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In which way can the Break-Even Requirement benefit European football?

A theoretical study of the contest model

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Master's Thesis in Economics – June 2015



I. Foreword/Acknowledgement

With this thesis, I finish my master in economics by the School of Business and Economics, at the University of Tromsø – the Arctic University of Norway. The thesis correspond to a semester, a full time study of 30 ECTS credit points. It gives an insight into the world of competitive and economic strategy.

I have followed the Financial Fair Play (FFP) regulations from its introduction in 2010, and the discussions about it have inspired me to study this more thoroughly. In the subject *Advanced Topics in Economics*, it was introduced FFP regulations as a possible master thesis topic. I knew from that point that this was going to be my topic. The basis of the problem for my thesis was clear at an early point.

As I look back on this half-year, it have been a lot of hard work, but at the same time, I have learned a lot. In addition, it has been a motivation to work with a topic, which is both relevant and interesting at the same time. It has been an honor to write my thesis about my passion in life, football and the English football club, Liverpool FC.

Firstly, I want give a big thanks to my supervisor, Professor Jan Yngve Sand, for all his help and support with the work of my master's thesis. Secondly, I want thank my family for their advice and great support along the way. Particular thanks to my mother, Elisabeth Hernæs, for of her time and help in all years. Do not know where I had been without her. Lastly, I want to thank Einar Robert Seiness, and my friends Eirik Viljar Bjerkmo, and Dan Håkon Henriksen, for proof reading and conversations. Thanks also to Mirjam Harkestad Olsen for good advice, and Erling Bårdsen for creative help. Their time and contribution for the last finish of the thesis have been very helpful.

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In which way can the Break-Even Requirement benefit European football?

II. Abstract

The background of the introduction of the *Break-Even Requirement* (BER) by UEFA is the huge funding from rich owners and the significant debt of many professional European clubs. With the BER, the clubs gradually being forced to live within their means. Meaning that clubs cannot use more money than they earn.

The purpose of this thesis is to find an answer on the question. To investigate the effects of BER, this paper presents three different contest models, which indicate different results. The contest model is a two-club league, which are win-maximizing clubs. Two of the models points to the direction that the BER will not benefit the European football. For instance, it indicate a negative trend in competitive balance for the clubs. The big clubs will become bigger, and the small clubs are unable to stop this situation, because they cannot overspend hence to the BER.

Keywords; UEFA Financial Fair Play, *Break-Even Requirement*, Competitive Balance, Contest Model, European Football.

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1.0 Introduction

Football (def. of football in the US is soccer) has been a worldwide sport for generations and still is. It brings people together, and puts smiles on their faces. Just a round object and a flat mark helps people all around the world to forget about their difficulties. However, nothing beats the excitement of the biggest football matches in the world, the Champions League final and the World Cup final. This is the two matches that every player and supporter wants to experience.

Football is arguably the world's most favorite sport, played and followed in over 200 countries (Szymanski, 2003). In 2006, FIFA found out that 265 million people play football in the world. Hundreds of millions of people all over the world are also following football games from local pubs, stadiums, and media platforms e.g. television and internet. FIFA estimated that the World Cup final in 2006 had 715 million people spectators from social mediums. Furthermore, there was 163 million spectators on stadiums in European club football league matches in the 2012/13 season (UEFA, 2012). In the 2009/10 season, there were 30 million spectators on stadiums in England (Szymanski, 2014).

1.1 Background for the Master's Thesis Problem

Especially in Europe, football is the most popular team sport. During the last two decades, a great deal of money have been flourishing between the professional European clubs. However, there are big differences between the wealth of different clubs throughout Europe. The main reason for this is the appearance of the new rich owners in European football and the significant income from broadcasting rights.

The rich owners sat their first mark in July 2003, when a Russian oligarch bought the Barclays Premier League (BPL) club Chelsea. His goal was to take the club to the top of league and especially the top of Champions League (CL), by investing a lot of money in the club. Before Abramovich appearance. Previously his entrance, Chelsea was an average club, which almost never won any big trophies. However, after Abramovich appearance, Chelsea has won all of the biggest trophies in European football.

This was the start of a new era for football clubs in Europe, the era of ‘rich owners in European football’. This has caused a growth in both income and spending for the clubs.

The growth in income for the European clubs has significantly increased in the early 20th century. The compound annual growth rate (CAGR) of the biggest European leagues regards of income is over 10% in the period 1996/97 to 2009/10, and the total income except of the transfer fees has doubled from 4.2 billion euros in 1999/00 to 8.4 billion euros in 2009/10 (Szymanski and Kuper, 2014).

In the 2013/14 season, all of the BPL clubs reported record incomes. Accordingly, all of them are within the top 40 football clubs globally in the Money League by Deloitte (2015). Deloitte rank the clubs based on their relevant income. The main reason for this income is the significantly broadcasting contracts in Europe and especially the income from the CL tournament. The main goal for the top BPL clubs is to reach this tournament. The clubs get a large part of the 1 billion euros that CL generates from broadcasting contracts. This money price is an important source of income for the clubs goal to improve as a club (Peeters and Szymanski, 2012).

In addition, the clubs generate a lot of income from lucrative consumer relationships and higher ticket prices. Despite this continuous growth in income, the clubs have surprisingly experienced significant financial losses. The reward of obtaining sporting success, i.e. to qualify for the CL, gives the rich owners of the professional football clubs strong incentives to spend more money on talented players than can be covered from relevant income (Müller et al., 2012).

The European top-division clubs spending on new transfers and wages are rising every year. In between 2005 and 2010, the transfers and wages rose with 14% in average each year. In 2012, the club transfer fees paid were more than five times higher than spending on all other investments including stadium and facilities (UEFA, 2012).

In 2008, the CL final was between two English clubs, Chelsea and Manchester United. In addition, both clubs are in Deloitte’s (2015) top ten list of successful clubs by total revenue. These two clubs had in 2008 a combined net debt of more than 1.8 billion euros. Additionally, in the beginning of 2009, European football clubs stated financial losses of almost 1.4 billion euros. This was twice as much as the previous record in financial losses of European football clubs. Therefore, it was not a big surprise when the president of UEFA, commented on the

financial situation, and warned that half of the best clubs in Europe suffered from financial difficulties. In 2010, the European clubs stated financial losses of 2 billion euros, and only 395 million euros in income. This net loss was an increase of 36 % compared to the financial losses of 2009 (UEFA, 2012). The financial losses existed mostly of high player wages from the big European football clubs. Usually, a creditor, benefactor or rich owner finances these high player wages. In 2013, football clubs spent 3.1 billion euros on transfer fees. Especially professional clubs in England and Spain is a main factor for this big sum of expenditure.

In recent years, rich owners has bought several European top clubs and invested a lot of money. These clubs appear to have the greatest sporting success, namely to qualify for the CL, the best club competition in Europe. This participation will also give a considerably higher income for these clubs. This trend is increasing every year. Such clubs are for instance Real Madrid, Manchester City, PSG (oil owner Qataris), Monaco, Liverpool and Manchester United (Szymanski and Kuper, 2014).

All of the financial funding from the owners may lead to any unhealthy economy for clubs who already show considerable levels of debts. According to UEFA, this have although been seen as the source of problems for the football game. Hence, to guarantee the long-term financial survival and financial stability of the clubs, UEFA decided in September 2009 to introduce the Financial Fair Play (FFP) regulations Thornton, 2012).

FFP is a football economic regulation, which attempts clubs to live within their means. The cornerstone of these regulations is the *Break-Even Requirement*. The BER regulates clubs from using more money than they earn. It ties the rich owners of European professional football clubs to use large sums of money to win trophies. An overall healthy football economy according to UEFA.

The goal for UEFA with this regulation is to improve the financial performance of European football clubs and to protect its long-term viability and sustainability. In other words, bring long-term financial stability and a more balanced competition to the professional European football clubs. This will, according to UEFA give a fairer and more even contest for the clubs. The 2013/14 was the first season of the full implementation of UEFA's FFP regulations.

1.2 The Master's Thesis Problem

The FFP regulations is an interesting, new, and already well-discussed topic in European football. However, economists already criticize the regulation for not benefiting the European football. For instance, they indicate that without funding from investors the clubs financial situation will decline. This is a contrary effect from UEFA's view about FFP, which think it will benefit football by e.g. strengthening the competitive balance of clubs (Szymanski and Kuper, 2014). Based on the information above, about my and others interest for football, and all the different views that the society have about FFP. Hence, it is reason to determine the question of this paper:

'In which way can the Break-Even Requirement benefit European football?'

An answer to this question can both be, in small degree, in high degree or no degree at all. The answer could also be in a negative degree. That the BER has an opposite effect. In addition, through economic analysis, there could be multiple answers to the question.

To help me answer this problem of my master thesis, I am going to use the contest model. Firstly, I will first talk about the market concerning the FFP. Secondly, I introduce a contest model that will help me to answer the question, and then define three different contest models. In the end, I will discuss for and against the *Break-Even Requirement (BER)*. With the basis of the result of the contests model and the discussion part, I will try to give the best answer for if the *BER* is beneficial for the European football.

The paper is set out as followed. In the next section, I describe the market of FFP regulations. Section 3 presents relevant literature and models of FFP. In section 4, I discuss the FFP and *BER*. The final section concludes and give a summary of the master thesis.

2.0 Market

In this market chapter, I will primarily concentrate on and around the Financial Fair Play regulations. I will explain the different aspects of FFP, BER, contests, UEFA and the BPL. In addition, I will account for broadcasting rights in the BPL. In this chapter, I will give definitions about contest.

2.1 The Financial Fair Play Regulations

2.1.1 Background of the FFP

Simon Rottenberg (1956) started the literature on professional sports leagues. He identified the existence of the fixed supply. However, he did not manage to adopt the competition literature results to the analysis of league choices. The literature by Rottenberg (1956), implied monopoly for football players. If the market for players were free, the rich clubs would outbid the other clubs for talent. The rich clubs would buy the best players and leave the average and other players for other clubs.

Football clubs who developed and discovered talented young players was very successful before the 1990s. It is still important today, but money (rich clubs) are today controlling much of the daily life of football. Those clubs, who develop very talented young players, cannot hold on to them because of the high interest from the rich clubs. Rich clubs just put a large sum of money on the table, which the club and the young talent cannot resist.

Especially from the 1990s, there has been significant transformation in European football. Many rich clubs became better, both on and off the pitch. They increased their income by e.g. improving TV contracts, commercial activities and building new stadiums.

In 1995, the Court of Justice of the European Communities released a new rule for football players. It was the Bosman rule, also called football's Big Bang;

“A European player could join any club in the European Union once his contract had ended.” (Szymanski and Kuper, 2014, Page 222)

The background for the introduction of the Bosman rule came after an incident with a football player named Jean-Marc Bosman.

“Bosman was a Belgian playing for a Belgian team who refused a new contract and decided he wanted to transfer to a French club, that was willing to hire him and pay a transfer fee. Under the rules of the Belgian Football Association, the Belgian club had the right to veto the

transaction without appeal, which it did, on the grounds that it thought the buying club could not really afford the fee.” (Szymanski, 2003, Page 1161)

This example makes it clear that limited competition in the market of players is damned to fail under the European law, where it states that players are free to move.

The rule still exists today, benefits both the players and the clubs. Firstly, the players are more independent to take new choices. Secondly, the rich clubs gain a monopoly on the best Bosman players. This is leading to a better team for especially the rich clubs, because most of the best Bosman players crave after the highest salaries.

UEFA considered in 1999, to create a licensing system. However, at the same time they also considered to introduce a *salary cap*, even though they considered it was not possible to do easily (Peeters and Szymanski, 2012).

In 2003, the Russian billionaire, Roman Abramovich, bought the English football club, Chelsea. In his first years as owner of Chelsea, he invested a lot in the club; many expensive star players joined. This was the start of European football with a lot of money. Rich owners funded more and more professional football clubs in order to spend increasingly with money to secure additional income, and achieve success on the pitch to lift the CL Trophy in May.

This unrestrained funding seems to violate sport-ethical standards, since funding acquires regardless of the clubs success or reputation (Hall, 2002). Moreover, the funding may change the focus of football, from the pitch to the dominance of wealthy club owner, benefactor, or creditor. This violates the spirit of the football and therefore reduces the interest of professional club football. (Preston and Szymanski, 2003)

Müller et al. (2012) and Müller (2003) presented different actions to reduce reasons for clubs to compete against each other for trophies by increasing playing talent. For instance, these actions were even sharing or redistributing of income, reducing of income because of different positions, or the regulation called licensing systems.

In the 2003/04 season, UEFA introduced a club licensing system. The ambition is to bring financial stability to the clubs. In other words, verify the ethics and smooth running of the tournaments. Before this introduction, UEFA put few regulations on the European football clubs (Peeters and Szymanski, 2012).

The club licensing system sets out minimum standards relating to stadium quality, administration and legal documentation that European professional football clubs have to fulfill as a necessity to obtain a “UEFA license”, and thereby have permission to compete in UEFA’s two tournaments (UEFA, 2004-08).

The club licensing system was the breakthrough for the future FFP regulations. This system has denied 44 clubs access to UEFA competitions, because they did not fulfil the licensing criteria. The clubs had for example not paid wages to players or fees to other clubs for transfers (UEFA, 2014). This situation became obvious in 2009 and 2010, where only four of the 30 best divisions in Europe broke even.

Moreover, approximately a third of the European top-division clubs had debts larger than assets in 2010 (UEFA, 2012). In addition, only four of the BPL clubs made a profit in the 2009/10 season. The total losses for the 20 BPL clubs were 445 million euros; this was an increase of about 150 million from the past three years (Szymanski and Kuper, 2014). This give an indication that also other football clubs except the top clubs need to regulate their spending.

“In Sheikh Mansour’s first years of owning Manchester City, from 2008 to 2013, the club spent £505 million net on acquiring players. This money was pumped into a European market where top-division clubs in 2011 alone lost about £1’400 million (£1.4 billion)... Deloitte (have an article about this) calculates that the Premier League benefitted from a total of £2’000 million (£2 billion) of additional finance coming from wealthy owners from 2006 to 2013.” (Szymanski and Kuper, 2014, Page 103)

This cash flow benefitted both small and large clubs. In addition, it most likely helped to avoid bankruptcy for a few clubs. Platini implied that the debt in the best European clubs could lead to bankruptcy for some of them. This is a contradiction between Szymanski and Kuper (2014) and UEFA. On one side, the cash flow from the rich owners could benefit clubs from bankruptcy. On the other side, the cash flow could lead clubs into bankruptcy. For instance, the BPL club Portsmouth FC experienced bankruptcy during the 2009/10 season. Nevertheless, bankruptcy for a football club is very rare in European football (Peeters and Szymanski, 2012).

A man who fights hard today against the big clubs dominance is the president of UEFA, Platini. He really wants to help the smaller clubs, by for example, trying to limit the excessive

buying power of English clubs. However, he has found out that this is almost impossible. It is impossible legally as well as financially.

“During an interview in UEFA’s headquarters on Lake Geneva, Platini kept grumbling about big money in football. Abu Dhabi’s takeover of Manchester City had upset him. Manchester City ought to be a local club, he said. ‘Otherwise why should the club call itself Manchester? They should call themselves, I don’t know, Coca-Cola.’” (Szymanski and Kuper, 2014, Page 223)

To find ideas of suitable regulations to even things out with the clubs, Platini and the UEFA officials travelled to the United States in 2009. They were very impressed by the fairness in American Sports, and especially the *salary cap* system. In 1984, the *salary cap* system was established in the American National Basketball Association, and the American National Football League embraced the system in 1994. *Salary cap* promote competitive balance between the clubs in the league. For that reason the *salary cap* system have been justified in the courts of United States.

Even the former sporting director of Real Madrid, Emilio Butragueno told the BBC, that you need uncertainty at the core of every competition. Moreover, he argued that to give a chance to all the clubs in Europe, a regulation as the *salary cap* could be solution in the long term (Szymanski and Kuper, 2014).

Andy Burnham, Britain’s former culture secretary, agreed with Butragueno about creating a similar system in Europe as in the US. He said that the US is the most free-market country in the world. Since the clubs in the National Football League (NFL) share TV income equally and almost half of stadium tickets goes to the visiting club. This is leading to almost perfect competition for the NFL.

The vision for Platini is that every time a football club sells a merchandise, the profit from the sale would split equally between the clubs. For example, when Tottenham sold the shirt ‘KANE 18’, every club in BPL would benefit the same from the sale. This situation is the reality in American baseball today (Szymanski and Kuper, 2014).

Hence in September 2009, presented UEFA the FFP regulations to the club licensing system, in response to the bad financial conditions of European professional football clubs.

2.1.2 A Definition of the FFP

In front of the 2010/11 season, were the FFP regulations put into action for the clubs for the first time by UEFA. The FFP supports the existing licensing regulations with bringing long-term financial stability for the professional football clubs and verify the smooth running and ethics of the tournaments, as well as taking care of all the clubs and players. UEFA added the FFP to the criteria in their club licensing system in 2011.

Regulating systems and rules gives directions to the behavior of clubs. If not the contestants follow the rules, then the supporters will questioning the importance of the regulation (Hoehn, 2006).

With the FFP, UEFA seeks to regulate the influence of external funding. In other words, regulate the economic capability of the clubs. In addition, improve the financial capability, and protect the clubs long-term viability and sustainability. Moreover, UEFA (2014) seeks to create better competition. UEFA (2014) encourage clubs to develop young players, rather than use a lot of money, which can lead them into financial trouble. Additionally, UEFA encourage the clubs to create reasonable long-term financial management, contracts for the managers (Thornton, 2012). In 2010, UEFA (2010) published the objectives of the FFP regulations in a 91 pages long document.

European law supports the Financial Fair Play completely. Both the European Commission and UEFA has an agreement on the rules and objectives of FFP, and the policy aims in the field of state aid. Commissioner Almunia, who signed the agreement in 2012, commented:

“I fully support the objectives of UEFA’s FFP rules as I believe it is essential for football clubs to have a solid foundation. The UEFA rules will protect the interests of individual clubs and players as well as football in Europe as a whole.” (Independent, 2015)

The Financial Fair Play has especially two important requirements that clubs most fulfill when seeking to participate in the UEFA competitions: 1) solvency and 2) the *Break-Even Requirement*.

Firstly, from June 2011, every club in UEFA’s two tournaments has to prove that they have paid their bills. With this regulation, UEFA wants to limit the level of debt at professional football clubs and encourage them to settle their debts on time. In other words, there should

be no missing or late payments of guilty debt to rival clubs or employees. This problem has bothered the European club football for a long time (Szymanski, 2012).

By restrict the overdue payables; the regulation can stop the spiraling effect between clubs having contracted debts toward each other, and improve the financial stability of European professional football clubs, as well as to defend the club's creditors.

Secondly, the *Break-Even Requirement*, which took place for the first time in the course of the season 2013/14. BER is maybe the most important rule in the Financial Fair Play regulations. Which is explaining the nickname for BER; the cornerstone of the Financial Fair Play regulations.

The BER restrict the spending on players from clubs to match their income. Each participating club in one of UEFA's two prestigious international tournaments, the Champions League or the European League, must satisfy this *Break-Even* rule: relevant expenses must not exceed football-related income in the club over a three-year period. This indicate that a club could have financial losses in one of these years, and then be compensated by a break-even profit in the other two years, of which the total break-even result is the sum of the break-even results of the three-year period (UEFA, 2010).

Football-related income include sales and loan of players (transfers), match-day income (i.e. ticket sales), merchandising, broadcasting rights, sponsorship and advertising, and commercial activities (Deloitte, 2015). In recent years, the relevant income increased significantly for especially the BPL clubs because of the league's broadcast deals and sponsorships. Bigger stadiums with more supporters and higher ticket prices has also helped the clubs to achieve increased income. In addition, higher merchandising for the BPL clubs has occurred. The BPL is the league with highest income in the world, with about 15% in 2009 and almost 20% in 2010 (Szymanski and Kuper, 2014).

Relevant expenses contains mainly of salaries to players and staff, and purchases of new players. In recent years, the clubs spending have increased faster than the increased income. The salaries to players are by far the biggest reason for this situation (Müller et al., 2012). The financial state of European club football seems to be unsustainable.

Some features soften the *Break-Even* rule. The *Break-Even* rule says that football clubs cannot use more money than they earn. However, clubs are not required to earn profits, or avoid small financial losses to be in line with the Financial Fair Play regulations. It would

have been insufficient to require profits from clubs every year, when their financial situation rely for most part on unpredictable sporting results.

The most notable exclusion from related income would be funds injected by wealthy owners, investors, lenders, or benefactors. It also prevents clubs from having to rely on rich owners to cover their losses. For instance, only money from relevant income should finance the buying of football players (playing talent). UEFA wants to stop these transfer and salary payments. UEFA is calling money from rich owners that finances playing talents for *financial doping*. According to the *Break-Even Requirement*, it is *financial doping* when the average injection from the rich owners is higher than 20 million euros in one year. UEFA is strongly trying to limit the *financial doping* from the football game (Müller et al., 2012).

The relevant expenses has also some exceptions that soften the BER. The exceptions include contract with players, infrastructure, youth development, tax expenses and community development.

Firstly an important exception about the wage contract to the players. Not all contracts are valid according to the terms of FFP document. The contracts signed before June 2010, are not valid for the season of 2011/2012. This is an advantage for rich and big clubs with high contracts signed before June 2010.

Secondly, relevant expenses also exclude costs on infrastructure like for example buildings. FFP can regulate professional football clubs from buying all the best players in the world, but it cannot regulate money invested into youth academies, training facilities, or stadiums. UEFA want the clubs to invest into these infrastructures to reach the long-term goals of Financial Fair Play.

Thirdly, relevant expenses also excludes cost in youth development. Youth teams are one of the most important areas for UEFA and the introduction of Financial Fair Play. UEFA wants the clubs to develop young talents. Hence, the clubs will be less dependent on buying new expensive players. According to UEFA, this investment will help to give an economic long-term stability for the clubs (Nettavisen, 2014).

Lastly is the community development that excludes from relevant expenses in *Break-Even Requirement*, this includes activities for the public benefit to assist contribution in sport and advance social development.

Another feature that softens the *Break-Even* rule is the permission to include profit from the two previous financial years before the three-year period of BER in the total break-even result. The clubs can do this if the maximum acceptable total break-even loss of the BER is surpassed, in order to evaluate if under this extra condition the *BER* is satisfied (Müller, 2012).

Regarding possible sanctions of the Financial Fair Play regulations: If a club violates the FFP, UEFA would give significant sanctions to the club. The UEFA issues sanctions to clubs who do not pay their debts in a timely manner, i.e. players' salaries or transfer fees as agreed in contracts. However, the UEFA has established an own group called the Club Financial Control Body (CFCB), to control the budget of clubs in the last three years, decide the measures, and issue sanctions for violating the *Break-Even Requirement*. Additionally, CFCB can offer clubs settlement agreements, to help regulate different financial sanctions (UEFA, 2014).

The difference between relevant income and relevant expenses is the *Break-Even* result. Although, the *Break-Even* result allows a financial loss of around 45 million euros for 2013/14 and 2014/15 seasons. This means that the rule will not affect the smaller clubs with low budget. However, this value decreases in the following years. For the 2015/16, 2016/17 and 2017/18 seasons the limit of the financial loss will be 30 million euros. In the summer 2015 the BER will be in full force, the clubs can make an average financial loss of 10 million euros. Accordingly, the average acceptable financial loss per year decreases from 22.5 million euros in the first year to 10 million euros in the third year. In other words, a total financial loss of 30 million euros calculated for three years, does not represent a violation of the *Break-Even Requirement* because it is not relevant for UEFA's Financial Fair Play regulations. The UEFA Executive Committee will decide the succeeding year's acceptable financial losses later. However, the accepted financial loss would eventually come down to 5 million euros over three seasons. This shows that UEFA has given clubs some time to adapt and get used to the new regulation (UEFA, 2014).

However, if a club has a financial loss of around £4 million in the past three years, the club is in risk for violating the BER. If a club gets evaluated as a risk for violating the FFP, then the prize money from participation in the Champions League's group stage will be held back (about 7 million euros) for further investigations (Liverpool, 2014). This is not the only sanctions Club Financial Control Body (CFCB) could impose on the clubs. In addition, if a

club display financial losses greater than the given limits, the CFCB could punish the clubs with sanctions as warnings, reprimand, fines, penalty on points, and disqualification from UEFA tournaments in progress and/or exclusion from future UEFA tournaments. The sanctions could also be withdrawal of a title or award. Furthermore, in March 2012, extended the UEFA Executive Committee the list of sanctions with rejection on registering new players in on-going UEFA tournaments, restriction on the number of players that a club may allow in UEFA tournaments (Nettavisen, 2014).

In May 2014 was the first sanctions issued to football clubs for not following the *Break-Even Requirement*. As many as 76 football clubs had to deliver extended information about their economy, and nine of these clubs got the first ever sanctions from the UEFA (2014) for breaking the BER.

By not giving any sanctions to clubs who are violating the regulations are bad for both UEFA's tournaments, all the clubs in the tournament, and their owners, since this will hurt the tournament's reputation and reduce the demand for the tournament (Lago, 2006). From this year, 2015, clubs have to *break-even* or face exclusion from both tournaments (Sass, 2012).

2.1.3 The Financial Fair Play Regulations of UEFA

Müller et al. (2012) focus on whether FFP is a sufficient concept to maintain the long-term viability and sustainability of European club football. This question is the main goal in the document of UEFA (2010) about FFP. In addition, UEFA wants to improve the financial performance of European football clubs.

Müller et al. (2012) analyze the crucial changes of the FFP regulations from a largely ethical standpoint. They use empirical background, and look for theoretical reasons in football economy to provide a solution for their question. The paper shows potential weaknesses, expected effects and future requirements of the FFP regulations.

This paper by Müller et al. (2012) have showed that the Financial Fair Play regulations is beneficial for football from a sport economics perspective. Müller et al. (2012) explain this with the limitation of *financial doping* and improved competition:

“Based on the new fundamental objective of regulatory intervention followed by UEFA, which is to protect the long-term viability and sustainability of European club football from a

theoretical point of view, it is especially the limitation of the possibilities of financial doping and its impact on on-field competition that represents a remarkable regulatory step by UEFA.” (Müller et al., 2012, Page 136)

Moreover, they found out that the limitation of *financial doping*; the regulation (*Break-Even Requirement*) of the money from the rich owners (injections), is to avoid a fall of demand and interest in football. Which is indeed positive for the football sport.

Another thing they found positive about the FFP was the introduction of the Club Financial Control Panel (CFCP) for the *Break-Even Requirement*, and the restriction of debt of clubs.

Firstly, the overspending on salaries and transfer fees is a main reason of all the debt of clubs. If the rich owners of the football clubs rather invested in related buildings or youth development than covering the debts, the clubs could be sustainable. Secondly, the introduction of the CFCP indicate an ongoing observation of the clubs, instead of the earlier few inspections a few times a year, may provide a more sustainable realization of UEFA’s goals on FFP, say Müller et al. (2012).

Müller et al. (2012) think that to bring long-term financial stability to the professional European football clubs seem to be reachable with the Financial Fair Play regulations:

“From a practical point of view, the enhanced regulations to ensure financial stability seem to be promising, although a perfect achievement cannot be reached without the clubs’ widespread acceptance and cooperation.” (Müller et al., 2012, Page 136)

Hence, Müller et al. (2012) are unsure if the FFP will happen, but it does represent many good steps. The goals from UEFA is to improve the financial performance of European football clubs and to protect its long-term viability and sustainability. In addition, creating a better competitive football sport. To reach all of these goals in the future, Müller et al. (2012) point out the importance of improving the club’s behavior for the Financial Fair Play. With this behavior, they mean the club’s respect and desire for following the FFP.

To improve the financial stability of professional European clubs, Müller et al. (2012) point out one objective that needs to improve the most from former rules; overdue payables. Overdue payables reveal the weakness of UEFA’s Financial Fair Play regulations. Especially two situations illustrate this weakness in a good way. Firstly, the regulation allows clubs to delay payments for almost 15 months without risking sanctions. This payable option for clubs

has often a spiraling effect. Where the clubs owed such payables in turn falling behind with their own liabilities or being unable to pay due to lack of liquidity. Secondly, the regulation violates the principles of the ethical business from UEFA, when the clubs fail to pay their staff on time or in line with the terms of their contract.

In addition, it violates ethics of sporting tournament and therefore insult the standard idea of fair play. Müller et al. (2012) display this situation with an example. It considers a club that uses players with unpaid wages in football matches. The club wins matches versus clubs who are paying their team in line with the contracts and the regulations. Hence, the club with unpaid wages has used players under wrong incentives and in doing so collected unfair points in victories. Müller et al. (2012) call this unprofessional behavior for ‘financial foul play’ in relation with UEFA’s Financial Fair Play.

Certainly, Müller et al. (2012) claim that allowing club owners to inject their funds into a club, damages the integrity of the contest and/or violates sport-ethical standards, and forward this as a justification for regulations under FFP.

2.2 Contests

2.2.1 Background of Contests

Contests have existed for a long time, and have had an extreme impact on the world’s economic development. For instance, in 1829, there was a contest for the fastest train between the two great cities Liverpool and Manchester United (Day, 1971).

From the early years of 1970, several types of economic models have arrived for team sports leagues (Hodiri and Quirk). The focus of most existing literature for these leagues has been profit maximization and win maximization (Madden, 2012). Gordon Tullock (1980) was the first to use contest model to solve the problem of rival rent-seekers. Rent seeking occurs when a monopolistic contestant uses their financial position to lobby politicians in order to create a new rule or law with the task of increase their profit.

The model of rent-seeking contest by Tullock (1980) had two contestants compete for a rent of value V . If contestant 1 wins the contest, the probability is $p(x_1, x_2)$. The x in the probability is the effort from contestant i ($i = 1, 2$). Moreover, if contestant 2 wins, the probability is $1 - p(x_1, x_2)$ (Kooreman, 1997). In other words, the Tullock Contest Success Function (CSF)

assumes that a contestant i has a probability of winning the contest is the allocation between the contestant's own effort and the sum of all efforts (Konrad, 2009).

Winning the contest in this situation, intend that a BPL club manage to qualify to the Champions League by finish in the top four in PL and if necessary get through the qualification to the group-stage, or it could just mean that a club manage to win a match. Accordingly, the CSF defines the probability of winning – which depends on both the players' effort and their abilities (Szymanski, 2003).

The Tullock (1980) contest model assumed complete information for the contestants. In many contests, it is realistic to assume that the contestants do not have complete information (asymmetry). The contests in team sport are mostly asymmetric. In spite of the fact that most contest are asymmetric, there has been few studies about this in previous literature (see Davis and Reilly (1998), Hurley and Shogren (1998), and Wårneryd (2003)). After Tullock (1980), there has been two literature papers about rent seeking, Nitzan (1994), and Lockard and Tullock (2001) (Konrad, 2009).

However, in 2003 one of the first contest models inside sports leagues appeared when Szymanski (2003) applied Tullock's (1980) rent seeking contest in e.g. the European football leagues. This contest theory in sport by Szymanski (2003) has really affected the economics in sport for the last years. Additionally, for European football, win maximization is the most usual aim in recent literature (see e.g. Szymanski (2003), Madden (2012)).

There has been a very thorough transition of the study of Tullock contest success function. In recent sports literature, there has been suggested one type of model, the contest model (Dietl et al., 2010). There are more research on other contest success functions (CSF) besides standard Tullock CSF. It is not easy to determine what the best contest success function is. Since it is complicated to convert individual actions into win probabilities, and calculate the correct effort and asymmetries between the contestants. Therefore, economist has developed some tools when trying to solve the best contest success function.

An example of such a tool that the economist use to solve the best contest success function is constraints. Earlier in this paper, Kotler (2000) determined market shares with the assumption of Tullock CSF with $r = 1$. The developer of market shares in relation with marketing effort in an advertising competition is Bell et al. (1975). Their analysis show how marketing effort

changes into marketing share, where contestant's payoff depend only on own effort and all other contestant's on the total effort.

An author who has derived a modified Tullock CSF on the origin of conflict is Skaperdas (1996). The most recent authors of this method is Kooreman and Shoonbeek (1997). They used a function of the contestant's effort to decide conflict. With this analysis, they also derived a modified Tullock contest success function. This modification allows for asymmetry between players.

Accordingly, there is considerable theoretical literature of contest success functions (CSF). However, the literature on the calculation of CSF is limited (see e.g. Jia et al. (2012)).

2.2.2 A Definition of Contests

Today, contests are a common part of our economic, political and social organization (Hurley and Shogren, 1998). A contest can be defined as a competition between two contestants or a group of contestants (teams, firms, players etc.). The contest could also be a conflict (struggle, confrontation, fight, duel etc.) inside a team or between groups of contestants. A fight or a duel is often between two persons.

Contests take place in many different environments around the world, like for example in sport, war, politics etc. The most applied contest theory is sport. Contests in sports performs individually, in pair, or between teams in a tournament. Many types of sports are team sports. The contests may have sequential contests. For instance, football tournaments consist of many matches.

According to Szymanski (2003), the relationship between team sport and contest theory seems not well developed.

“The main difference between the team sports model and a conventional contest model is that instead of competing for a fixed price with some probability determined by relative investment, each team generates a revenue dependent on the share of matches won, where that revenue also varies according to the revenue generating capacities of the teams.”

(Szymanski, 2003, Page 1162)

Success in team sports is not the same as in individualistic contest. In individualistic contest, it is often a price like a medal, but in team sport, it is often corresponded with winning

percentage. In other words, how many matches the team manage to win (Konrad, 2009). To win matches (win-maximization) is the objective for most European football clubs. On the other hand, a club could be profit-maximizers.

The contestants use efforts to increase their probability of success, the winning of a price, trophy, match or/and rank (Skaperdas, 1996). Effort from the football clubs could be wages. Research has shown that the total wages of clubs relates to their success on the football pitch (see e.g. Szymanski and Smith, 1997).

An organizer may be able to decide the trophy obtained by the winner. Because an organizer, as for example the football association UEFA, often designs the tournament. The UEFA can decide which type of trophy and the price-money the winners are achieving from winning the UEFA Champions League. When an organizer designs the contest, the optimal design question emerges. The contestant's behavior may decide their inter-group contest efforts (Konrad, 2009).

“In the inter-group contest, a group collectively suffers from lack of commitment: the looming intra-group contest weakens the group and does not allow the group to mobilize much group effort.” (Konrad, 2009, Page 145)

When contests are estimated in a model, sports leagues should be viewed as a sort of rent-seeking contest where success in sporting contest rely on the relative share of total assets allocated to contest (see Tullock (1980)).

Contest functions present probabilities of winning and losing, as a function of the contestant's effort (talent). In many areas of economics are the models applied. The models use contest matches from tournaments and rent seeking to conflict and sports (Jia et al., 2012).

Davis and Reilly (1998) found out that contestants with asymmetric valuations might affect rent-seeking activity.

Further, in a contest, there could be parts of both incomplete (asymmetry) and complete information between contestants. Tullock (1980) assumed complete information for the contestants in his contest model. Complete information implies that the contestants are aware of all information about the other contestants (Konrad, 2009). As such, it is realistic to assume that a contestant does not have complete information about an opponent contestant. The

contestants could be insecure of both their own and the opponents talents or valuation of the trophy (price).

Analysis of the invariance principle is only relevant when there are asymmetries among the clubs. Further, a two-team model has been usual in most of the literature (Szymanski, 2003, Page 1163). The definition of asymmetry is quite simple to understand. Asymmetry is incomplete information inside and between the contestants (clubs). In this matter, the incomplete information is unequal abilities (cost of effort) or valuation of the price. For instance, a club could have more abilities and better valuation of the price than another club.

Here are two relevant examples. When a team sport model consists of asymmetric information, the ability of the players could be unequal, and/or one club (favorite) is much better than the other club.

“Asymmetry can be modeled either as a difference in the cost of effort required to achieve a given winning probability or as a difference in the winning probability for any given level of effort.” (Szymanski, 2003, Page 1143)

“Thus asymmetry in team sports is not typically modeled as a difference in the cost of effort (talent investment), but as a difference in the value of the price (revenue generating capacity).” (Szymanski, 2003, Page 1162)

In asymmetric contest models, there is a difference in efforts from the clubs **and/or** players. There are three types of efforts in a model, the *average effort*, the *winning effort* and the *variance of effort*. An asymmetric model can mix between all of these three efforts. In contrast, a symmetric model can only stick with one of these efforts.

To describe the different efforts I use an example of winning the EPL. Assuming a team model example, even though it is a person model. First, with a *winning effort*, the clubs is trying to win every game they play, a so-called win-maximizing model. The *winning effort* is often important. It is essential in winning a trophy like the BPL. Markus Sass (2012) is only using the *winning effort in his model*. Secondly, to explain the *variance of effort* we assume that the price of winning the BPL raised. This would increase the effort of the strong club, but it would reduce the effort of the weaker club even more. Which will then reduce the *average effort* in BPL. Therefore, the *variance of effort* cause a bigger gap between the strong and weaker club. Last, we have the *average effort*, which is crucial for creating and maintaining a

competitive and good contest. For the organization UEFA, this is one of their highest priorities. As said in the introduction, UEFA is trying to create a competitive balance in European football. One of UEFA's goals with the imposition of FFP/BER is to maximize the average effort (Szymanski, 2003). Based on this information, my asymmetric contest model will interpret the *average effort* as the most important effort for the two clubs.

Members in a group does not always gain the same if the group wins a conflict. This is because people contributes different efforts in most circumstances. "Moreover, different group members may have a different opportunity cost of making contributions. Such asymmetries are known to play an important role in the theory of private provision to a public good." (Konrad, 2009, Page 142)

2.2.3 The Barclays Premier League

The Barclays Premier League (BPL) is a contest in the top tier of England's professional football structure. In 1992 was BPL established to replace the First Division. The English Football Association (FA) regulates the BPL, where Greg Dyke is the chairman. FA established in 1863, as the first national football association in Europe (TheFA, 2015).

In the football leagues and cups, the success is depending on winning percentage from matches. Before 1980's, a win in a football match gave 2 points in the league table, and a drawn match equalized as half a win (1 point). However, after 1980's, the football leagues uses a system where a win give 3 points. A drawn match is the same as before. If a club goes into administration in the English league system, the club gets a ten-point penalty (Szymanski and Kuper, 2014).

In contrast to the closed system in the sports leagues in North America, BPL has a system of end of season promotion and relegation (Carmichael and Thomas, 2010).

All of the European leagues use this type of system. Under this system, clubs ending their season at the bottom at the league table relegates. They has to play in the division beneath the division they recently played in. On the other hand, if a club end their season at the top of the league table it promotes to a higher league. If there are no higher league, the club wins the league championship and is qualified for the best tournament in Europe, the Champions

League.

2.2.4 UEFA

Union of European Football Associations (UEFA) is the European football-governing body, established in 1954. The president of UEFA is the Frenchman Michel Platini. UEFA holds jurisdiction over football played in Europe. In addition, it is included in many features of the development of the football game as well as organizing the two biggest football club contests in Europe, the UEFA Champions League (CL) and the UEFA Europe League. Nevertheless, the UEFA has not much value without the CL. The CL finances and give prestige to UEFA.

In early 1955, the CL (then named the European Champion Clubs' Cup) was created. However, the UEFA did not create the CL. Gabriel Hanot, a football journalist working for the French sporting newspaper L'Equipe, developed the competition. Hanot was the developer for only a short period, and at the end of 1955 UEFA did take over its administration (Murray, 1994).

The CL participants contains mainly of the domestic league champions of the previous season. Additionally, in the big European leagues (BPL, La Liga, Serie A, Bundesliga and Ligue 1), the best three or four clubs can participate in the CL.

To participate in the tournaments, each club has to apply for license, and report their total economic result for the past three years. The national associations or their appointed leagues (the licensing body) allocates the license to the European football clubs. The license ensures that the minimum standards are enforced and satisfied in a similar way across the European football. Moreover, a neutral control and inspection company evaluates the licensing body (i.e., licensor) yearly (UEFA, 2014). In 2011, most of the domestic associations (48 of 53) followed UEFA's example, and applied a national licensing system (UEFA, 2012).

UEFA's participation in the European football has increased significantly for several decades. UEFA generated in 2010/11, 1385 million euros from the sale of broadcast and commercial contracts to its contests. The 1001 million euros of this income was paid out to participating clubs as prize money. Rest of the income, 384 million euros (about 28%) went to UEFA's pockets. (UEFA, 2010)

2.3 Broadcasting Rights Incomes

The contract, *The Premier League Founder Members' Agreement*, sets out how the broadcast income in BPL splits between the 20 clubs. 50 % of the income is split equally, 25 % is paid in Merit Payments (depending on the league position), and the final 25 % is paid in Facility Fees each time a club's matches are broadcast in the UK. In the BPL 2013/14 season, Liverpool FC had the top earning broadcast income with over 137 million euros. In spite of this, the club finished second in the league table (PremierLeague, 2014).

The broadcasting rights income is also very high elsewhere in European football. In the same season, the Spanish football club Real Madrid, earned more than 200 million euros from broadcasting income (Deloitte, 2015). These two examples are both a new record of broadcasting income in their football league.

If a BPL club is relegated it receive a considerable *parachute payment*. The payment is a part of the significant broadcasting incomes in BPL. In 2010, the total *parachute payments* to BPL clubs was more than 21 million euros.

3.0 Theory

This chapter introduce theoretical literature in relation to the FFP regulations. I start with explaining the standard *contest model*, and then assume asymmetry in the model. After that, I am going to present three economic analysis of contest models. All of these three papers impose a *Tullock* contest and income function in their model with FFP regulations. The papers use a model with two clubs, which are win-maximizing clubs. In addition, all of these papers will introduce the FFP regulations in their model. However, only the paper by Sass will look specific on the consequences of BER in the FFP regulations. Hence, especially that paper will contribute on the question of the thesis. Explaining which effects the BER has on European football.

Firstly, I am going to review the working paper by Markus Sass (2012), *Long-term Competitive Balance under UEFA Financial Fair Play regulations*. Secondly, I am going to review the discussion paper by Paul Madden (2012), *Welfare Economics of "Financial Fair Play" in a sports league with Benefactor Owners*. Lastly, I will introduce the paper by

Thomas Peeters and Stefan Szymanski (2012), *Vertical Restraints in Soccer: Financial Fair Play and the English Premier League*.

3.1 The Standard Contest Model

In the standard contest model, I assume a team-sport contest with two contestants, in a two-club league. The contestants could for instance be two BPL clubs. Further, the model assume risk neutrality. This is a quite implicit, but very important assumption in the standard contest model. The standard contest model regards primarily on the price. In this model, I define the price as a win in a football match. The model describes a profit function for club i 's payoff as

$$\pi_i(x_1, x_2) = w_i(x_1, x_2) * v_i(b) - C_i(x_i)$$

In the profit function, we have income subtracted from cost. Income depend on two variables, v and w :

$$r_i = w_i(x_1, x_2) * v_i(b)$$

The variable $v_i(b)$ is the income-generating capacity for the clubs, which is the clubs valuation of winning a match. The b stands for the size of the price. The club, which is winning the match, get the size of b that is 3 points, and the other club gets 0 points. The model assume that there is symmetry on v . This indicates that both clubs value a win equally.

Further, we have the variable $w_i(x_1, x_2)$. This is a probability for all possible combination of effort x . Probability for club i to win the contest is increasing in i 's own effort and decreasing in the rivals effort. In other words, this is the winning percentage, a club i 's probability of winning football matches. The clubs use effort to increase their probability of winning a match. The function for this variable is the *Tullock contest success function* (CSF):

$$w_i = \frac{x_i^r}{x_i^r + x_j^r}$$

Tullock CSF has been proposed and applied for many purposes in the literature. It assumes that a club's probability of winning equals the proportion between clubs own effort x_i^r and the sum of both clubs effort ($x_i^r + x_j^r$). In addition, the efforts x is raised in an exponential variable r . The variable r explains the returns to scale in relation to effort.

Kotler (2000) calls the assumption of $r = 1$ in the *Tullock* CSF, for *the fundamental theorem* when determining market shares. This modification has been very popular in economic literature (see Kotler, 2000); Baye and Hoppe, 2003). A main reason for this popularity is such manageable analytical tools to work with (see 3.1.1). Therefore, will I assumed $r = 1$ in the *Tullock* CSF:

$$w_i = \frac{x_i}{x_i + x_j}$$

This function is one of the most popular and used contest success function in economics. It is the standard *Tullock* CSF. I now identify all of the effort x in the *Tullock* CSF as the clubs playing talent T , for club 1 and club 2:

$$w_1 = \frac{T_1}{T_1 + T_2}, \quad w_2 = \frac{T_2}{T_1 + T_2} = 1 - w_1$$

The playing talents of the clubs are their football players. A player's talent characterizes as their abilities in football matches. The playing talents decide which club to win the football match. Hence, the club that value the win highest, contribute more talent and wins more matches. This gives that club an advantage towards their rival club. As we have seen, the *Tullock* CSF function combine win probabilities with the playing talent.

The last variable in the standard contest model is the cost of effort $c_i(T_i)$. It characterizes the clubs cost of investing in playing talent T (Konrad, 2009). The model assume that there is symmetry on c . Hence, the two clubs have the same cost in players. With the standard *Tullock* CSF the cost of effort changes to

$$C_i(T_i) = T_i.$$

3.1.1 Asymmetry in the Contest Model

In the standard contest model, it is assumed risk neutrality. However, in an asymmetric model, risk aversion plays an important role. An asymmetric model causes risk neutral contestants to use less in equilibrium than under a symmetric model (Wârneryd, 2003).

Contest is rarely predictable. Most contests involve uncertain results, where it is realistic to assume that the contestants have incomplete information about each other. For instance, many team sport contests are asymmetric. In the standard contest model, I will therefore assume

asymmetry instead of symmetry for the clubs. Asymmetry can affect all of the three factors in the profit function. It can change the income generating capacity (v), probability (w) of playing talent, and the cost (c) of talent T .

Firstly, I will assume asymmetry in the playing talents T_i of the clubs. The first club (I) is a wealthy and big club in the BPL with many football talents (T_1), and the other club is an average club in the BPL with few (T_2). As we see under, a change in playing talent will affect all of the three factors in the profit function for the two clubs:

$$\pi_1 = \frac{T_1}{T_1 + T_2} * v_1 - T_1 \quad \pi_2 = \frac{T_2}{T_1 + T_2} * v_2 - T_2$$

Where $T_1 > T_2$.

Secondly, in asymmetry, a club has higher valuation of winning football matches v . The two clubs are valuing the victory of getting the 3 points differently. One of the reason for this is the clubs variation in income from winning. In other words, the clubs do not generate an equal share of money from winning matches. For instance, the rich club (I) possesses more supporters, and have bigger stadium etc. Hence, the variable income generating capacity (v) is high for the rich club (v_1), but low for the average club (v_2):

$$v_1 > v_2 .$$

Lastly, to make the clubs asymmetric, we could assume different cost of playing talents (see Konrad, 2009; Vrooman, 1997; Davis and Reilly, 1998). For instance, the rich club (I) can offer a significant increase in a talented player's current wage. It will increase the players' attraction to join the club (Peeters and Szymanski, 2012). Hence, club (I) contains more talented players than club (2), and has therefore a higher cost

$$C_1(T_1) > C_2(T_2)$$

If I assume that club (I), participate in the CL. This will generate a higher income for club (I). All of these assumptions about asymmetry leads to a higher profit for club (I), such it can buy more playing talent than club (2):

$$\pi_1 > \pi_2 \Rightarrow T_1 > T_2 .$$

Clubs in team sports like football, do not struggle sufficiently, but have a tendency to buy too many playing talents, as this model indicate. In other words, the clubs use too much effort,

which is not effective for the clubs (Alchian and Demsetz, 1972). When a rich club is buying too much playing talent, it will usually cause to overspending by the club. This could result in financial crisis for the club. Moreover, this could also lead to negative effects for other clubs, supporters, players etc.

However, the rich club can afford financial losses over time, because of injections from the wealthy owners. Obviously, the other clubs who do not have wealthy owners cannot afford these losses. They try to keep up with the competition from the rich club by e.g. increase their expenses for playing talent. As a result, the other clubs are in big risk of financial ruination i.e. bankruptcy (Müller et al., 2012). As we see, the overspending from rich clubs also affect other clubs. The playing talent and competitive balance would be greater in an asymmetric league of win maximizers compared to profit maximizers (Vrooman, 1997). In the asymmetric Nash equilibrium, the talent level surpasses the predicted talent level (Davis and Reilly, 1998). Such that the estimated playing talents of a club exceeds in the equilibrium.

In a Nash equilibrium no club wants to change its preferences, given the other clubs preferences. Since if one club change any of its variables it will always be worse-off. Hence, the clubs have optimized all of its preferences.

3.2 Long-term Competitive Balance under UEFA FFP regulations

This chapter is an economic review of the paper by the German author Markus Sass (2012). Sass (2012) attempts to find out what impact the long-term consequences of BER will have on the competitive balance in a professional team sports league, e.g. the BPL. Hence, this paper will help me answer if BER will benefit the European football.

Sass (2012) is developing a classic single-period model. The model consists of a league with only two clubs ($i = 1, 2$), where it is assumed that both clubs are trying to win every game they play. In other words, they are win-maximizing clubs. The two clubs vary from each other by their market size m_i , which is the club's income potential from sponsorships, merchandise, broadcasting rights and match tickets. The income is influenced by the winning percentage w_i , and the uncertainty of outcome β as well. The income function is then as follows:

$$R_i(w_i, m_i, \beta) = m_i w_i - (m_i / \beta) w_i^2.$$

The single-period model calculates the winning percentages of matches to the clubs. The winning percentage w_i depends both on the number of own playing talents T_i and on the number of playing talents of the opposite club T_j . Sass (2012), imposed the modified Tullock CSF for the winning percentage:

$$w_i = T_i / (T_i + T_j).$$

The two clubs decide how many playing talents they are going to have in their team, by maximizing the winning percentage subject to a budget constraint:

$$\max w_i \quad \text{s.t} \quad R_i - cT_i = 0.$$

The budget constraint is seasonal. In other words, the constraint only holds for a season. Sass (2012), demonstrated that if you rephrase the function you get the club's reaction functions. He showed this with a figure:

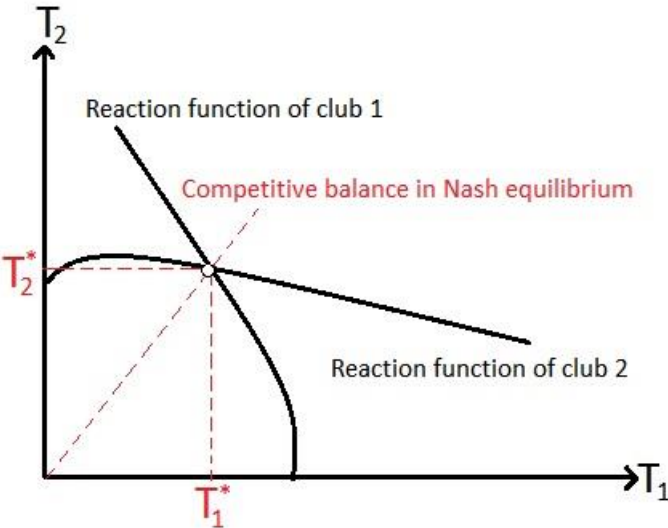


Figure 1: Competitive Balance in Nash Equilibrium and Club's Reaction Functions

In the cross, where the two reaction functions cross each other, is the competitive balance in Nash equilibrium. The competitive balance is dependent on market size and measured by the sum of playing talents bought by the clubs in equilibrium. In equilibrium, the clubs can invest as much money as possible on playing talents without being worse-off, a negative profit. Based on this, Sass (2012) calculated the winning percentage for club i :

$$w_i^* = \frac{\beta (m_i - m_j) + m_j}{m_i + m_j}$$

This single-period model considers the short run. To consider the long run, Sass (2012) updated the model to a multi-period model. In this model, Sass (2012) assumed an infinite time horizon and a discrete time scale. Where every period is representing a single league season. In every league season, the two clubs maximize winning percentage under a seasonal *BER*. The multi-period model is calculating the winning percentage in equilibrium in the same way as in the single-period model. However, with a small modification. In addition, Sass (2012) impose an exponential t on every variable, because of the seasonal effect. The exponential t uses in the same way as the exponential r in the *Tullock* CSF.

The multi-period model uses the market size as an endogenous variable, unlike the single-period model where the market size was treated as an exogenous variable. This indicates that you can introduce a market size function in the model. The two clubs can now influence the market size. Market size is positively dependent on historic success. In other words, a club's income potential is dependent on its earlier trophies. Clubs who become more successful can attract more and more spectators, which increases the club's market size and future success, which in turn increases market size even further. This is the so-called *the glory hunter phenomenon* among sports fans.

To use the market size as an endogenous variable, Sass (2012) assumes that the market size in season t is dependent on winning percentage in season $t-1$, which is a symmetric market size function. This gives the club i 's income R in season t . The characteristics of this income function are the same as those in the income function of the single-period model.

To get an equilibrium, Sass (2012) assumed some properties for the market size function. These properties led to a steady-state equilibrium for the market size and winning percentage. When a club achieve more success in t , it will attract more supporters to the matches in $t+1$. This gives a larger market size in $t+1$. Further, the income increases, which enable the club to buy more playing talents. This will lead to a higher winning percentage in $t+1$ than earlier in t . Furthermore, increase market size in $t+2$ etc. To achieve the steady-state equilibrium, the clubs has to wait until the growth of the market has decreased.

The two clubs cannot use savings from previous seasons to balance out a financial loss in a later season without violating the *BER*. A very good and dominant strategy for win-maximizing clubs is to break even by using their entire seasonal budget on player salaries (Sass, 2012).

The long-term steady-state equilibrium from the multi-period model with *BER*, predicts a negative trend in competitive balance for the clubs. Hence, the big clubs will become more successful by being capable of attracting more and more supporters, and achieving a higher income. A larger income make it possible for the club to increase their budget for buying new talented players, and this is leading to even more success and completely walk all over the smaller clubs. Moreover, a club's income potential is positively dependent on its historical success.

Due to the *BER*, the small clubs are unable to stop this process, because they cannot overspend and thereby invest their way to the big club market. This will continue until the competitive balance is maximally uneven (Sass, 2012).

The result from the single-period model from Sass (2012), presents that the big market club can buy more playing talents, and therefore win more matches against the small market club. The reason for this is the higher income generating capacity for the big market club.

3.3 Welfare Economics of FFP in a Sports League with Benefactor Owners

Madden (2012) build an symmetric economic model of a single European league in e.g. the BPL, to analyze the consequences of FFP on benefactor (rich) owners, who bail out their club in case of financial losses. Additionally, he implement wages into the model. These owners are significantly generous to invest their funds into a club to increase the expenses of players, and create a more competing club. This paper will be my focus of this section.

The theoretical model assumes two types of club i ($=1,2$), the big market club (1) and the small market (2) club, which play against each other in home and away matches. The market of the club depend on the size of their supporter's μ_i (fanbase). Hence, the big market club possesses more supporters than the small market club, $\mu_1 \geq \mu_2$. The supporters diverge the clubs playing talents (t_{in}) between the two clubs, such that their own club possesses the most. However, not so much that the game becomes a one-sided match, primarily because this can conduce towards a lower attendance and a decrease in total playing talents of clubs. The average talent in the league characterizes as \bar{t} .

On the one side, the club has monopoly over their supporter in season ticket sales. On the other side, the supporters have different valuations of the ticket, which depend on the playing talents of the clubs:

$$v(t_{in}, \bar{t}) - x \quad \text{assumed that } x \geq 0.$$

Where $v(t_{in}, \bar{t})$ defines the maximum valuation, and x measure the difference in the valuation. Madden (2012) maximizes this valuation as this Cobb-Douglas function:

$$v(t_{in}, \bar{t}) = t_{in}^\alpha \bar{t}^\beta \quad \text{assumed that } \alpha > \beta > 0 \text{ and } \alpha + \beta < \frac{1}{2}.$$

The variables α and β measure the elasticity of supporter utility. The ratio $\alpha > \beta$ explains that the home supporters prefer their club to be better than the opposition. However, they have preferences that the opposition club to possess playing talents ($\beta > 0$). The assumption $\alpha + \beta < \frac{1}{2}$ assures that there is concavity (Ω) in the following maximization problems.

Madden (2012) rewrite the latter valuation function to this familiar expression:

$$v(t_{in}, \bar{t}) = \left(\frac{t_{in}}{\bar{t}}\right)^\alpha \bar{t}^{\alpha+\beta} \quad \text{assumed that } \alpha > \beta > 0.$$

Here we see the standard Tullock CSF, $\frac{t_{in}}{\bar{t}}$. This function show that the supporter's preferences also depend on the average playing talent in the league.

The price of the players characterizes as w in the model. This leads to the supply of players to the league that characterizes as $S(w)$. The supply consist of a large number of different playing talents. Madden (2012) describe the demand of season tickets of fans as:

$$D_{fans} = v(t_{in}, \bar{t}) - p_{in}.$$

The owner decides the ticket price p_{in} for the fans. Hence, the total demand function of tickets for the clubs is:

$$D_{in}(t_{in}, \bar{t}, p_{in}) = \mu_i [v(t_{in}, \bar{t}) - p_{in}].$$

Based on the Cobb-Douglas function, $v(t_{in}, \bar{t}) = t_{in}^\alpha \bar{t}^\beta$, Madden (2012) defines the utility function for the owner of the two clubs as:

$$U_{in} = \lambda_i u[v(t_{in}, \bar{t})] - I_{in} + m_{in} \quad \text{assumed that } m_{in} - I_{in} > 0.$$

Where m_{in} denotes the owner's wealth, I_{in} defines the funds injected by the owner, and λ_i measures the owner's generosity. The generosity measurement differentiates the two owners. If $\lambda_i = 0$, the owner becomes a profit-maximizer, and a high λ_i explains large injections. The

latter constraint ($m_{in} - I_{in} > 0$) denotes that the owner is significantly rich to cover all desirable investments.

Hence, to the income function of $R_{in}(t_{in}, \bar{t}) = \frac{1}{4}\mu v(t_{in}, \bar{t})^2$ the owner would require an investment in the club or a profit out of the club to be:

$$I_{in} = wt_{in} - p_{in}\mu_i[v(t_{in}, \bar{t}) - p_{in}] .$$

Where wt_{in} denotes the club's wage costs on playing talents. If the wealth function, shows a negative result, than the owner takes out a dividend from the club. By inserting for the equilibrium of ticket price that maximize income (monopoly pricing), $p_{in} = \frac{1}{2}v(t_{in}, \bar{t})$ in the wealth function. Furthermore, insert that in the previous utility function we get:

$$\max_{t_{in}} U_{in} = \lambda_i u[v(t_{in}, \bar{t})] + \frac{1}{4}\mu_i t_{in}^{2\alpha} \bar{t}^{2\beta} - wt_{in} + m_{in} \text{ where } \bar{t} > 0 \Rightarrow t_{in} > 0 \text{ \& } t_{in}, \bar{t} > 0$$

This is the utility maximization problem for the owner. Madden (2012) presents three different lemmas to solve the problem:

- 1) If the equation $\lambda_i u[v(t_{in}, \bar{t})] = \frac{1-2\alpha}{8\alpha} \mu_i t_{in}^{2\alpha} \bar{t}^{2\beta} + A$ holds, then the solution of the maximization problem leads to the budget balance of zero profit. Which is similar to win maximization. Hence, the owner will then choose the largest value of playing talents to the club. A represent som casual constant A , and can be including into the constant m_{in} if $A = 0$.
- 2) The solution is a unique equilibrium under *laissez-faire*.
- 3) This lemma introduces the FFP regulations. When the owners' generosity variables are $(\bar{\lambda}_1, \bar{\lambda}_2) = (\min[\lambda_1, \bar{\lambda}_1], \min[\lambda_2, \bar{\lambda}_2])$, there exists a same unique equilibrium as lemma number 2, except of a different maximization problem of owner utility in talent demand.

The focus of my paper is the FFP. I will therefore explain lemma number 2 and 3 thoroughly. Firstly, a short explanation of lemma number 1. By inserting the equation described in 1) into the maximization problem, we get the final specification of the owner utility maximization problem:

$$\max_{t_{in}} U_{in} = \left(\frac{1}{4}\mu_i + \lambda_i\right)t_{in}^{2\alpha} \bar{t}^{2\beta} - wt_{in} . \quad (i)$$

We see that m_{in} has however been omitted. The aim of this utility function is to win matches with zero profit (profit maximization). The first-order condition (FOC) that solves this problem, defines the club's talent demand function. It shows that the wage costs will decrease, and the average playing talent in the league will increase. Moreover, FOC shows that the sum of insignificant income and owner insignificant expense utility equals the wage. The FOC implies that the club's investment function I_{in} changes.

Secondly, the solution of the utility maximization problem implies a league equilibrium under *laissez-faire*. The equilibrium is a collection of positive values. The values are playing talent, average players in the league, their wage and season ticket prices. This is leading to that the owners and fans make utility maximization decisions about demand on ticket and demand on playing talent. In equilibrium, all clubs of the same type will make same decisions.

Hence, $t_{in} = t_i$, and $p_{in} = p_i$. The equilibrium under *laissez-faire* is explained by t_1 , t_2 , \bar{t} , w , p_1 and p_2 with these three equations:

- 1) $w = 2\alpha a_i t_i^{2\alpha-1} \bar{t}^{2\beta}$, $i=1,2$ where $a_i \equiv \frac{1}{4}\mu_i + \lambda_i$.
- 2) $\bar{t} = \frac{1}{2}(t_1 + t_2) = \frac{1}{2}w^\varepsilon$ if $\varepsilon \in [0, \infty)$ and $w = 1$ if $\varepsilon = \infty$.
- 3) $p_i = \frac{1}{2}t_i^\alpha \bar{t}^\beta$, $i = 1,2$.

Equation number 1 assures utility maximizing owner talent demand. Equation number 2 describes the talent market clearing condition. The last, equation 3, assures that owners supply the demand at owner utility maximizing prices, given utility maximizing ticket demand from supporters.

Madden (2012), indicates competitive balance by using equation number 1. The league is in perfect competitive balance when the ratio of the club playing talents is $\frac{t_1}{t_2} = 1$. Based on assumptions on primarily the elasticity's and wages in a league of perfect competition, Madden (2012) argues that an increase in funds from owners will lead to both more playing talents and an increase in the wages of players (if $\varepsilon < \infty$). The average playing talents in the league will also increase if $\varepsilon > 0$. This was *Proposition 1* from Madden (2012).

Proposition 2 indicates the same as *Proposition 1*, however with the view on fans instead of players. The proposition declare that there is a Pareto improvement for all fans of both clubs (i,j) if the owners inject more money in the clubs. However, the fans of club j must fulfill $\varepsilon > \alpha/\beta$ to have a Pareto improvement. With the function of the equilibrium of ticket prices, we

know that the prices move monotonically with supporter utility. Therefore, the consequence of injection from owners, leads to an increased wage of players in both clubs and increased ticket price for club i . To sum up the *laissez-faire* equilibrium, the big market club (I) will be the significant better club according to the latter equilibrium in competitive balance ($t_1/t_2 > I$). Competitive balance is essential for these results.

Thirdly and lastly is the introduction of FFP into the equilibrium under *laissez-faire*. As said earlier it has however one exception. With the FFP, the injections from owners cannot be positive anymore. So the updated version of the final specification of the owner utility maximization problem (i) becomes:

$$\max_{t_{ij}} \left(\frac{1}{4} \mu_i + \lambda_i \right) t_{in}^{2\alpha} \bar{t}^{2\beta} - w t_{in} \quad s. t \quad I_{in} = w t_{in} - \frac{1}{4} \mu_i t_{in}^{2\alpha} \bar{t}^{2\beta} \leq 0 .$$

A situation where at least one rich owner is present, and where the supply of playing talent is quite elastic ($\mathcal{E} > 1/(2\beta)$), the effect of FFP will be a reduction for all parts. The FFP regulations will reduce the playing talent of clubs, ticket price, utility of supporter, and wage of players (if $\mathcal{E} < \infty$). In spite of the reduction in season ticket prices, all supporters will be worse off.

The assumption from Madden (2012) on a significant supply of playing talents to the league shows obvious results in the model. The results show negative welfare effects for the football players, owners and fans. This is mostly because of the contrary effect that FFP has on all clubs. The average league talent and player wages reduces. Hence, the introduction of FFP from the UEFA is an insufficient regulation for all parties.

3.4 Vertical Restraints in Soccer: FFP and the EPL

This section gives an overview of the paper by Peeters and Szymanski (2012) and some results from Dietl et al (2009). Peeters and Szymanski (2012) describe the Financial Fair Play (FFP) regulations as a form of vertical restraint. Further, they use the effect of the vertical restraint in the BPL (EPL).

Peeters and Szymanski (2012) build a structural empirical model to inspect to what degree the FFP would reduce competition in the BPL. To estimate the model they use financial information from the top three football leagues in England from the 1993/94 to the 2009/10 season.

As said earlier, the Financial Fair Play consist of two important parts, the overdue payables and the *Break-Even Requirement*. Peeters and Szymanski (2012) focus on the latter one, the BER.

The contestants in the model define the clubs that spend more money than their relative income. Accordingly, these clubs are breaching the BER. Peeters and Szymanski (2012) focus on how these clubs affects the BER.

Peeters and Szymanski (2012) model the contest between clubs by including two decisive elements, a Tullock contest success function (CSF) connecting win-probability (match outcome) to wages, and an income function connecting financial profit to playing talent (on-pitch performance).

Peeters and Szymanski (2012) calculate the Tullock CSF by connecting accounting data on wages with sporting performance data (match-by-match results). The match result depends on winning in the form of club wage expenses. The model assumes clubs try to win by allocate resources, which is the spending on wages from the clubs. Since, the probability of success (winning) of the contest (matches) depends on the wages, the contest success settles by the club's income and profit.

Peeters and Szymanski (2012) assume that increased spending generates better sport performance. Further, they assume that the restriction on spending for some clubs reduces the winning percentage for all clubs. In addition, they assume the contestant to be part of a rent-seeking contest.

Peeters and Szymanski (2012) argue that the *Break-Even Requirement* (BER) correspond in many ways to the North American *salary cap*. The *salary cap* raise the competitive balance between the clubs in the league. However, in contrast to the BER, the *salary cap* in US use the same spending value for all clubs. As said earlier, BER limits spending in correlation with the clubs own income.

To develop the Tullock contest success function (CSF), Peeters and Szymanski (2012) use a model with m clubs (not a 2-club-league) split into k divisions in the league system. The league system involves the standard promotion and relegation rules. Each division d has n_{dt} clubs per season t . The matches played per club each season calculate as

$$2(n_{dt} - 1)$$

This modeling is a typical European football league. Moreover, the matches could have different outcomes; win, lose or draw. However, Peeters and Szymanski (2012) adjusted the standard Tullock CSF to allow for the possibility for a draw, as we will see below. The wages of the club notes as p_{it} , and the probability of the match-outcome between club i and j notes as y_{ijt} :

$$Pr(y_{ijt} = \text{win } i) = (1 - Pr(y_{ijt} = \text{draw})) \frac{\alpha_h \omega_{it} p_{it}^{\beta_d}}{\alpha_h \omega_{it} p_{it}^{\beta_d} + \omega_{jt} p_{jt}^{\beta_d}} .$$

$$Pr(y_{ijt} = \text{win } j) = (1 - Pr(y_{ijt} = \text{draw})) \frac{\omega_{jt} p_{jt}^{\beta_d}}{\alpha_h \omega_{it} p_{it}^{\beta_d} + \omega_{jt} p_{jt}^{\beta_d}} .$$

These two functions show the result of a match were club i win, and club j win. α_h denotes the benefit from being the home club. The benefit of being the home club is significant, more supporters cheering and less traveling for the club etc. ω_{it} represent the productivity of club i in wages p_{it} into win probability. A more productive club can afford to invest more in wages.

Moreover, β_d is the Tullock parameter. It describes the responsiveness of the matches to the wages of every club. The last probability function of these matches explains a draw:

$$Pr(y_{ijt} = \text{draw}) = \delta_{dt} - \delta_0 \left(\frac{\alpha_h \omega_{it} p_{it}^{\beta_d} - \omega_{jt} p_{jt}^{\beta_d}}{\alpha_h \omega_{it} p_{it}^{\beta_d} + \omega_{jt} p_{jt}^{\beta_d}} \right)^2 .$$

δ_{dt} and δ_0 is constants. δ_{dt} describe the probability of a draw, and δ_0 describe the responsiveness of draws to the variance of wages. Peeters and Szymanski (2012) define $\alpha_h \omega_{it} p_{it}^{\beta_d}$ and $\omega_{jt} p_{jt}^{\beta_d}$ as *effective effort*. In their model, they can calculate the *effective effort* as wage payments.

As said earlier, Peeters and Szymanski (2012) calculate the wages p_{it} by using correlated accounting data. The result of the model depends on the *effective effort* and the responsiveness of winning to wages.

Peeters and Szymanski (2012) measure the expected total points gained by a club in one season t as:

$$W_{it} = \sum_{j=1}^n dt [3 (Pr(y_{ijt} = \text{win } i) + Pr(y_{ijt} = \text{win } i)) + Pr(y_{ijt} = \text{draw}) + Pr(y_{ijt} = \text{draw})].$$

The football leagues have different number of clubs, Peeters and Szymanski (2012) changed the W_{it} . Accordingly, they changed the total number of points obtainable in a season t :

$$w_{it} = 3 \cdot 2 \cdot (n_{dt} - 1)$$

To establish the income function, Peeters and Szymanski (2012) use a budget constraint b_{it} . The owner of the club sets this budget constraint. With this budget b_{it} , the club is trying to win as many matches as it can with the accessible wage p_{it} . In addition, Peeters and Szymanski (2012) assume that the club is trying to minimize the costs c_{it} . For instance, the cost c_{it} includes financing on stadium, and certainly excludes the wages p_{it} . Peeters and Szymanski (2012) assume that the wages is unconnected to the costs. They measure the club income R_{it} as:

$$\text{Log}(R_{it}) = y_i + y_{dt} + \beta_w \log(w_{it}) + \beta_k \log(k_{it}).$$

This is a Cobb-Douglas function. The function include the club's asset k_{it} (e.g. stadium), obtainable point's w_{it} , broadcasting rights y_{dt} , and support in the local market y_i .

Peeters and Szymanski (2012) derive the profit function by connecting all of the previously functions:

$$\Pi_{it} = R_{it}(w_{it}(p_{it}, p_{-it})) - c_{it} - p_{it}.$$

Moreover, Peeters and Szymanski (2012) solve the optimization problem:

$$\max_{p_{it}} \{ w_{it}(p_{it}, p_{-it}) \}, \text{ s.t. } R_{it}(w_{it}(p_{it}, p_{-it})) - c_{it} - p_{it} \geq b_{it}.$$

The solving of the problem develop a Nash-equilibrium of the budget constraint when it binds:

$$R_{it}(w_{it}(p_{it}^*, p_{-it}^*)) - c_{it} - p_{it} = b_{it}.$$

The wage p_{it}^* , describes the highest wages allowed by the income of the club. However, this equilibrium only measures specific values.

Peeters and Szymanski (2012) introduce the *Break-Even Requirement* from the Financial Fair Play regulations in the model. For the simulation of BER, they use data from the BPL 2009/10 season. They show that by changing the budget constraint of the clubs, the *BER* influences the equilibrium in the model:

$$R_{it}(w_{it}(p_{it}^{FFP}, p_{-it}^{FFP})) - c_{it} - p_{it}^{FFP} = b_{it}^{FFP} > b_{it}.$$

The budget constraint is binding when $b_{it}^{BER} > b_{it}$. Hence, it is binding when the budget constraint with BER b_{it}^{BER} is higher than the budget constraint from the owner without a requirement from UEFA. In other words, the owner is restricted to an upper bound of value that he can put to fund the club's losses. p_{it}^{FFP} describes the optimal wages.

As stated earlier in this section, Peeters and Szymanski (2012) assumed win-maximizing clubs. Based on this, they also assume that the owners use more than their original budget to win matches. The owners invest extra money, even though they get past their agreed budget where the BER constrains them. Peeters and Szymanski (2012) introduce three potential situations for how the BER affects the wages for the clubs:

- 1) *If $b_{it} \geq b_{it}^{FFP}$ the BER does not affect wages for all clubs i .*
- 2) *If $b_{it} < b_{it}^{FFP}$ for a situation with one club, the wages reduce for that club and increase at all other clubs.*
- 3) *If $b_{it} < b_{it}^{FFP}$ for a situation with more than one club, the wages reduce for at least one of these clubs and may increase for other of these clubs. Further, the wages increase at all other clubs not affected by the BER.*

By using simulations, the model by Peeters and Szymanski (2012) show that introducing the FFP will significantly reduce the competition in the BPL. This can be explained by the increased wages. Moreover, the estimated results show a higher win probability for clubs with larger wage costs.

Clubs affected by the *Break-Even Requirement* show results of reduced wages in Peeters and Szymanski (2012) model. More than half of the BPL clubs in 2009/10 season show these results. Hence, Peeters and Szymanski (2012) assumed minimized costs c_{it} independent of wages, and then the owners had to reduce the wages of the clubs. However, there are exceptions. The model show that e.g. the affected BPL club Fulham increased its wages, because of increased income under BER. Moreover, the results from the model present that the BER could increase the income of clubs, which this example shows. However, the model shows that the BER would not significantly affect the income in any way. The income is for a large part transferred between the clubs in BPL.

In most cases, the performance of the clubs will follow the same direction as the change in wages. This is the case for clubs as Manchester City and especially West Ham. If West Ham

had followed the BER in 2009/10 season, their wage costs would have been zero. Hence, West Ham's income and productivity are too low to save them from relegation.

In other cases, the model shows that most of the big clubs in the BPL would not be significantly affected by the BER in their performance on the pitch, e.g. Liverpool, Chelsea, Manchester United and Arsenal. This is quite surprising for especially clubs as Liverpool and Manchester United, who both had to lower their wages because of BER. The reason for this is their advantage of a high relative income.

The result from Peeters and Szymanski (2012) presents that, the BER influences unaffected clubs as well. These clubs increase their wages. This is the case especially for clubs near the bottom of the BPL table, e.g. Wolverhampton. Additionally, the wages increase most significantly for newly relegated clubs in the short run. A significant reason for this is the *parachute payments*, and because they re-invest the extra income from BER.

The model show that the wages of the BPL clubs in the 2009/10 season reduce by 14 % to 23 % because of the BER. The result of decreasing wages from Peeters and Szymanski (2012) is the same as Dietl et al (2009) predictions on wages. Dietl et al (2009) focus on the impact of a *salary cap* in a fixed percentage of club income. This *salary cap* is precisely the same regulation as the BER, because this *salary cap* has more variation in spending than the American *salary cap*. These results indicate that BER encourages the clubs too keep their wages low. Peeters and Szymanski (2012) assume that the affect from the BER also would affect the wages equally hard in other European leagues, e.g. the Spanish La Liga.

4.0 Discussion of the Break-Even Requirement

As said earlier, the FFP regulations, was put into action in the beginning of the 2010/11 season for the clubs. This strategic move from UEFA to regulate the European football was really about time. In the next season, the 2011/12 season, 29 clubs in Champions League and Europa League group stages stated net losses of more than 20 % of their total income (UEFA, 2012). Further, in a "normal" business all of these clubs would fall into bankruptcy (Müller et al., 2012). It is in this situation that the introduction of *Break-Even Requirement* according to UEFA will be very useful.

As we have seen in this paper, there are several articles, economists, authors and people associated with the football game, who consider the FFP regulations would not benefit the European football. Especially the restriction on use of money in the BER, do they think was a wrong regulation from UEFA.

Some of them argue that the competition within the leagues will be worse, and that this will lead to bigger gap financially for the clubs. They think the big clubs will be bigger and the small clubs will be smaller. One of the reason for this is the rule about relative income in the *Break-Even Requirement*, where the clubs benefit their finances on brand and reputation. The biggest clubs has the best brand and reputation, because of previously sporting merit, titles and tradition. This is leading to large income for the big clubs, and thus enabling the use of more money from rich owners to improve the club (Müller et al., 2012).

Others argue that the significant funding by investors and benefactors of football clubs is keeping clubs alive and improving their sporting performance through investments in valuable players.

On the other hand, is UEFA pointing out that the goal of FFP is not to make all clubs equal in size and wealth, but to support the clubs to build for long-term success rather than use the easy and unhealthy solution with rich owners. UEFA arguing that investing in the future is better rewarded for football clubs, than investing mostly for the short run. They also say that by using a money restriction in the BER, the small clubs will grow easier. The financial loss limit is so high that the small clubs do not get affected. The small and medium sized clubs will then have time and potential to grow (UEFA, 2014). On the one side, the small clubs will decrease in size. On the other side, the small clubs will grow.

An example that can/may indicate a situation where a club more or less has used the same terms as the *Break-Even Requirement* is Tottenham Hotspur (Spurs) in the period from 1991 to 2001. Their former owner at that time, Alan Sugar run the club like a business. He did not fund Spurs with additional income, and never invested a lot in playing talents. Sugar run the club within their means, as UEFA is indicating with the BER.

However, after owning Spurs for 10 years there was not much to celebrate. Only one victory in the League Cup and a tiny earning of about 2.8 million euros in Sugar's first six years in the club. The financial result was a little bit surprising. After all, Sugar was not a novice man inside business. He had previously made good money in computers (Szymanski, 2014).

Certainly, we see that being a good businessman, does not indicate that you should do good financially in a football club. In Sugar's defense, it would be difficult for anyone to succeed with a strategy of 'live within their means', when rival clubs use a lot of money.

This example may indicate that to 'live within their means' does not significantly benefit either the club's profit, or the 'trophy-closet' in any degree. However, this single example could be a one-off incident. It could also be a small indication on a bigger gap between the big and average football clubs.

"Other businessmen pursue a different strategy from Sugar's. They assume that if they can get their clubs to win prizes, profits will inevitably follow. However, they are wrong. Even the best teams seldom generate profits." (Szymanski, 2014, Page 74-75)

By considering every team's BPL positions from its start until the 2011-12 season, Szymanski (2014) found out that there was almost no connection between finishing high and making money. Further, there was not even a connection with the English teams between changing league position and changing profits. Certainly, this indicates that a club does not make more money with finishing higher in the league table (Szymanski, 2014). As the Spanish journalist, Francisco Pérez Cutino remarkably stated:

"It's not that winning matches can help a club make profits; rather, the effect works the other way around: if a club finds new revenues, that can help it win matches." (Szymanski, 2014, Page 76)

In addition, with new revenues Pérez thought about the rich owners who generate money into the football clubs.

4.1 Loopholes in the FFP regulations

The Financial Fair Play seems to have influenced European football clubs. Not the consequence UEFA hoped for though. With the new strict rule of FFP, the BER, the football clubs cannot use more money than they earn. This causes the rich owners in confusion how to develop and bring forward the clubs. However, the *BER* allow exceptions in its relevant expenses. In addition, it allows relevant income like commercial sources to deal with the *BER*. As we will see, this is not in benefit of the Financial Fair Play spirit.

The exceptions in relevant expenses include for example youth development, and cost on buildings. Hence, when many expenses is being unregulated it is a reasonable reason for football clubs to invest in infrastructure and youth development, and to supply funds for community development. However, these exceptions soften the *Break-Even* rule, as they expand the quantity of allowed expenses for every club and leave the door open for loopholes in the FFP regulations. The loopholes is solutions from the big European football clubs to cope with the *BER*, by trying to get around it with the result of expenses increase their income (Müller et al., 2012).

This is not so surprising actually. Most of the organizations around the world who try to regulate will certainly face attempts of finding potential loopholes in the regulation. For instance, already in 1995, Vrooman (1995) concluded that clubs tried to get around the regulation to avoid the effects of it.

The literature by Vrooman (1995) assumed that clubs could choose the level of success they accomplished, in spite of other clubs. Vrooman (1995) used a regulation of the *salary cap*. He argued that the main goal of the *salary cap* is to keep the salaries low. He agrees with the courts of US about *salary cap*. Based on theory, the *salary cap* should increase the competitive balance. Certainly, a low salary will improve the competitive balance in most cases.(theory chapter) However, the *salary cap* connects to the *Break-Even Requirement* in many ways (see Peeters and Szymanski, 2012).

There are already some examples on loopholes in the *Break-Even Requirement* stated from economists and football authors. This in spite of the conditions of the *Break-Even* rule:

“Clubs cannot boost relevant income (e.g., from sponsor deals) or diminish relevant expenses (e.g., for purchased services like the rent of the stadium) via transactions with related parties in order to fulfill the break-even requirement.” (Müller et al., 2012, Page 130)

Szymanski (2014) and Müller (2012) highlight an example with the BPL club Manchester City, where the club boost relevant income from sponsor deals. Szymanski (2014) an economist, is sceptic to UEFA and their FFP regulations. He doubts that the FFP will transform football. The rich owner of Manchester City, Sheikh Mansour bin Zayed Al Nahyan, signed a 10-year deal believed to be worth a record-breaking £350 million (450 million euros) with Etihad Airways, the national airline of the United Arab Emirates

controlled by himself and his half-brother Sheikh Hamed bin Zayed Al Nahyan, for stadium-naming rights and shirt sponsorship.

This commercial deal with Etihad should not have been accepted by the UEFA. Since this is a clear case of violation of the *Break-Even Requirement*. In other words, a related-party transaction. Although, UEFA believed that the deal breached with their own FFP rules. The reason for suspicion is that Etihad comes from Abu Dhabi. This is the same tiny emirate as City's owners. A very strange but not so surprising coincidence.

The *Break-Even Requirement* allow for relevant income like sponsorship, but it does not allow for significant injection from their owners. Since the sponsor money come from the same place as the owners, this commercial deal indicates a loophole in the FFP rules. This deal will boost their relevant income and consequently also their possibility to use the same amount in their relevant expenses. A significant benefit for City.

Presumably, Manchester City have already found a loophole to avoid the FFP regulations. If this commercial deal were ever challenged in the courts based on violating the FFP regulations, UEFA might struggle to prove that the £350 million was unreasonable, or that Etihad's owners had anything to do with City's owners, apart from that they both come from the same tiny emirate, Abu Dhabi. In addition, would the UEFA struggle with professional and expensive lawyers hired to defend the owners (Szymanski, 2014; Müller et al., 2012).

Another example about Manchester City's owners is when; they bought another football club, New York City FC. New York City FC had a planned season-start in 2015. This means that Sheikh Mansour could buy players to the new club, and then loan the player back to Manchester City. This indicates that Manchester City does not need to use money on that specific player, and will therefore make it easier to manage the Financial Fair Play regulations.

Another possible loophole in the *BER* is the rule of injections in youth development. Müller et al. (2012) present an idea of loophole where the first team wages shifts to the expenditure on youth development. Moreover, the *BER* are not restricting anything in the youth development, either wages or building extensions. Then these wages would not be included in the relevant expenditure in the *BER*, such leading the club to use more money (Müller et al., 2012).

A big club could register expenses from a new star player as infrastructure-expenses like a new building. In this way, manage to trick the system of FFP to use more money than they

earn. If the UEFA finds something strange about the expenses in their budget, the big club just hire the best lawyer they could get and the club usually gets away with it. Surprisingly, the clubs manage to do this without getting the big sanctions. If a club violates the FFP regulations, it will first get a warning. To take them out of the European competitions will be the last thing to do, said Platini in 2003 (Szymanski, 2014).

UEFA is today equally cautious about excluding clubs. They say that exclusion is a possible sanction. First, will UEFA use their Club Financial Control Body (CFCB) to investigate and, if necessary, modify the calculations of the *Break-Even* result for the relevant income (sponsorship) to the level that is fair according to market prices. However, they continue to say that Financial Fair Play is invented to create a fair and correct regulated system of financial management and sanctions are based on that point. Further, UEFA believes the sanctions and agreed settlements are suitable (UEFA, 2014).

Economists and other football related people are sceptic to if UEFA dare to exclude clubs full of great players from the UEFA Champions League. If UEFA excludes some clubs, they fear the clubs might try to start their own super league. Moreover, UEFA does not want to stage a Champions League without Real Madrid's Cristiano Ronaldo, Paris Saint-Germain's Zlatan Ibrahimović, Manchester City's Sergio Aguero or Barcelona's star trio; Suarez, Neymar and Lionel Messi.

It is no wonder that people think the FFP regulations is unclear and difficult to understand, when for example which sanctions will be valid for which violation of the *Break-Even Requirement* is diffuse. It is clear that UEFA's Financial Fair Play rules is too vague. Accordingly, this has led to a criticized *Break-Even Requirement*. The lecturer in football-economy at business school in Norway, Tor Geir Kvinen, think most people included the national football associations finds the Financial Fair Play rule quite difficult to understand (Nettavisen, 2014). We could call these undefined sanctions for another loophole in the *Break-Even Requirement*.

All of these loopholes give a clear indication of the weaknesses in the regulation from UEFA. Accordingly, the *Break-Even Requirement* is in need of important changes before the UEFA could reach its FFP goals. Former executive chief of Arsenal was clear in his speech when asked about the holes in FFP:

“Are there loopholes in the way FFP works? Quite possibly. FFP is not part of our strategy.”
(Szymanski, 2014, Page 101)

4.2 Higher Ticket Prices

I said earlier in this paper that football has become sport with a lot of money flourishing between the European leagues. The money has increased in every part of the football. You would think that if the clubs got more money from for example commercials, the clubs would compensate with lowering or at least keep the price of stadium tickets. Instead, the clubs have raised the ticket price constantly every year.

The ticket price in BPL has become so high that the working class, the old-core of fans in England, cannot afford to watch their club live anymore. An example from the season of 2004/05 showed that the top 20 Money League clubs generated around a third of their income from matchday. Today only 20% of these clubs income generates from ticket sales. Deloitte (2015) think this trend will continue, and that it will cause questions about high ticket pricing and marketing of the matchday experience in European football (Deloitte, 2015).

Today, it is the rich middle class from all over the world get to experience top professional football. Roar Stokke deeply hope that UEFA could stop these high-ticket prices (Nettavisen, 2014). Stokke and Deloitte is not the only ones who does not like the high-ticket prices. The football supporters have for a long time demonstrated against the raised ticket prices. The demonstration has increased a lot in the recent years.

Most recently, there was a protest in a BPL match from the supporters of Liverpool football club (the kop). In their away match against Hull City on 28 April 2015, hundreds of Liverpool supporters boycott the game in protest against the high-ticket prices. The supporters union Spirit of Shankly (SOS) arranged the protest. Instead of going to the Kingston Communications Stadium, hundreds of Liverpool supporters gathered outside Anfield Stadium and the headquarters of BPL (Liverpool, 2015).

The supporters of Liverpool are known to be one of the most loyal and atmospheric supporters, not only in England but also in the world. Therefore, to skip an important match, choose to protest instead of supporting their team was a surprise. This indicate how far the protesting on high-tickets from the supporters have come. For theory about the ticket price,

see *Proposition 2* from Madden, 2012.

4.3 The Contest Model

Contestants with asymmetry could reduce total expenditure by using a lot of effort (participate actively) in the contest. In other words, incomplete information may change total contest expenditure. There are three results of the contest model. First, if one contestant raise their probability of winning (effort), then the other contestant's probability of winning fall.

Second, if contestants are more asymmetric, this will decrease the total equilibrium contest efforts and increase the contestants total price.

Third, the contestant with the higher valuation of the price is more likely to win the price, but also using more effort (Konrad, 2009).

"The Premier League is similar to a market with almost perfect information. Consequently, very few club managers can make much difference." (Szymanski, 2014, Page 140)

4.3.1 Problems of Asymmetric information

There are several difficulties with asymmetric information. One difficulty is the price valuation (v). If the price valuation is the same for all players. Then what if one club are aware of the true value of the price, which the other club are not? The price valuation could then be different for the two clubs.

Hurley and Shogren (1998), and Wårneryd (2003) discuss this problem with asymmetric information and contestants with different valuation of the price. In their contest model, both of the two latter articles assumed that one contestant is informed and the other one is uninformed. Wårneryd (2003) found out that in equilibrium under asymmetric information the uninformed contestant is more likely than the informed contestant to win the contest is.

Hurley and Shogren (1998) found out that asymmetric information in valuation of the price, and abilities are a reason for effort wasted in the contests. This is an indication of the difficulties with the cost of effort (c) as well. This problem with cost of effort is quite the same as the valuation problem (Konrad, 2009).

4.3.2 The BER in the Contest Model

The *Break-Even Requirement* in the FFP regulations set constraints on the clubs budget. As said earlier, this constrains clubs to not using more money than they earn. Previously in European football, the clubs used money without any constraint on their budget.

Each season, every owner of a football club set a budget constraint that was either a profit the owner wanted to earn, or a loss that the owner was willing to invest into the club. The clubs could lose money if they wanted, they did not had to be competent. The Hungarian economists, János Kornai called this phenomenon for the ‘*soft-budget constraint*’ (Szymanski, 2014). Today, with the FFP regulations, clubs do not have a ‘*soft-budget constraint*’ anymore.

In the contest model, I introduce a *Break-Even Requirement* for the two clubs ($I, 2$). At least one research paper has emphasized this type of BER-modeling previously (see Peeters and Szymanski, 2012). With this regulation, each club gets a constraint on their budget each season t :

$$b_{it}^{BER} = b_{(1,2)t}^{BER}$$

I assume that the two clubs are win-maximizers, instead of profit-maximizers. Hence, the clubs try to win as many matches as they can without giving priority to the profit of their club.

When the clubs is win-maximizers, the clubs increase their original budget b_{it} , in spite of their budget is below the budget with the BER. In my model, I assume that only the big club, $i=1$, use a budget that violates the BER:

$$b_{it}^{BER} < b_{1t}.$$

The other club, the average club, $i=2$, use a budget within the restriction of BER:

$$b_{it}^{BER} \geq b_{2t}.$$

The introduction of BER results in a change in wage of both football clubs. The big club, $i=1$, must now use a budget within the rules of the BER:

$$b_{it}^{BER} > b_{1t}.$$

This leads to a reduction in the wages for the big club. In addition, this affect the average club as well. The average club increase their wages.

4.4 Opinions from the Society about FFP

Is UEFA doing the football a disservice by introduce the FFP? The intensions are good, but the result could be bad. Maybe there will be a bigger gap between the big and average clubs with these FFP regulations (Szymanski, 2014).

The outcome of the contest models was a surprise for my part. I thought football needed these FFP regulations, to make better competition and excitement for the European football. I also thought the regulations would decrease the financial gap, from the clubs in the Champions League to other good and average clubs that are trying to participate in the greatest European cup, Champions League.

The result of the FFP regulations could be a great disadvantage for football clubs in UEFA's tournaments in the years to come.

“Players may often like to expend more resources in a contest than they have... The more resource-constrained player ends up with a payoff equal to zero in the all-pay auction without noise.” (Konrad, 2009, Page 156)

Szymanski and Kuper (2014) strongly believe that rich owners like Abramovich and Sheikh Mansour 'City' is positive for the football economy. Rich owners may cause to a larger gap between the top and the average clubs, but will most likely generate more top clubs in the European leagues.

Overall, Szymanski and Kuper (2014) mean that the FFP is an unnecessary regulation from the football government body UEFA. The FFP is not making football a better game, but rather a game with fewer rich owners. Less rich owners is leading to less money for the football. Moreover, this may lead to a much more unattractive and uncompetitive football game. UEFA claims that money from an owner gives a club an unfair competitive advantage. We see here that this is a contradiction. According to UEFA, football gets an uncompetitive advantage without FFP. On the other hand, by Szymanski and Kuper (2014), football gets an uncompetitive advantage with FFP.

The aim of the FFP is to achieve equal starting conditions for the clubs, both prior to and during the competition. Nevertheless, it is neither practical nor preferred to make the competition on equal terms for the clubs.

The organization Deloitte, which is the most reliable analysis of the club's financial performance, is positive to the FFP rules. Deloitte (2015) means that the FFP rules and its possible effects make it more acceptable to discuss it around Europe. It is important that all clubs who wants to participate in UEFA's competitions can present a balanced budget of costs and incomes. Further Deloitte (2015) says that it is time that the clubs see the consequences of their expenses. The FFP regulations will make the football fairer, i.e. a more balanced competition for all clubs.

Arsenal's manager, Arsène Wenger really appreciate the Financial Fair Play regulations. He agrees that the regulation will change the football and his own club to the better. This is not that surprising, because Arsenal football club are a healthy football club, especially after they build their new stadium, The Emirates.

Another BPL club who also appreciate the FFP is the FSG, LFC's American owners. They have a clear opinion about the FFP regulations. The owners are not just prepared to follow the FFP regulations; but they also strongly encourage everyone to follow the regulation.

In Norway is the FFP appreciated highly as well. A well-respected and experienced commentator of Champions League, Roar Stokke, welcome the FFP regulations with open arms. He think that the FFP should have come earlier, and is in no doubt that European football need the FFP regulations (Nettavisen, 2014).

What about the cornerstone of the Financial Fair Play; benefit the *Break-Even Requirement* the football game? There are both enthusiasts and pessimists of the BER. The enthusiasts of the BER argue that the funding from rich owners only are debt, which increase the financial risk for the European football clubs. Since, the funding is restricted with the BER; there will be less debt and risk for the clubs. Moreover, this will give the football game a description of a sporting competition and not as a wealth contest. Based on that will the BER benefit the clubs.

On the other hand, the pessimists of the BER claim that the restriction of the funds from the rich owners will reduce the chances for small European football clubs to be a big club. Hence, the gap between the top and the other clubs will increase. According to the pessimists, this will reduce the competitive balance in the clubs leagues and cups (Peeters and Szymanski, 2012).

Peeters and Szymanski (2012) sets out this positive point about the *Break-Even Requirement*: From their model, they found out that the BER might reduce the clubs wages, and in that case raise the profit of the clubs. If the average wage expenses in a league declines, then every club in that league system benefit from that. All the teams will gain more points and profit for a given wage sum. Furthermore, UEFA would gain more money of the broadcast income, and then allow both UEFA and the clubs to take out rents at the cost of the players.

The model from Peeters and Szymanski (2012), show that most of the big clubs with a high relative income over many years, e.g. Liverpool and Manchester United, would benefit from the BER. One club who would not benefit according to the model's results is Manchester City. The result show that City's effect of BER leads to both reduced wages and on-pitch performance.

This indicate that building a big club by funding significantly on playing talent, which cannot produce the income to provide this funding, would become difficult with the BER. New playing talents does not always generate a better team. For instance, Manchester City used around 460 million euros on new players from 2011 to 2015. None of these players has managed to be a first team player for City (Nettavisen, 2015).

A few years ago, Chelsea followed the same strategy as City. However, they have had a longer time to establish itself as a healthy and strong club. Hence, they seems not to have difficulties in sustaining its position under BER according to Peeters and Szymanski (2012) results. For instance,

“there are two clubs that are bound by FFP, one by 1 million euros and the other by 100 million euros. The first club will reduce expenditure due to the direct effect, but will almost certainly increase expenditure by more because of the indirect benefit of the other club's reduction in expenditure.” (Peeters and Szymanski, 2012)

Kvinen is unsure if the FFP will affect the most wealthy European football clubs. Kvinen says that the wealthiest clubs do not need the FFP, because of all the money from the owners. However, the FFP focus on the long-term view, where both clubs in Norway and internationally has ended up going bankrupt, because of all the crazy use of money in European football. In other words, because of their debt. He think that especially these clubs, who is close to get bankrupt and are in deep debt, really needs the FFP regulations (Nettavisen, 2014).

The FFP could put an end to that a rich owners like Abramovich easily can ‘steal’ a transfer target from a rivalry football club, by just put more money on the table.

“Intuitively, if players would like to expend more than they have in an all-pay auction, the player who has a higher budget than his competitor can simply make a bid that is slightly higher than his competitor’s budget, and this guarantees that he himself wins the price.”
(Konrad, 2009, Page 158)

To bid higher on a player could be more difficult than earlier, with the BER, a budget on constraint. At least for clubs that are dependent on cash flow from rich owners, to compete in transfers for players from other clubs. Both the total effort and the value of the price is increasing with more contestants (Konrad, 2009).

4.5 Improvement of BER

The *Break-Even Requirement* is most likely not the last rule from UEFA where they regulates and trying to improve the European football. The Financial Fair Play is far from perfect. Several economists and people related to football share this opinion.

Rich clubs are today the owner of several young talents. To play football games and improve themselves, the young players have to go on loan to other clubs. If the players stay, they have little chance to break through in the first-team of the rich clubs. The rich clubs have so many good players, which either sit on the bench or are out on loan, that they could put together two or maybe three good first-teams on the pitch at the same time.

A regulation of how many talents a club can own is a possible improvement of the football game. However, today the clubs do not only own the players, also investors and agents can own football players, in a so-called third party ownership (UEFA, 2014). In other words, clubs possess players they do not own. However, it is not UEFA who allowing this third-party ownership. The Fédération Internationale de Football Association (FIFA) controls this ownership. This association established in 1904 encourage a constant improvement of football (FIFA, 2015).

However, UEFA are putting some restraints on the third-party ownership for clubs to participate in their tournaments. The restraints implements in their Financial Fair Play regulations. The restraints requires that clubs must reveal their information on their third-party

ownership and, in addition, all income that exist from this ownership exposes until the player is sold. To improve the European football, is this type of ownership not benefitting the clubs in any way. However, a change in this rule may happen in near future. UEFA (2014) has asked FIFA to prevent this third-party ownership all over the world. If FIFA do not agrees, UEFA (2014) is ready to execute their own regulations to prevent this ownership in their tournaments.

Another step for improving the BER is to transform the CFCP into a Body as a UEFA Organ for the Administration of Justice. This will allowing CFCP to take disciplinary actions itself. Accordingly, it will prove UEFA's intention of improve the regulation and to punish violations of the rules. This indicate some improvements of the FFP regulations in the near future.

5.0 Conclusion

Professional European football clubs go through a great deal of financial instability these days. The financing by the rich owners affect the performance of the football clubs through their talented players.

To gain control of the poor financial performance of European club football and the threats occurring considering the viability and sustainability of European club football, UEFA decided to take action and introduced the Financial Fair Play regulations as an extension to the club licensing system. The Financial Fair Play regulations include the *Break-Even Requirement* (BER). UEFA has issued these rules to improve financial stability and to regulate the influence of funding from rich owners. The BER restricts the financial injections from rich club owners, i.e. the expenditure cannot exceed the income. This will according to UEFA present better financial stability for the clubs.

As the research question in this paper, I asked, **'In which way can the BER benefit European football?'**

As we have seen, the BER is a relevant topic today, discussed all over Europe. The rule has not been in function for a long time. We have just seen the first consequences from UEFA on the effect of BER, i.e. sanctions on clubs. Therefore, it is difficult to say something precise

and concrete about the benefit of BER. However, with the use of the contest models results, I can present some answer to the question about the effect of BER in European football.

The economic models from this paper, present result where the BER do not benefit the European football. Rather, a hindrance for the clubs. Except of the paper by Szymanski, which indicate a reduction in the wages of the players. This can be a benefit for the European football. Lower wages means better terms for the small clubs, which has low budgets.

Only the paper by Sass (2012) look specific on the BER. The other two papers look on the big picture of the FFP regulations. I will therefore attach more importance on the paper by Sass (2012), when concludes the question of this thesis. The contest model by Sass (2012) predicts a negative trend in competitive balance for the clubs. The big club will become bigger, and the small club is unable to stop this situation, because they cannot overspend hence to the BER. The BER does not affect the big clubs in the same way as it affect the small clubs. Due to already significant related income for the big clubs and not so high related income for the small clubs. In that way, the small clubs have difficulties catching up with the big clubs. Hence, the BER do not benefit a more competitive balance between the clubs. Therefore, this will continue until the competitive balance is maximally uneven. A maximally uneven competitive balance will not benefit the supporters.

Accordingly, the other paper by Madden (2012) also predicts that the FFP would not benefit the supporters. In addition, the contest model indicate that the FFP would not benefit the owner or the players.

Hence, the conclusion of this paper cannot be answer with an exact solution. However, two of the three models do not show beneficial effects for the European football by using the FFP.

To summarize, in an economic perspective will the BER not benefit the European football, however in a football perspective will the BER benefit the European football.

All of the loopholes mentioned in this paper give a clear indication of weaknesses in the Financial Fair Play regulations from UEFA. It can therefore be useful to analyze weaknesses in the BER for a further research topic. The main reason of the loopholes is the difference between the rules of relevant expenses and its exceptions. UEFA appears to be familiar with this unclear distinction. However, the European football organization has not figured out a solution for this obstacle yet.

Accordingly, the *Break-Even Requirement* is in need of important changes before the UEFA could reach its main goals of FFP. The expenditure on youth development, infrastructure and community development are goals from UEFA's Financial Fair Play regulations that are in need of changes and might be beneficial for the European football. Today, the professional European football clubs have not financed these goals. Another change to be made, is a more effective and fair system of sanctions for the football clubs

Hence, for further research of the BER, I suggest to impose a new variable in the contest model. A variable that will examine the weakness in the BER, the loopholes. A possibility is to modernize one of the existing contest models, or set up a new contest model with one or more new variables, that can manage to see the effect of a BER with loopholes. An imposition of such a variable in an economic model could lead to a more positive approach for the BER, and contribute my and UEFA's view about a beneficial BER.

Accordingly, this thesis indicate a further research on the topic of BER. However, the results of the contest models could be a correct answer for the BER. Even if these economic models present negative effects of the BER, this may not reflect the situation in real life. That is unclear. Time will show.

Despite of the outcome of the BER, will the fans pouring their hearts and souls into supporting their chosen football club every week. As a devoted fan of Liverpool FC, I will always support the club regardless of any football rule. However, I have supported the BER from the start.

My opinions have not changed despite of the negative results of BER from the economic models in this paper. These opinions reflects the view from UEFA about BER. That the regulation in the long term will benefit the competitive balance in European football. In addition, Deloitte (2015) and Arsène Wenger think the FFP regulations will benefit the European football as well. For instance, the FFP will benefit the competitive balance and make football better and fairer.

Moreover, the rich owners are not positive for the development of football. I hope that the BER will influence football to a more fair (economically) and unpredictable game. A game with more talented players and more even clubs. The BER may lead to more players that are talented, because it e.g. encourage clubs to invest more in their youth academy. This I think can improve the interest and excitement of football.

As said earlier, Platini is actually setting the success of his presidency to the success of the FFP. An improved *Break-Even Requirement* will most likely see its light in the coming years. The rich clubs will not appreciate such changes. These clubs will fear that their future participation in UEFA's two big competitions are at risk with a stricter BER, unless these clubs change their relevant expenditure.

References

- Alchian and Demsetz (1972): *Production, Information Costs and Economic Organization*, The American Economic Review, Page 777-795,
<http://www.jstor.org/stable/pdf/1815199.pdf?acceptTC=true> (Collected 13/5-2015).
- Baye and Hoppe (2003): *The Strategic Equivalence of Rent-seeking, innovation, and patent-race games*, Games and Economic Behavior, 44(2), Page 217-226,
http://ac.els-cdn.com/S0899825603000277/1-s2.0-S0899825603000277-main.pdf?_tid=724b508a-ee9c-11e4-9311-00000aab0f6b&acdnat=1430331822_cdd1c951ad2ffefbdf3fdd2dda9cf9f6 (Collected 29/4-2015).
- Bell, Ralph, and John (1975): *A Market Share Theorem*, Journal of Marketing Research, Page 136-41,
<http://www.jstor.org/stable/pdf/3150435.pdf?acceptTC=true> (Collected 28/4-2015).
- Carmichael and Thomas (2010): *Maintaining Market Position: Team Performance, Revenue and Wage Expenditure in the English Premier League*, Bulletin of Economic Research, Page 1-34,
http://usir.salford.ac.uk/17857/1/BER_Carmichael,_McHale_and_Thomas_2011.pdf (Collected 13/5-2015).
- Davis and Reilly (1998): *Do too many Cooks always Spoil the Stew? An Experimental Analysis of Rent-seeking and the Role of a Strategic Buyer*, Public Choice, 95(1-2), Page 89-115,
http://download-v2.springer.com/static/pdf/675/art%253A10.1023%252FA%253A1004916624881.pdf?token2=exp=1432584489~acl=%2Fstatic%2Fpdf%2F675%2Fart%25253A10.1023%25252FA%25253A1004916624881.pdf*~hmac=cf59e65cf10ecf84d8ecb8a7e9feedfffb83bb3f675c941e9de738e6c0789e0 (Collected: 25/5-2015).
- Day (1971): *Trains*, New York: Bantam Books.
- Deloitte (2015): *Commercial Breaks*, Football Money League January 2015, Sports Business Group, Page 2-39,
<http://www2.deloitte.com/content/dam/Deloitte/uk/Documents/sports-business-group/deloitte-football-money-league-2015.PDF> (Collected 11/5-2015).
- Dietl, Lang, and Rathke (2009): *The Effect of Salary Caps in Professional Team Sports on Social Welfare*, The B.E Journal of Economic Analysis and Policy, 9(1), Page 1-18,
ftp://ftp.repec.org/opt/ReDIF/RePEc/rsd/CRSA_WPS/16_CRSA_full.pdf (Collected 20/5-2015).

Dietl, Duschl, Franck, and Lang (2010): *A Contest Model of a Professional Sports League with Two-Sided Markets*, Page 336-356,
<http://www.jstor.org/stable/pdf/23813522.pdf> (Collected 13/4-2015).

FIFA (2015): *Who We Are*,
<http://www.fifa.com/about-fifa/who-we-are/index.html> (Collected 7/5-2015).

Franck (2014): *Financial Fair Play in European Club Football; what is it all about?*, Working paper 328, UZH Business Working Paper series, Page 1-30,
ftp://ftp.repec.org/opt/ReDIF/RePEc/zrh/wpaper/328_IBW_full.pdf (Collected 26/5-2015)

Hall, Szymanski, and Zimbalist (2002): *Testing Causality between Team Performance and Payroll – The cases of Major League Baseball and English Soccer*. *Journal of Sports Economics*, 3, Page 149-167,
<http://jse.sagepub.com/content/3/2/149.full.pdf> (Collected 20/5-2015).

Hoehn (2006): *Governance and Governing Bodies in Sport*, In W. Andreff & S. Szymanski (Eds.), *Handbook on the Economics of Sport*, Cheltenham, UK: Edward Elgar Publishing, Page: 227-240,
https://books.google.no/books?hl=no&lr=&id=PGRkblShhU8C&oi=fnd&pg=PA227&dq=Governance+and+Governing+Bodies+in+Sport&ots=EC9Cvnqe5T&sig=CCn9laaAweQDUKpcKc6exzbQtzo&redir_esc=y#v=onepage&q=Governance%20and%20Governing%20Bodies%20in%20Sport&f=false (Collected 15/5-2015).

Hurley and Shogren (1998): *Effort Levels in a Cournot Nash Contest with Asymmetric Information*, *Journal of Public Economics*, 69(2), Page 195-209,
http://ac.els-cdn.com/S0047272798000267/1-s2.0-S0047272798000267-main.pdf?_tid=8c6a1074-0593-11e5-8678-00000aab0f6b&acdnat=1432856877_5b24051d35e617cf7ace6d31d4eef830 (Collected: 7/5-2015).

Independent (2015): *Platini Wins EC Backing for Financial Fair Play Regulations*,
<http://www.independent.co.uk/sport/football/news-and-comment/platini-wins-ec-backing-for-financial-fair-play-regulations-7580682.html> (Collected 13/5-2015).

Jia, Skaperdas, and Viadya (2012): *Contest functions: Theoretical foundations and issues in estimation*, *International Journal of Industrial Organization*, forthcoming, Page 211-221,
[http://www.socsci.uci.edu/~sskaperd/IJIOSkap-vaidya-jia%20\(1\).pdf](http://www.socsci.uci.edu/~sskaperd/IJIOSkap-vaidya-jia%20(1).pdf) (Collected 22/5-2015).

Konrad (2009): *Strategy and Dynamics in Contests*, Oxford University Press, Page 1-194.

Kooreman and Schoonbeek (1997): *The Specification of the Probability Functions in Tullock's Rent-seeking Contest*, *Economics Letters*, Page 59-61,
http://ac.els-cdn.com/S0165176597001316/1-s2.0-S0165176597001316-main.pdf?_tid=5161f22a-edac-11e4-b3a2-00000aab0f26&acdnat=1430228688_f334fe4e2fe50d258a73ae29b37df580 (Collected 28/4-2015).

- Kotler (2000): *Marketing Management*, Prentice-Hall, University of Phoenix, Page 1-295, http://bazaryab.net/attachments/090_Kotler-in-Marketing.pdf (Collected 29/5-2015).
- Lago, Simmons, and Szymanski (2006): *The Financial Crisis in European Football: An Introduction*, Journal of Sports Economics, 7(1), Page 3-11, <http://jse.sagepub.com/content/7/1/3.full.pdf> (Collected 7/3-2015).
- Liverpool (2014): *Liverpools Økonomi Under Lupen*, <http://www.liverpool.no/newspg.aspx?id=43468&zone=1> (Collected 23/9-2014).
- Liverpool (2015): *Hull – Liverpool 1-0*, <http://www.liverpool.no/match.aspx?matchid=279> (Collected 6/5-2015).
- Madden (2012): *Welfare Economics of “Financial Fair Play” in a Sports League with Benefactor Owners*, Journal of Sports Economics, Vol. 12(4), Page 1-25, <http://jse.sagepub.com/content/early/2012/11/22/1527002512465759.full.pdf+html> (Collected 7/4-2015).
- Murray (1994): *Football: A History of the World Game*, Aldershot: Scolar Press, Page 166-167, <http://library.la84.org/SportsLibrary/ASSH%20Bulletins/No%2023/ASSHBulletin23d.pdf> (Collected: 10/5-2015)
- Müller, Lammert, and Hovemann (2012): *The Financial Fair Play Regulations of UEFA: An Adequate Concept to Ensure the Long-Term Viability and Sustainability of European Club Football?*, International Journal of Sport Finance, 7(2), Page 117-140, http://www.hsv-notforsale.de/a_dateien/Wissen/Mueller%20Lammert%20Hovemann%202012.pdf (Collected 8/5-2015).
- Nettavisen (2014): *Enkelt forklart: Slik fungerer Financial Fair Play*, <http://www.nettavisen.no/sport/fotball/enkelt-forklart-slik-fungerer-financial-fair-play/8462779.html> (Collected 1/5-2015).
- Nettavisen (2015): *Ekspert Reagerer: - City har brukt 3.8 milliarder*, <http://www.nettavisen.no/sport/fotball/ekspert-reagerer---city-har-brukt-38-milliarder-men-ikke-blitt-bedre/8555553.html> (Collected 17/3-2015).
- Peeters and Szymanski (2012): *Vertical Restraints in Soccer: Financial Fair Play and the English Premier League*, Research Paper 028, Faculty of Applied Economics, University of Antwerp, Belgium, Page 1-28, <https://www.uantwerpen.be/images/uantwerpen/container1244/files/TEW%20-%20Onderzoek/Working%20Papers/RPS/2012/RPS-2012-028.pdf> (Collected 20/4-2015).
- PremierLeague (2014): *Compelling Barclays Premier League season delivers on and off pitch*,

<http://www.premierleague.com/en-gb/news/news/2013-14/may/premier-league-broadcasting-commercial-payments.html> (Collected 24/5-2015).

Preston and Szymanski (2003): *Cheating in Contests*, Oxford Review of Economic Policy, 19(4), Page 612-623,
<http://oxrep.oxfordjournals.org/content/19/4/612.full.pdf> (Collected 13/4-2015).

Rottenberg (1956): *The Baseball Players' Labor Market*, Journal of Political Economy, 64(3), 242-258,
<http://www.jstor.org/stable/pdf/1825886.pdf> (Collected 6/5-2015).

Sass (2012): *Long-term Competitive Balance under UEFA Financial Fair Play Regulations*, Page 1-10,
http://www.fww.ovgu.de/fww_media/femm/femm_2012/2012_05.pdf (Collected 12/11-2014).

Skaperdas (1996): *Contest Success Function*, Economic Theory 7(2), Page 283-90,
[http://download-v2.springer.com/static/pdf/186/art%253A10.1007%252FBF01213906.pdf?token2=exp=1430307721~acl=%2Fstatic%2Fpdf%2F186%2Fart%25253A10.1007%25252FBF01213906.pdf*~hmac=1ce8e77c7fc8a6c8b1db46f5f0c275e6ae10a5506f40906c4c6ba0e0814c7cea](http://download.v2.springer.com/static/pdf/186/art%253A10.1007%252FBF01213906.pdf?token2=exp=1430307721~acl=%2Fstatic%2Fpdf%2F186%2Fart%25253A10.1007%25252FBF01213906.pdf*~hmac=1ce8e77c7fc8a6c8b1db46f5f0c275e6ae10a5506f40906c4c6ba0e0814c7cea)
(Collected 29/4-2014).

Szymanski and Smith (1997): *The English Football Industry: profit, performance and industrial structure*, International Review of Applied Economics, 11(1), Page 135-153,
<http://www.tandfonline.com/doi/pdf/10.1080/02692179700000008> (Collected 23/5-2015).

Szymanski (2003): *The Economic Design of Sporting Contests*, Journal of Economic Literature, 41(4), Page 1137-1187,
<http://www.jstor.org/stable/pdf/3217458.pdf?acceptTC=true> (Collected 24/11-2014).

Szymanski (2012): *Insolvency in English Professional Football: Irrational Exuberance or Negative Shocks?* International Association of Sports Economists and North American Association of Sports Economists, Working Papers 1202, Page 1-33,
<http://www.soccernomics-agency.com/wordpress/wp-content/uploads/2012/11/Insolvency-and-English-football.pdf> (Collected 21/5-2015).

Szymanski and Kuper (2014): *Soccernomics*, HarperSport, Page 1-454.

TheFA (2015): *The History of the FA*,
<http://www.thefa.com/about-football-association/history> (Collected 28/5-2015).

Thornton (2012): *Focus on Football Finance*, Page 1-23,
http://www.grant-thornton.co.uk/Documents/Focus_on_football_finance.pdf (Collected 18/11-2014).

Tullock (1980): *Efficient rent seeking*, In J. Buchanan, R. Tollison, and G. Tullock, *Towards a Theory of the Rent-Seeking Society*, College Station: A&M University Press, Page 97-112.

- UEFA (2004-08): *UEFA Club Licensing Report*, Page 1-57,
http://www.uefa.com/multimediafiles/download/uefa/keytopics/618655_download.pdf
(Collected 6/5-2015).
- UEFA (2010): *UEFA Club Licensing and Financial Fair Play Regulations*, Edition 2010,
Page 34, Page 58-63,
http://www.uefa.com/MultimediaFiles/Download/Tech/uefaorg/General/01/50/09/12/1500912_DOWNLOAD.pdf (Collected 5/5-2015).
- UEFA (2012): *The European Club Footballing Landscape – Club Licensing Benchmarking Report Financial Year 2012*, Nyon, Switzerland, Page 1-103,
http://www.uefa.org/MultimediaFiles/Download/Tech/uefaorg/General/02/09/18/26/2091826_DOWNLOAD.pdf (Collected 12/5-2015).
- UEFA (2014): *Financial fair play: all you need to know*,
<http://www.uefa.com/community/news/newsid=2064391.html> (Collected 6/5-2015).
- Vrooman (1995): *A General Theory of Professional Sports Leagues*, Southern Economic Journal, 61(4), Page 971-989,
<http://www.jstor.org/stable/pdf/1060735.pdf?acceptTC=true> (Collected 4/5-2015).
- Vrooman (1997): *A Unified Theory of Capital and Labor Markets in Major League Baseball*, Southern Economic Journal 63, Page 594-618,
<http://www.jstor.org/stable/pdf/1061097.pdf> (Collected 23/1-2015)
- Wârneryd (2003): *Information in conflicts*, Journal of Economic Theory, 110(1), Page 121-136,
http://ac.els-cdn.com/S0022053103000061/1-s2.0-S0022053103000061-main.pdf?_tid=9fae94a8-ef4e-11e4-933c-00000aab0f26&acdnat=1430408349_dc6994d320016941c31da940c278a215 (Collected 30/4-2015).