounted expected values. This permits the clubs to compensate investment costs by lower salaries even in later periods or to smooth salaries over time.

That means that without transfer fees the trainees have to bear their training costs completely by themselves, while some lucky top players get their own marginal value entirely. With transfer fees, the first can be cross-subsidized by the latter or, to put it differently, the top players can pay back their own training including interests and insurance premiums. Transfer fees worth millions for one top player seem to be out of any appropriate proportion to the training costs of this single top player. But it has to be considered that ex ante it is not certain who will belong to the top players, and hundreds to thousands of young people have to be trained and advanced for discovering one talent worth millions. Of course the argument given in section two that without transfer fees the salary sum would not be that much higher applies in this case, too.

Consequently, less training investments are to be expected without transfer fees, as then, every trainee has to bear the costs himself at the moment of training, when he earns little and the training success is most uncertain (for the risk aspect see section four). This is also supported by the fact that the net payers of transfer fees are probably the richer clubs and countries, while the poorer ones should specialize on their comparative advantage, training and thereby earning transfer fees. In a system without transfer fees the clubs earning much income have more money left, while on the whole the training of the trainees decreases.

Normally, lower investments are thought to be negative, but on the macro level of sports it appears to be an advantage! In the relevant sports, relative performance contests, tournaments, are arranged. It is not at all plausible that on the whole higher absolute performance generally

---

<sup>4</sup> At short notice clubs can diverge from this, if they just want to maximize their win quota; in the medium or long term, however, no club can evade the economic rationality and spend durably more than it receives.

increases the interest of the spectators and thereby the receipts. Occasionally this may be the case, but the opposite is imaginable, too, e.g. if men's tennis becomes more boring because of very hard serves or football because of more defensive tactics. But if the total revenues are given, each additional investment in trainees will merely cause costs, as the returns on investment for the club concerned are compensated by the corresponding losses of the other clubs.<sup>5</sup> Thus, welfare is increased if the corresponding expenditures flow into salaries instead, from which the salaried players benefit.

#### **4. Risk allocation**

Furthermore, the welfare is influenced by the risk allocation between clubs and players.<sup>6</sup> The risk allocation itself is not independent from the design of the transfer system. Without transfer fees, each player gets his marginal value product in each period, as the last section illustrated. Thus, young players pay the costs of their training by cutting their already small salary or even spending their own money for being trained and actually placed in higher leagues. Most of them fail and have to look for a different job after all. Later the respective marginal value product is paid to the remaining players, which can add up to an amount of millions for a couple of them. In this case the distribution of risks is comparable to a lottery with high stakes.

If there are transfer fees, clubs can use them as a kind of insurance for the players. In doing so, however, moderate premiums are not collected at first from many policy holders like in a regular insurance for balancing high amounts of losses for a few policy holders. The regular insurance process is quasi reversed by taking away parts of the training costs from everyone at first and then collecting high contributions from the few particularly successful sportsmen. Nevertheless, the effect is comparable to the one of a regular insurance. The clubs pool risks of many players and thereby reduce them for each individual player.

Hence it follows that under the aspect of risk allocation a system with transfer fees is preferable compared to a system without transfer fees, because risk averse actors can hedge at least a part of their risks. Moreover, a well-founded choice between different systems with transfer fees can be made, as they influence the risk structure differently. For example, in the system before the Bosman-ruling, the players had to accept the vulnerability of a dismissal or low wages in case of deterioration of performance, as in that case their short-term contracts were not renewed or only with explicitly worse conditions. Conversely, the clubs benefited from increased performance, as also after the contracts had expired transfer fees had to be paid. Thus there was a balance of risks regarding training costs and top salaries, but not in case of established players' fluctuation of performance.

Accordingly, the system after the Bosman-ruling (but still before the FIFA-regulations, which aim at a partial prohibition of transfer fees) has to be judged as the best system concerning the allocation of risks, because freedom of contract exists and the players will be virtually insured by their clubs during the contract duration. Sufficiently good players can decide for themselves depending on their degree of risk aversion to what extent they would like to insure themselves. Longer-term contracts offer more security by more balanced salary payments but,

---

<sup>5</sup> On the global level this is valid for national teams, too (e.g. there is always exactly one soccer world champion, independently of the absolute proficiency level). An individual national team can of course lose relatively compared to the others, if the clubs reduce the training investments in their land (cp. Büch 2001), of which they by themselves are maybe hardly concerned in default of international competition.

<sup>6</sup> Dietl/Franck (2004) point to the importance of the exploitation risk but think that the transfer system before Bosman has been optimal, contrary to the following analysis in this text.

at the same time, a lower payment on the average,<sup>7</sup> while less risk averse players or those who are more confident in themselves will only sign short-time contracts in order to always receive their marginal value.

## 5. Conclusion

On the macro level the design of the transfer system influences the sum of salaries only slightly or not at all, as each expenditure for a transfer fee of one club is matched by the receipt of the very same amount by another club. Most likely a regrouping between salaries and training investments takes place if the transfer system is changed. In this case a problem of over- rather than underinvestment probably exists, as in the concerned sports relative performance contests are arranged and each investment success of one club means a comparable loss for some or all other clubs. The distribution of the salaries over time between different players as well as between clubs amongst each other is influenced by transfer fees. The same applies for the risk allocation where the system after the Bosman-ruling appears to be optimal.

## Appendix

In this appendix the analogy between transfer fees and inflation is studied in greater depth on the basis of the quantity equitation by Fisher (1911), whose fundamental idea can be ascribed to Hume (1752). Therewith, the essential statements of the main text can be proved theoretically. According to Fisher's quantity equitation, it holds

$$(1) \quad M \cdot V = P \cdot T,$$

in which  $M$  denotes the money stock,  $V$  the velocity of money,  $P$  the price level and  $T$  the real value of the traded goods, or in this case the performance of the players. If  $V$  and  $T$  are given, every change of  $M$  leads to a corresponding change of  $P$  and vice versa (which is a bit against Fisher's intention, but here of particular interest).<sup>8</sup> If in the example given in the second section the prices per player triple with transfer fees, the tripled amount of money circulates accordingly between the clubs. The dynamic of the process is in such a manner that with the adoption of transfer fees the first club will pay only a small transfer sum ( $P$  rises). Because of this the second club has more money for salaries and transfer sums ( $M$  rises), which leads to a further increase in transfer fees until a new equilibrium is reached (accordingly, in case transfer fees are abolished the salaries decrease successively, not abruptly).

The concrete balances cannot be determined on the macro level alone. For this the microeconomic models mentioned in the first section have to be consulted to determine the relative negotiation powers of players and clubs (if those are not presumed as given anyway). However, the following general connections are valid, which also show the interdependence of nominal and real effects. In a system without transfer fees the correspondingly indexed quantity equitation by Fisher is valid:

---

<sup>7</sup> The empirical evidence indicates that players with longer contract durations earn more than those with shorter durations (cf. e. g. Frick/Prinz 2000, Frick 2002 or Hübl/Swieter 2002). However, this might be due to their higher performance. Long-term contracts are not offered to poorer players, while better ones could probably earn even more and choose the securing of their income. At the same time it is possible that the clubs reduce a part of their risks, too, insofar as the value of single players or of all of them could increase.

<sup>8</sup> Should the contract duration increase and therefore  $Y$  decrease,  $M$  also rises accordingly. The salaries and transfer fees for three periods are higher than for one, while the price per yearly performance stays unvaried.

$$(2) \quad M_o \cdot V_o = P_o \cdot T_o.$$

If transfer fees are admissible, the equitation has to be extended to

$$(3) \quad (M_o + M_a) \cdot V_o = P_u \cdot T_u + P_a \cdot T_a,$$

in which  $M_a$  denotes the additional circulating money stock due to the introduction of transfer fees,  $P_u$  the price for the performance  $T_u$  of players independent of transfer fees (e. g. “free agents” or new players, possibly including training costs) and  $P_a$  the price for the performance  $T_a$  of players for whom transfer fees have to be paid.<sup>9</sup> For the prices

$$(4) \quad P_u = P_a$$

is valid, as for corresponding units of performance<sup>10</sup> the same market price arises, independent of identity and legal position of the players.  $P_a$  can be compartmentalised in

$$(5) \quad P_a = G_a + A,$$

in which  $G_a$  stands for the salaries of corresponding players and  $A$  for the transfer sum that has to be paid.<sup>11</sup> From this,

$$(6) \quad P_u > G_a$$

follows immediately, and consequently this means that the players who are excluded from transfer fees earn more (per performance unit) than the players who are affected by them, at least as long as  $P_u$  is not split into salary on the one hand and e.g. costs for the training on the other (from the third section it follows that with the existence of transfer fees the training investments increase). Concretely, it holds

$$(7) \quad \alpha \cdot P_u = G_a \quad \text{with } 0 < \alpha < 1.$$

Here,  $\alpha$  is a measure for the players’ negotiation power relative to the clubs which could be deviated from microeconomic models where required. (5) and (7) inserted in (3) result in

$$(8) \quad (M_o + M_a) \cdot V_o = P_u \cdot T_u + \alpha \cdot P_u \cdot T_a + A \cdot T_a.$$

This can be simplified to

$$(9) \quad M_a \cdot V_o = A \cdot T_a,$$

which shows that the additional circulating money stock results from the transfer fees and corresponds to them. The relation between the performance of the players subject to the transfer fees and the total performance can be denoted by  $\beta$  such that

---

<sup>9</sup> If these players remain in their old club, the transfer sum is of course not actually paid, but as an opportunity cost it is nevertheless relevant for decisions. Furthermore, a change of  $V_o$  can be easily modelled, which is not considered here because of simplification.

<sup>10</sup> How these units can be measured is of course a completely different problem, which can not be deepened here. Someone who runs insignificantly faster or scores marginally more goals can by all means considered to be more valuable than his (in the physical sense) barely worse colleagues. Sport has this peculiarity in common with most other entertainment industries unlike “normal” business sectors, cf. e.g. Frick (2001).

<sup>11</sup> Depending on the transfer system the relation between  $G_a$  and  $A$  could vary for different players, so that the equation were to differentiate accordingly.



$$(10) \quad \beta \cdot T_o = T_a \quad \text{or} \quad (1-\beta) \cdot T_o = T_u \quad \text{with } 0 < \beta \leq 1.$$

If (10) is inserted in (8), and thereafter (9) is cancelled down, then it follows that

$$(11) \quad M_o \cdot V_o = (1-\beta) P_u \cdot T_o + \alpha \cdot \beta \cdot P_u \cdot T_o.$$

Equating (11) with (2) and dividing it by  $T_o$  leads to

$$(12) \quad P_o = (1-\beta) P_u + \alpha \cdot \beta \cdot P_u,$$

which, transformed, finally equals

$$(13) \quad P_u = P_o / (1-\beta + \alpha \cdot \beta) = P_o / (1 - [1 - \alpha] \cdot \beta).$$

From this follows

$$(14) \quad P_u \geq P_o.$$

$P_u$  rises with  $\beta$ ; that means that players exempted from transfer fees earn more, the less of them exist, because then higher transfer sums accrue to the clubs. At the same time,  $P_u$  decreases with  $\alpha$ , the negotiation power of the players subjected to the transfer system. Their salary  $G_a$  increase with  $\alpha$  and with  $\beta$ , but is normally below  $P_o$ , their salary in the system entirely without transfer fees, as can be seen from (7) and (13).  $G_a$  is equal to  $P_o$  if and only if  $\beta = 1$ . This shows that the relevant distribution does not proceed between clubs and players (as the exclusive relevance of  $\alpha$  in microeconomic models suggests), but between different categories of players.

## Literature

ANTONIONI, PETER/CUBBIN, JOHN (2000): The Bosman Ruling and the Emergence of a Single Market in Soccer Talent. *European Journal of Law and Economics* 9, 157-173.

BÜCH, MARTIN-PETER (ed.) (2001): *Verschwinden nationale Auswahlmannschaften in einer "offenen" Gesellschaft?* Cologne.

BÜCH, MARTIN-PETER/SHELLHAAß, HORST (1978): Ökonomische Aspekte der Transferentschädigung im bezahlten Mannschaftssport. *Jahrbuch für Sozialwissenschaft* 29, 255-274.

DIETL, HELMUT/FANCK, EGON (2004): Zur Effizienz von Transferrestriktionen im europäischen Profifußball. In: HORCH, HEINZ-DIETER/HEYDEL, JÖRG/SIERAU, AXEL (Eds.): *Events im Sport: Marketing, Management, Finanzierung*, Cologne, 199-206.

DILGER, ALEXANDER (2001): "The Ericson Case". *Journal of Sports Economics* 2, 194-200.

- ERICSON, THOMAS (2000): The Bosman Case: Effects of the Abolition of the Transfer Fee. *Journal of Sports Economics* 1, 203-218.
- FEESS, EBERHARD/MÜHLHEUßER, GERD (2002a): Auswirkungen des neuen Transfersystems auf den europäischen Fußball: Eine mikroökonomische Analyse. *Zeitschrift für Betriebswirtschaft*, Ergänzungsheft 4/2002 "Sportökonomie", 143-162.
- FEESS, EBERHARD/MÜHLHEUßER, GERD (2002b): Economic Consequences of the Transfer Fee Regulations in European Football. *European Journal of Law and Economics* 13, 221-237.
- FEESS, EBERHARD/MÜHLHEUßER, GERD (2003): The Impact of Transfer Fees on Professional Sports: An Analysis of the New Transfer System for European Football. *Scandinavian Journal of Economics* 105, 139-154.
- FISHER, IRVING (1911): *The Purchasing Power of Money: Its Determination and Relation to Credit, Interest and Crises*, New York.
- FRICK, BERND (2001): Die Einkommen von „Superstars“ und „Wasserträgern“ im professionellen Team sport: Ökonomische Analyse und empirische Befunde. *Zeitschrift für Betriebswirtschaft* 71, 701-720.
- FRICK, BERND (2002): Funktionsweise und Dynamik des Arbeitsmarktes im professionellen Team-Sport: Empirische Evidenz aus der National Basketball Association. In: HÜBL, LOTHAR/PETERS, HANS HEINRICH/SWIETER, DETLEF (Eds.): *Ligasport aus ökonomischer Sicht*, Aachen, 211-245.
- FRICK, BERND/PRINZ, JOACHIM (2000): Die Entlohnung professioneller Mannschaftssportler: Gibt es einen Trade-Off zwischen Entgelten und Vertragslaufzeiten? In: BACKES-GELLNER, USCHI/KRÄKEL, MATTHIAS/SCHAUENBERG, BERND/STEINER, GUNTER (Eds.): *Flexibilisierungstendenzen in der betrieblichen Personalpolitik: Anreize, Arbeitszeiten und Qualifikation*, Munich, Mering, 129-154.
- FRICK, BERND/WAGNER, GERT (1996): Bosman und die Folgen: Das Fußballurteil des Europäischen Gerichtshofes aus ökonomischer Sicht. *Wirtschaftswissenschaftliches Studium (WiSt)* 25, 611-615.
- HÜBL, LOTHAR/SWIETER, DETLEF (2002): Der Spielermarkt in der Fußball-Bundesliga. *Zeitschrift für Betriebswirtschaft*, Ergänzungsheft 4/2002 "Sportökonomie", 105-125.
- HUME, DAVID (1752): *Political Discourses*, Edindburgh.

- LEHMANN, ERIK/WEIGAND, JÜRGEN (1999): Determinanten der Entlohnung von Profifußballspielern: Eine empirische Analyse für die deutsche Bundesliga. *Betriebswirtschaftliche Forschung und Praxis* 51, 124-135.
- SCHELLHAAß, HORST/MAY, FRANK (2002): Die neuen FIFA-Regeln zur Transferentschädigung. *Zeitschrift für Betriebswirtschaft*, Ergänzungsheft 4/2002 "Sportökonomie", 127-142.
- SIMMONS, ROBERT (1997): Implications of the Bosman Ruling for Football Transfer Markets. *Economic Affairs* 17, Issue 3, 13-18.
- SZYMANSKI, STEFAN (1999): The Market for Soccer Players in England after Bosman: Winners and Losers. In: KÉSENNE, STEFAN/JEANRENAUD, CLAUDE (Eds.): *Competition Policy in Professional Sports: Europe after the Bosman Case*, Antwerp, 133-160.