

FOOTBALL BUSINESS

**Supplement for economists and
other serious readers**



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infiniteideas

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INTRODUCTION TO THE SUPPLEMENT

This supplement provides the scientific background for the book *Football Business: How Markets are Breaking the Beautiful Game* (called the main book or main text hereafter). The first part consists of ten papers on specific issues. The reader is advised to read such a paper only after having read the related section of the main text, the name of which is shown under the title of each paper. The second part provides a list of notes to the main book. The third part consists of a bibliography.

As far as readability is concerned, the general reader has been given priority in the main book. This choice has led, among other things, to the main book giving no references to notes, so that the notes in the second part of this supplement can only be linked to section headings. It also implies that readers who like to have a detailed description of the subject of the book, or an answer to the question as to where the book is a scientific text and where it is not, have to wait for that until the last section of Chapter 1 (entitled ‘Rules of the game’). Related to that section is Paper I of this supplement, which discusses the philosophy behind this book. I hope that, despite the fact that the main book is meant to be accessible for the general reader, both the main book and the supplement are useful for economists and other dedicated readers.

I would like to thank Rebecca Clare, Helen Harvey, Janeke de Zeeuw and The Language Lab in Amsterdam for their help in improving the style of the main book, and for improving the English everywhere. I

also like to thank Loek Groot, Bart Los, Peter Geurtz and other colleagues for their critical and stimulating comments on the content of the book or parts of the supplement. But my greatest debt of gratitude is to the youth coaches and other volunteers who made the amateur football club VVOG from the small town of Harderwijk such a fine club; they gave me a wonderful football-playing childhood.



PAPERS ON SPECIFIC ISSUES

I: ECONOMIC SCIENCE AND POLICY ADVICE

This paper relates to ‘Rules of the game’ (p.17 of *Football Business*)

Many academic economists base their work on the German adage ‘In der Beschränkung zeigt sich erst der Meister’. Or in English: the master shows himself in limitation. The idea is that, when the problem that is analysed remains limited in scope, it is easier to let the analysis meet the scientific standards. Mathematical economists, for instance, always focus on a limited number of variables so as to be able to analyse the relations between them with a well-functioning and sometimes sophisticated model. In other branches of economics, most researchers also focus on the relations between a limited number of elements of the economic system. Indeed, focus and specialization go well with science. Of course, it is also possible to develop a broader vision and analyse more issues at a time. This can be done by means

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of a qualitative analysis, supported by statistical facts where necessary. Historians often use such a method. Present-day economists, however, do not use it that often, as the top journals in mainstream economics tend to require that a mathematical analysis, or a statistical analysis, is the core of the work.

A policy advisor is supposed to work quite differently. When dealing with a practical problem he should, in principle, take account of all relevant factors and all possible solutions. For every policy option, all advantages and disadvantages should be considered, even when some of them have not been investigated scientifically. Common sense, and the capacity to distinguish between main and side issues, are more important than superior intelligence here. With regard to policy advice one could say, with some exaggeration: ‘The idiot shows himself in limitation.’

Economists who obtained a good academic reputation on the basis of top journal articles, which showed they were capable of limiting themselves, are often asked to give policy advice. This can be dangerous. For instance, in the years up to 2008 many economic policy advisors had no objection to the practices of banks to shift the risks of default on their loans to investors elsewhere in the world. Their advice was based on advanced models which proved that risk becomes a smaller problem when it is spread over many parties. Taken by itself, this is correct. However, the models neglected the simple fact that, when a bank shifts the risks of default to other parties, it has no incentive for refusing loans to clients that are not creditworthy – as long as the parties that take over the risks do not know the clients personally but evaluate their creditworthiness on the basis of statistical models. Used this way, advanced risk models have been an important ingredient of the recipe for the subprime mortgage crisis. Economists have also overlooked many other simple dangers on the road to the recent economic crisis (Skidelski 2009, Krugman 2009).

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In response to concerns of Queen Elizabeth, the British Academy organized, in 2009, a meeting of top economists to discuss the question why so many had not foreseen the crisis. The results were summarized by the Academy in a letter to the Queen. It said that individual economists were competent and ‘doing their job properly on its own merit, but that they lost sight of the wood for the trees’ (see Chang 2010, p.246–47). Indeed, specialization has led to some very bad policy advice.



In this book, I have tried not to lose sight of the wood for the trees. Writing a text for the general reader has helped me here. It has forced me not to focus too much on scientific details, but to present all relevant issues in a short but comprehensive way. In doing so, I have used the strengths of the qualitative analysis, which seem to be forgotten by quite a number of modern economists.

In the end, the book aims to give policy advice. So it should, in principle, take account of all issues that are relevant to the policies under scrutiny. This includes issues about which economists can draw hard scientific conclusions, economic issues for which this is not possible (yet), and issues outside the field of economics such as social or political issues. The main principle always is: whenever the text is used as a basis for policy advice, it cannot ignore relevant issues simply because scientists, or the author in his capacity as an economist, know little about them.

At the same time, the book intends to meet the scientific standards. This does not mean it should shy away from issues about which no hard scientific conclusions can be drawn. It does mean that, whenever appropriate, it should be mentioned that certain conclusions are not (fully) based on scientific research, or are to be handled with caution for other reasons. Of course, the interpretation of ‘whenever appro-

priate' is arbitrary. For instance, every conclusion can be regarded as debatable for philosophical reasons, but I think my advice would not be improved by emphasizing this too much.

At some points in the main text I will mention that certain conclusions are to be regarded as the 'view of an informed economist'. This phrase (which is explained more loosely in the main text) means the following: first, the conclusions are based on good or reasonable scientific arguments in my view, these arguments being given in the supplement. Second, however, it holds that either there is no unanimity among economists, with some of them reaching different conclusions that are based on good or reasonable scientific arguments in their view, or there are other reasons why the existence of uncertainties should be communicated to the reader. I think this is the best a policy advisor can do when facing readers who may want to get some advice but who are likely not to read all the literature.

Because policy advisors should take account of so many things, it is useful to limit the issues about which advice is given. For instance, this book neglects problems related to illegal activities such as match-fixing. A serious investigation of the economics of national teams is also missing.

So, economists are not perfect in their scientific work, and policy advisors can be expected to be less perfect still. All one can do is his best.

II: FINANCIAL PROBLEMS AND A SALARY CAP

This paper relates to 'Michel Platini and Financial Fair Play' (p.27 of *Football Business*)

It is sometimes suggested that the finances of football clubs can be improved by means of a 'salary cap'. Such a cap sets a maximum on the team payroll, that is, the sum total of the salaries which a club pays its

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players. There are two variants. In the first one, the only objective is to keep the clubs financially healthy. This is the simple salary cap, which will be discussed in this paper. In the second variant, the salary cap has another objective: reducing competitive inequalities on the field. This measure could be called an American-style salary cap, and it is discussed in Chapter 4 of the main book.



With the simple salary cap, every club is allowed to spend no more than a particular percentage of its income – say 55 per cent – on players’ wages. This percentage is (basically) the same for all clubs. In this way, all clubs are prevented from paying their players too much, removing an important cause of financial problems.

However, the clubs only have to limit their expenditure on players and, as a result, they will have more money left over for other things. So a fierce competition could break out for coaches. As a result, the best coaches would earn much more money. Other members of the technical staff, and club directors, would also see their earnings increase, especially the really good ones. After all, they can make a significant contribution to successes on the pitch in the short- and long term. Another development would be more players’ fathers becoming highly-paid scouts, with the sole aim of getting their sons signed up to a club. Many other side-effects are conceivable. Taken together, they may result in clubs getting further into debt.

This is not to say that a salary cap is pointless. It has the potential to reduce clubs’ expenditure to a certain extent. The English League Two introduced a salary cap in 2003, limiting the team payroll to 60 per cent of turnover, and there are indications that it is having positive effects (House of Commons 2011). However, given the side-effects, which will be more serious the lower the percentage that can be spent on players, and the more severe the sanctions used, the rule that the

total costs of a club should not exceed its total revenues is a better alternative. This does not produce side-effects of the type mentioned above. Moreover, clubs retain the freedom to spend their money in the way they see fit. A club could decide for itself how much it wants to spend on players, how much on coaches and how much on other things. The football association imposing the rules from above does not concern itself with details like this, but only with the broad outlines. And those outlines are simple: cut your coat according to your cloth. The simplest solution is often the best.

III: FINANCIAL FAIR PLAY AND THE EUROPEAN LAW ON STATE AID

This paper relates to ‘Simply the best’ (p.48 of *Football Business*)

1. Introduction

The interpretation of the law is ultimately an issue for legal scholars. However, when the law concerns economic issues, the views of economists can be relevant. In my view as an economist, the correct interpretation of the European law is that, in the long run at least, there can be no financial involvement of governments in professional football clubs. In relation to this, I also think that the European Commission is legally bound to support Financial Fair Play and to ensure its rules are made stricter still (unless it implements a similar system itself). This paper presents the full argument behind this view.

2. The law

Article 107 of the Treaty on the Functioning of the European Union (TFEU) says that, in principle, any state aid to undertakings that can distort competition is prohibited. According to legal scholars, it

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is generally accepted that professional football clubs are undertakings in the sense of Article 107, and that aid to such clubs distorts competition. Legal scholars also agree that state aid does, in any case, include any advantage resulting from the use of financial resources of a government which a club could not have obtained by commercial means, or, in other words, which it could not have obtained on the market. (For these points, see Gröteke 2004, Olfers 2009 and Steyger 2010. Forms of support which are not based on the use of financial resources of the government are discussed in the section titled ‘Real Madrid, really royal?’ in Chapter 2 of the main book.)

However, the words ‘in principle’ in Article 107 mean that there can be exceptions to the rule. At least one condition for an exception to be granted is that the aid helps realize goals that are useful for society (see the references above). In this paper I have given such goals the shorthand name ‘social goals’. For instance, the European Commission does not allow support for a football stadium that is not used for events outside football too, such as concerts or events in other sports. But if a stadium is used for such events too, the Commission thinks it helps to realize social goals – which could be a reason for granting an exception (Olfers 2009).

3. An economic perspective

My point as an economist is this. The European Commission, when deciding whether or not certain forms of aid help realize social goals (to a sufficient extent), analyses the problem too much from the perspective of the municipality or region concerned. However, it is supposed to base its decisions on a European perspective. From this perspective the professional football clubs are earning economic rent (see the section called ‘A football tax?’ in Chapter 2), and this has implications which cannot be neglected.

To discuss these implications, let us first assume that all clubs are financially stable, and do not spend too much on players. This means they are able to realize many social goals without public support. In other words, aid is not necessary to realize these goals. And when aid is not needed for realizing social goals, it is illegal – given that aid is distorting competition.

For instance, clubs that are financially stable can save the money needed for building stadiums themselves, or borrow it from banks that trust them. Indeed, the football sector earns sufficient money to finance its own stadiums (see the section titled ‘Royal Feyenoord’ in Chapter 2). And many football stadiums are rented out to organizers of concerts or other events. The Ajax stadium has even been used to give 50,000 people the opportunity to pay tribute to Dutch singer André Hazes, during an impressive event on the occasion of his funeral. All such social goals have been realized without the government forcing football clubs to rent out their stadium to organizations outside football. The market is functioning well here, so there is no need for government involvement.

This is not to deny that aid can help increase the size of a stadium, so that more people can enjoy football and concerts. But according to economic theory the following holds: if the market provides a product (such as stadium seats) in limited quantities, this shows that consumers’ willingness to pay for additional products (seats) is lower than the costs of providing them. Therefore, producing more products will decrease economic welfare. So stadiums produced by market forces normally have the size that maximizes economic welfare.

To conclude: there is no social goal which can justify government aid. Reducing welfare by building too large stadiums cannot be called a social goal. So as long as the clubs are financially stable, all aid is illegal.

4. *The Commissions' legal duty to support Financial Fair Play*

The remaining question is how to deal with situations in which clubs are not financially stable. Here, the argument can be as follows.

According to the TFEU, the Commission should promote fair competition. In relation to this, article 107 of the TFEU forbids aid to undertakings such as professional football clubs in principle (see above).

At the same time, the Commission is allowed to promote the realization of social goals through undertakings such as professional football clubs in principle. In relation to this it is, perhaps, possible for the Commission to grant exceptions to the rule of state aid being forbidden if the aid helps realize social goals. Or, to say it more precisely: at least one condition for an exception to be granted is that the aid helps realize social goals (see above also).

Article 107.3 of the TFEU discusses the types of exception which may be relevant for undertakings such as football clubs. More specifically, it allows certain forms of aid for such undertakings, but always on the condition that 'such aid does not adversely affect trading conditions to an extent contrary to the common interest'. It is difficult to interpret such a legal phrase. One question which may arise is this: if aid for a new stadium helps realize a social goal to a large extent and so serves the common interest, while its adverse effect on trading conditions is small so that its adverse effect on fair competition and therefore on the common interest is also small, will the aid be legally allowed? A related question could be how the positive and the negative effects should be weighed against one another in such a case. It may not be easy to answer such questions.

Fortunately, we do not have to answer them here. For the field of football it is more relevant that, given article 107.3 (among other things), the Commission is, in any case, legally bound to serve the common interest when dealing with possible exceptions to the rule

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that state aid is forbidden. For guaranteeing the financial stability of European football clubs through a system of financial control, the support of the EU is necessary (see Chapter 2 of the main book). And this means that the Commission, if it wants to promote social goals through football clubs, is legally obliged to provide such support – because when clubs are financially stable they can realize social goals without aid and therefore without distorting competition, and this is the first-best option for serving the common interest.

And so, given that the Commission has a positive attitude towards promoting social goals through football clubs in principle, it has a legal duty to support UEFA's Financial Fair Play system (unless it takes the possibly very inefficient road of starting a system of financial control itself).

Clearly, this argument also concerns aid for projects which serve social goals such as football stadiums that can also be used for concerts. In relation to this, the Commission also has a legal duty to ensure that UEFA, when enforcing its 'break-even' rule under Financial Fair Play, stops making exceptions such as the one concerning expenditures on stadium development – because such exceptions lead to losses and so make the clubs financially unstable again (see the section called 'Towards the end of financial aid' in Chapter 2).

Making all clubs financially stable is a long term project. In the short run, some clubs will still have financial problems, and some will need rescue aid for survival. Rescue aid can serve a social goal in principle. After all, football clubs normally have positive effects on society, so their survival is good for society. But there is a problem here: when there is a possibility of getting rescue aid in the future, some clubs will spend too much on players in the present – because they expect to be rescued when things go wrong. This will distort competition in the short run (for instance because clubs from rich municipalities spend more on players, as they can expect more rescue aid than clubs from

other municipalities). And this could be a reason for still regarding all rescue aid as illegal. I am not sure whether this is a legally compelling reason. So, given that rescue aid can serve social goals, I just leave open the possibility that rescue aid is legally justified in the short run.

But I do think that, since (the possibility of) rescue aid is distorting competition and so harms the common interest, the Commission has a legal duty to limit it as much as possible in the long run. And this, again, leads to the conclusion that the Commission should actively support UEFA's Financial Fair Play.

5. A possible line of defence?

It may now seem that much of the aid given at present is illegal, so that the Commission is not doing its job properly. But the Commission still has another line of defence. Although it allows financial involvement of governments under certain conditions, this does not mean it is really allowing aid. This argument is related to the 'market investor principle'.

To explain this principle, I turn to three cases which have been witnessed in The Netherlands in recent years (for sources, see the notes of the section 'Royal Feyenoord'). In the first case, the government provides a loan to a club. Here, the market investor principle means that the interest rate should be equal to the rate which would have been charged by a private firm (such as a bank) if this firm had provided the loan.

In the second case, a government builds a stadium, or becomes one of the shareholders of a new stadium by financing part of it, after which the stadium is rented out to the club. In the third case, a government buys an existing stadium from a club, and subsequently rents it out to the same club. In these two cases, the market investor principle means that the rent charged by the government should be

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equal to the rent which would have been charged by a private investor if that investor had owned the stadium.

Now, in all cases, there is no illegal aid in the Commission's view as long as the market investor principle is satisfied (Olfers 2009). This looks fine at first sight. Indeed, when the market investor principle is fulfilled, no club seems to be getting an advantage which it could not have obtained on the market. In The Netherlands, and possibly elsewhere too, this argument is often used. One reason for its popularity may be that it gives clubs and governments a lot of freedom, because it is difficult to determine exactly what would have been the rent or the interest rate charged by a private firm.

Still, the argument is blatantly incorrect. Private parties would never have made the investments, or have provided the loans, to begin with. Building a stadium, or lending money to a club, is simply too risky. Indeed, if private investors had offered the same conditions to the clubs as local governments have done, these governments would have been happy to leave the initiative to the private sector. But such private parties were not available. (Or, if they were, they would have demanded a high interest rate, or a high rent, to be compensated for the risk. And this interest rate or rent would have been higher than the one the government is charging.)

This means that the clubs concerned have been granted an advantage which they could not have obtained on the market, so that there is state aid in the legal sense. And so it should have been prohibited.

6. Conclusion

Basically, all financial involvement of government with professional football clubs is illegal under the European law as far as an economist can judge; the only exception may be rescue aid provided during the next few years. Apart from this exception, the Commission should

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prohibit all (new) financial aid. And it also has a legal duty to support UEFA's Financial Fair Play, and to ensure it is made stricter still.

IV: A FOOTBALL CRISIS TAX

This paper relates to 'Brother Walfrid and a social levy' (p.51 of *Football Business*).

In the economic crisis that still exists in a number of countries, the European Union (EU) could consider the use of a football tax (such as the one discussed in the section 'A football tax?' in Chapter 2) as part of a broader scheme to help clubs under threat of bankruptcy. This will not only help the clubs, but their creditors too. Thus, for instance, the local and regional governments in Spain – which are among the biggest creditors of the highly indebted Spanish clubs while having big financial problems themselves – need no longer lose money because of the problems of their football clubs.



What would be the characteristics of such a scheme? The first stage could consist of the EU borrowing money on the capital market in order to provide, under strict conditions, loans to clubs in threat of bankruptcy. This means that the EU takes care of the indebted football clubs. But the clubs have to pay back the loans to the EU in due course, so that the EU can subsequently repay its own creditors.

There always is a risk that some clubs do not pay back on time. This considered, the EU could promise its creditors to repay the loans, if necessary, with the proceeds of a football tax to be introduced in five years time. If Financial Fair Play (FFP) is strictly enforced – which is at the will of the EU – investors will be confident that the new tax will provide the money needed to repay the loans if necessary. After all, football is a booming business, and investors understand that a tax on

economic rent does not hurt economic activity. Therefore, the interest rate which the EU has to pay will be low.

Ultimately, the loans are to be repaid by the clubs in any case. If some clubs fail to repay the loans according to the original scheme so that the proceeds of the football tax have to be laid claim to, the clubs still have to repay their debts to the EU at some later point in time. This could mean, for instance, that Spanish clubs will be forced to spend less on players in the coming decade. The FFP system, supported by the EU and improved wherever necessary, can guarantee such an outcome. The Spanish clubs have won many European trophies during the last decades, and it will be interesting to watch clubs from other countries seize their chances during the next decade. So, as all clubs will normally pay back the loans sooner or later, the EU is then left with the proceeds of the football tax, which it can use for useful public projects.

Under a similar scheme, loans may be given to clubs that develop problems in the next decade because of the introduction of the ban on subsidies, the social levy and other policy measures proposed in the book. As explained in the book, such problems need not arise in theory. However, practice may be different now and then. For instance, the pace with which politicians introduce the measures may be too fast, so that clubs that were not really financially healthy anyway do not get the time needed to reduce their spending to a sufficient extent. This may cause some clubs to get into financial difficulty. To help them out, the EU can then lend them money (under strict conditions).

All in all, the scheme may not be unwise from an economic perspective.

V: A EUROPEAN BAN ON PAY TV FOR IMPORTANT FOOTBALL BROADCASTS

This paper relates to ‘A ban on pay TV’ (p.54 of *Football Business*).

1. Introduction: the simple argument

This paper deals with the question whether there should be restrictions on pay TV for football broadcasts. The introduction gives the basic argument. The subsequent sections complete the analysis.

The criticism of pay TV dates back to the time when the invention of ‘unscramblers’ had made it possible to exclude specific groups of people from watching a particular broadcast. In those days, Samuelson (1958, 1964) emphasized that free-to-air TV had a positive effect on economic welfare. His argument was based on the idea that the production costs of a broadcaster do not rise when one extra family tunes in on a program; the marginal costs are zero. At the same time, the pleasure the family receives from watching the program is positive. Therefore, total economic welfare is maximized when the number of families watching is maximized, which means a zero price.

According to Minasian (1964), however, preventing pay TV also has a disadvantage. Certain potentially welfare-increasing programmes will not be on the air because broadcasters cannot recover the costs of producing them, while they would have been on the air if broadcasters had been allowed to increase their revenues by letting viewers pay.

The argument for a pay TV ban for football broadcasts in the main text reflects the idea of Samuelson. It can also be regarded as being based on a rule of present-day textbooks, which reads as follows: the welfare-maximizing price of a product equals its marginal costs, unless this price is so low that private firms produce nothing (because production would lead to losses). Such losses, which were also at the heart of Minasian’s argument, are not likely to occur in the production of televised football matches, at least at first sight. After all, the fact that commercial stations are willing to broadcast many football matches in the absence of pay TV shows that they do not make losses when the price equals the marginal costs (as they also have revenues

from advertisements). And so, the welfare-maximizing price is zero, at least at first sight.

Minasian's problem is most important outside the football sector. Still, it is not totally irrelevant for football. This leads to a qualification of the argument above, which will be given in the next section.

2. A qualification

The qualification is that the ban on pay TV should apply to all 'important' football broadcasts only (Van der Burg 1998). The reason will be explained below, but the first question is this: what does 'important broadcasts' mean exactly? In answering this question, the term 'inevitable production costs of broadcasting' can be helpful. The inevitable production costs of broadcasting are defined in this paper as all costs that have to be made to produce the television programme, excluding the cost of producing the matches themselves. For instance, the cost of cameras, camera crew, commentators and transmission are part of the inevitable production costs of broadcasting. The price the TV station pays to football clubs for obtaining the broadcasting rights is not part of these costs.

Now, if there is a pay TV ban for a certain category of football programmes, while the revenues from the commercials surrounding these programmes outweigh the inevitable production costs of broadcasting, it will always be possible to find a commercial TV station that is willing to broadcast the programme – if the price of the broadcasting rights is sufficiently low for the station to make a profit. And normally, it will be sufficiently low. The reason is simple: if the clubs ask a price that is too high, the matches will not be broadcast so that the clubs will get nothing at all. Therefore, the clubs will, possibly after hard negotiations, accept a price that is sufficiently low in the end. This implies that, basically, the matches will be broadcast as long

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as the revenues from commercials exceed the inevitable production costs of broadcasting. Therefore, the ban should apply to all football broadcasts that satisfy this condition, and these pictures are called 'important broadcasts'.

The condition is satisfied for many broadcasts – as is demonstrated by the many football matches that have been broadcast on free TV by commercial stations in recent, and less recent, times. These broadcasts include, for instance, the highlights of matches in the second professional league in The Netherlands. This league is not really very popular, with an average match attendance of about 4,000. Nevertheless, the highlights have been broadcast free-to-air by a commercial channel for many years, which must mean that the advertising revenues exceed the inevitable production costs of broadcasting. The same will apply to broadcasts that attract more viewers than the highlights of the second Dutch professional league, such as the highlights of the English Championship and possibly also those of the two divisions below. So the pay TV ban would really apply to all broadcasts of any significance.

At the same time, it should not apply to broadcasts that do not satisfy the condition that the revenues from advertising exceed the inevitable production costs of broadcasting. In this case, a pay TV ban would mean that the pictures are not produced. This may hold for the friendly games of Burnley played during summer time. Nevertheless, some Burnley fans may like to spend a summer evening watching their club on television and enjoying the hopes for the next season, and part of them may be willing to pay for it. So, pay TV operators should be given the chance to see whether they can broadcast such games. And, since they have an additional source of revenue, they may succeed in doing so. So there should be no ban on pay TV here.

3. A new rule for auctions of broadcasting rights

How do we know which broadcasts satisfy the condition that the revenues from commercials exceed the inevitable production costs of broadcasting, and which broadcasts do not? Should the government spend time and money to make this distinction, and make a long list of broadcasts that are to be free – while risking making mistakes? No. There is a simpler solution.

The broadcasting rights of football matches are normally sold in auctions. Now, all that needs to be done is to let each auction give a certain priority to free TV. More specifically, in the first stage of an auction of a package of broadcasts – say the broadcasts of the games of English teams in the Europa League – only commercial stations that promise to have the broadcasts on free TV are allowed to bid. If at least one bid comes forward during this stage, the seller is obliged to sell the rights in the first stage. Apart from this, he is free to choose the bid he prefers (which will normally be the highest bid). The broadcast will then be on free-to-air TV. And this is how it should be, because the fact that a bid comes forward, means that the commercial broadcaster thinks the advertising revenues will exceed the inevitable production costs. And who can judge better than he?

If no bid comes forward under the condition of free TV, this means that no broadcaster thinks that the revenues of the broadcasts will exceed the inevitable production costs. The auction should then enter a second stage, in which the condition of free TV is dropped so that the rights can be sold to any bidder. Hopefully, this will lead to a bid of a pay TV operator, so that the matches will appear on television despite the fact that their popularity is somewhat limited.

4. *Too many commercials?*

With free-to-air TV, the number of commercials tends to be larger than with pay TV (Hansen and Kyhl 2001). And it is quite possible that the effects of commercials on viewers, or on society as a whole, are negative on balance, although the opposite may also be the case (Anderson 2007; Bagwell 2007).

Let us focus on the situation in which a government thinks that the effects of advertising are negative on balance and wants to limit the amount of commercials (which is not uncommon in practice). Such a government could make the conditions for bids that are made during the first stage of the auction stricter than suggested above. For instance, bidders could only be allowed in if they promise not only that the match will be on free TV, but also that the amount of commercial time will remain below certain limits. For instance, they could be obliged to promise that during match breaks there will be ten minutes of non-commercial time at least, leaving sufficient room for expert discussion. In this scenario, one or more bids may come forward then, in which case the government has reached (much of) its goals. If no bid comes forward, the conditions are relaxed in a second stage – to five minutes of non-commercial time, for instance. And if no bid comes forward then, the conditions are further relaxed in a third stage, and so on until a bid comes forward.

It is also possible to introduce, at the stage in which pay TV is allowed for the first time, a relatively low maximum price, so that the welfare-reducing decrease in the number of viewers caused by pay TV remains small. Indeed, by prescribing how the conditions are to be set and relaxed during the various stages, the government can realise its preferences regarding the combination of price and commercials to the largest possible extent.

5. Public broadcasters

The argument above was based on the assumption that only commercial broadcasters are allowed to make a bid. However, the argument will not change when public broadcasters are also allowed to make a bid under the condition that the bid is not financed by taxpayers money.

Some governments may decide that the public broadcaster is allowed to use taxpayers money for football broadcasts. The reasons for such a choice need not be discussed here. The only point to make here is this: even when public broadcasters obtain the rights to broadcast some football matches while using taxpayers money, the fact that pay TV operators are not allowed to compete in the first stage of the auction still has an advantage for the taxpayer then: the price of the football rights paid by the public broadcaster may be low due to lack of competition.

6. Conclusion

The main conclusion is this: to maximize economic welfare, all football broadcasts should be sold in auctions in which pay TV operators are only allowed to make a bid once it has been established that no free-to-air broadcaster is willing to broadcast the matches.

VI: PLAYER SALARIES, FAIRNESS AND EXTERNAL EFFECTS

This paper relates to 'Fair pay for players' (p.64 of *Football Business*).

The fairness of player salaries is a hotly debated subject. Can the concept of external effects clarify some of the issues in this debate?

An external effect is, by definition, the uncompensated impact of the actions of an individual or a firm on the well-being of one or more

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bystanders. For instance, when a firm pollutes its neighbourhood without paying compensation, it is producing an external effect. Now, suppose the owner of the firm earns a profit of 20 million euros a year, while the costs of the pollution for the people living in the neighbourhood amounts to 5 million euros. This means that the firm's net contribution to economic welfare is 15 million euros. In this case, many people may regard a compensation payment of 5 million euros to the people in the neighbourhood as fair. Put differently, they may think it is fair that the net income of the owner of the firm is equal to his net contribution to economic welfare.

Next, consider a lake which is common property. It naturally generates a certain amount of fish each year. There are a number of fishermen. Suppose only one of them has a large boat with modern equipment and so, in the first days of the fishing season, he can quickly catch almost all the adult fish, so that almost nothing is left for the other fishermen. His activity, therefore, has a negative effect on the incomes of the others, and this is also an external effect. Now some (or many) people may think that it is fair that the first fishermen either leaves some fish for the other fishermen or compensates them (or the community) for their losses one way or the other.



In a certain sense, talented footballers resemble fishermen. They can be seen as fishing in 'the lake of football'. During a season, one of the 'fish' they can catch is the title of the world's best player. There are very many other fishes to be caught, such as the position of left winger in a team that wins the Danish title. A player normally gets a financial reward for every fish he catches, directly through a bonus or indirectly through a new contract.

Once a certain fish is caught, no one else can catch the same fish during the season. Once a left winger wins the Danish title with his

team, no one else can do the same that year. So, at the end of the season, many fishermen will have caught less than they had hoped for.

The total number of fishes which can be caught is the result of the existence of (the lake of) football; players cannot increase the number. Therefore, when a player catches a fish he exerts a negative external effect on one or more other players.

However, players can increase the sizes of the fishes. Take Maradona. With his wonderful actions, he increased his attractiveness as a player. As a result, his clubs attracted more spectators and television viewers. For instance, in 1987 he played for Napoli, helping it win the Italian championship. In that year all players of Napoli won a fish called 'champion of Italy' while having a specific position in the team. The fish each of them caught was quite big because so many people were watching Napoli due to the special qualities of Maradona. And the Napoli players, Maradona first of all, were well rewarded financially for the size of their fish. Maradona's beautiful actions also made football more popular in general, so that more people watched football everywhere. As a result many other players also caught larger fishes. Indeed, the left-winger of the Danish champion in 1989, Brøndby IF, may also have earned a bit more thanks to Maradona.

There are many players who have contributed to the size of the fishes, by demonstrating more attractive play than their substitutes could have done. So good players do not increase the number of fishes, but they do contribute to the amount of fish as measured in tonnes.



The professional players taken together presently earn an amount of money in the order of magnitude of fifty percent of the total revenues of the clubs. The clubs use the remaining revenues to cover (basically) unavoidable costs such as the costs of stadiums and cleaners; the clubs do not really make profits on average. (For simplicity, coaches

and other well-paid staff members are neglected here. For them, the analysis is similar to the one for players. See also the notes to the section 'Wenger and Mourinho'.)

So the income of all players taken together can be regarded as being equal to the net benefits of the total amount of fish in the lake of football; there is no surplus left for other parties (neglecting coaches and other well-paid staff members). However, the total amount of fish, as measured in tonnes, is only partly the result of the players' individual actions.

Every good player earns a salary that basically equals the financial revenues which he generates for his club, without taking account of the external effects of his play on the income of other players. In relation to this, the salary of a good player is higher than his net contribution to economic welfare. So for those who are of the opinion that a person's income should be equal to his net contribution to economic welfare, the conclusion can be clear: player salaries are too high.



Let me finish with two examples. Are Lionel Messi's millions justified because he entertains so many people and because, partly as a result, people are prepared to pay so much to watch FC Barcelona or to buy club merchandise? From the individual perspectives of Barcelona and Messi, there is something to be said for that view. But you can also look at the football world as a whole. Without Messi, someone else would have been the best, and that player would have been loved more or less as much as Messi is now. Put differently, Messi generates large negative external effects, and this could be a reason for arguing that his salary should be lower than it is.

Without Beckenbauer, Bayern Munich would not have become one of the best clubs in the world, which is why Bayern paid him a princely salary. For the fans of the Bavarian club, surely 'Der Kaiser'

was worth his salary. Moreover, Beckenbauer brightened up the lives of his fellow countrymen by helping Germany win the World Cup in 1974. No German would have begrudged him his salary then. But to the world as a whole, his net economic value was much more limited. For instance, Germany's joy after the World Cup final of 1974 stands in contrast to the pain of losing finalist Holland – and Der Kaiser was responsible for that too. Perhaps all the suffering Beckenbauer caused then should have been docked from his wages ...?

VII: THE WELFARE-MAXIMIZING LEVEL OF COMPETITIVE INEQUALITY

This paper relates to 'Lies, dammed lies or good statistics?' (p.87 of *Football Business*).

1. Introduction

This investigation deals with the question whether the actual level of competitive inequality in football equals the welfare-maximizing level. By doing so, it provides a scientific background for the first four sections of Chapter 4 of the main book. The structure of the paper is as follows. Section 2 deals with terminology. Section 3 discusses the question whether competitive inequality has increased over the years. Sections 4 to 9 concern the relation between competitive inequality and the well-being of the fans. Section 10 concludes.

2. Definitions

Competitive inequality (a term used by Dobson and Goddard 2011) means that there are differences in the playing strengths of the teams participating in a match or competition. The term competitive balance also concerns these differences in playing strengths, but it has an

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opposite meaning: the larger these differences, the lower the degree of competitive balance.

There are three types of uncertainty of outcome. Match uncertainty of outcome concerns the unpredictability of the result of individual matches. Seasonal uncertainty of outcome concerns the outcome of the season, in terms of the championship, promotion, relegation or qualification for European football. Long-run uncertainty of outcome concerns the question whether, over a number of years, the same team or teams are dominating the competition.

Basically, uncertainty of outcome is at its maximum when the competing teams have equal chances of winning. More generally: the lower competitive inequality, the higher uncertainty of outcome. There are two exceptions to this rule. The first one relates to match uncertainty of outcome. In a match, equal playing strengths imply that the home team has a larger chance of winning, because of the home advantage (which is neglected when measuring playing strengths). This means that match uncertainty of outcome is highest when the away team is stronger to such an extent that the home advantage is exactly counterbalanced. The main text does not really focus on match uncertainty of outcome, and it neglects this exception.

The other exception concerns the fact that uncertainty of outcome is not only related to the probabilities of the different teams winning, but also to the question of how sure we can be that we have a good estimate of the probabilities to begin with (Kringstad and Gerrard, 2007). For instance, suppose the probability that Chelsea beats Stoke City next Sunday is estimated to be 95 per cent. This basically means there is little uncertainty of outcome. However, if the estimate of 95 percent is very unreliable because Chelsea and Stoke have had many player transfers in the preceding weeks, uncertainty of outcome will be higher than when both clubs have had no changes in their squad

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for many months. The main text discusses uncertainty of outcome at a general level, so that this exception can also be neglected.

3. Development of competitive inequality over the years

Dobson and Goddard (2011) provide an overview of the empirical studies on the development of competitive inequality in football over the years. Some studies conclude that inequality has increased during certain periods of time in certain European countries. But other studies (or even the same studies in some cases) conclude that inequality has decreased in other countries or during other periods of time. Dobson and Goddard have a neutral style; they describe the results of the different studies while not drawing conclusions on what the majority of the evidence shows. However, when reading their overview and counting the pros and cons, I felt justified in drawing the conclusion that the majority of the evidence shows that competitive inequality has increased over the years, especially if one focuses on long periods of time.

One of the studies discussed by Dobson and Goddard is Groot (2008). This is the most extensive study of competitive inequality in European football, and it presents three new measures of changes in competitive inequality. All three measures support the idea that the general trend in football is one of increasing imbalances over longer periods (of a number of decades).

Focusing on recent studies not discussed by Dobson and Goddard (2011), it can be said that Pawlowski et al. (2010), and Andreff and Raballand (2011) present additional evidence for increasing competitive imbalance in the five major European football leagues in the period 1996–2008. Pawlowski and Budzinski (2013), who focus on the period 1991–2011, show that competitive inequality has increased

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to a considerable extent in Denmark and Germany, while it has decreased to a small extent in The Netherlands.

Flores et al. (2010) analyse 17 European countries, and compare the seasons from 1986 to 1997 (pre-Bosman) to the seasons from 1997 to 2006 (post-Bosman). To measure competitive imbalance, they use three concentration-ratio measures and one measure for fluidity. The analysis of the first three suggests 'that the dominance of top clubs in European leagues was typically lower in the years following Bosman than in the years before' (ibid., p.554). At the same time, their measure for fluidity suggests there was more competitive imbalance after Bosman (in the sense of less movement in positions within the final standings as between one season and the next).

Roland Berger Strategy Consultants and University of Tübingen (2013) analyse the five major European leagues in the period 1986–2011, using different measures of long-term competitive balance. They conclude that competitive balance has deteriorated in the long run in all five leagues.

All in all, the majority of the evidence suggests that competitive inequality has increased over the years, especially if one looks at longer periods of time.

4. Effects of competitive inequality on demand: an overview

A central idea in the literature on competitive inequality is the uncertainty of outcome hypothesis. The hypothesis says that a high degree of uncertainty of outcome makes team sports more attractive, thereby increasing demand. The hypothesis has been tested in many studies. A significant number of these studies concern European football. But there also are quite a number of studies on other team sports, and these also provide insights which can be useful for European football.

Let me first give the main conclusions of four publications that provide an overview of the empirical studies. Szymanski (2003, p.1156) concludes his overview as follows: ‘Overall, of the 22 cases cited here, ten offer clear support for the uncertainty of outcome hypothesis, seven offer weak support, and five contradict it.’

Borland and MacDonald (2003, p.486) discuss a still larger number of studies, and summarize the results as follows: ‘Evidence of an effect of match-level uncertainty of outcome on match attendance is relatively weak’, while ‘There is much stronger evidence of an effect of season-level uncertainty on attendance.’ (In these quotes, ‘effect’ means positive effect.) It may be noted that if match uncertainty of outcome does not stimulate demand while seasonal uncertainty of outcome does, there is, obviously, still a good reason for measures that limit competitive inequality. Borland and Macdonald (2003, p.486) also remark that only a small group of studies have analysed long-run uncertainty of outcome, with two recent studies finding ‘considerable support for a positive relation between long-run uncertainty of outcome and attendance’, while earlier studies found less support.

Downward, Dawson and Dejonghe (2009) conclude that many studies support the uncertainty of outcome hypothesis, but that there also are a large number of studies that find no statistical evidence.

Dobson and Goddard (2011, p.332) conclude their discussion of the possible positive relation between uncertainty of outcome and attendance as follows: ‘Most empirical studies have found either weak support, or in some cases, no support, for the existence of such a link.’

To conclude, the results of the empirical research are mixed.

5. Problems of empirical research

The empirical research faces a number of problems. A first one concerns the measures of uncertainty of outcome, which are based on

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team results or on betting odds. In some cases, the measures used have deficiencies. For instance, some economists have measured match uncertainty of outcome on the basis of the difference in league position of the teams in the match. However, by doing so they neglect home advantage, so that the chances of the home team are underestimated (which means uncertainty of outcome is underestimated or overestimated, depending on the case at hand). In relation to this, their conclusions may be wrong.

Another example comes from Peel and Thomas (1988, 1992). These authors reject the match uncertainty of outcome hypothesis for English football, having measured uncertainty of outcome on the basis of bookmakers' odds. However, Forrest and Simmons (2002) show that the English system of 'fixed odds' betting implies that the odds will be biased estimates of the probabilities of winning. Correcting the odds for this bias (and focusing on another season than the one analysed by Peel and Thomas), they do find evidence for the uncertainty of outcome hypothesis.

On the basis of surveys among football fans, Pawlowski and Budzinski (2013) argue that perceived competitive balance differs significantly from objective competitive balance as given by data on team results. For instance, fans overestimate the chances of their own team winning in a number of cases at least (see also Koenigstorfer et al. 2010). Pawlowski and Budzinski think this could be a reason for the fact that many studies find no support for the uncertainty of outcome hypothesis, while noting that 'it is certainly not a far-stretched conclusion that fans' perception drives fans' behavior more than statistical measures' (ibid., p.121). The results of surveys among fans will be discussed in section 9, and are neglected in the next three sections.

Another problem is this. Demand for football is affected by many variables. Uncertainty of outcome is (just) one of them. At the same time, uncertainty of outcome is related to other variables that have an

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effect on demand by themselves. In situations like this, it tends to be more difficult to get significant results. This will be discussed in more detail in the next section.

A general discussion of the problems of the empirical research is given in Humphreys and Watanabe (2012) and the overview studies discussed above.

6. The evaluation of the results of empirical studies

This section discusses the results of a number of empirical studies, while paying attention to the problems faced by the researchers and the question of how their results are to be evaluated.

Most stadium visitors are fan of the home team, and like to see it win. Therefore, they have a certain preference for matches in which their team has a good chance of winning. At the same time, they may also have some preference for uncertainty of outcome. But as long as the uncertainty is not too low, the preference for seeing one's own team win may outweigh the preference for uncertainty of outcome (or 'suspense'). This could explain why Knowles et al. (1992) and Rascher (1999), who focus on Major League Baseball (where draws are absent), find that demand for match tickets peaks when a home team's probability of winning is somewhere in-between 0.6 and 0.7. Rascher and Solmes (2007) find a similar result for the National Basketball Association.

For European football, Buraimo and Simmons (2008a) have tested the hypothesis that match demand reaches either a maximum or a minimum at a certain win percentage. Their conclusion, however, differs from the conclusions for American sports. They find that demand reaches a minimum when the probability of a home win is 0.35. So once the home team's chances of winning are below 0.35, the attractiveness of a match increases when the chances of the home team are

reduced even more. The authors say that one possible explanation lies in a 'David versus Goliath' effect, in which fans like to be present on the rare occasion that David beats Goliath.

Still, the fact that the estimated quadratic function has made it possible to find one minimum *or* maximum only, implies that the following still is possible: when the chance that David beats Goliath gets below (say) 10 per cent, further reductions in David's chances will cause a decrease in demand. Indeed, it is possible that few people would wait for David to win if his chances were too small; they may well want some uncertainty of outcome at least.

Another possible interpretation of the finding by Buraimo and Simmons is that fans like to watch top teams for other reasons than hoping to see them lose, such as a desire to see superstars, or a team with a good or very good reputation. Such preferences imply that they have to accept that, when the home team plays a top team, it has a very low chance of winning. So we cannot conclude from the finding of Buraimo and Simmons that uncertainty of outcome is unimportant. There are many variables that affect demand, and in some situations some are more important than others.

In addition, if the correct interpretation of the Buraimo and Simmons finding was that fans like to see superstars, the finding should not lead to the conclusion that a high level of competitive inequality increases demand. After all, more competitive inequality does not increase the number of stars; it only changes their distribution over the clubs. And if the correct interpretation of the finding were that fans like to see clubs with a good reputation, a high level of inequality may not be very helpful either. Of course, more inequality increases the reputation of the top teams, but at the same time it reduces the reputation of the other opponents of the home team.

Another remark is the following. The Buraimo and Simmons finding that demand has a minimum when the probability of a home win

is 0.35, leaves open the possibility that it has a maximum at some other point. For instance, it is possible (in theory) that demand has a maximum when the probability of a home win is between 0.6 and 0.7 (although this possible effect of uncertainty of outcome would then probably be weaker than the effect discussed above). This is not to say this is likely, but the point is that uncertainty of outcome may have a positive effect even when a study finds no evidence.

Despite all such arguments, the study of Buraimo and Simmons does suggest, in any case, that the effects of match uncertainty of outcome are, within the ranges considered, less important than the effects of other factors that stimulate demand. Speaking more generally, the fact that the studies on uncertainty of outcome have such mixed results while most studies point in one direction when it comes to the effects of certain other factors (such as, for instance, the quality of the teams in a match; see Paper X, on pages 57–88 of this supplement, for a discussion of these factors) may be an indication that, *if* an increase in competitive inequality has a negative effect on demand, this effect may well be small within the ranges in which most of the empirical observations fall.



Despite the theoretically plausible idea that the preference for uncertainty of outcome, combined with the preference for one's own team winning, means that demand peaks at a probability of a home win that is above the point where uncertainty of outcome is at its maximum, a number of authors have investigated match uncertainty of outcome by testing whether demand peaks at the level where uncertainty of outcome is at its maximum. Some of these authors have found no significant result (e.g. Kuypers 1996). However, given that many fans may well like to see their own team win, this does not prove that uncertainty of outcome is unimportant. Unfortunately, in the overview

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studies discussed in section 4, the results of studies such as that by Kuypers are used as part of the evidence for the conclusion that the results of the studies on the importance of uncertainty of outcome are quite mixed. This makes the conclusion less valuable.

A similar problem is that a number of researchers have investigated seasonal uncertainty of outcome, or long-term uncertainty of outcome, by testing the hypothesis that attendance at league level peaks at the point where this uncertainty is at its maximum. Some of these researchers have found no significant result (e.g. Borland 1987). However, as discussed in the section titled 'David and Goliath' in Chapter 4 of the main book, the fact that more successful teams tend to have more fans makes it plausible that demand at league level peaks at a point where teams with many fans win more often than teams with fewer fans. At the same time, demand may well be falling when, beyond that point, competitive inequality is getting higher still. Therefore, one should not be surprised that researchers who test the hypothesis that demand peaks at the point where all teams have equal playing strengths get insignificant results. Indeed, such results cannot be used as proof for the assertion that uncertainty of outcome does not affect demand. Unfortunately, overview studies do not tend to take account of this when discussing the question how many studies support the idea that uncertainty of outcome has a positive effect and how many do not.

In the overview studies the results of other studies which had some weaknesses (such as the study of Peel and Thomas discussed above), are also used as part of the evidence which supports the conclusion that many studies, or a significant number at least, do not support the idea that uncertainty of outcome stimulates demand. Therefore, we should handle the conclusions of the overview studies with much caution.



My conclusions are as follows. First, there are the effects of changes in competitive inequality outside the field of uncertainty of outcome (or suspense), which work in the opposite direction of the theoretically supposed effect of uncertainty of outcome. In relation to this, it is plausible that if increases in competitive inequality result in lower demand because of decreasing uncertainty of outcome (suspense), such effects will, in many cases, become visible only if the competitive inequality exceeds certain minimum levels.

Second, the fact that, despite the problems of empirical research, there are also many studies that support the idea that increases in competitive inequality have a negative effect on demand, suggests that it is plausible that such increases have, on balance, negative effects in quite a number of cases at least (possibly especially when certain minimum levels have been passed).

7. Studies on television viewers

Most of the empirical studies have focused on demand for stadium tickets. The demand of television viewers can be expected to have different characteristics (Forrest et al. 2005). Of course, some television viewers are fan of the home team, and these fans may, more or less, have the same demand function as stadium visitors. However, other viewers are neutral, or fan of the away team. This means there may not be a preference for the home team winning on average. In relation to this, uncertainty of outcome (suspense) may be (relatively) more important for the average television viewer than for the average stadium visitor.

The results of statistical research suggest that this is not impossible. Buraimo and Simmons (2008b) find that Spanish stadium visitors do not appreciate a close contest, while television viewers do. They also mention that one other study has found that television viewers like

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 uncertainty of outcome, but that a third study has found no evidence for this. There are a few other studies on television viewers (see the overview of Downward, Dawson and Dejonghe 2009). Taking account of all studies, it seems to me that television viewers may well have a relatively high preference for uncertainty of outcome, but there is no certainty yet.

8. Too much inequality now or in the future?

We now come to the main question for policy advisors: is the present level of competitive inequality, or the level that may be reached in the (near) future, higher or lower than the level that maximizes demand (or the pleasure of the fans, or economic welfare)? A number of points can be made in this context.

The first one concerns match uncertainty of outcome. As discussed above, a number of studies have found that demand for matches in American team sports is highest when the probability of a home win is inbetween 0.6 and 0.7. Szymanski (2003, p.1156) makes the following remark in this context: 'There seems to be an emerging consensus that demand for match tickets peaks at the point where a home team's probability of winning is about twice that of the visiting team, that is, a probability of around 0.66. Several reviewers have commented upon just how *unbalanced* a context characterized by this probability would be, and in most datasets there are relatively few observations involving such extremely unbalanced contests.' His statement about datasets may well be correct for American team sports, and perhaps also for European football before 2003 (to which Szymanski is also referring).

However, between 2003 and 2013, Manchester United won 79 percent of its 190 home games in the Premier League. If we also take account of the home games of the two next best teams, Chelsea and

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Arsenal, we have 570 games in total. Of these games, 72 per cent were won by the home team, 9 per cent by the away team, and 19 per cent ended in a draw. So, the home team's probability of winning was more than twice as large as that of not winning. This means the following: if insights based on studies about American sports can be applied to European football, competitive inequality in England is higher than is good for the fans of the top teams.

Of course, one should be careful in using the results of studies on American sports for conclusions about European football. In this context it is relevant that the study of Buraimo and Simmons on European football does not support the American results, but, as discussed, its results leave room for different interpretations – among which are interpretations that fully leave open the possibility that demand peaks at the point where the probability of the home team winning is, for example, 0.6 or 0.7. So, the figures above can still suggest that it is possible that the supporters of Manchester United, Chelsea and Arsenal would have benefitted if their team had lost some more matches (on the condition, of course, that the other big contenders for the title also lost more). And in that case the fans of other teams would have benefitted even more: they would not only have enjoyed more uncertainty of outcome, but they would also have seen their team win more often.

All in all, it is not impossible that the Premier League would have generated more pleasure if competitive inequality had been (somewhat) lower.



The second point concerns all three types of uncertainty of outcome. First, let me repeat two conclusions of section 6. First, it is plausible that if increases in competitive inequality result in lower demand because of decreasing uncertainty of outcome, such effects will, in many

cases, become observable only if the inequality exceeds certain minimum levels. Second, the fact that, despite all the problems of empirical research, there are also quite a number of studies that support the idea that increases in competitive inequality have a negative effect on demand, suggests that it is plausible that such increases have, on balance, negative effects in quite a number of cases.

The empirical studies discussed above concerned matches and competitions played in the past, and quite often in the previous century. So, the two conclusions above imply that quite a number of studies have found that, at the levels of competitive inequality observed in the past, (further) increases in inequality cause a decrease in demand. This finding implies that the levels of inequality observed were (on average) higher than the ones at which demand peaks. Now, competitive inequality has increased over the years (see section 3), so that at present the negative effects of competitive inequality will probably be larger than in the past. So it is plausible that, in present days, the level of inequality exceeds the level that maximizes fans' pleasure in many cases at least. And if the existing trend continues, this may be even more plausible in the (near) future.

The third point is that many studies on uncertainty of outcome focus on a national league, with the English league being investigated most frequently. But there are also European club competitions. And most fans outside England, Spain and Germany face the problem that their teams have become much weaker than the English, Spanish or German teams. In relation to this, it is not impossible that competitive imbalance is a bigger problem for Europe than may be suggested by many of the empirical studies.



All in all, the discussion above suggests that it is plausible that competitive inequality is above the welfare-maximizing level at present, or

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will be so in the near future. But we should have a look at some other evidence too.

9. Stated preferences

In the studies discussed above the dependent variables were attendance and viewership figures as realized in the past, which means the studies concerned revealed preferences. However, one can also adopt a stated preferences approach and conduct surveys in which football fans are asked how they perceive the attractiveness of the game and factors contributing to it.

The survey of Koenigstorfer et al. (2010) concerns German and English fans. The fans answered a number of questions about the attractiveness of their domestic league and the Champions League. For every fan, the answers to these questions were converted into a single figure which was considered to be a measure of the perceived overall attractiveness of the league. Perceived attractiveness was the dependent variable for the remainder of the study then. In a similar way, values were obtained for a number of independent variables, among which the perceived stadium atmosphere, perceived competitive balance, and the perceived uniqueness of the dominating teams.

The study then shows that ‘perceived competitive balance is the most important factor influencing the perceived attractiveness of football leagues in both countries’ (ibid., p.150). Another conclusion is that the perceived uniqueness of Manchester United helps increase the popularity of the English league, while such an effect is not found for Bayern Munich. So in England, fans who regard uncertainty of outcome as important may at the same time also have some preference for home games in which uncertainty of outcome is low because the opponent is a unique team. Finally, the authors show that perceived competitive balance in the Champions League has a positive

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effect on the perceived attractiveness of this league for English and German fans.

Pawlowski (2013b) discusses a survey among German fans, conducted in 2011. The respondents perceived the Bundesliga to be quite balanced. They were also asked at which level of competitive balance they would (1) start to lose interest in the league; (2) watch no match in the stadium; (3) watch no match on TV. The conclusion was that the interest in the league, and demand for stadium tickets and TV pictures, would decrease if perceived competitive balance were to decrease. However, the reactions remained small as long as perceived competitive balance did not fall below some tipping point, which was at a considerable distance from the existing level, while beyond that point the reactions became much stronger. The author emphasizes that the study has shortcomings, and welcomes discussion and research to test the results of this new type of research. As a possible contribution, let me note that watching no match (anymore) is quite a drastic reaction, so that it is not really surprising that most fans will only have such a reaction beyond a point which is not close to the current situation.

According to Pawlowski and Budzinski (2013) and Pawlowski (2013a), the results of surveys among Danish and Dutch fans about their domestic leagues are similar, but with the tipping point being closer to the existing situation in the Danish league.

Pawlowski and Budzinski (2013) also use their survey to investigate willingness to pay. They find that more than 50 per cent of the German, Dutch and Danish fans are willing to pay at least some money for either maintaining the current 'level of suspense' in their domestic league or improving this level. The average willingness to pay is about 3 euros or, in one of the Danish cases, even 5 euros per stadium ticket per game. However, the authors emphasize that these figures may have been biased because of statistical problems.

All in all, the few studies on stated preferences suggest that too much competitive inequality has a negative effect on demand, and that, given the present levels of competitive inequality, (further) increases in inequality will reduce economic welfare.

10. Conclusion

The results of the studies based on revealed preferences make it plausible in my view that present levels of competitive inequality are, in many competitions at least, higher than the welfare-maximizing ones. The few recent studies which focus on stated preferences support this conclusion. It also plausible that the problems of competitive inequality will increase in the future. Therefore the inequality could better be reduced (if one wants to increase economic welfare and if there are good instruments for realizing this goal).

However, there are large scientific uncertainties in this context. This leads to the question as to how these uncertainties should be presented in the main book, which is meant for general readers. Such readers will not read all scientific literature, while possibly still wanting some policy advice.

My reaction has been as follows. In the main book, it is emphasized that my conclusions on the issue should be regarded as (merely) reflecting the ‘view of an informed economist’, with a loose explanation of the meaning of this term. In Paper I, the term’s meaning is explained more precisely.

VIII: EFFECTS OF THE TRANSFER SYSTEM AND THE BOSMAN RULING

This paper relates to ‘The transfer system’ (p.93 of *Football Business*).

1. Introduction

With a transfer system clubs can get, under certain conditions, some form of compensation for players who leave the club. The effects of a transfer system on competitive balance depend on the objective of the clubs. When they aim to maximize profits, as is normal in America, the effects may be neutral. However, transfer systems in American sports will not be discussed here; they are the subject of the section 'Lessons from America' in Chapter 4 of the main book.

This paper discusses the effects of the transfer system in European football, and the change in it caused by the Bosman ruling, on competitive balance. In European football most clubs are win maximizers (Késenne 2006). In other words, they aim to win on the pitch as much as possible.

2. Effects of the transfer system in European football

Clubs that are win maximizers spend as much as possible on players, given their budget constraint. In such a situation, the effects of a transfer system depend on the initial distribution of the youngest talent over the clubs. The relevant theory starts out from the assumption that this distribution is such that players move, in the years in which they are good enough to justify a transfer fee, more often from small clubs to large clubs than the other way round. More precisely: the initial distribution is such that the amount of transfer fees paid by large clubs to small clubs is larger than the amount going the opposite way. This implies that small clubs benefit financially from the system. Therefore, their budget will increase, so that they will spend more on players. Consequently, competitive balances will improve (Késenne 2007a).

The next question is whether the original distribution of talent is as assumed above. According to Késenne (2007a, 90–91), the small clubs

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are indeed net sellers of talent, so that the transfer system improves competitive balance. However, this positive effect of the transfer system will not be very significant: 'By definition, a small-market club is a club with a weak drawing potential, not only for spectators, but also for players, so the initial player market equilibrium under free agency is already showing an unequal distribution of talent. It follows that there is little to trade between the small- and the large-market clubs, so the distribution of talent under a transfer system will be close to the talent distribution in a competitive labour market. Only occasionally can a star player be sold by a small-market club which will allow that club to attract one or more regular players instead. Empirical research has shown that this effect is indeed quite insignificant (see Szymanski and Kuypers 1999).'

As far as transfers within a country are concerned, this observation may well be correct to a large extent. In The Netherlands, most of the best young talent plays in the youth programs of Ajax and Feyenoord, and these clubs draw in young talent based on their reputation. However, despite the still larger reputations of Arsenal and Barcelona, most of the young talent stays in the Netherlands. An important reason may well be that, if a talent moved abroad at the age of ten or fourteen, he would have to leave his parents. And so, Késenne's argument is possibly more important for national transfers than for international ones.

Let us also have a look at the empirical research of Szymanski and Kuypers to which Késenne refers. This is important because Késenne's view, as based on this research, is still repeated in present days (see Goddard, Sloane and Wilson 2012, who mention Késenne's 2006 paper which refers to the same empirical research). Szymanski and Kuypers focus on English football in the 1996–97 season. They show that the Premier League had a 50 million pounds transfer deficit then. More specifically, its deficit with the three lower English divisions was

3 million pounds, while its deficit with Scotland and overseas countries was 47 million pounds. Szymanski and Kuypers conclude that there is a negligible amount of money trickling down the English leagues, so that the effect of the transfer system on competitive inequality in English football is small.

But this is debatable. When there is little money trickling down the English leagues, this does not automatically imply that the effect of the transfer system on the distribution of playing strengths in these leagues is negligible. In the 1996–97 season, the Premier League clubs paid 207 million pounds in total on player wages (Szymanski and Kuypers 1999). If they had not had a transfer deficit of 50 million pounds (mostly as a result of international transfers), they would have been able to spend 257 million pounds on player wages. The clubs from the English First Division spent 75 million pounds on player wages that season. They had a transfer deficit of 6 million pounds, so that without the transfer system they would have been able to spend 81 million pounds on player wages. It follows from these figures that in the actual situation with the transfer system the Premier League clubs spent 2.76 times more money on player wages than the First Division clubs, while without the transfer system they could have spend 3.17 times more. At first sight at least, this seems to imply that, in terms of chances for attracting good players, the Premier League clubs would have seen their relative advantage increase by 15 per cent if the transfer system had been abandoned. So, at first sight at least, the transfer system may have improved competitive balance within England to a significant extent.

In addition, Szymanski and Kuypers neglect the issue of competitive inequality at the international level. According to the figures above, clubs from Scotland and the overseas countries had a net transfer surplus of 47 million pounds from their transfers with the Premier League. In other words, thanks to the transfer system they

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had more money to spend on their squad, while, as discussed above, the Premier League clubs had less to spend. So, in the 1996–97 season, the effects of the transfer system on competitive imbalances were certainly important at the international level.

Let me give some additional figures. Dobson and Goddard (2011, pp.184–86) analyse four selected three-year periods (1976–78, 1986–88, 1996–98 and 2006–08), and find that in all periods the English top division had a transfer deficit with the three divisions below. In the 2006–08 period, this deficit was on average 47 million pounds a year (3 per cent of total wage expenditure). And according to Deloitte (2012), the 92 clubs in the four highest English divisions had a net transfer deficit of 364 million pounds with Scottish and overseas clubs in the 2010–11 season (19 per cent of their total wage costs). These figures can be seen as providing some additional support for the main conclusion: the transfer system leads to a reduction in competitive inequality, at the national and the international level.

3. Effects of the Bosman ruling

The next question is whether the Bosman ruling, which has made the European transfer system less strict, has increased competitive inequality. In this context, this paper fully focuses on the Bosman ruling insofar as it directly concerns transfer fees. The part of the ruling that concerns quota for foreign players is discussed in the section titled ‘A foreigner rule’.

As yet, there is no hard statistical evidence at the aggregate level that the Bosman ruling has had effects on competitive balance. One of the problems is that there are different factors that have affected competitive inequality since 1995, which makes it difficult to isolate the effect of the Bosman ruling (Goddard, Sloane and Wilson 2012).

Fortunately, purely statistical arguments are not the only arguments available. So let us take a different perspective. As discussed above, the small European clubs are net sellers of talent, and the related flows of money are significant. The Bosman ruling has weakened the position of the sellers in various ways. To begin with, if a player leaves a club at the end of his contract, the club does not receive a transfer fee anymore. This effect is important; there is empirical evidence that Bosman has led to a significant increase in the number of transfers for which no transfer fee is paid (Frick 2007).

To avoid a free transfer, a club can do two things. First, it can sell a player before his contract expires. When it does so, the number of remaining contract years is a major determinant of the transfer fee (Frick 2007). When only one year remains, the transfer fee will be relatively low. After all, the player can walk out for free just one year later, so that the club's negotiating position is weak. Therefore it is often better to sell a player earlier still. But this still means there is pressure to sell the player at a relatively early stage, and pressure to sell tends to depress the price at any stage.

The second thing a club can do is to offer a player a longer contract, to reduce the pressure to sell. Many clubs have followed this strategy; there is empirical evidence that the length of the average contract has increased after Bosman (Goddard, Sloane and Wilson 2012). However, this strategy means that the club loses more money to players who perform worse than hoped for. This will weaken its financial position, as compared to the pre-Bosman situation in which long contracts were not needed to get high transfer fees.

Since the small clubs are the net sellers of talent, they will, on balance, suffer financially from the negative effects on the position of the sellers discussed above. And since most European clubs are win maximizers, this means the Bosman ruling has increased competitive inequality.

4. Conclusion

The transfer system has promoted competitive balance in European football. The Bosman ruling has reduced it to a certain extent.

IX: LUXURY TAX, PROGRESSIVE TAX AND PROGRESSIVE SOCIAL LEVY

This paper relates to ‘A progressive social levy’ (p.111 of *Football Business*).

1. Introduction

This paper discusses the effects of three measures for improving competitive balance: a luxury tax, a progressive tax and a progressive social levy. In doing so, it provides background information for the proposal of a progressive social levy in the main text. Section 2 deals with the luxury tax, a measure which already exists in American sports. Section 3 discusses both the progressive tax and the progressive social levy, and it also gives the main conclusion.

2. The luxury tax

In 1997, Major League Baseball introduced the luxury tax. This tax is levied on the team payroll (the sum total of the salaries of the players of a team). The tax only applies to the part of the payroll that exceeds a certain threshold. For instance, in 2009 the threshold was 162 million dollars, and the tax was 22.5 per cent of the payroll in excess of the threshold (or higher if the team had also passed the threshold in preceding years). The National Basketball Association also introduced a luxury tax, in 1999.

The revenues of this tax are not for the government but for the league, which may distribute them over teams or players later on. But

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it may also use the money for league initiatives, such as improving player development or promoting the sport worldwide. This often means that the clubs benefit from the proceeds in an indirect way. So basically a luxury tax is a way to redistribute money and indirect benefits over the clubs. In this sense, there is a certain similarity with revenue sharing. The details of the luxury tax have varied over the years (Gustafson 2006; Coates and Frick 2012).



What are the effects of a luxury tax on competitive inequality? Marburger (1997) shows formally that, when clubs maximize profits (which is the case in American team sports to a large extent), a luxury tax can reduce competitive inequality. However, the effect on competitive inequality crucially depends on how the proceeds are distributed over the clubs. When the benefits (subsidies) that a weaker team gets from the scheme are inversely related to the team payroll, that could be a reason for a weak team to invest still less in players – so that competitive imbalance increases. Note that such a conclusion may not be fully unexpected in view of the literature on revenue sharing, which shows that, depending on the assumptions made, revenue sharing can have a positive, neutral, or even negative effect on competitive balance (see the section titled ‘Lessons from America’ in Chapter 4 of the main book, and its notes especially).

Other researchers have analysed the luxury tax formally while neglecting the way in which the revenues are returned to the clubs. They conclude that the tax reduces competitive inequality (Gustafson and Hadley 1996, Késenne 2007a).

The effect on competitive inequality hoped for can be frustrated by enforcement problems, which arise because some of the teams and players have incentives for not reporting honestly about the payroll (Gustafson 2006, Coates and Frick 2012). These problems are partly

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similar to those of the American salary cap, which aims to set a maximum to the team payroll (see the section ‘Great American inventions’ in Chapter 4). The salary cap has a longer history than the luxury tax, so that we know more about it. According to Coates and Frick, the salary cap has never been strictly enforced; there are serious practical problems which frustrate strict enforcement. In this context, it is also relevant to note that those football associations in Europe that have introduced the rule that a club’s total spending should not exceed its’ total income have also encountered serious enforcement problems (see the section titled ‘Cutting your coat according to your cloth’ in Chapter 2).

Empirical research on the effects of luxury tax is scarce. Szymanski (2003) says that the luxury tax for baseball was less than one per cent of revenues in the first years, and that, not surprisingly, the luxury tax had little effect in this period. The size of the tax has increased in recent years, also in basketball, but as yet there is no statistical evidence which shows that there is a significant effect on competitive inequality, or not.



Is a luxury tax suitable for European football? Szymanski (2003) argues that a luxury tax is not likely to be implemented in the present European system of interrelated football competitions. The first reason is that it is difficult to determine a sensible threshold. For instance, if a small country introduces a low threshold for its clubs to reduce imbalances in the domestic competition, this makes it more difficult for the country’s best clubs to compete with clubs from larger countries in European competitions.

The second reason is related to the fact that a luxury tax needs to be based on an agreement with all participating clubs. In each American team sport there are only some thirty Major League clubs only, so

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that an agreement is relatively easy to reach. In Europe, however, an agreement between all clubs would be much more difficult in view of the very large number of clubs competing in the European system of club competitions.

3. Progressive tax, progressive social levy and luxury tax

Van der Burg and Prinz (2005) analyse a progressive tax which is identical to the progressive social levy discussed in Chapter 4, apart from the fact that the proceeds of the tax go to the government and not to social projects of the clubs. This means there is a tax in the proper sense. There are two variants: a progressive tax on the revenues of a club and a progressive tax on the team payroll. In both variants, the tax rate is gradually increasing. The formal analysis concerns a closed league with profit-maximizing clubs, and it shows that both tax variants reduce competitive inequality. As the tax proceeds are for the government, the problem that the distribution of the proceeds over the clubs may have adverse effects on competitive inequality (a possible problem of the luxury tax) can not arise.

In the discussion, the authors argue that the effects on competitive inequality will be the same if the proceeds of the 'tax' do not go to the government but are used by the clubs for social projects (so that one can speak of a social levy instead of a tax). In other words, the conclusion about the effect of the progressive tax on competitive inequality also applies to the progressive social levy. The authors also argue that a progressive tax or levy can be useful for European football, with its win-maximizing clubs, but only if introduced at the European level – so that it makes both domestic and national competitions more balanced. Indeed, with a progressive tax or levy the main problem of a European luxury tax, which is, that it is basically impossible to determine a sensible threshold level, cannot exist.

Some additional insights come from Késenne (2007a). This author considers a progressive tax to be a variant of a luxury tax. Using a formal model, and neglecting the way the proceeds of the luxury tax are spent, he shows that both a luxury tax and a progressive tax lead to less competitive inequality in the case of profit-maximizing teams playing in a closed league. He ends the relevant section as follows (p.136): ‘Exactly the same results from imposing a luxury tax can be found under win maximization.’ Now, as long as the question as to which clubs benefit from the proceeds of a luxury tax is neglected, it is logical that a luxury tax has the same effect on competitive inequality as a progressive tax (or levy), also with win-maximizing clubs. All in all, it can be concluded that a progressive tax or levy will reduce competitive inequality if clubs are win maximizers. The same conclusion has been reached (for a levy) on the basis of a more qualitative analysis, in the one-but-last section of Chapter 4 of the main book.

As discussed above, a luxury tax will involve enforcement problems. The same holds true for a progressive social levy and for a progressive tax. However, the problems may well be smaller for the latter. The tax is imposed by a government that will be in need of the proceeds and that will use tax officers who are independent of clubs and leagues. A luxury tax or a social levy is imposed by the clubs and their organizations, so that those enforcing it will not be independent of the clubs – which may lead to serious enforcement problems. (See also the section ‘Cutting your coat according to your cloth’ in Chapter 2. Here, it is made clear that the so-called ‘break-even rule’ can best be enforced by officials who are independent of clubs and other parties from within the football sector.)

If the smaller enforcement problems were a serious advantage of a progressive tax, the emphasis in the main text on a progressive social levy could be debatable. However, as discussed in the section ‘Brother Walfrid and a social levy’ in Chapter 2, a social levy may have an

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 advantage in terms of fairness in the eyes of some. So any choice is debatable. Fortunately, replacing the progressive social levy by a progressive tax would not change the main line of argument in the main text, so that it is no big problem that this text mainly focuses on the social levy.



The main conclusion is this: for the European system of club competitions, a progressive tax or levy is a more suitable instrument than a luxury tax with a threshold.

X: THE ATTRACTIVENESS OF ALTERNATIVE LEAGUE SYSTEMS

This paper relates to ‘What the fans want’ (p.124 of *Football Business*).

1. Introduction

This investigation deals with the question: which European league system is most attractive for the football fans? The ultimate aim is to compare the present system with a new system that includes a European Super League, but it is useful to take a more general perspective first.

Section 2 discusses a range of factors which affect demand for football other than the league system. This can yield insights relevant for the comparison of league systems later on. It is noted right away that the factor competitive inequality plays no important role in this discussion. This is related to the fact that the investigation is based on the idea that, whatever the league system, any desirable level of competitive inequality can be reached through the policy measures advocated in the main text – so that a change in the league system is not necessary for solving competitive balance problems. Section 3 reviews the

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literature on the effects of changes in league systems other than the creation of a European Super League for football. From section 4 onwards, the focus is on the creation of such a European Super League. Sections 4 and 5 discuss the work of other authors. Using the insights from the previous sections, section 6 investigates whether a system with a European Super League is more attractive than the present system. Section 7 concludes.

2. Factors affecting demand other than the league system

2.1 Quality, status and stars

Section 2 discusses a number of individual factors which affect the demand for football, still neglecting the league system. This subsection 2.1 starts with the factors in the field of quality, status and stars.

According to the overview study of Dobson and Goddard (2011), it is clear from most empirical studies that the quality of the teams playing a match has a strong positive effect on match attendance. In many of these studies, the league position of the home team and that of the away team are used to measure the quality of the teams, while in some other studies recent form (the number of points won in preceding matches) is used. Walker (1986), who analyses the four highest English divisions, finds that demand is higher the higher the division. One interpretation of this result is that divisional status has a positive effect on demand, but, of course, this status may also be related to the quality of the teams. Dobson and Goddard (1996) and Simmons (1996) investigate the 92 clubs in the four highest English divisions while measuring league position on a scale from 1 to 92, and find that high league positions have a positive effect on demand – which also indicates fans like quality and matches in high divisions.

In addition, match attendance is positively affected by the reputation of the home team and that of the away team, where reputation

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is measured by the average end-of-season league position in the last 20 or 42 years (Czarnitzky and Stadtman 2002, Dobson and Goddard 1992). Pawlowski and Anders (2012) show that the 'brand strength' of the away club as perceived by football fans has a positive effect on attendance. A last point concerning match attendance: the more stars in a match, the higher demand (Baimbridge et al. 1996, Kuypers 1996, Brandes et al. 2008).

Regarding demand for televised matches, empirical research is more scarce. A (national) TV audience is not composed of the same people as a crowd in a stadium. For instance, it may consist to a larger extent of football fans not attached to one of the teams playing (Forrest et al. 2005). Still, regarding the dimension of quality, status and stars, studies on TV audiences do not have really different results than studies on match attendance. More specifically, the qualities of the two teams have a positive effect on the size of the TV audience (Kuypers 1996, Forrest et al. 2005, Buraimo 2008), and the same holds for the number of stars on the field (Kuypers 1996).

All in all, the following factors are important determinants of demand for individual matches: the (present) quality of the teams and the status of the competition in which the match is played; the status (or reputation) of the clubs; and the number of stars involved. The comparison of the alternative league systems in section 6 will be based on these insights.

2.2 Chances and results

To analyse the dimension of chances and results, one important concept is the championship significance of a match. A high championship significance means that the chances of becoming champion can be increased to a large extent by the result of the match concerned. According to Jennett (1984), who analyses the top division in Scottish football, matches with high championship significance for the home team receive large crowds. At the same time, matches for which the

home team is already certain to be the champion also attract more visitors, in which context Jennett uses the term 'glory factor'.

Jennett also finds that matches with high relegation significance do not get larger crowds. He suggests there may be two opposing forces at work here. On the one hand, high relegation significance implies that the team has not done well during the season, which can reduce demand. On the other hand, high relegation significance may mean that the fans will be more interested in the result. Finally, once it is certain that a team will be relegated, this leads to a decrease in demand (the 'despair factor').

Cairns (1987) finds that, during the second half of the season, teams receive larger crowds as long as they are in contention for the Scottish title. Dobson and Goddard (1992) focus on the championship significance of matches in the English top division and on the promotion significance of matches in the three divisions below. As expected, a high championship or promotion significance for the home team increases attendance. However, Baimbridge et al. (1996), who focus on the English top division, find that the championship significance of a match has no significant effect on attendance, and the same holds for the glory factor. Hart et al. (1975) analyse whether matches in the English top division that are a 'relegation battle' for the home team attract more visitors, and get no significant results.

Garcia and Rodriguez (2002), focusing on the Spanish top division, find that the championship significance of a match has a positive effect on attendance. However, Czarnitzky and Stadtman (2002), focusing on the German Bundesliga, find it has no significant effect.

Kuypers (1996), who investigates both match attendance and TV audience for matches in the English Premier League in the 1993–94 season, finds that the championship significance of a match has a positive effect on both, while relegation significance has a negative effect.

Forrest et al. (2005) analyse television audience in the English Premier League in the period 1993–2002. One finding is that matches involving the two teams ranked highest in the league table attract more viewers throughout the season. Matches in which only one of the teams has a top two position in the table attract more visitors in the second part of the season only. These results suggest that championship significance has a positive effect on demand. However, the authors also find that matches between two teams that are fighting for qualification for European competitions do not get more viewers because of that. At the same time, they also analyse the game selection of the broadcaster. Here, they find that the broadcaster not only has a preference for broadcasting matches that are important for the championship, but also for matches that are important for European qualification. This suggests that the significance of the match for European qualification does generate some extra interest according to the expertise of the broadcaster. Finally, the broadcaster is less likely to select matches between relegation candidates.



All in all, there is one clear result: a match that is important for relegation does not attract more fans. Championship significance is a positive factor according to six of the studies discussed above, while not having a significant effect according to two. The one study that investigated promotion significance found a positive effect on demand. The results on the significance of qualification for European football and the glory factor are mixed.

The overview studies of Szymanski (2003), Borland and MacDonald (2003), and Downward, Dawson and Dejonghe (2009) analyse the results of a larger number of studies, mainly because they also focus on team sports other than football. Roughly speaking, the conclu-

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sions from these overviews are more or less in line with the picture that emerges from my own overview given above.

The analysis of league systems in section 6 will be based on the following points: championship significance has a positive effect on demand (for many matches at least), relegation significance has no positive effect, and a match that is important for promotion to a higher league, or for European qualification, is also more attractive (in many cases at least). This is reasonable in view of the majority of the evidence, possibly apart from the conclusion relating to European qualification for which the scarce evidence is more mixed.

2.3 Derbies, historical matches and variety of opponents

In their overview of the literature on derbies, Solberg and Gratton (2004; all quotations below are from p.76) show that several studies focusing on match attendance have revealed that derby matches have a strong positive effect on demand. Studies on Spanish football, for instance, find that matches played by 'historical or regional rivalry clubs' attract relatively many visitors. According to studies on England and Scotland, the geographical distance between the clubs playing a match has a negative effect on attendance, which 'is explained partly by the propensity for derby matches to attract higher gates due to local interest and rivalry, and partly by the financial and practical disincentives for supporters to travel to more distant fixtures.'

Kuypers (1996) analyses both match attendance and TV audience for matches in the English Premier League. He finds that local derbies have a positive effect on match attendance, while they do not have a significant effect on TV audience. He suggests this is caused by the fact that a significant part of the nationwide TV audience is not a supporter of one of the two clubs in the game, and such viewers may not regard derbies as being of special interest. Forrest et al. (2005) find, for the Premier League, weak evidence (significance at the 10% level) that derbies have a positive effect on TV audience. Buraimo (2008),

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focusing on tier-two of English league football, also finds weak evidence of a positive derby effect for TV audiences, while finding strong evidence (significance at the 1% level) of such an effect for stadium visitors.



Regarding the factor concerning the variety of opponents, the Scottish top division is a useful source of information. This division has repeat fixtures: the same match is played more than once a year in the regular competition. Cairns (1987) shows that the average attendance at a home match against a specific club decreases when it is played twice a year. Peel and Thomas (1996) also focus on the Scottish Football League, and find that the first home match against a specific club receives more visitors than the second one (other things being equal). For English rugby, similar evidence is found (Dobson, Goddard and Wilson 2001). Apparently if a specific match is played more often it becomes less special.

A more general conclusion is this: a greater variety of opponents stimulates match attendance in certain cases at least. However, it remains uncertain as to exactly which degree of variety is best. For instance, it is also possible that, because fans like yearly traditions, one home match against a certain club every year is better than having this match once every 2 years only.

There is no evidence about the preferences of TV viewers regarding variety of opponents. Many TV viewers are not bound to a specific club, and for such neutral fans variety of opponents (of one's favourite club) is a void concept. But we can say that for neutral fans the variety of matches (and so of teams) from which they can choose is very large. This could suggest that for TV viewers the disadvantage of a menu which includes repeat fixtures may be smaller than for stadium visitors, but this is speculation.

In any case, for the average football fan, the fact that every club has a certain variety of opponents is attractive, but where exactly the optimum is remains uncertain.

2.4 History, tradition and fan loyalty

In Europe, football and rugby are much more popular than baseball, American football and basketball. The reverse holds in America. This shows that history and tradition are important for making a sport attractive.

Empirical studies have found that fans are often loyal to their club, and fan loyalty is an important determinant of match attendance (e.g. Kuypers 1996, Czarnitzky and Stadtman 2002).

The relation between club loyalty and the TV audience for a match has not been investigated, but such a relation may well exist – simply because part of the TV viewers will be fans of one of the teams playing. However, for the average TV viewer the relation will be less strong than for the average stadium visitor, as relatively many TV viewers are neutral fans.

All in all, history, tradition and fan loyalty are important determinants of demand for football.



With this conclusion, the discussion of individual factors other than the league system has come to an end. We can now turn to studies in which the effects of changes in the league system are analysed.

3. *League restructuring at the national level*

3.1 The 1975 reorganization of the Scottish Football League

There are a few studies which have analysed the effects of a change in a national league system. The oldest one is by Cairns (1987), who analyses the reorganization of the Scottish Football League in 1975. Before

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1975, there were two divisions with eighteen teams in the highest and twenty teams in the lowest. After 1975, a Premier Division with ten teams was called into existence, next to a First and Second Division with fourteen teams each. In view of the smaller number of opponents, repeat fixtures were introduced. Cairns focuses on three clubs that participated both in the old top division and in the new Premier Division (Aberdeen, Dundee United and Partick Thistle). Using data on the attendance at their home games in the 4 years prior to and the 5 years after reorganization, he estimates the demand function for each of these clubs.

Some conclusions are as follows. First, matches against the two top teams (Celtic and Glasgow Rangers) always have a positive effect on attendance. In relation to this, the fact that home matches against these clubs are played twice a year under the new system has a positive effect on annual attendance. However, as already discussed in section 2.3, for the average 'big match' the positive effect on attendance is lower under the new system; taken by itself, a repeat fixture has a negative effect on demand. Second, recent form did not affect demand before reorganization, but does so afterwards.

The estimated demand functions for the three clubs include a number of variables not discussed in this brief review. But a point to be noticed is that the estimated functions show that the reorganization would have had a negative effect on the clubs' attendances if all independent variables in the demand functions other than the league system had not changed. Cairns does not give an interpretation of this finding. In my view, one of the possible interpretations could be that fans value tradition and continuity.

On the basis of his demand functions, Cairns estimates the overall effect of the reorganization on the attendance of the three teams. Two of the teams often finished in the top four, and they benefited from the change overall. The third team, which had a more modest perfor-

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mance, lost spectators. According to Cairns, a plausible interpretation is that the nature of competition has changed to one in which the rewards for success and penalties for failure are more marked.

3.2 The 1973 reorganization of the English Rugby League

Burkitt and Cameron (1992) analyse the reorganization of the English Rugby League in 1973. In that year, Rugby League's single division comprised of thirty clubs was broken down into two divisions of sixteen and fourteen clubs. Burkitt and Cameron take data on average yearly attendances of all thirty clubs over the period 1966–90 and relate these to the variables 'finishing in the top-four of either the entire thirty-club league or the top division,' 'contending for promotion,' and 'fighting relegation'. Further, split dummies and club-specific dummies are included in the analysis. The main results are as follows.

Finishing in the top-four of the highest division has a positive effect on attendance before and after the split. For clubs that participate in the new top division after the split, fighting relegation does not increase attendance. Clubs that compete for promotion in the second division after the split attract more spectators because of that.

The most important results, however, concern the split dummies. The split had a positive effect for teams in the new top division and a negative effect for teams in the new second division. The authors argue that these results are the net effect of factors not explicitly distinguished in their demand function, such as an increase in the reputation of the average opponent in the new top division, a decrease in the reputation of the average opponent in the new second division, and, in both divisions, a decrease in variety of opponents and an increase in match outcome uncertainty.

On balance, the reorganization has a positive effect on attendances of all clubs taken together. However, the distribution has become

more unequal, at the costs of the clubs playing in the new, lower division after the split.

3.3 Reorganizations of the English Rugby League between 1990 and 1995

Dobson, Goddard and Wilson (2001) also analyse the English Rugby League, but they focus on the period 1990–95. In this period, different structural regimes existed. In 1990–91 and 1993–95 there were two divisions, while there were three in 1991–93. The authors start by estimating a demand function on the basis of data on attendance and other characteristics of every match in the period 1990–95. This function is taken to apply to all different structural regimes existing in this period, and to some possible future regimes as well. The estimated demand function has the following characteristics. Favourable league positions of the home team, and of the away team, increase attendance. Recent form of the home team, and of the away team, also have a positive effect. High championship or promotion significance scores of the match for the home team and the away team are favourable, too. Two variables have a negative effect: the distance between the grounds of the two teams and a repeat fixture dummy which indicates that the fixture is played on the home ground for the second time in the season.

The authors also determine the playing strength of every team, on the basis of its actual performance in the period 1990–95. On the basis of these playing strengths, the most likely distribution of the clubs over the divisions is determined for any possible structural regime. In addition, these playing strengths are also used to determine, for any possible match, the probabilities of the possible outcomes (home team win, draw, away team win), taking home advantage into account. Given these probabilities, a thousand simulations of the development of a yearly competition in terms of points won by the different teams are run for each structural regime (and the related distribution of the

clubs over the divisions). For each simulation, the estimated demand function is used to determine the attendance at every fixture and, consequently, the average attendance of every club over the season. Averaging this over the thousand simulations, the authors obtain the annual attendance which every club can expect under the regime that is analysed.

Using this method, different structural regimes are compared. The first one, S1, is a two-divisional structure with sixteen clubs per division. This structure existed in the years 1993–95. In this review I focus on one alternative structure only, S2, which consists of four divisions of eight clubs. S2 never existed, but it might be introduced one day. Comparing S2 to S1, the authors find that clubs playing in the first and third division under S2 generally benefit from the change to S2, while most other clubs lose. The main reason is that, in the first and third division, the average league positions of home and away teams are more favourable, while they are lower in the second and fourth division. (League position is measured on a scale from 1 to 32, with, for instance, the team ranked highest in the second division of S2 being assigned position 9. Therefore, no team which plays in the first division under S2 can rank lower than position 8, while under S1 such a team may be ranked lower than position 8 now and then.) The clubs in the second and fourth division under S2 gain some compensation because they and their opponents more often have a top position in their own division, and they play more matches with promotion significance. Besides, recent form (measured in terms of points won) is better on average. However, these factors can only partly counterbalance the negative effects of the participation in a lower league. Finally, the introduction of repeat fixtures under S2 imposes a penalty of around 5% on the attendance of every club. On balance, total attendance in the Rugby League (of 32 teams as a whole) increases under

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S2, while the difference between clubs ranked high and those ranked low increases.

3.4 Final remarks

Dobson, Goddard and Wilson point out that their results confirm two conclusions of Burkitt and Cameron: restructuring to create more divisions that are smaller in size increases total attendance in the league as a whole, and it tends to make the rich richer and the poor poorer. It may be added here that Cairns, who focused on teams playing both in the large-size top division of the old system and in the small-size top division of the new system, concluded that the two relatively large clubs which he analysed benefitted from the reorganization, while the one relatively small club experienced a decrease in demand.

All in all, the studies above provide a number of useful insights, but the most important may be that creating a small top division may be beneficial for the larger clubs especially.

4. *The format of a European Super League for football*

We can now turn to the introduction of a European Super League for football. The first question is: what will such a competition look like?

Hoehn and Szymanski (1999) have designed an attractive Super League. Their design will be the basis for this study. It can be described as follows. The best European clubs play in four regional leagues (North, East, West and South) of fifteen clubs each. The Northern League, for instance, consists of six clubs from England, three from The Netherlands, two from Scotland and one each from Denmark, Norway, Sweden and Finland. The fifteen clubs in the Northern League play each other twice per season. That gives each club twenty-eight matches to start with. In addition, each club plays eighteen matches against clubs from the other three regional leagues, bringing the total to forty-six matches. The points gained after those forty-

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six matches determine the final standings in the Northern League. The club on top are the champions of North Europe. The system for the other three regional leagues is essentially the same, although the numbers of countries and their teams differ of course. Finally, the champions of the four regional leagues, and the twelve clubs placed second, third or fourth in a regional league, go into the play-offs to decide the champions of Europe. The play-offs, and the season, end with the final to decide the European title.

Hoehn and Szymanski seem to favour a closed Super League, although they leave open the possibility of promotion and relegation to and from the Super League. The system which will be investigated in this supplement includes promotion and relegation, so that it does not perfectly reflect Hoehn and Szymanski's vision.

In the system investigated here, all clubs that do not play in the Super League play in their own national league. In England, the club which becomes champion of the national league is promoted to the Northern League, while the English club that ends lowest of all English clubs in the Northern League is relegated to the English national league. Of the five clubs from the Netherlands and Scotland that play in the Northern League, the one that ends lowest is relegated to its own national league. It is replaced by the winner of the play-offs between the champions of the Dutch and the Scottish national league. This may imply that in certain seasons the number of clubs from a certain country deviates from the number given above. For instance, there may be four Dutch clubs and one Scottish club in the Super League in a certain year. In relation to this, the following side-condition holds: when there is one club only from either Scotland or the Netherlands in the Super League, it cannot be relegated – so that one of the four clubs from the other country must be relegated. The details of the system of promotion and relegation for the Scandinavian clubs

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are left open, but it might be helpful if the national leagues in Scandinavia were (partly) merged in one way or the other.

Finally, other tournaments such as the national cup competitions remain as they were. They will not be discussed further.



As stated before, this investigation is based on the idea that any desirable level of competitive inequality can be obtained through the policy measures advocated in the main text. Therefore, the Super League can have no advantage or disadvantage in terms of promoting or reducing competitive balance.

More specifically, the investigation is based on the following assumption: for the best clubs of any country, the chances of winning the highest European title in the future will, on average, be more or less the same as they were over the last 60 years. For instance, in both the present system and the Super League system a Dutch club will win the highest European title once in every 10 years on average – as Dutch teams have won this title six times in the (nearly) 60 years of the existence of European club competitions. Another assumption is this: within each country the level of competitive inequality will, on average, be more or less equal to the level in the past 60 years. (These assumptions say nothing about the names of the clubs which are best. For instance, it is possible that Nottingham Forest will never win the highest European title again.) Whether these assumptions represent the optimum level of competitive inequality is not important here; the point is that, given the assumptions, the pros and cons of the Super League are not related to the problem of competitive inequality.

Given these assumptions, the possibility of relegation and promotion may well increase the attractiveness of the Super League. This is the reason for the difference with Hoehn and Szymanki in this regard. These authors argued that competitive inequality would in-

crease, which could, indeed, be a good reason for having a closed Super League.

Finally, it is noted that Vrooman (2007) proposes a Super League which has thirty clubs, and beneath that a Pan-European competition with sixty clubs that have also left their national competition. The discussion below will not focus on this, but many arguments can be relevant for Vrooman's format too.

5. Studies on the attractiveness of a European Super League

Hoehn and Szymanski (1999) compare the attractiveness of (their version of) the Super League system with that of the present league system. They focus on competitive balance problems to a large extent, and argue that the main reason which makes the Super League more attractive is that it can reduce such problems. However, this argument is less relevant for the comparison below, which will be based on the idea that competitive inequality can be reduced under any league system to any desirable degree.

Solberg and Gratton (2004) also compare the present system with a Super League system. They are sceptical in regard of the advantages of a Super League. One of their arguments is that the problems of competitive balance under the present system are less serious than Hoehn and Szymanski suggest. They also provide some other arguments.

To begin with, they present a large amount of statistical information about the demand for stadium tickets and TV broadcasts under the present system. In big countries, demand for matches in the domestic league is high compared to demand for European matches. In some smaller countries the situation is different. To illustrate this with one example: between 1999 and 2001, Real Madrid had an average attendance of about 63,000 in the Spanish league, while its average attendance in the Champions League was only 53,000. In the

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same years, average attendance of the Norwegian club Rosenborg was 13,000 in the domestic league and 21,000 in the Champions League.

In addition, Solberg and Gratton analyse a number of factors that affect demand. For instance, they observe that according to the literature, derbies and matches with teams of high quality stimulate demand. Using the results of their analysis of such individual factors, they make a number of plausible remarks about the possible effects of a Super League on demand.

Combining these remarks with their statistical data, Solberg and Gratton draw a number of conclusions, while emphasizing they are speculative to a significant extent. One conclusion concerns big clubs from large countries. If these clubs start playing in a Super League they may well have lower revenues than under the present system, in which they play both in a domestic league and in the Champions League. However, the conclusion may be different for clubs from smaller countries.

The fact that a Super League has not been introduced yet, suggests that Solberg and Gratton have provided some valuable insights.

6. Two alternative systems: a closer comparison

6.1 Introduction

This section discusses more extensively which league system is most attractive for football fans: the present system or the system with a European Super League, also called the new system below. Football fans consist of stadium visitors and TV viewers. The differences between the two are ignored from now on. Being more attractive means the same as generating higher demand, or increasing economic welfare (other things being equal), or being or scoring better. Although the analysis is partly based on scientific arguments, the final conclusions will, in part, be speculative.

To begin with, the professional clubs can be classified into four categories. Big European clubs are clubs that will play regularly in the sixty-team Super League if it is introduced. Large national clubs are clubs that regularly qualify for European football under the present system, but they will not play regularly in the Super League (if introduced). Medium-sized clubs are clubs that, under the present system, play regularly in the highest domestic division while qualifying for European football occasionally. These clubs will not play in the Super League (rare exceptions apart). Finally, small clubs are clubs that normally play in lower domestic divisions under both systems.

Sections 6.2 to 6.5 deal with the demand of fans that feel strongly attached to a specific club, each section focusing on one of the four categories of clubs. To the extent that club fans also watch matches in which their favourite club does not play, however, their demand for football is discussed in section 6.6. More generally, section 6.6 deals with the demand of fans that are neutral (when watching a certain match).

The following groups of factors that affect demand are discussed under separate subheadings in each section: (1) quality, status and stars, (2) chances and results, and (3) derbies and variety of components. Factors related to history, tradition and fan loyalty will be treated under these three subheadings at appropriate points. The discussion often focuses on England, Scotland, The Netherlands and Scandinavia, and on the regional league Northern Europe under the new system. However, the arguments are generally such that they also apply, more or less, to other countries and to the three other regional leagues within the European Super League.

6.2 Big European clubs

This section focuses on the demand for matches of big European clubs, leaving the demand of the neutral fans aside. Apart from the discussion on variety of opponents, it neglects the small number of seasons

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in which a big European club may play in its domestic competition under the new system. This omission will be made up in section 6.3.

Quality, status and stars: Under the new system, the number of matches that big European clubs play in the Super League is larger than the number of matches they play in the present Champions League. Therefore, they play more matches in the league which has the highest status in football. And they meet other big, well-known European sides more often. Their matches have a higher quality on average, and they involve more stars. In view of the literature in section 2, these factors have a positive effect on the demand for football from the big European clubs. This effect may be quite important. In any case, the new system scores better than the present one in this dimension.

Chances and results: Under the new system, every big European club has a chance to win two prizes during a season: the championship of its own regional league (e.g. the championship of Northern Europe) and the championship of Europe. Under the present system, it can win three prizes each year: first, either the Champions League or the UEFA Europa League; second, the national title; and third, qualification for either the Champions League or the Europa League. (The qualification rounds for these two tournaments, and the prize of surviving them, are ignored in this investigation.)

The same point can also be analysed from a different angle. In each season, the number of prizes that can be won by big European clubs is five under the new system: four regional championships and one European title. Under the present system, the number of prizes which can be won by these clubs is much higher: the title of the Champions League, the title of the Europa League, twenty-four national titles and still many more qualifications for a European competition. (In the Super League there are, as proposed by Hoehn and Szymanski, teams from twenty-four different countries. Since, by definition, a big

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European club plays regularly in the Super League, the titles of the twenty-eight other, smaller European countries cannot be won by a big European club.) All in all, in terms of number of prizes the present system is better.

The smaller number of prizes under the new system implies that, for the average big European club, there are less matches that are significant for some important end-of-season result. This has a negative effect on demand. In addition, the average position of a club in the Super League will be lower than its average position in its domestic league under the present system, which also reduces demand. So, at first sight, the new system scores worse than the present one in terms of chances and results.



A counterargument is that the five prizes of the new system can have a high status. For instance, the championship of Northern Europe (England, Scotland, The Netherlands and the Scandinavian countries) is worth more in objective sporting terms than the championship of any of the participating countries in isolation. Therefore, any given championship significance score for one of these five prizes will have a relatively large positive effect on demand.

However, we need a more precise argument here. This argument starts with a discussion of the playing strengths of the teams competing for a title. It has been assumed that the future level of competitive inequality in European football is, on average, equal to the level of the last 60 years. This implies that in many seasons the two (or three or four) best English teams will also be the best teams in Northern Europe, or will be close to that. In these seasons, the English title will basically be as important in objective sporting terms as the championship of Northern Europe, or at least close to that. Of course, in some other seasons the English title will be less important

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than that, because one or more teams from Scotland, The Netherlands or Scandinavia will really be better than the best English sides. Still, on average the English championship under the present system will not be very much less important in objective sporting terms than the championship of Northern Europe under the new system.

The next point is that the value of a championship does not only depend on the playing strengths of the competitors as measured along some objective yardstick, but also on the perception of the fans – with emotions playing an important role here. For instance, England is a country which is important in many aspects of life, while people will regard Northern Europe (as defined above) as something void outside the context of the Super League. Because of this, English fans will perceive the English title as having some special value which they will not attach to the title of Northern Europe. And to give another example: the fact that derbies are attractive helps increase the perceived status of the English title. After all, this title is the result of a competition among teams located relatively close to one another, and it encompasses the results of many derbies. If Arsenal wins the English title, Arsenal fans will think their team wins the most important prize – having beaten local rivals Chelsea among other things. More generally: national sentiments, derby sentiments and history and tradition give the English title a special value which the title of Northern Europe does not have.

Under the present system, the titles of The Netherlands, Scotland and the Scandinavian countries are also important in the eyes of domestic fans. This is partly related to history, tradition and national and derby sentiments. In addition, these titles can also be important in objective sporting terms. Admittedly, they will, in years to come, be less important objectively than the English title (even with the assumed measures to reduce competitive inequality in place), but they will remain serious prizes for (some of) these years because the com-

peting teams are reasonably strong. And there will also be years in which the teams from a small country are among the very best of Northern Europe, making the country's title very important in objective sporting terms.

In addition, casual observations make me think that many Dutch fans have a useful psychological capability: they are, in the seasons in which the best English sides are really stronger than the Dutch ones, largely able to forget that the Dutch title is less important objectively than the English one. Possibly, fans from Scotland or other small countries possess of similar useful skills. And so, the national titles of smaller countries may be quite important in the perception of the fans. And it is the perception of the fans which counts for economic welfare in the end.

Psychological mechanisms like this one may also help make the many other prizes which can be won under the present system (such as qualification for European football) important prizes in the eyes of the fans of the clubs concerned. Indeed, many people are capable of getting a lot of satisfaction from a performance which is good but far from being the best of the world, as people who just won a game of Risk played with friends often show. As the saying goes, happiness is about being satisfied with what one has, instead of being dissatisfied by what one does not have. Still, one should at least have something to be happy about, and so, for football fans, it is helpful when there are many prizes to be won.

Psychological mechanisms do have their limits, however. For instance, in a year in which Ajax ends as number six of the Super League, Dutch fans will probably not be able to regard this as very important prize – even though ending up as number six in Europe often implies a better performance objectively than ending up as number one of The Netherlands. In the past, Ajax fans have always regarded the Dutch title as one that deserves to be celebrated greatly, while one has never seen

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 great celebrations when Ajax reached the quarter-final of the highest European cup tournament (so that it was going to end up as the European number five *ex aequo* at least). All in all, when it comes to psychology the present system has some important advantages.



In conclusion, the new system has a serious disadvantage in the field of chances and results: there are fewer valuable prizes to be won. This will reduce the attractiveness of the games of big European clubs.

Derbies and variety of opponents: Under the new system, the big European clubs play less national and local derbies. Clearly, this will have a negative effect on demand.

Regarding variety of opponents, the following holds. With the new system, big European clubs meet fourteen different opponents in their regional league each season. They also play sixteen matches against teams from the other regional leagues, which may mean sixteen different opponents. The clubs which reach the end-of season play-offs meet (depending on the format) possibly five new opponents at most there. So the maximum number of different opponents in a season is about thirty-five. This is more than under the present system, where the maximum is about twenty-five.

Over a longer period, the picture is different. With the new system, the maximum number of different opponents is about a hundred. This is the sum total of the sixty teams that play regularly in the Super League, plus, perhaps, the twenty other teams that play there occasionally, and the twenty teams (approximately) that a big European club will meet in its domestic competition if it plays there for a few years. The maximum number of different opponents under the present system is higher than one hundred in principle.

So, in principle, the Super League reduces the variety of opponents in the long term, while it increases variety of opponents in the short

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term. Now, as discussed in section 2, empirical studies have shown that variety of opponents affects demand, but, apart from the negative effect of repeat fixtures, they give no clue about which variety of opponents exactly is best. So it also remains unsure which league system scores best in this arena. However, since the differences are not very large anyway, the result may be close to a draw.

In view of the clearly negative effect which results from the loss in derbies, it can be concluded that the new system may well score worse than the present system in the field of derbies and variety of opponents.

Conclusion: In the field of quality, status and stars, the new system has an advantage for the big European clubs. Earlier, it was said that this advantage may be important, although it remained unsure how large exactly it was. At this point, I should add one new point to the discussion: it is the perception of fans which determines how important the advantage is. And the argument about psychological mechanisms given under the heading of chances and results, may also suggest that football fans often perceive clubs from their own country as stronger than they are objectively. In relation to this, the advantage of the Super League in the field of quality, status and stars may be lower than originally thought.

In the two other fields, the present system scores better. There are more valuable prizes to be won, more matches will be significant for winning an important prize, and the larger number of derbies also is an advantage.

Also taking account of the importance of history and tradition, I draw the following (speculative) conclusion: demand for matches of the big European clubs will be lower under the new system.

Note the difference with the analyses of Cairns (1987), Burkitt and Cameron (1992) and Dobson, Goddard and Wilson (2001) discussed in section 3. These authors also analyse a change in the league sys-

tem which implies that large clubs play other large clubs more often. But they concluded that the large clubs benefit. The difference basically stems from the fact that these authors analyse relatively modest changes which do not reduce the number of prizes to be won, do not (seriously) reduce the number of derbies, and do not represent a serious break with history, tradition and national sentiments.

6.3 Large national clubs

Quality, status and stars: Under the new system, large national clubs will play regularly in their domestic league. The big European clubs, and their star players, tend to be absent, and there is a sharp break with tradition. In relation to this, the domestic leagues have much less status than the present national leagues. All these factors will reduce demand. So the new system has a disadvantage here.

Under the new system, a large national club can play in the Super League for a small number of years. At present, the number of years for which it can play European football is larger. The reason is simple: the present European competitions include many more clubs than the sixty clubs that will play in the Super League. So, under the present system, there are more years in which a large national club can meet good, or very good, teams from abroad.

On the other hand, when a large national club gains promotion to the Super League, it will play a full competition there for one season at least. It will then meet big European clubs much more often than in any season under the present system. Now the question is this: will this positive effect on the number of matches against generally very good foreign teams in the Super League outweigh the negative effect of having less years in which good or very good foreign teams can be met?

Let us first focus on the weaker part of the large national clubs. These clubs will reach the Super League very occasionally at most, and will be relegated soon after promotion. For these clubs, the posi-

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tive effect will normally not outweigh the negative effect, or at least it will not do so to a large extent. Combining this with the earlier conclusion about the opponents in the domestic league and the status of that league, the new system has a disadvantage for these large national clubs in terms of quality, status and stars.

This leaves the smaller number of large national clubs which gain promotion to the Super League in a few years, and which actually play there for quite some years. Let us call these clubs the ‘really large national clubs’. These clubs are actually a mix of a big European club and a large national club (recall the definitions of these two types of club in section 6.1, which are vague regarding the position of the borderline). In relation to this, it depends partly on the main conclusion of section 6.2 and partly on the main conclusion of the present section 6.3 whether a really large national club benefits from the new system overall. As will become clear later, the main conclusions of the two sections are the same; according to both, the present system is best for the clubs discussed, in the end. Therefore, it is reasonable not to pay too much attention to the really large national clubs when discussing specific points such as the number of matches played against very good foreign teams.

Intermezzo: We have seen that, in a year in which a large national club plays in the Super League, it gets an advantage (in comparison to the present system) in the field of quality, status and stars. However, in the same year there is a disadvantage in the same field for the (relegated) big European club which has to play in its domestic league. This disadvantage was neglected when analysing the big European clubs in section 6.2. It can now be said that this disadvantage will be more or less equal to the advantage for the large national club.

The reason for ignoring the disadvantage in section 6.2 is that I wanted reading to be easy there. But I should now mention that, if the disadvantage for the big European clubs just mentioned had been

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 included in section 6.2, this would have reinforced the section's main conclusion that the new system is negative on balance for these clubs.

Chances and results: In the new system, large national clubs can win two prizes over the years in which they play in the domestic league: first, the national championship; and second, promotion to the Super League. In countries like England, the second prize comes automatically with the first one. In smaller countries like Scotland, the national champions need to win the play-off games against the champions of other small countries to obtain the second prize. In the fewer years in which a large national club plays in the Super League, it can (also) win two prizes: the title of its regional league and the title of Europe (in theory).

Under the present system, a large national club can win three or four prizes each season: the national title, qualification for the Champions League, qualification for the Europa League, and, if it plays in one of the two European tournaments during the season, the cup of that tournament. So, in terms of number of prizes the new system scores worse than the present system.



In the new system, the chance of winning the national title is relatively large for a large national club. However, the title's value is low because the best national clubs are not participating. The last effect may be the most important one, so that, on balance, the new system may have a disadvantage here.

The chance of gaining promotion to the Super League is larger than that of reaching the Champions League (because the Super League has sixty clubs and the Champions League has thirty-two). And the value of promotion to the Super League may well be higher than that of qualification for the Champions League. Combining these two points, the new system has an advantage here.

However, we should also take account of the Europa League. In the present system, the chance of qualifying for one of the European tournaments (Champions League or Europa League) is higher than the chance of promotion to the Super League in the new system (as the present two tournaments taken together include more teams than the Super League.) On the other hand, the value of promotion to the Super League may well be higher than the value of qualification for the Champions League, and it will certainly be higher than the value of qualification for the Europa League. All in all, the two systems may have an equal score in terms of qualification for a European competition.

The chance that a large national club wins a European cup under the present system is quite small, but still larger than its chance of becoming the champion of Europe under the new system. (There are two reasons for this. First, there are two European cups in the present system. Second, the smaller number of European matches in the present system implies that luck plays a larger role, which helps the underdog.) Indeed, large national clubs (like Aston Villa) have won a European title in the past (and even the highest one), and so, given the assumptions about competitive inequality, such things will also happen in the future if the present system prevails. The value of a European title is very high of course, so there is a clear advantage for the present system here.

Overall, it seems to me that for the large national clubs the new system is better as far as chances and results are concerned.

Derbies and variety of opponents: Under the new system, large national clubs playing in the domestic league can be expected to play about as many derbies as under the present system, but some valuable, historical derbies against the best national teams will be lost.

Under the new system, the variety of opponents of many large national clubs will be lower in most years. This is because many clubs will not play in the Super League in most years, while under the pre-

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 sent system they often play in a European tournament. However, during the few years in which a club plays in the Super League, the variety of opponents will be higher. So, on balance the two systems may be about equally good in terms of variety of opponents.

Overall, however, the loss of some valuable derbies against big national teams may mean that the balance shifts against the new system in this field.

Conclusion: In all three fields the new system scores (probably) worse on balance. This leads to the following conclusion: demand for matches of the large national clubs will be lower under the new system.

Earlier, a similar conclusion was drawn for the fans of the big European clubs. However, for these fans the new system did score better in one of the three fields, that of quality, status and stars. This considered, the intensity of the preference of the fans of large national clubs for the present system will probably be larger than that of the fans of big European clubs.

6.4 Medium-sized clubs

Quality, status and stars: Under both systems, medium-sized clubs play in the highest domestic league for most of the years. Under the new system they play a bit more often in this league, since the country's best clubs no longer occupy positions within it. Taken by itself, this is an advantage. But because the best clubs are absent, the national league is worth much less in terms of quality, status and stars. This last effect will dominate, so that the new system has a disadvantage here.

Medium-sized clubs will play only very occasionally in European cup tournaments under the present system, but they will (probably) never play in the Super League. So the new system has a small disadvantage here.

In general, for medium-sized clubs, the new system has a negative effect in the field of quality, status and stars.

Chances and results: Under the new system, the medium-sized clubs have a (very) small chance of winning the national title, but the chance is higher than under the present system. However, the status of the national title is lower. On balance, there may be a draw here. The chances of gaining promotion to the Super League are lower than the chances of qualification for the present European tournaments – although chances are small in both cases.

On balance, the new system may have a small negative effect here.

Derbies and variety of opponents: Under the new system, a few valuable historical derbies may be lost. The variety of opponents will not change much. All in all, the new system may have a small disadvantage in terms of derbies and variety of opponents.

Conclusion: Medium-sized clubs may see demand decrease a bit under the new system.

6.5 Small clubs

These clubs generally play in lower domestic divisions. It is not impossible that the Super League will not have a big effect on demand for these clubs.

6.6 Neutral fans

Neutral fans are defined as football fans who are either not really a fan of one club or who are watching a match in which their favourite club does not play.

Both systems probably offer the neutral fans quite a sufficient menu of choices in terms of quality, status and stars, and in terms of variety of teams playing, especially because neutral fans are not bound to one specific team.

Although being called neutral, neutral fans may now and then want a specific team to win a match or a championship. They may also like matches with a high championship significance score because these

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matches have the 'glow' of being important. Regarding such factors, both systems offer them a wide menu of choices, and so both systems may be equally satisfying here.

Neutral fans may like derbies, but possibly to a small extent only. So the loss of derbies under the new system may be just a small problem for them.

All this seems to lead to the conclusion that neutral fans are more or less indifferent regarding the two systems. However, their enthusiasm will also be influenced by the non-neutral fans. When these fans are enthusiastic about football, or about a certain match, this may also stimulate the demand of the neutral fans. Because of this, and in view of the previous sections which suggest that most non-neutral fans will prefer the present system, it can be concluded that for the neutral fans the present system may well be best.

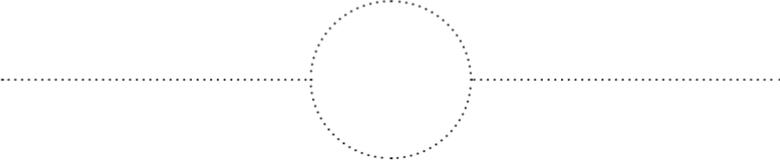
7. Conclusion

Some general conclusions can be given now. These conclusions, just like many of the specific conclusions above, are partly based on theoretical insights and empirical analyses, but also partly on casual observations and motivated guesses. So they are speculative to a significant extent.

To begin with, the present system will be best for fans of big European clubs and for fans of large national clubs. For the latter fans, the intensity of their preference for the present system may be larger than for the former.

The fans of medium-sized clubs may have some small preference for the present system. Fans of small clubs may be more or less indifferent. Neutral fans will probably have more pleasure if the present system prevails, but mainly because non-neutral fans will also be more enthusiastic then.

All in all, it is not implausible that most fans will prefer the present system – given the assumed measures to reduce competitive inequality.



NOTES TO THE MAIN BOOK

CHAPTER 1: MADE IN THE PAST

European not-for-profit organizations

An interesting book on the history of English football is Russell (1997). Other sources used for this section are Sloane (1971, 2006), Cairns, Jennett and Sloane (1986), Szymanski and Kuypers (1999), Andreff and Staudohar (2002) and Dobson and Goddard (2011).

American entrepreneurs

The history of baseball is discussed by Seymour (1960), Scully (1995), Quirk and Fort (1997, 1999) and Gorman and Calhoun (1994).

The 1960 All-Sports World Series

Attendance figures

The figures for league attendances in England are from Dobson and Goddard (2011, p.151). Given total attendance in the first division, and given that it had 462 matches in 1960, it was easy for the referee to calculate average match attendance. The figures for league attendances in Major League Baseball (MLB) and the Major Leagues in American football and basketball are from Quirk and Fort (1997, pp.479–500). The MLB had 1236 matches in 1960 (official MLB site, section Stats, at <http://mlb.mlb.com>, accessed June 22, 2012), and average attendance was calculated with the help of this figure. The data on Minor League Baseball are from Obojski (1975, p.27) and Johnson and Wolff (1997, pp.464–67). Attendance at the 1960 European Cup final was 127,621 visitors to be precise (Barrett 2011).

Comparison of ticket prices

The 1960 average ticket price in the English top division of £0.14 is given by Dobson and Goddard (2011, p.164). They obtained it by dividing the division's total gate receipts by the number of spectators. This means we are dealing with the average price of a ticket sold.

To make a comparison with baseball, this price needs to be expressed in dollars. At the official fixed exchange rate of 1960 (\$2.80 for £1.00), £0.14 is equal to \$0.39. However, the pound was undervalued at this rate. Therefore, it is better to use a measure for purchasing power parity (PPP) instead of the exchange rate. More precisely: it is best to use the PPP for private consumption, as ticket prices are viewed from the perspective of the consumer in the main text. Unfortunately, OECD only gives the PPP for private consumption from 1970 onwards. This considered, the referee consulted the OECD-table with the consumer price index (CPI) for different countries, which reflects domestic inflation in consumer prices (all data from the OECD

used for this section – so the section titled ‘The 1960 All-Sports World Series’ – are from OECD.StatsExtract, online at <http://stats.oecd.org>, accessed June 26, 2012). According to this table, £1.00 in 1960 was as valuable for a UK consumer as £1.48 in 1970. According to the PPP-tables, in 1970, £1 equalled \$3.38 in terms of PPP for private consumption, implying £1.48 was equal to \$5.00. Finally, the CPI-table shows that, for a US consumer, \$5.00 in 1970 was as valuable as \$3.80 in 1960. It follows that for consumers living in 1960, £1.00 was equal to \$3.80. So £0.14 (the average price of a ticket sold for English football) was equal to \$0.53. This figure will be used below.

For baseball, estimating the average price of a ticket sold is difficult. There are no data on baseball’s total gate receipts in 1960. Fortunately, sports economist Rodney Fort’s Sports Business Data Pages (www.rodneymfort.com, accessed June 26, 2012) include a table which gives, for each of the 16 teams in the 1960 MLB, the non-weighted average of the different seat prices published by the team. The referee summed up these 16 averages, and divided the sum total by 16. The result can be called the ‘non-weighted average published price for the MLB’, and it was \$1.96. Clearly, this is not a perfect estimate of the price of the average ticket sold (the price needed for the comparison) – as the number of seats in a stadium offered at a certain price is not the same for all prices, the stadiums have different capacities, and seats are not always sold out.

Data from 1952 and 1971 can improve our estimate. To begin with, for these years Fort’s Sports Business Data Pages provide us with the non-weighted average of the different seat prices published by each team, so that the non-weighted average published price for the MLB can also be calculated. It was \$1.59 in 1952, and \$2.61 in 1969.

But for these two years, we can also get a more reliable estimate of the average price of a ticket sold. In 1952, the average gate revenues of a MLB team were \$1.3 million (see Demmert 1973, p.13, who bases his

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research on the congressional investigation of 1952). With 16 teams, this implies league gate receipts amounted to \$20.8 million. League attendance was 15.57 million (Quirk and Fort 1992, pp.479–487), so that the price of the average ticket sold was \$1.34. This is 16 per cent lower than the non-weighted average published price of \$1.59. In 1969, the average gate revenues of a MLB team were \$3.2 million (Noll 1974, p.20). So with 24 teams, league gate revenues amounted to \$76.8 million. League attendance was 27.2 million (Quirk and Fort 1992, pp.479–487), so that the price of the average ticket sold was \$2.82. This is 8 per cent higher than the non-weighted average published price of \$2.61. To summarize: the more reliable estimates of the average price of a ticket sold in 1952 and 1969 are 16 per cent lower and 8 per cent higher, respectively, than the non-weighted average published price for the same year.

This considered, it is not implausible that the non-weighted average published price for 1960, which was \$1.96, was not very much different from the average price of a ticket sold that year. More specifically, it is not unreasonable to assume that the average price of a ticket sold was just 4 per cent lower (which is halfway between minus 16 and plus 8 per cent). This implies that, in 1960, the average price of a ticket sold in the MLB was about \$1.88.

And this is three-and-a-half times the average ticket price of \$0.53 of the English top division.

The 'third half'

Ticket prices and the objectives of English clubs

The main text states that English clubs were not driven by profits, and that this helped to keep prices low in 1960. Evidence for this statement is given below. It is rather lengthy.

To begin with, it is relevant to note that, from around 1890 to the mid-1970s, ticket prices were subject to a statutory minimum determined by the English Football League. The policies of the Football League were determined by the clubs in the end, so that (the majority of) the clubs must have supported the minimum price. In the period 1948–75 at least, most clubs typically charged the agreed minimum price for basic standing accommodation (regardless of the division), while the price for seated accommodation was somewhat higher (Bird 1982).

What can explain the existence of the minimum price in its early years? According to Dobson and Goddard (2011, p.163), the original objective of this instrument was to ‘prevent clubs from attempting to poach spectators from other clubs in the same geographical catchment area by cutting prices.’ It can be noted in this context that, when clubs attempt to stabilize their revenues in such a way, this does not necessarily mean they are aiming at profits, as they may need the money for all kinds of purposes (such as good players, or youth coaches). The view of Russell (1997, p.56), who focuses on the decision to increase the minimum price in 1890, is somewhat different from that of Dobson and Goddard. Russell says it is quite possible that the decision was ‘a deliberate attempt to limit the access of the poorer (and thus supposedly ‘rowdier’) supporters.’

The next question is whether the minimum price was set at the level that maximized (net) gate revenues. Bird (1982), using data from the period 1948–81, found that the price elasticity of demand for all Football League clubs taken together was -0.22. This means the following: if the admission price had been increased by 10 per cent overall, the number of spectators would have declined by 2.2 per cent. Consequently, total gate revenues would have been 7.8 per cent higher. Therefore, the fact that the minimum price was not set at a higher level than the actual

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one, implies that the profit motive was not important. (For the essence of this argument, see Jennett and Sloane 1985.)

However, American economist Fort (2000) does not regard this as a convincing argument. He emphasizes there are other revenues that are positively linked to high attendances, so that charging a low price can still help increase total revenues and profits. From a US perspective, this can make sense. In the US, local governments are important for team profits, through subsidies and other public policies. And there is evidence that lower ticket prices and higher attendances lead to higher subsidies, and more favourable government policies in general. And so the fact that in the US, where many team owners aim for profits, ticket prices are (also) in the inelastic range, can be quite understandable from a US perspective (see also Fort 2004).

However, the evidence of Bird relates to English football in the period 1948–81. Here, gate revenues were by far the main source of revenue. For instance, in 1974 (the earliest year for which I found data) gate revenues in the Football League amounted to approximately 84 per cent of total revenues (see the notes of the first section of Chapter 2, titled ‘Does more money equal more attractive play?’). Now, let us assume that the share of gate revenues was 84 per cent in all years between 1948 and 1981, with the price elasticity being as estimated by Bird (-0.22). Then, a 10 per cent price rise would have caused an increase in gate revenues of 7.8 per cent. These 7.8 per cent of gate revenues would have been equal to 6.5 per cent of total revenues. So to get a reduction in total revenues in the end, the non-gate revenues, which were only 16 per cent of total revenues, should have declined by more than 40 per cent. Since the number of spectators would decrease by 2.2 per cent only, this is implausible. Therefore, a price increase would have led to an increase in total revenues. And so, it can be concluded that, around 1960, English tickets prices were low because clubs were not driven by the profit motive but by other motives.

Other points

Many of the sources of the first two sections of Chapter 1 ('European not-for-profit organizations' and 'American entrepreneurs') have also been used for the present section.

In both football and baseball, the price elasticity of demand for tickets has a negative sign (Bird 1982; Coates and Humphreys 2007). This implies higher ticket prices cause attendance to fall (so that football is not in the exceptional category of Giffen goods).

It follows from the figures of Dobson and Goddard (2011, p.180) for the maximum player wage and the average earnings for male manual employees in 1958, that the former is 56 per cent higher than the latter. This considered, it is reasonable to assume that the maximum player wage was about one-and-a-half times the wage of the average industrial labourer in 1960 too.

Old soldiers never die

Sources

The information about the financial problems in England, France and other countries is from Russell (1997), Kuper and Szymanski (2012), Hamil (1999), Dobson and Goddard (2011), Gouguet and Primault (2006), Andreff (2007), Garcia and Rodriguez (2006) and Szymanski (2011) among other things.

Clubs being safe despite having financial problems

The discussion on this issue has been inspired by Kuper and Szymanski (2012), who present empirical evidence for England. They conclude that since 1923 most English professional clubs, and especially the big ones, have remained on the scene even after big financial problems. Storm and Nielsen (2012) provide empirical evidence for professional

football in Italy and Spain since 1929, and their findings are basically similar to that of Kuper and Szymanski.

In The Netherlands, professional football started around 1954. In 1955, there was a serious take-off with eighty participating clubs. In 1972, the number had been reduced to thirty-eight through returns to the amateur league, bankruptcies and mergers. Since then only a few clubs have left the professional ranks, while a few new ones have joined; there are thirty-four professional clubs at present. But there have been very many financial problems since 1972. (Most facts given above are from Maassen 1999.) A possible interpretation is this: once professionalism has established itself (after 1972 in The Netherlands), the number of clubs that leave the scene when faced with financial problems becomes small.

Rules of the game

The main book in combination with the supplement can (apart from the attempts to make the main text accessible to the general reader) be regarded as a scientific text meant to provide policy advice. Paper I of this supplement discusses this point in more detail. It also pays attention to the difference between the work of pure social scientists and that of policy advisors. This difference will also be touched upon in the main text now and then, but the paper gives a more thorough analysis.

CHAPTER 2: MONEY

Does more money equal more attractive play?

Growth in revenues in England

The main text states that in 2013 the average Premier League club earned, in real terms, about fifty-three times more than the average

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club in the English top division in 1960. The evidence is presented below. Note that, when a year is mentioned, it stands for the season ending that year.

To begin with, there is reliable information on the total revenue of the ninety-two clubs in the four highest English leagues (the Football League) in the years from 1992 to 2013. Total revenue was £263 million in 1992 and £3.2 billion in 2013 (Deloitte 2012 and Deloitte 2014b). After correcting for inflation, it follows that, in 2013, total real revenue was 7.7 times higher than in 1992. (All corrections for inflation made for this section are based on data for the inflation of consumer prices coming from OECD.StatsExtract, online at <http://stats.oecd.org>, accessed March 1, 2014.)

For the years before 1992 there are no data on the revenues of all ninety-two Football League clubs. However, using a sample of about thirty-five clubs that did provide data, Szymanski and Kuypers (1999, p.38) estimate the growth in the real revenue of all ninety-two clubs from 1946 to 1997. Their graph shows that, in 1992, total real revenue of all ninety-two clubs was, roughly seen, 3.8 times higher than in 1960. Consequently, in 2013 total real revenue was, roughly speaking, 29.3 times higher than in 1960.

Now we turn to the the English top division (named the Premier League since 1992). In 1960, it got 48 per cent of the gate revenue of all ninety-two clubs in the Football League, with gate revenue being the largest source of income (Dobson and Goddard 2011, p.166). The last observation is more or less in line with Szymanski and Smith (1997). Basing themselves on a sample of forty-eight of the ninety-two Football League clubs, these authors estimated that gate receipts in the Football League amounted to about 84 per cent of total revenue in 1974. So it is quite possible that the share of gate receipts was also very large in 1960. This considered, it is not unreasonable to take it that the top division's share in the total revenue of all ninety-two clubs

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was more or less equal to its share in total gate revenue, so that it also was about 48 per cent in 1960. In 2013, however, the Premier League's share in the total revenue of all ninety-two clubs was 79 per cent (see Deloitte 2014b). So in 2013 the share of the top division was 79/48 times as large as in 1960.

It follows from the previous two paragraphs that in 2013 the total revenue of the English top division must have been about 48.2 times as large as in 1960. Since the Premier League had twenty clubs in 2013 while the top division had twenty-two clubs in 1960, the average Premier League club earned, in 2013, about fifty-three times as much as the average club in the top division of 1960. Of course, this is just a rough estimate.

Other points

The 1960 revenue of Burnley and the 2013 revenue of Manchester United are from Szymanski and Kuypers (1999, p.349) and Deloitte (2014a) respectively.

The remarks about developments other than the growth of revenues in England are based on Russell (1997), Groot (2008), Dobson and Goddard (2011), Deloitte (2014b), earlier versions of the Deloitte (& Touche) Annual Review of Football Finance, and many other sources. Although there is no (exhaustive) information on all European countries, I found no data that contradict the idea that the trends described in the main text have basically occurred throughout Europe.

Cutting your coat according to your cloth

The financial problems of the Spanish clubs and the aid given to them

The figure for total debt of the clubs in the Primera División in 2014 is from the Dutch magazine *Voetbal International* (21 May 2014), which based itself on a report of the Spanish government. The figures

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for the total amount of taxes unpaid and the debts of Real Madrid and Atlético Madrid are from Dutch newspaper *NRC-Next* (24 May 2014). For a thorough analysis of the financial problems in Spanish football, see Barajas and Rodriguez (2014).

The government allowed Atlético to have a tax debt of 125 million euros by the end of 2013 (*Independent*, April 14, 2014), and such kindness can be regarded as a form of government aid. It is not impossible that Atlético has received other forms of aid too. Real is being investigated by the European Commission for receiving illegal state aid in recent years (*Daily Mirror*, December 22, 2013). Even if the investigation were to show there has not been illegal aid in recent years, there may still have been aid – because certain forms of aid are not illegal. (For this point and the next one, see later sections of Chapter 2.) In addition, Real has certainly received much aid in 2001. This enabled the club to buy many great stars around 2001. These stars improved Real's long-term reputation, which still helps the club to earn more money in the present. So the fact that Real has been able to buy the team that won the Champions League in 2014 can be seen as being partly related to the aid given in 2001, and possibly also partly to aid given in more recent years.

Other points

The discussion of the French situation is based on Gouguet and Primault (2006), Andreff (2007), Dobson and Goddard (2011) and Drut and Raballand (2012). The remarks about Germany are based on Drut and Raballand (2012) and Storm and Nielsen (2012).

More information about the costs for taxpayers will be given in the section 'Royal Feyenoord' (also in Chapter 2).

Michel Platini and Financial Fair Play

Sources for this section are given in the notes of the section ‘Simply the best’ (later in Chapter 2).

The remark that UEFA admits that FFP will probably have shortcomings so that improvements will be needed, is based on an interview of Dutch magazine *Sport & Strategie* (June 2011) with the late Jean-Luc Dehaene, chairman of the UEFA Club Financial Control Panel at the time.

It has been suggested by some experts that a salary cap can help solve the financial problems. In my view, one should not expect too much from this measure. For a discussion, see Paper II of this supplement.

More money than is needed

For the theory of taxation, see Auerbach (1985) and Salanié (2003).

A football tax?

European professional clubs earned 19.9 billion euros in 2012–13, with revenues showing an upward trend (Deloitte 2014b). This implies that a 10 per cent tax will generate about 2 billion euros.

The fears of the Ajax fan

The incorrect argument used by Ajax fans is an example of the ‘fallacy of composition’. For a discussion of this fallacy in the context of the issue of taxation and economic rent in general, see Samuelson and Nordhaus (1985).

Wenger and Mourinho

As discussed in previous sections, this section and later ones, the football tax as well as other policy measures that reduce clubs' net incomes will lead to lower player salaries. A point often ignored in the main text is that these measures will also lead to lower salaries for coaches and other individuals who possess special skills to improve the squad (in the short- or long-term). For these people, the argument is basically the same as that for players: the clubs compete with other clubs for the individuals and their special skills, and this drives up their salaries. When all clubs get lower budgets, these salaries will be reduced overall without harming the quality of the football product (much).

The exception is a salary cap for players. Here, the position of players differs from that of coaches. This point is discussed in Paper II.

George Best or Robin van Persie?

Paper I presents a more thorough analysis of the requirements for policy advice, as opposed to the requirements for pure economic science.

*Royal Feyenoord***Government aid in The Netherlands**

The extensive studies of magazine *Voetbal International* (see Van Duren and Knipping 2010) and magazine *De Groene Amsterdammer* (Den Boer et al. 2011, Logger 2011) provide much information about government aid for professional football in The Netherlands. The estimate of total aid is mainly based on these two studies; for the period after 2010–11 information from newspapers has been used, but this has not changed the (rough) estimate.

According to the study of *Voetbal International*, only three of the eighteen clubs playing in the Dutch top division in the 2009–10 season had not obtained any financial aid since 1995: Feyenoord, PSV Eindhoven and AZ Alkmaar. Using the study of *De Groene Amsterdammer* (which analysed all professional clubs), I can add that the three clubs that played in the top division in the 2013–14 season but not in the 2009–10 season also received financial aid between 1995 and 2010.

Regarding AZ Alkmaar, *Voetbal International* did mention that the club had bought a piece of land from the municipality for 5 million euros, noting this might have represented aid. However, it was unsure about it, and arbitrarily decided to put AZ in the group of clubs which had received no aid. Looking at the prices of houses built on the land, *De Groene Amsterdammer* argued, one year later, that the land had been worth more than 30 million euros, so that AZ had obtained aid worth more than 25 million euros – at the cost of taxpayers.

In 2012, PSV sold the land under its stadium for 48 million euros to the municipality of Eindhoven, and the club is now renting this land from the municipality. The conditions of the deal are such that it represents aid (Kalshoven 2012). Therefore, PSV did receive aid over the period 1995–2014.

Between 2010 and the time of finishing this text (June 2014), Feyenoord did not receive any aid either. It follows that Feyenoord was the only club playing in the top division in the 2013–14 season that did not receive any money from the government in the years from 1995 to the present. However, some additional remarks may be made.

According to *De Groene Amsterdammer*, the owner of the stadium of the club (NV Stadion Feijenoord, a legal entity separate from the club) had borrowed 5.3 million euros from private banks to improve the stadium in 2004, and this loan had been guaranteed by the municipality of Rotterdam. It is reasonable to count support for NV Stadion

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Feijenoord as support for the football club Feyenoord. Fortunately, the stadium owner has had no financial problems, so that the municipality has not spend any money on repaying the loan. So the conclusion that Feyenoord did not receive any money from the government in the period 1995–2014 remains correct. It may be added that the amount of the guarantee for the stadium, 5.3 million euros, is lower than the amount of aid for any other club playing in the top division in 2013–14, and that the aid for each other club included forms of aid other than guarantees (which forms are more costly for a government than guarantees).

Of course, I could have decided also to mention guarantees in the main text; I am open for debate here. But the main point is that the facts mentioned in the main text are correct. And one of the rules of the game for this book is that all facts concerning Feyenoord are correct, while the choice and assessment of these facts may be biased by my emotions as a fan (see the section titled ‘Rules of the game’ in Chapter 1).

Government aid in Europe

Information on aid in European countries outside The Netherlands is provided by Lago et al. (2006), Ascari and Gagnepain (2006), Barros (2006), Baroncelli and Lago (2006), Kuper and Szymanski (2012) and also by many newspapers. These sources show there is a lot of aid in many countries, although we are far from having an estimate for total aid in Europe. One of the problems is that there are different forms of aid, and it is difficult to compare all forms and get one summarizing statistic for total aid. In addition, some forms of aid are (possibly) illegal, so that clubs and cities have an incentive to hide them.

Government aid in North America

The teams in the Major Leagues of baseball, American football, basketball and ice hockey have received much support from government

over the years. One important form of support consists of financial aid for building a stadium. Since 1960, the average share of public spending in expenditures for new stadiums of Major League teams has been well above 50%. Many billions of tax money have been spent this way (Siegfried and Zimbalist 2000, Matheson 2006). An important reason for giving aid is that it can make a Major League team move to a city, or stay there (Quirk and Fort 1999).

Before 1953 all major league facilities in North America were built exclusively with private funds, with the exception of three stadiums that were constructed with the intention of luring the Olympic Games (Siegfried and Zimbalist 2000). Among the many stadiums fully financed with private funds were the stadiums of baseball club New York Yankees (capacity 56,000) and football club San Francisco (60,000). Since team revenues have increased many times since 1953, tax money is not needed for building stadiums from the overall perspective. Indeed, since there is economic rent at Major League level, the clubs should be taxed instead of being subsidized if the government aims to increase economic welfare.

I wonder why the US Federal Government, which is more powerful than the European Union (EU), has not forbidden aid for Major League stadiums. The EU has at least made a serious attempt in this direction (see the next sections).

Advantages and disadvantages of aid for the individual town or region

The literature on the pros and cons of government support for professional team sports is generally based on the perspective of the individual municipality or region. Most of the evidence is from North America.

Economic impact studies funded by interest groups in favour of aid have often concluded that the positive effects for the city or region are impressive, so that aid is justified. However, these studies tend to be

too optimistic. This is related to the ignorance of certain theoretical insights and to technical mistakes. Independent economists come to a different conclusion: the net benefits tend to be rather small. (For these points, see the overview studies of Downward et al. 2009 and Von Almen 2012.) Apart from being valuable at local level, the arguments of independent economists support the idea of a European ban on aid for professional football clubs.

Real Madrid, really royal?

Legal interpretations of the Real Madrid case

The discussion of the legal aspects of the Real Madrid case is based on Gröteke (2004). His argument is as follows. As a result of the land-use regulation which made it possible to turn the land into a commercial zone, the municipality could pay Real a high price while (possibly) not incurring a financial loss itself. After all, the municipality could sell the land to investors at a high price later on. This considered, and taking a narrow interpretation of the European Treaty texts according to which aid can only be illegal if it involves a financial loss for the government, the high price paid by the municipality price was (possibly) not illegal.

However, a less narrow interpretation of the law is that illegal aid can also occur when there is no (direct) financial loss for the government. This implies that the change in the legal status of the land could be a form of illegal aid in principle. Gröteke, after discussing the work of other legal scholars and institutions, argues that such a broader interpretation could also be correct, but that this leads to the problem that the EU will possibly become involved in local affairs to a very large extent. He suggests that this may have influenced the decision of the European Commission.

Towards the end of financial aid

This section is partly based on the (earlier) section called ‘Royal Feyenoord’ and the sources given in its notes. Among other things, that section has made clear that there also is much aid outside The Netherlands.

For the idea that the European Commission has a legal duty to stop all aid in the long run, see the notes of the section ‘Simply the best’ (below).

The Dutch government report mentioned in the main text can be found as ‘Ministerie van Binnenlandse Zaken en Koninkrijksrelaties (2004)’. The scholars reacting on it were Olfers (2009) and Steyger (2010). The observation that gifts have disappeared as a result of the Commission’s letter is made by Logger (2011).

No exceptions, Mr Platini

For more background information, see the notes of the next section.

Simply the best

Sources

This section, the previous one and an earlier section titled ‘Michel Platini and Financial Fair Play’, are based on UEFA (2012), Vögel (2011, 2013), Müller, Lammert and Hovemann (2012) and Preuss, Haugen and Schubert (2014) among other sources.

The European Commission’s legal duty to support FFP

In the main text, it has been argued in a sketchy way that the European Commission may well be legally bound to support Financial Fair Play (FFP). A more thorough argument is given in Paper III.

Other authors have used quite different arguments with regard to EU competition law. For instance, Peeters and Szymanski (2012) and Vogel (2013) suggest that FFP may not comply with this law. Geey (2011) is leaning toward the opposite conclusion while also remaining unsure. The Commission and UEFA have issued a joint statement that FFP is in line with the EU law on state aid. Of course, such a statement does not mean that all legal disputes are settled. For an economist, it remains difficult to judge the legal issues. And so, I like to emphasize that Paper III is just the effort of an economist.

Why FFP can work

In the main text it has been argued that one can expect FFP to work reasonably well to reduce financial deficits, after a start-up period in which the original shortcomings of the system are repaired, at least if the EU is willing to help.

To strengthen this conclusion, we can have a look at the banking sector. The European Central Bank has become responsible for overseeing the 6,000 eurozone banks (with direct control of the 200 biggest banks, and indirect control of the smaller ones). This will be a very difficult operation, not least because banks have complex financial products on their balance sheets. Still, the European Union thinks monitoring is possible (although it does not say it will be perfect). Now, if it is possible to oversee banks, it is certainly possible to oversee professional football clubs. After all, the balance sheets of football clubs are many times simpler than those of banks.

It can be added that between the 1940s and the 1980s, when the control system for the banking sector was still rather strict, it worked reasonably well. Admittedly, the financial products were not as complex as they are today, but even in those times the difficulties of overseeing banks were much larger than the difficulties of overseeing football clubs. So, as long as the government is willing to help, the

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financial problems of football clubs can be solved to a large extent in a relatively easy way.

FFP and competitive balance

FFP may reduce competitive balance, as clubs which are not at the top already will get less opportunities for challenging the existing champions with money from outside – as Manchester City has done successfully in the recent past (Vogel, 2013). However, the system may also increase competitive balance, as it will be more difficult for teams like Real Madrid to keep on buying top players at the cost of large deficits. On balance, the effects on competitive balance are still unclear (Roland Berger Consultants and University of Tübingen, 2013). The subject of competitive balance (or competitive inequality) will be discussed extensively later in the book.

Brother Walfrid and a social levy

An interesting book on the social projects of Dutch football clubs is Poos (2004). The Football in the Community Schemes are evaluated by McGuire (2008). Both studies show that social projects of football clubs have positive effects. The story on Brother Walfrid and Celtic is based on Willems (2004).

A social levy could be a percentage of the revenue of a club, or a percentage of the team payroll. Arbitrarily, the main text discusses the last possibility only.

As discussed in Paper IV, a ‘football crisis tax’ may be a contribution to the solution of the financial problems of clubs and governments.

A ban on pay TV

The extensive argument for a pay TV ban is given in Paper V.

New owners

Some sources for this section are Gerrard (2006), Aglietta et al. (2010), Dobson and Goddard (2011) and House of Commons (2011).

Some observers had hoped that new owners coming from the world of business could improve the management of the clubs. However, some of the clubs owned by businessmen have (also) had serious financial problems (see the sources above). As yet, there is no scientific evidence that one type of ownership brings with it better management than other types.

In search of a soul

Sources for this section are Michie et al. (2006), House of Commons (2011), Madden and Robinson (2012) and Brown et al. (2013). The paragraph which discusses the results of interviews with members of supporters' trusts and other supporters of football clubs, is based on research initiated by Supporters Direct (2008, 2011). The caveat about certain results not being statistically representative is from the researchers themselves.

Fair pay for players

The main text is based to a large extent on Borghans and Groot (1998). These authors criticize the view that high superstar incomes are justifiable because superstars generate high benefits for society. They summarize (on p.547) their analysis of the benefit generated by a superstar as follows: 'Our contention is that the real benefit for society is only the quality difference between the number-one superstar and the most direct contenders. Take the football player Maradona as an example. We suggest that a large part of the contribution to welfare

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is not due to his talent, but is in fact already embodied or implicit in the Italian football competition. If Maradona had never appeared in the Italian competition, another talented player would have been the top attraction and would therefore have earned similar amounts.’ In Paper VI, this argument will be further clarified by using the concept of external effects.

CHAPTER 3: DREAMS

The most valuable things in life

Total payments of fans, sponsors and advertisers

In the 2012–13 season, total income of European professional football clubs was 19.9 billion euros (Deloitte 2014b). Part of this income consisted of fees for broadcasting rights. TV stations could pay such fees because they received money from advertisers and from subscribers to pay TV. Of course, the broadcasters did not hand over all the money they earned from televised football programmes to the clubs; they kept part of it to cover other costs and to get profits if possible. When the money they kept is added to the total income of the football clubs, we get the total amount of money paid to clubs and broadcasters by football fans and by sponsors and advertisers wanting to convey their message to the fans.

What are the costs of the broadcasters apart from the fees for the broadcasting rights, and what are their profits? An important part of their costs consists of the cost of filming the matches. Some facts from The Netherlands give an indication of the order of magnitude of these costs. In the 2008–09 season, the 306 matches in the Dutch top division were filmed by a firm named Eyeworks. The pictures were of high quality. The public TV station which broadcasted the highlights of the matches paid Eyeworks 3 million euros for the films (according to one of their officials, quoted in De Volkskrant, August 29, 2008).

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Eyeworks also sold the films to an emerging but not yet flourishing pay TV station, which was broadcasting all matches live. So Eyeworks also received money from this TV station, and the amount was possibly something like 3 million euros. Since Eyeworks was competing with other firms to get contracts from broadcasters, its revenues will probably have equalled its costs more or less. So the costs of filming the 306 matches may have been in the order of magnitude of 6 million euros, or about 20.000 euros per match. Of course, this is a very rough estimate.

In Europe, there may be some 1000 professional teams of which similar high-quality films are made. The average team possibly plays some 50 matches a season during which programmes are made. This means that the total number of matches filmed this way is about 25,000. So the total costs of filming could possibly be some 500 million euros.

When we also take account of the costs of adding comments and other content to the films, the costs of the broadcaster (apart from the fees of the broadcasting rights) may be something like 900 million euros. The broadcasters may also make some profits overall. However, since they have to compete with other broadcasters for the broadcasting rights, the price of the rights will tend to be such that their profits are limited. Now, if the profits are, say, 100 million euros, then the costs of the broadcaster (apart from the fees for the broadcasting rights) plus their profits are 1,000 million euros perhaps.

If we add this amount to the total income of European professional football clubs of 19.9 billion euros, we get a sum total of 20.9 billion euros. So, the total amount of money paid – by football fans, sponsors and advertisers wanting to convey their message to football fans – for watching professional club football and for getting other benefits from it will have been about 20.9 billion euros in the 2012–13 season.

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This is just a very rough estimate. And some payments to the football sector have been ignored. This concerns, for instance, the income of some smaller professional clubs. All in all, it is justifiable to say that the total amount of money paid to clubs and broadcasters will have been in the order of magnitude of 20 billion euros in the 2012–13 season, and possibly a bit more.

What should count most?

The financial costs of clubs and broadcasters

As discussed in the previous section, the revenues from professional club football of European clubs and broadcasters taken together were in the order of magnitude of 20 billion euros in the 2012–13 season. A number of clubs made losses, a few made profits. Some broadcasters may have made a profit. The balance of all profits and losses will have been small compared to total revenues, so that the financial costs of clubs and broadcasters taken together will have been roughly equal to their revenues of about 20 billion euros.

Costs for society being lower than the financial costs

The costs of professional club football (including the costs of television broadcasts) in terms of economic welfare may be lower than the financial costs (estimated to be about 20 billion euros in the 2012–13 season). To explain this point, let me first note that costs in terms of economic welfare are always ‘opportunity costs’. The opportunity costs of a project, or an expenditure, are defined as the benefits of the (best) alternative for it.

For instance, consider a club who pays a player one million euros (a year). So, for the club the player’s financial costs are one million euros. But the opportunity costs of his play for society, or in other words, his costs in terms of economic welfare, can be lower. For instance, suppose that, if the man had not been a footballer, he had been a gold dig-

ger. Suppose that as a gold digger he found an amount of gold worth 30,000 euros (a year). In other words, the benefits of the alternative are 30,000 euros. This implies that the opportunity costs of his work on the football field are 30,000 euros. Put differently: the fact that he is not available for work outside the sport reduces economic welfare with 30,000 euros. After all, an amount of gold worth 30,000 euros is not found, so that it is not available for society.

So the player's opportunity costs are 30,000 euros. At the same time, his salary is one million euros. The difference of 970,000 euros is a surplus, which is part of the economic welfare created by the football sector. And so, the 970,000 euros do not count as part of the costs of the player for society.

Footballers represent a special case. In many other cases, the opportunity costs for society are roughly equal to the financial costs. For instance, consider a club which pays a construction company 150 million euros for building a stadium. Now, if the company had not built the stadium, it could have used its manpower to build, say, a museum of 150 million euros. In that case, the museum would be the alternative for the stadium. And it is not impossible that the value of the museum for society would also have been (in the order of magnitude of) 150 million euros. In that case, the stadium's opportunity costs are 150 million euros, which is equal to the financial costs. A similar argument holds for many other kinds of costs. So it depends on the case at hand whether the opportunity costs are lower than the financial costs.

What are the opportunity costs to society of professional club football? The financial costs were in the order of magnitude of 20 billion euros a year. The opportunity costs could be lower, mainly because the opportunity costs of the players are much lower than their financial costs. They may be billions lower, but that would be a matter for further research.

Bill Veeck

Quirk and Fort (1999) called Veeck the greatest pro team sport promoter in America. One of the other sources used is: *Bloomberg Businessweek* (<http://www.businessweek.com/stories/2004-10-26/bill-veeck-a-baseball-mastermind>).

Grandstand Managers Day

The text about Grandstand Managers Day is based, among other things, on <http://seamheads.com/2009/02/27/grandstand-managers-day>. The various internet sources differ when it comes to details, such as whether a yes vote was brought out by a white or by a green card.

CHAPTER 4: NO EQUAL CHANCES

More chances for the big

Most of the background information for this section and the next three ones is given in Paper VII.

England, Germany, Spain, Italy and France are presently the top countries in terms of the revenues of the national football league (Deloitte, 2014b), which is why all other countries are called smaller football countries. The decrease in the number of teams from smaller countries that reach the semi-finals of the top European competition is partly related to the fact that in the old European Cup tournament only the national champions were allowed to play. Still, the figures show that, whatever the reason, the clubs from the smaller countries have seen their chances of European success decrease.

Andreff and Raballand (2011) present an overview of the empirical literature on the relation between competitive inequality and financial inequality, making clear that the former is strongly related to the latter.

David and Goliath

Background information for this section is given in Paper VII.

Lies, damned lies or good statistics?

General background information for this section is given in Paper VII.

The figures for attendance in the highest English league in 1949–50 and 1991–92 are from Dobson and Goddard (2011), the figure for 2010–11 is from Deloitte (2012). Roland Berger Strategy Consultants and University of Tübingen (2013) analyse the trend in competitive inequality in the highest English league in the period 1991–2011 on the basis of various indicators, concluding it has increased. In the twenty seasons up to 1949, nine different clubs won the English title, and in the next twenty years eleven different clubs won it. In the twenty seasons up to 2011 only five clubs won the English title.

Making a choice

Background information for this section is given in Papers I and VII.

My remarks about the Football Supporters' Federation are based on Football Supporters' Federation (2010) and on an email from Michael Brunskill, the Federation's Director of Communications (sent to me on 3 June 2014).

Simple play is the most difficult

The argument that a pay TV ban reduces competitive inequality is from Groot (2008). The quote from Crujff is given by Winner (2000, p.237).

The transfer system

Most background information for this section is given in Paper VIII. For a discussion of salary arbitration in the MLB, see Quirk and Fort (1999).

*A foreigner rule***Effects of the foreigner rule on competitive inequality**

The effects of the abandonment of the three-plus-two rule on the number of foreign players in national leagues are discussed in Andreff (2009), Dobson and Goddard (2011) and Goddard, Sloane and Wilson (2012). The abandonment of the rule has led to a large increase in foreign players in the Premier League and many other national leagues. Of the five major national leagues, the English Premier League got the highest share of foreign players. In England, Germany, France, Spain and Italy, the increase has been largest for the teams ranked in the top five of the league (Poli 2009).

Késenne (2006) argues, partly on the basis of empirical observations, that the abandonment of the rule has increased competitive inequality at the international level. Késenne (2007b) shows formally that the removal of restrictions on international labour migration more generally increases the number of talents moving from small to large countries, so that inequality at the international level will increase.

Késenne (2007b) also shows formally that the removal of restrictions on international labour mobility leaves competitive inequality within a (large or small) country unaltered. However, as mentioned above there is empirical evidence which shows that, within large countries, especially the top clubs have seen the number of foreign players increase after the abandonment of the three-plus-two rule, and this may (or may not) have improved their playing strength compared to that of other domestic clubs. In relation to this, I leave open the possibility that the abandonment of the rule has increased competitive inequality at the national level. The main text ignores the issue of inequality at the national level, insofar the foreigner rule is concerned.

The home-grown player rule

In 2005, UEFA introduced the 'home-grown player rule' for European club competitions. In its present form, the rule stipulates that eight of the twenty-five players in the squad have to be trained by the club itself, or by another club in the same country, for at least three years between the ages of 15 and 21. The European Commission has indicated some approval for the rule, although it remains unsure whether the rule is really in line with European law (Gardiner and Welch 2011). A number of national competitions use similar restrictions, although the required numbers of locally trained players can be different.

As yet, the effects on competitive inequality are unclear. The rich clubs are restricted in their choice of players to some extent (although less than they would have been with FIFA's proposed foreigner rule), which could reduce competitive inequality to a limited extent. However, rich English clubs are now luring foreign talents under the age of 18 in order to train them in England. This will make the rule (even) less stringent for them in the future. Meanwhile, Dutch clubs, for instance, have seen some of their best talents move to foreign clubs before the age of 18, in return for a compensation fee of some 100,000 euros. This fee is based on rules intended to reward clubs for hav-

ing youth development programs. However, in some cases it may be much lower than the transfer fee that the club would have received if it had sold the talent at an older age. Due to such negative financial effects on clubs from smaller countries, competitive inequality may increase again. All in all, it is uncertain whether the home-grown player rule will decrease competitive inequality (to a significant extent).

Other points

The information about the views of the Dutch people is based on a survey held by the Dutch research institution TNS NIPO. For details see the magazine *Sport & Strategie*, April/May 2008. For a discussion of FIFA's foreigner rule more generally, see the same magazine and Gardiner and Welch (2011).

Lessons from America

Sources

This section is based on Scully (1995) and Quirk and Fort (1997, 1999) to a large extent.

Effects of transfer system, rookie draft and revenue sharing

Rottenberg (1956) discussed the transfer system in American baseball of his time. In that system the 'reserve clause' bound a player signing a contract with a team to that team for the remainder of his career, unless the team agreed with a transfer to another club. Rottenberg argued, among other things, that the transfer system had no effect on competitive balance, while it reduced players' wages and so increased profits. The argument that wages were reduced because players had little bargaining power was straightforward. But the idea that competitive balance was not improved was counterintuitive.

This idea can be explained as follows. Suppose all teams aim to maximize profits (a normal assumption for American team sports).

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Suppose a star originally plays for a small team, but the revenues which he generates for the team he plays for will become larger if he moves to a large team. Then, as a free agent, the star will move to the large team, as this team can make more money with his services so that it can pay him a higher salary. But with a transfer system the small team will also let the star move to the large team, as long as it gets a transfer fee which is equal to its own loss in (net) revenues from the player plus at least some extra money (which means at least part of the increase in revenues that is generated by the move to the large team). This means that both clubs can increase their profits through a transfer in principle, and so the player will normally move with a transfer system.

Fort and Quirk (1995) analyse the labour market with a formal model. They show that, with profit-maximizing teams, the reserve clause and also the rookie draft have no effect on competitive inequality, while they reduce player salaries and increase profits – thus confirming Rottenberg's informal argument and extending it to the rookie draft.

Many authors have investigated empirically whether the reserve clause has improved competitive balance. Szymanski (2003) presents an overview of these studies, and concludes that most authors find that the reserve clause either has had no effect (seven cases) or has led to a decrease in competitive balance (nine cases), while only a few authors find that it has improved competitive balance (four cases). According to the overview studies of Hadley (2006) and Staudohar (2012) most empirical studies support the idea that the reserve clause reduces wages and increases profits.

Regarding the rookie draft system, Kahane (2006) presents some empirical evidence which shows it has had no effect on competitive inequality. He also notes that little empirical research has been done on the effects on rookie salaries.

With regard to revenue sharing, Fort and Quirk (1995) show formally that this instrument has no effect on competitive inequality, while it lowers player salaries and increases profits. However, the conclusion regarding competitive inequality crucially depends on their assumptions. If different assumptions are made, revenue sharing can decrease inequality, while, according to some authors, it can even increase it; for the different views, see Marburger (1997), Késenne (2000), Szymanski (2003), Van der Burg and Prinz (2005) and Dobson and Goddard (2011). Empirical testing of the effects on competitive inequality is difficult for various reasons (Szymanski 2003). Regarding the effects on profits, there seems to be a broad consensus in the literature that revenue sharing tends to raise profits (Szymanski 2006).

All the theoretical conclusions mentioned above relate to profit-maximizing clubs, which is a normal assumption for US team sports.

Great American inventions

Salary cap

The discussion of the salary cap in the main text is based on Fort and Quirk (1995), Quirk and Fort (1999), Leeds and Von Allmen (2005), Marburger (2006), Késenne (2007a) and Coates and Frick (2012).

Nearly all economists agree that, with profit-maximizing clubs, a salary cap will reduce competitive inequality if strictly enforced. Vrooman (1995) is the exception. His point is as follows. The salary cap forces all clubs to spend an equal amount on players. However, total revenues of all clubs are not maximized at the point where competitive inequality is zero (see also the section ‘David and Goliath’). Therefore, Vrooman argues, the clubs will collusively behave as a firm to maximize league revenues, which will also make it possible to increase the revenues of every single club (with the help of some

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other instruments). And so, the better players will still go to the big clubs. I agree with the counterargument of Coates and Frick (2012), which relates to the conduct of the player unions. In addition, even though American courts do allow salary caps under certain conditions (see also the next section), they may consider the collusion which Vrooman has in mind illegal.

All economists who focus on win-maximizing clubs agree that, with such clubs, salary caps reduce competitive inequality if they are strictly enforced, if exceptions are not allowed, and if there is a closed league. The section 'An American salary cap for Bayern Munich' (in Chapter 4 in the main book) will discuss salary caps in the European system of club competitions.

Luxury tax

For this topic, read Paper IX of the supplement (which paper can best be understood after having read the section 'A progressive social levy' in the main book).

The information concerning the 2013 luxury tax in baseball, and the remark on the number of clubs paying the luxury tax in basketball, is from [http://en.wikipedia.org/wiki/Luxury_tax_\(sports\)](http://en.wikipedia.org/wiki/Luxury_tax_(sports)), accessed 25 April 2014. I confirmed the information given there by consulting other sources on the internet. I am not sure whether the Yankees paid 28 or 29 million dollars in 2013.

How to get things done

This section is based on Scully (1995), Quirk and Fort (1997, 1999) and Leeds and Von Allmen (2005).

*Europeans are less social now***Effects of revenue sharing on competitive inequality**

In the past, all European clubs were win maximizers. The European club competitions were still non-existent (or not important yet), so that each national league was standing on its own (basically). Most theoretical models show that revenue sharing reduces competitive inequality in the national league under such conditions (see the overview of Downward et al. 2009). The reason is that a win-maximizing club will use all money available to buy better players. Therefore, if the small clubs get more money as a result of revenue sharing, and the large clubs less, competitive inequality will decrease.

The argument that in the present day revenue sharing is no longer very helpful anymore, because of the complicated league system with important European club competitions, is based on Downward et al. (2009).

In the future, the number of European clubs aiming for profits may be rising. As discussed in the section ‘Lessons from America’, revenue sharing may not reduce competitive inequality if all clubs are profit maximizers. From this perspective, the effectiveness of the instrument in Europe may (further) decrease in the future. However, we should be careful here, as a formal model has shown that, in a closed league with both win-maximizing and profit-maximizing clubs, revenue sharing may still be effective in case it are especially the strong clubs that aim for profits (Késenne 2000).

Other points

Andreff and Bourg (2006) describe a number of football competitions in Europe in terms of whether there is television revenue sharing or not, and in terms of the way in which the revenues are distributed when there is revenue sharing. Their description makes clear that the distribution has become more unequal over the years.

An American salary cap for Bayern Munich?

The economic and legal arguments against a salary cap for European football are mainly based on Szymanski (2003). See also the notes under the heading ‘salary cap’ in the section ‘Great American inventions.’

A progressive social levy

Paper IX gives the background information for this section and for part of the earlier section entitled ‘Great American inventions.’

The figures for the amounts of levies paid are merely meant to clarify a theoretical idea. For some further clarification, the following may be said. According to internet sources, the payroll of St Mirren was 2.2 million pounds in 2011–12. This equals about 2.6 million euros, so that St Mirren would have had to pay a levy of five per cent of 0.6 million euros. This is 30,000 euros, or about 1 percent of the payroll. As the percentages of the levy for payrolls in excess of 6 million euros have not been mentioned in the proposal in the main text, a similar calculation cannot be made for Celtic and Manchester United.

CHAPTER 5: THE LEAGUE SYSTEM

Silvio Berlusconi and Rupert Murdoch

This description of the developments in 1998 is based on articles published in Dutch newspapers in 1998, and more specifically in *NRC-Handelsblad* (August 6 and 14, October 26), *Het Parool* (August 11, 26 and 28, December 12) *Algemeen Dagblad* (August 31) and *Trouw* (November 18). Apart from a few details, similar descriptions were given by Hoehn and Szymanski (1999) and Solberg and Gratton (2004).

Murdoch's remark that sports are the battering ram for pay TV is from the *Independent* (October 20, 1996).

A true Super League

Background information

Much of the background information for this section is given in Paper X (to be read after the next section).

The likelihood of a Super League

Vrooman (2007), Szymanski (2007) and Késenne (2007b) think that the emergence of some form of Super League is inevitable in the long run. They emphasize that increasing competitive inequality weakens the attractiveness of the present system, thus increasing the likelihood of a Super League.

Solberg and Gratton (2004) take a different view. They argue it will be difficult for a Super League to generate more revenues than the present combination of domestic and European competitions. However, their argument is partly based on data from the past, and the fact that competitive inequality is increasing over the years will probably have negative effects on club revenues in the future (see Chapter 4). In relation to this, I agree with the views of the other three authors above – as long as no measures are taken to reduce the problems of competitive inequality.

Relegation and promotion

The main text basically ignores promotion and relegation to and from the Super League. Paper X, at pages 57–88 of this supplement, will pay attention to it.

What the fans want

The background of this section is discussed in Paper X, at pages 57–88 of this supplement.

What different clubs want

See the notes of the section ‘Tearing us apart’.

Money versus passion

See the notes of the section ‘Tearing us apart’.

Tearing us apart

The main text has explained why a league system that reduces economic welfare can arise. To put this in perspective, some general theoretical remarks are made regarding markets with imperfect competition (the category to which the football sector belongs).

In such markets the prices, the number of producers, and the menu of choices offered to consumers, may be such that economic welfare is not maximized. For instance, big firms may find ways to prevent other firms from entering the market. This limits the number of competitors, so that prices can be higher. And higher prices can reduce welfare by reducing the level of production. The main text applies this theory to football in the section ‘What different clubs want’.

Mankiw and Whinston (1986) have shown that there can also be too many producers in some cases, or too much product variety. For instance, suppose a producer brings a new variety of a product on the market, which is profitable for him. His activity will reduce the profits of his competitors. Partly in relation to this, it is possible that even

though the new variety is profitable for the first producer, economic welfare decreases. On the other hand, Mankiw and Whinston also show that, depending on the case at hand, a free market can also lead to too little product variety and a too small number of producers. Indeed, all kinds of suboptimal outcome are possible in theory.

Such theories cannot be applied directly to the football sector, which has special characteristics. But given the theory it should not come as a surprise that suboptimal outcomes can appear in football if some large clubs decide to introduce a new variety of the football product, called Super League football, and if only a small number of clubs is allowed to sell their stadium seats and broadcasting rights on the market for Super League football.



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