The need of competitive balance in European professional soccer:  
A lesson to be learned from the North American professional leagues.

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Abstract:

<table>
<thead>
<tr>
<th>Competitive Balance:</th>
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<tbody>
<tr>
<td>• In a league with high Competitive Balance (CB) all teams at the start of a season have a realistic expectation to perform well and end up high in the final ranking. The result is that almost no teams are constantly ranked in the top or in the bottom of the league.</td>
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<tr>
<td>• Without interfering in CB, big city teams or teams with deep pocket investors will dominate the league and will constantly be ranked in top of the leagues.</td>
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<td>• The CB is much higher in North America (NA) for all Big-4 leagues than for soccer in Europe (EUR).</td>
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<td>• NA focuses on CB to optimize turnover, profit and economic growth of a league. EUR can learn from NA’s experiences. Lack of governing CB in EUR soccer will on the long run result in less growth in revenues, financial gambling in reaching playoffs, bankruptcies, rival leagues and fewer fans for the EUR-leagues.</td>
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<tr>
<th>Based on comprehensive analysis we suggest the following for European soccer:</th>
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<tbody>
<tr>
<td>• EUR soccer leagues must realize, that to influence and govern CB is important. Doing nothing will finally lead to a decreasing CB in EUR Soccer and result in declining incomes for the EUR-leagues.</td>
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<tr>
<td>• A system with closed professional leagues like in Holland looks promising. The number of professional teams in a country must be placed balancing the size of the markets – as the size of the market is the strongest balancing element in CB.</td>
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<td>• The introduction of Play Offs for championships, relegation and promotion can be introduced but adjusted into a version acceptable for EUR.</td>
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<tr>
<td>• A salary cap might be difficult to implement in EUR. But some limitations on player’s budgets for the strongest teams, a hard or soft salary cap with the exception of one or two marquee players can be implemented. The introduction of a salary cap can only be successful if a system of revenue sharing would be implemented.</td>
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<tr>
<td>• A league must own all media rights and then redistribute them equally to the teams. Extended local media rights for weaker teams will result into better CB by creating new fans to the benefit of the league and the teams.</td>
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<tr>
<td>• For as well NA as EUR transparency in all financial transactions, cash flows, salaries and every season fixed moments of audit of the financial situations of the teams. This will increase the financial and economic health of the leagues.</td>
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<tr>
<td>• The introduction of an exogenous controlling license commission. Exogenous persons will be introduced such as Commissioners, legal experts/lawyers and some other external specialists.</td>
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<tr>
<td>• Wealthy investors might be limited in buying teams for non sportive purposes.</td>
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1. Introduction and the object and aim of the paper.

This paper analyzes and discusses the importance and need of CB in professional team sports leagues in respect of turnover, profit and economic growth of a league. EUR soccer leagues are compared to the Big-4 NA leagues (National Football League (NFL), Major League Baseball (MLB), National Basketball Association (NBA) and National Hockey League (NHL)) in analyzing the importance of a high CB.

The sports models in EUR are very different compared to NA. NA leagues are designed as business firms where EUR leagues are organized for sportive goals in democratic/political national federations. Many NA league instruments to govern CB are completely unknown in EUR such as drafts, salary caps, relocation, players unions, and a Commissioner. CB is defined in relation to a professional team sports league, the importance and need for CB is documented as to optimize turnover and profit. The paper is discussing how to measure CB, how CB is in NA versus EUR and the drivers for CB. Finally the paper is discussing who wants CB, how to implement more CB in EUR and what a Commissioner should do for a EUR soccer leagues.

CB has for long been an issue in NA leagues resulting in extensive league regulations to improve CB with the aim of increasing the incomes for the stakeholders. In EUR discussions on the importance of CB have barely started – lately with Franz Beckenbauer's loud call May 4th 2006 for a better CB in European Soccer/Champions League level. In EUR professional leagues have been ruled and run from a utility perspective and winning maximization was the main goal for teams and nations. EUR teams wanting to win at any cost will result in bidding up the salaries of the best players leading to numerous bankruptcies and poor CB. The take over of Manchester United by the American Malcolm Glazer can be the first sign of a transformation from a winning on the field maximization behavior to more economic oriented profit maximization. The question is: Are the teams/leagues aware of this evolution and are the fans prepared to embrace the necessary and sometimes affronting changes in their approach to sport.

2. What is competitive balance for a professional team sport?

“Oh Lord, make us good, but not too good” – stated by the president of the Yankees, when they dominated the All American Baseball League in the 1950’s (Neale 1964).

“CB refers to balance between sporting capabilities. The more balanced the teams, the more uncertain the outcome of each match” (Michie & Oughton 2004). A lack of CB will draw less spectators and media and reduce the total income for a league.

MLB report (2000) the Blue Ribbon Panel defines CB:

• “Proper CB should be understood to exist when there are no teams chronically weak because of MLB’s financial structural features. Proper CB will not exist until every well-run team has a regularly recurring hope of reaching postseason play”.

• And the famous commissioner for the MLB, Allan “Bud” Selig added to this definition: “Fans want to begin each season with hope and expectation”

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a Hockey is in this paper understood the NA way as ice hockey. And not field hockey or bandy, which too is popular in Europe, India, and Pakistan etc.
b “Football” refers to American Football throughout the paper. European football is referred to as “soccer”.

2
Quirk and Fort (1992) are stating:
• “One of the key ingredients of the demand by fans for team sports is the excitement generated because of uncertainty of outcome of league games… In order to maintain fan interest, a sports league has to ensure that teams do not get too strong or too weak relative to one another so that uncertainty of outcome is preserved.”

And by the quote of Zimbalist (2002):
• “The optimal level of balance in a sports league is a function of the distribution of fan preference, fan population base, and fan income across host cities. “The league will maximize revenues when teams from large, rich, and fan intensive cities win more often”

In NA a high CB includes that motivation and the winning spirit have to be part of the game. Even if all teams started with equal budgets for buying players and coaches, fans need to believe that wise picks of players and coaches by the management, a devoted crowd at the stadium, a backup from the local medias, the psychology of winning more than losing and a history of championships will have a magic influence resulting in the win for the best, not the luckiest.

The question is what kind of CB do EUR need? Must every team be able to run for the championship or is a competition between some teams sufficient. A domination of one team almost certain of winning the championship, like Chelsea, Lyon or Barcelona in 2006, is on the long term bad for business. But is the domination of two, three or four teams bad for a league? What happens with the interest from the fans, sponsors and broadcasting companies if teams from the bigger urban centers with a high local identity relegate and is replaced by teams from smaller markets with less identity?

3. The money is far more abundant in North America compared to EUR.

Europe (EU + candidate countries) is far larger than NA in population (2005: 573 mio. versus 330 mio.) and in total GNP (2003: per capita approx: US$ 26.000 vs. 33.000)\(^c\).

NA has a stronger competition within each of its 4 major sports leagues. EUR has one dominant sport, soccer, making it tougher for sponsors to choose. EUR soccer teams are catching up with the NA-teams and some of the teams are reaching the revenue level of the teams in the NFL. The economic approach of professional sport in EUR is a rather new item. The revenues started to increase exponentially in the 1990s. The introduction of the Champions League (1991) and the booming broadcasting revenues made it possible for the richest EUR-teams to economically to match the teams in the NFL. However the total income from sponsors is much higher in the US. The 4 major NA-leagues are avoiding some competition of the fan base by playing in different seasons. The money spend on sponsoring in NA is therefore much higher. Companies wanting to be positioned all year on television have to sponsor into 2-3 leagues. EUR soccer has a unique selling position. It is the only sport that is popular throughout the continent\(^d\). Soccer has the potential to become bigger than NFL but the total amount of money spend in the NA Major Leagues will probably remain higher.

\(^d\) Basketball is popular in Southern Europe, Central and Eastern Europe but has a limited fan base in Scandinavia and Britain; hockey is popular in Scandinavia and Central and Eastern Europe; cycling is only popular in Western and Southern Europe.. (Dejonghe, 2004a)
Table 1: Forbes valuation 2005, USS in millions:

<table>
<thead>
<tr>
<th></th>
<th>Sport</th>
<th>Currency</th>
<th>Team</th>
<th>Value (million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Soccer</td>
<td>EUR</td>
<td>Manchester United</td>
<td>1.373</td>
</tr>
<tr>
<td>2</td>
<td>Football</td>
<td>NA</td>
<td>Washington Redskins</td>
<td>1.264</td>
</tr>
<tr>
<td>3</td>
<td>Football</td>
<td>NA</td>
<td>Dallas Cowboys</td>
<td>1.063</td>
</tr>
<tr>
<td>4</td>
<td>Football</td>
<td>NA</td>
<td>New England Patriots</td>
<td>1.040</td>
</tr>
<tr>
<td>5</td>
<td>Baseball</td>
<td>NA</td>
<td>New York Yankees</td>
<td>1.026</td>
</tr>
<tr>
<td>6</td>
<td>Soccer</td>
<td>EUR</td>
<td>Real Madrid</td>
<td>1.012</td>
</tr>
<tr>
<td>7</td>
<td>Football</td>
<td>NA</td>
<td>Philadelphia Eagles</td>
<td>932</td>
</tr>
<tr>
<td>8</td>
<td>Baseball</td>
<td>NA</td>
<td>New York Yankees</td>
<td>950</td>
</tr>
<tr>
<td>9</td>
<td>Football</td>
<td>NA</td>
<td>Houston Texans</td>
<td>946</td>
</tr>
<tr>
<td>10</td>
<td>Soccer</td>
<td>EUR</td>
<td>AC Milan</td>
<td>921</td>
</tr>
</tbody>
</table>

and some other interesting evaluations:

<table>
<thead>
<tr>
<th>Sport</th>
<th>Currency</th>
<th>Team</th>
<th>Value (million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sports</td>
<td>best basketball</td>
<td>NA</td>
<td>New York Knicks</td>
</tr>
</tbody>
</table>

Sports is fast growing in media, entertainment, consumption and free time spent – actively or watching. On a global scale the revenues from sponsoring are the highest in soccer. The main difference between soccer and the NA sports is the existence of a world wide fan base. In 2005 US$ 3.15 billion of the global sponsoring went to soccer and only US$ 1.31 billion to American football. Basketball was placed on the 10th place with US$ 234 million (Sport Business International, 2006:20). The European Sponsorship Association (ESA) expects another significant boost of sponsor expenditure by the end of this decade. The annual sponsorship spend across EUR was in 2005 €7.5 billion, with sport accounting for 80 per cent of this. The airtime of sport is increasing dramatically and the broadcasting rights for mega sporting events have increased in value (figure 2).

As shown below the total income from selling broadcasting-rights is far bigger in NA, but the media rights for EUR soccer big-5 leagues have in total exceeded NFL. EUR soccer Champions League and 30 smaller leagues are not even included.

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Figure 3: Broadcasting rights (€m/year) in 4 of the EUR Big-5 Leagues, England, Germany, Italy and France (Ex. Spain). Italy and France are not available before 2001 and 1999\(^1\).

4. Differences in the sports models between Big-4 in NA and EUR-Soccer.

Over history, the principles of how to organize and control professional sports leagues have developed differently in EUR and NA. NA has by far the biggest experience in organizing professional team sports. Up to now there has in EUR been little transfer of experience and learning from the NA sports model as governed in the 4 major NA leagues and more recently in the MLS (Major Soccer League).

All of the NA leagues are concerned when there is a lack of CB because this results in a drop in long run revenues. In EUR CB has until recently not been an issue, but examples as the Russian tycoon Roman Abramovich’s entrance in the English Premier-ship by buying Chelsea, American sports franchise (Tampa Bay Buccaneers) owner Malcolm Glazers hostile takeover of the soccer icon Manchester United and the statement from the soccer icon from Bayern München Franz Beckenbauer May 4\(^{th}\) 2006, calling for a discussion of the unthinkable “salary cap” have made CB a topic of discussion. It’s no longer the best teams competing against each other. Instead it’s the richest teams located in the richest markets competing against each other. Chelsea won, thanks to the input of at least £300m by Abramovich, the Premiership in 2004/05 and 2005/06\(^1\). To understand the impact and importance we will first look at the differences between the EUR and NA professional leagues:

<table>
<thead>
<tr>
<th>Table 4: Differences in sports models, EUR versus NA</th>
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<tbody>
<tr>
<td><strong>1. Open or closed leagues</strong></td>
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<tr>
<td><strong>Europe:</strong> Open leagues.</td>
</tr>
<tr>
<td><strong>North America:</strong> Closed leagues.</td>
</tr>
<tr>
<td><strong>2. Relocation of teams to new cities</strong></td>
</tr>
<tr>
<td><strong>Europe:</strong> No relocation.</td>
</tr>
<tr>
<td><strong>North America:</strong> Relocation.</td>
</tr>
<tr>
<td>EUR (Europe): Leagues are open. The lowest ranked teams at the end of the season are relegated to a lower division and substituted by the best from the division just below.</td>
</tr>
<tr>
<td>NA (North America): Leagues are closed: The leagues include the same teams/ franchises. Only poor performances by a team in several years might close a team. More likely the team is sold or relocated to a bigger market. A new entrance in the league is allowed after a market study and with an agreement of the other franchises in the league.</td>
</tr>
</tbody>
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\(^1\) www.fooballeconomy.com/stats/stats_tv_03.htm
3. Discussions on competitive balance

**Europe:** Very little discussions on CB.

**North America:** Very aware of the importance of CB.

Win-maximization and pride for the region or a nation are the main winning objects. The economic outcome for the league and for the sport itself has not been evaluated as a business. Recently UEFA, and FIFA have realized that lack of CB can hurt the sport on the long run.

Win maximization is the central item of the league. They are been aware that money drives the quality of the teams and that less CB results in less income. The rules and limitations listed below are all introduced to regulate sports leagues as businesses.

4. Revenue sharing

**Europe:** No or very little revenue sharing.

**North America:** High level of revenue sharing.

EUR teams are reluctant to share some income to allow the weaker teams to have a bigger budget for buying players. Broadcasting rights are often a joint agreement but unevenly shared according to the final standings. In Italy almost no sharing of broadcasting revenues. The pay-per-view system makes the revenues of going to the team(s). Ex: In the season 2005/06 Juventus got €76.6m and Treviso €10.8m. Merchandise, gate receipts, sponsors etc. are not shared.

NA leagues share income. Examples include collective bargain agreements for broadcasting-contracts and contracts for team merchandize which are monopolized and licensed to one company (Nike, Adidas(Reebok)). The gate receipts are often shared between home/away team in NA leagues, MLB 85-15, NFL 60-40. This allows the weaker teams to have a bigger budget so that they also have the means to buy better players. The result is an increase of the CB.

5. Drafting of new talent

**Europe:** No drafting

**North America:** All leagues have drafting systems.

Teams are negotiating player contracts in fierce competition to get contracts with the best talent. The richest teams signs up with the best players for the highest salaries leaving the next best players for the weaker teams.

Leagues are drafting mostly from the 100% amateur college and high school teams. Less than 5% of all college players are drafted. The draft consists of several rounds once a year and it is a big media show. The lowest ranked teams have the first picks and redistributes the playing talent in favour of the weaker teams.

6. Negotiations with the players unions

**Europe:** Not any strong player union.

**North America:** Strong player unions.

Players are not strongly organized. The well paid players do not have shared interests with the other players. The supply of players is in no way regulated or restricted. The EU union is taking care of the special interests of the players – resulting in the Bosman case in 1995, which basically transferred a lot of the free agent value from the teams to the players – thereby jeopardizing the teams economy.

Leagues have strong players unions and focussing on the collective income share to the players and the number of players. The new NFL contract 2007-2011 gives the players 53% of all incomes and the just finished NHL strike lasting all season 2004/05 ended up with a similar fixed total sum for all players. The number of years a player has to be in contract before being a free agent before cashing in on his/her playing talent.

7. Hard or soft salary caps

**Europe:** EUR-teams can use as much budget as they can afford. Resulting in high salaries.

**North America:** NA leagues have limited spending on team’s salary budgets.

a) A soft salary cap: The team
### Europe:
No salary caps.

### North America:

All leagues have got some kind of salary caps.

<table>
<thead>
<tr>
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<th>North America:</th>
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<tbody>
<tr>
<td>teams are price takers, as the volume of sporting talent is fixed. The G 14 and other big teams wants a salary cap, but this needs introduction of revenue sharing. Because of the high correlation between sport successes and wages/budget.</td>
<td>budget can be exceeded but the team has to pay a “luxury-tax” to be redistributed among the poorest sportive teams.</td>
</tr>
<tr>
<td>b) A hard salary cap: The league agrees upon a maximum team budget. Not all teams spends this amount. Hard salary cap is unpopular among strong teams.</td>
<td></td>
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</tbody>
</table>

#### 8. Organization of the sports and the leagues

**Europe:** Leagues are organized by national fed’s and UEFA.

**North America:** The leagues organize themselves.

<table>
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<tr>
<th>Europe:</th>
<th>North America:</th>
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<tbody>
<tr>
<td>Teams are organized in a pyramid model, from regional to international federations. The federation model results in conflicting interests and possible misuse of democratic principles. Organizing World/Continental Championships are huge income generators. Resulting in increasing dominance of the Big-5.</td>
<td>Leagues only have the league as their option – observed when national NA teams are picked for the Olympics (basketball dream team), the NHL league to free foreign players for the national teams for the WC in ice hockey etc. Very few conflicting interests. The league is a firm and the teams are franchises. The aim is solely profit maximization.</td>
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</table>

#### 9. Ruling the leagues

**Europe:** National federations and UEFA rule the leagues.

**North America:** The leagues rule themselves.

<table>
<thead>
<tr>
<th>Europe:</th>
<th>North America:</th>
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<tbody>
<tr>
<td>Federations have to agree upon the ruling – which will be governed locally by the national federation. Changes take many years and limitations on the rights of the teams, players or leagues might almost be impossible to impose.</td>
<td>Leagues decide internally between the few teams and they select a commissioner, who has a lot of power to intervene in all aspects of the league. Economy, development, size of the league, sports rules, image of the sport, in this way NA leagues can change fast to new market challenges.</td>
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### 5. The major drivers of competitive *im* - balance:

The relationship between the size of a budget for buying playing talent and the resulting sporting success is essential for understanding the importance of CB. Additionally, the size of the budget is determined by the size of the market the team has as its home ground. Additional an investor can result in sporting success. Empirical research shows a strong correlation between budget/wages and sporting success\(^6\).

A remarkable relationship between the size of the budget and the league position is shown in figure 5, indicating that the relegation system forces the lowest ranked teams to invest to avoid it. Relegation is “To choose between being hanged or shot”\(^7\).

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\(^6\) Premier League 65% (wages- performance) Deloitte(2004:39) and a Spearman Correlation of 0.92-0.83 for the period 1996-99 (Szymanski & Kuypers,1999); Van der Werff & Verlaan(1994) 063-0.92 (Spearman correlation) in de period 1980-83 and 1990-93 for several European competitions; Dejonghe(2006) 0.52-070 in the period 1999/2000-2005/06; Dejonghe(2004b) 0.82-0.93 for the Dutch competition 1999/2000-2002/03; 0.9 in Portugal between 1999-2005(Tenreiro, 2006) 0.54-0.84 in Italy for the period 1996-2005 (Brunelli, 2006); 0.49-0.72 in France for the period 1999-2003 (Gouget J-J & Primault D.,2006)

\(^7\) Statement by partner in Deloitte Denmark and expert in the Danish soccer teams economy, Jesper Joergensen.
The problem of CB is a problem in EUR. The smaller leagues cannot compete against the big leagues and the major teams in the smaller leagues have a competitive disadvantage. The total amount of money that could be earned in the CL evolved from €28.63m in 1992/93 to €530m in 2002/03. The exponential trend was abruptly disturbed in 2003/04 and dropped to €415m to recover to €430m in 2005/06. The distribution of that money is showed in figure 7.

<table>
<thead>
<tr>
<th>Table 6: Country</th>
<th>1992-1998 (7y)</th>
<th>1999-2005 (7y)</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>102.50</td>
<td>465.59</td>
<td>568.09</td>
</tr>
<tr>
<td>Spain</td>
<td>58.86</td>
<td>467.01</td>
<td>525.87</td>
</tr>
<tr>
<td>Italy</td>
<td>85.13</td>
<td>424.02</td>
<td>509.15</td>
</tr>
<tr>
<td>Germany</td>
<td>74.96</td>
<td>410.46</td>
<td>485.42</td>
</tr>
<tr>
<td>France</td>
<td>46.51</td>
<td>331.12</td>
<td>377.63</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>44.43</td>
<td>124.38</td>
<td>168.81</td>
</tr>
<tr>
<td>Belgium</td>
<td>9.87</td>
<td>45.27</td>
<td>55.14</td>
</tr>
</tbody>
</table>

The market pool, introduced under pressure of the rich teams in 1999 divides the revenues from the CL partly according to the performances on the field and partly to their broadcasting market. The result is that teams from the Big-5 markets earn a lot more than teams from smaller markets and the probability of sportive successes for teams from the smaller markets is declining. A simple Spearman correlation test between the year-by-year country rankings\(^1\) shows us a concentration of success and a declining CB between the countries.

\(^1\) The year-by-year country ranking is estimated on the results of the different teams of a country in the European competitions (UEFA-cup and Champions League) The data can be found on http://www.xs4all.nl/~kassiesa/bert/uefa/data/index.html
The results show a weak CB already in the pre-Bosman era. The R-value fluctuates between 0.6 and 0.7 and indicates a strong positive correlation between the seasons. The Bosman case (1995) and the changed economic environment even worsened the CB. The Spearman correlation increased and fluctuated between 0.8 and 0.9. The market pool confirmed and retained the status quo in the existing situation. The problem on the long/middle-long term could be a lack of interest in the CL. This means less income for the broadcasting companies and as a result a declining flow of money from the secondary and other countries to the UEFA. The concentration of EUR success in a few countries could result in declining CL interest and revenues.

Some stakeholders and voices want a semi-closed Euroleague with the big EUR teams. These teams have an international exposure and fan base and are "released" of their local identity. Their fan bases are international and their players are the best players from all over the World. They are maybe the future of football and attract beside the traditional fandom also the sport consumers (Horne, 2006). The sport consumers are the people that buy the products related and promoted.

6. An exhaustive list of former and ongoing sports research related to CB.

Empirical and league modeling research has come to following conclusions:

- A larger market size and a longer history in a league improves the total market revenue from sponsors, spectators and fans (Troelsen, 2005; Dejonghe, 2001; 2006)
- If a team from a too small market is in a league, all other teams will say this team makes the league suffer economically (Noll, 2005)
- The mid-season budget explains 50-70% of the final standings, strongest correlation in English Premier League, MLB, NBA, and NHL. (Zimbalist, 2002)
- If nothing is done to regulate CB, “Big-city teams win too much” (Whitney, 2005)
- Competing teams cannot allocate playing talent and playing skills so as to revenue-maximize a league. Decentralized teams / franchises fail to allocate playing talent efficiently (Whitney, 2005)
- Below the top teams is a possible conflict between gambling on sportive success and ensuring economic sustainability (Michie & Oughton, 2004; Dejonghe, 2006)
• Increased revenue sharing will not improve CB. The only mechanism that fosters balance is a salary cap (Fort & Quirk, 1995) but a cap interferes with league-wide revenue maximization.
• Limited revenue sharing might increase CB (Marburger, 1997).
• Attendance at the games of any given team is a positive function of the standing of the team during the season in respect of winning championships (Rottenberg, 1956) and compared to the winning percentage (Quirk & El Hodiri, 1974).
• Leagues with promotion and relegation results in teams investing more in playing talent (Hall, 2002; Noll, 2005) driving up players’ part of the league revenue. Promotion and relegation is a substitute for either relocation or expansion (Noll, 2005).
• CB is unaffected by free agency of players versus reserve-option clause is not a problem (Fort & Quirk, 1995). At the same time it eliminates cross-subsidies, which is needed for CB.

7. How to measure competitive balance?

So far we have only discussed the importance of CB but how should it be measured?

Even a perfectly balanced league selects a winner. The statisticians can easily calculate the deviation from the mean in such a competition and then compare it with the actual deviation. Sometimes it might be more, sometimes less than expected.

The measurement of CB can be divided into two groups (Troelsen, 2005):

• **Static CB:**
  Measuring the difference when the top is playing the bottom of a league but not taking into account if the same teams constantly are in the top. Additionally, the Static CB can be measured by the outcome of the top playing the bottom.

• **Dynamic CB:**
  Measuring how often the same teams, over a certain time period, are constantly dominating the top of a league and the mobility of the teams over the years.

**Static competitive balance.**

Most of the models below are recognized and used in academia. The “stat people” like to calculate and often the outcome of these calculations is difficult to interpret for the media, the fans and the sport. If ties happen often; winning=3 points, tie=1, losing=0; sudden death; play-offs etc. are introduced, then these models turn complicated.

• Standard deviation of win percentage \( \sigma = \frac{0.5}{\sqrt{N}} \) \( N \)=number of games in a season for a team. The actual win percentages are measured up against this.
• Herfindahl´s index measuring how skewed the top teams % of points (squared) compared to perfect competition and thereby distribution of the points.
• C5 (or any number) = the total % of points won by top-5/ total points in the league. The Cn ratio measures the share of the total number of points in a competition that has been won by the top five teams – and depends on the number teams.
• Another measurement of CB is the CnICB index. The Cn Index of CB is \((Cn*N/n)\) where \(N\) is the number of teams in the league. The value 1 = perfect CB.
• The Lorenz Seasonal Balance Curve and the Gini coefficient (difficult to instantly grasp and understand) is graphically showing how skewed CB is in a league.

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The authors recommend a simple measurement for CB, which can instantly be understood by any fan or journalist and will be easy to calculate. Herfindal’s or the C5 are showing equal directions and tendencies for CB. C5 (or C 25% of a league length) is our bet for a solid and simple measurement of Static CB.

The research on demand of the UEFA of Dejonghe (2006) for Belgium, Novotny (2006) for Czech Republic, Szymanski & Leach (2006) for England, Federsen (2006) for Germany, Tenreiro (2006) for Portugal, Brunelli (2006) for Italy and Gouguet & Primault (2006) for France investigated the changing in the CB over the last decades. They used the Herfindahl Index and de C5CIB index. Only in England and Italy the researches noticed a significant decreasing CB. The reason was that the values in the other countries were already high, in other words the CB was always low. In general terms we notice a convergence between the CB in the different EUR competitions. Only France has still a good CB but dominance of Lyon can result in a CB problem.

Figure 8: The evolution of the C5CIB in some smaller football markets (1985-2005)

![Figure 8](image)

Source Data: Dejonghe (2006); Novotny (2006); Tenreiro (2006)

Figure 9: The evolution of the C5CIB in 4 of the Big 5 leagues (1985-2005)

![Figure 9](image)

Source Data: Szymanski & Leach (2006); Brunelli (2006); Gouguet & Primault (2006); Federsen (2006)
Dynamic CB:

Dynamic CB is used in measuring how often the same teams win over the years and how much they dominate their particular league. It analyzes the mobility of the teams over time and how much ambition teams require rising to the top of a league. This can be demonstrated by “pole-position” of the team in its respectable league.

How many top 1+2 positions has the most winning teams had over the last 10 years? Haan et al (2002) used the differences in the year-to-year rankings to measure the dynamic CB (DNt).

\[ DN_t = \frac{2}{n} \sum (r_{kt} - r_{kt-1}) \]

\( n \) is the number of teams in the league, \( r_{kt} \) and \( r_{kt-1} \) the position of team \( k \) in year \( t \) and \( t-1 \). The DNt values lies between 0 (all teams ended this year on the same place as last year) and 1 (the champion ended at the bottom, number two the place just before it…).

Dynamic CB focuses on the stability of the top teams and future expectations bringing us back to the definition given by “Bud” Selig from the NLB of CB: “Fans want to begin each season with hope and expectation”. An easier way to analyze dynamic CB is the number of teams reaching the top of the league in a certain period (figure 11).

<table>
<thead>
<tr>
<th>League</th>
<th>Total</th>
<th>%</th>
<th>#</th>
<th>Rank</th>
<th>Total</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greece</td>
<td>10</td>
<td>83,3</td>
<td>Olympiakos</td>
<td>6</td>
<td>Panathinaikos</td>
<td>4</td>
<td>1 Greece</td>
</tr>
<tr>
<td>England</td>
<td>6</td>
<td>66,7</td>
<td>Arsenal</td>
<td>5</td>
<td>Man Utd/Chelsea</td>
<td>3</td>
<td>2 England</td>
</tr>
<tr>
<td>Italy</td>
<td>8</td>
<td>66,7</td>
<td>Juventus</td>
<td>5</td>
<td>Milan/Roma</td>
<td>3</td>
<td>3 Spain</td>
</tr>
<tr>
<td>Spain</td>
<td>7</td>
<td>58,3</td>
<td>Real Madrid</td>
<td>4</td>
<td>Barcelona</td>
<td>3</td>
<td>4 Germany</td>
</tr>
<tr>
<td>Germany</td>
<td>7</td>
<td>58,3</td>
<td>Bayern München</td>
<td>5</td>
<td>W Bremen/Schalke 04</td>
<td>2</td>
<td>5 Italy</td>
</tr>
<tr>
<td>France</td>
<td>7</td>
<td>58,3</td>
<td>Olympique. Lyon</td>
<td>6</td>
<td>6 teams</td>
<td>1</td>
<td>6 France</td>
</tr>
<tr>
<td>MLB** NA</td>
<td>5</td>
<td>41,7</td>
<td>NY Yankees</td>
<td>4</td>
<td>9 teams****</td>
<td>1</td>
<td>7 MLB** NA</td>
</tr>
<tr>
<td>NBA** NA</td>
<td>5</td>
<td>41,7</td>
<td>LA Lakers</td>
<td>3</td>
<td>Nets/Pistons</td>
<td>2</td>
<td>8 NBA** NA</td>
</tr>
<tr>
<td>NHL* NA</td>
<td>5</td>
<td>41,7</td>
<td>NJ Devils</td>
<td>3</td>
<td>Hurricanes</td>
<td>2</td>
<td>9 NFL NA</td>
</tr>
<tr>
<td>NFL NA</td>
<td>4</td>
<td>33,3</td>
<td>NE Patriots</td>
<td>3</td>
<td>9 teams*****</td>
<td>1</td>
<td>10 NFL NA</td>
</tr>
</tbody>
</table>

*Hlt. 1996–2006 and 2000–2006, no tournament in 2005 because of player lock out **Chicago Houston/Boston/St Louis/Florida/Kahmen/San Francisco/Avoices/NY Nets

**NBA and MLB are for the years 1996 to 2005 and 2000-1995

****Stekers/Southwa/Panthers/Eagles/Buccaneers/Rapters/Rams/Ravens/Giants

***PSG/Monaco/Bordeaux/Lev/Lens/Nantes

The dynamic-CB shows the race in the top of a league and how volatile the championship is. The more volatile and the more different teams in the top of a league, the closer to Allan “Bud” Selig definition, the more teams with hope and expectation of doing well, the more exciting the league will be and the higher the income for a league.

8. What are Big-4½ NA leagues doing to influx CB.

Table 11 is an overview of the tools that the American Leagues are using to improve the CB. It indicates also the big differences with the contemporary EUR approach of professional sport leagues.
<table>
<thead>
<tr>
<th></th>
<th>NBA</th>
<th>NFL</th>
<th>MLB</th>
<th>NHL</th>
<th>MLS</th>
<th>EUR*</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of teams</td>
<td>30</td>
<td>32</td>
<td>30</td>
<td>30</td>
<td>12</td>
<td>20*</td>
</tr>
<tr>
<td>Matches (regular season)</td>
<td>82</td>
<td>16</td>
<td>162</td>
<td>82</td>
<td>32</td>
<td>38</td>
</tr>
<tr>
<td>Conferences</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Divisions</td>
<td>6</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Lower integrated leagues</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Promotion and relegation</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Play Offs (end games)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Closed League</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Revenue sharing</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Salary Cap</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Organization</td>
<td>Franchise</td>
<td>Franchise</td>
<td>Franchise</td>
<td>Franchise</td>
<td>Franchise</td>
<td>Federation</td>
</tr>
<tr>
<td>Ruling</td>
<td>Commissioner</td>
<td>Commissioner</td>
<td>Commissioner</td>
<td>Commissioner</td>
<td>Commissioner</td>
<td>Federation</td>
</tr>
</tbody>
</table>

* England Premier League, only Germany among the big-5 leagues in EUR deviates from 20 teams with 18.

- NFL has been the big winner and benchmark in the last years by managing the CB tight. They are winning market shares from MLB and NHL. Television increased the league income and fan base. MLB and NFL changed position as the most popular sport. Growth on all important factors.

- NFL has reached most of this by managing a hard salary cap (a fixed and equal budget for all teams) and a contract securing that the players in total are receiving 59.3% in the newly signed contract in 2006 for 2007-2011. Approx. 70% of all league revenues are distributed equally among the teams.

- MLB: The big teams in baseball are happy, but the league revenue is not increasing. The Yankees have the largest income and are an icon for all baseball fans. The total interest for baseball among TV-viewers and the fans is decreasing. Baseball is losing market to the other big leagues. The top players are satisfied.

- NHL has just ended a 1-year very costly lock-out because the team owners aggregated was losing money by driving up the salaries for the players beyond the aggregated income for the league. The team owners wanted a similar agreement as in the NFL and in the end got a much similar one.

- NBA is the most imbalanced league in NA (Zimbalist 2002). Only national TV contracts and NBA properties shares revenue. Team budgets are very closely related to league standing. A soft salary cap has been enforced since 1983 and tightened in 1999. The concentration of Championships is high since 1990. Fans might diminish from the sport due to the lack of CB.

9. Who wants competitive balance?

CB is all about fan perception and behavior, national and worldwide. Fans do not like long-term domination of one or a few teams. "CB is like wealth. Everyone agrees it is a good thing to have, but no one knows how much one needs” Zimbalist (2002).
The league is the business entity. Without the league to rule and regulate the sport there would be no products to sell. The product is the competition between the teams. The producers of the product are several, all-together producing a joint product, the competition. If well produced, this can create a huge income to be shared among the stakeholders. The product is created by the league + team (-owners) + players + the players unions + Media complex + stadium + local authorities + fans + sponsors (Neale 1964).

In general some stakeholders benefit from a **low CB:**
- The high paid players will loose by introducing a salary cap, because a team will only pay for sportive reasons – and not invest in very good players thereby spending a fixed budget. Not considering the marketing effect (Beckham-effect).
- The constant winners of leagues with big markets, strong fan bases and a lot of media coverage.
- The fan bases and the cities and vicinities of the strongest teams.
- Especially in EUR winning a trophy or an international Championship adds to the self-confidence of a lot of people.
- The team-owners with a self promoting motive, businesses (G. Steinbrenner, Yankees), political position (S. Berlusconi) – or just the person (R. Abramovich).

**Victims:** The EUR-leagues in smaller countries will suffer a talent drain and thereby limiting the best teams to compete in EUR tournaments. This lowers the interest for the sport in a small country and adds to the import of cheap foreign talent.

…and some stakeholders benefit from a **high CB:**
- The league in attacking the maximum spectators to the sport thereby creating the best platform for marketing the sport optimizing the total income for the league.
- All players and teams below the very best.
- All other fans than the fans of the teams winning constantly.
- The media as it adds to the story telling of the sport.
- Smaller markets being more involved and investing more in new arenas.

The conclusion is, that the EUR Soccer leagues will benefit by improving CB. EUR soccer is the only league which can be compared to the NA Big-4. EUR soccer has to begin to implement ruling and governance to improve CB. By starting the debate and implementation CB can be manageable in 10-15 years.

**10. What to do – if wanted - to implement more CB in Europe?**

There is no easy formula for CB. Research has to be performed for each and every reason for and attempt to implement CB. UEFA must realize that a good CB balance will add to the excitement and thereby improve the total market for soccer Worldwide. They started recently with research about the impact of CB and in which direction should EUR football develop in the future (UEFA, 2006).

Below are arguments for improving CB, applicable in adjusted and redesigned form to other EUR professional team sports like rugby, basketball, volleyball, and handball.

1) **Closed leagues.**
The reason for closing a league is to build lasting relationships with sponsors, the city elites, the fans, investors, the market and the local authorities. This also increases rivalries, adding to the intensity and excitement of the sport.

Dutch soccer league has a combination of the NA and EUR models as early as 1971. The closed Dutch league, separated in a first and a second league, placed 18 + 20 teams around Holland, in the placing taking into respect the size of the markets/population and when in doubt, the history of the teams. Between the leagues promotion and relegation can take place, but no relegation from the 2nd league. Professional soccer in Holland can only be played in these two leagues.

2) **Salary caps.**
To be effective a salary cap has to be hard and a maximum budget for all teams in a league. Salary cap might be very difficult to accept in EUR and can only be implemented when revenue sharing occurs.

3) **Revenue sharing.**
Some attempts on revenue sharing is seen in the redistribution of the revenue from broadcasting-contracts. Sharing gate-receipts are in the EUR-soccer leagues not in practice. The argument is that the marketing work of filling a stadium is the home teams’ responsibility and conflicts with season ticket holders.

4) **Drafting of talents.**
The European Union has proposed that each team should have a certain number of home grown playing talents in the team. This to secure a local development of talents and to keep the sport locally rooted. But to limit the free movement of talents would be illegal in the EU laws. A NA-drafting system is not possible in EUR.

5) **Discussions and research on CB.**
Sports researchers must be allowed to analyze financial figures of federations, leagues and teams. The spending on players, the different incomes in the team, revenue sharing etc. must be transparent. Are the managers clever enough buying and selling players? How are the economy and cash flows in the team and how are they created? But the biggest voices in the debate are coming from the ones not wanting CB – and openness.

6) **Ruling and management of the leagues.**
The federations have to be divided in a professional en amateur section. A firmer decision making process is needed in the professional section to regulate the balance between sportive, marketing and economic issues. The federations have to set up independent professional bodies to regulate all rulings surrounding the leagues. A Commissioner or league board might also be a lesson to be learned from the NA leagues.

11. **What should a Commissioner of a European soccer league propose?**
An unbiased football Commissioner has to increase CB. (S)he must be willing to make tough and questioned decisions for the future of the sport, decisions promoting greater excitement and interest in the sport improving the turnover of the leagues. A Commissioner might have to look into the minor NA-leagues as well for additional inspiration.

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\[1\] Euroleague Basket has formed a closed trans-EUR league approved by the European Basketball Federation. The teams still play in the national leagues. The Hockey leagues in Finland and Denmark are closed with no relegation.
A Commissioners strategy for one of the Big-5 national EUR-soccer leagues:

- Closed leagues like in Holland, playoffs for championships and between the leagues and closed below. 2 or 3 leagues depending on the size of the market. The lowest league maybe several regional leagues with no relegation below these.
- Long playoffs for relegation/promotion between the leagues to secure, that the best teams play in the top league.
- More regional trans-EUR leagues below the Champions leagues.
- Limitations on player’s budgets for the strongest teams, a soft salary cap or soft salary cap with the exception of one or two star marquee players.
- Transparency in all financial aspects such as salaries, income, cash flows.
- Maximum revenue sharing on common TV contracts and other media rights.
- The league must own all media rights.
- Secure additional media rights to the small teams to secure airtime, Internet TV and mobile rights.

A Commissioners strategy for a minor national leagues in soccer such as Poland, Belgium, Portugal, Greece, Scotland, Denmark, Austria, Greece,…:

- Definitely closed leagues like in Holland with 24-36 teams or more depending on the size of the market, leagues with playoffs between the leagues and closed below.
- Some sort of limitations on players budgets for the strongest teams or soft salary cap with the exception of one or two star marquee players.
- Allowing less CB balance allowing the top teams to do better in the EUR-leagues, Champions Leagues and UEFA-Cup. This to increase national pride.
- The league must own all media rights and redistribute them to the teams.
- Long playoffs for relegation/promotion.
- Transparency in all financial aspects such as salaries, income, cash flows.

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