

## Comparative analysis of competitive balance in the English Premier League and Spanish La Liga from the 2014 to 2018 seasons

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### Abstract:

In previous research comparing the English and Spanish top-flight men's football leagues, we found that several sport-specific indicators - such as win rate variance, goals scored index and the Herfindahl-Hirschman Index (HHI) index - suggest more excellent competitive balance in the English Premier League. This study expands upon that research by examining economic performance indicators, exploring which league exhibits more excellent balance in financial performance, and considering the principle of dual value creation inherent in spectator sports. Previous studies have shown that football leagues have an even competitive balance of teams so that teams of equal strength compete on the pitch, making the match's outcome difficult to predict and ensuring an exciting experience, promising more exciting matches. If this is ensured, more spectators go to the matches, increasing the interest of broadcasters and sponsors in the game and the teams. In other words, the optimal competitive balance increases aggregate revenues for individual clubs and leagues. The strength of clubs depends on their player pool, and the signing of a prominent player can easily upset the competitive balance and give his team a sporting and economic advantage. Overall, a more balanced league is also a "fairer" one. In our present study, we intend to examine the English and Spanish championship seasons between 2014 and 2018 to identify which of these two leagues is more balanced when clubs are compared and analysed in terms of the revenue they receive from the leagues, their value of the player pool and their player transfer activity. When selecting the period for our study, we intended to avoid the influence of the COVID-19 epidemic, so we chose the seasons when the league competitions were still held "regular". Regarding the value of the roster in these two leagues, the difference between the market values of the clubs in the top, middle and bottom "houses" of the championship is more substantial in the Spanish league than in the English one. Regarding revenue from national leagues, the Premier League features a more balanced distribution of money than La Liga. Concerning the nature of player transfers, the top-flight English football aligns more closely with an ideal distribution than the Spanish one. Economic and sport-specific metrics indicate that the English top flight is more balanced than the Spanish, and a more balanced league has a higher chance of an uncertain outcome, which could be a demand factor. Today, the globalisation of sport is an incentive to look at these factors.

**Key Words:** competitive balance, league revenues, player pool, player transfer, top-flight English and Spanish football

### Introduction

Research on professional sports normally focuses on the dual value creation of sports enterprises, while examining both economic and sports performance. A significant body of research supports that, in sport, the similarity in the ability/capacity of competing teams of the clubs creates a level of uncertainty in the outcome of the games they play, which in turn leads to consumer demand by having the potential to sustain the interest of sport fans, while the latter can also form the basis for economic success. This also presupposes that the economic conditions of the competing clubs are identical. Overall, the connection between competitive balance and the general demand for sport is well established and justified.

In our former research effort (Nagy-Bács-Bácsné, 2023), we used statistical indicators related to sport-specific factors (such as the comparison and seasonal averaging of teams' win rates, as well as the dispersion of win rates in league seasons, the distribution of goals scored and goals conceded and, finally, the Herfindahl-Hirschman Index) to investigate whether the competition series in the English or Spanish top-flight football league was more balanced/even during the 2014-2018 period, compared to the "normal" league seasons prior to the Covid-19 outbreak. We found that several sport-specific indicators (such as the dispersion of win rates, the indicator of goals and the HHI index) suggest that the Premier League in general seems to be the more balanced of the two leagues. In order to explain our findings, we assumed that, in the Spanish league, named La Liga, the majority of the money redistributed by the football federation goes to the top teams and that, due to the system of

Spanish league, it does not attract the same type of investors as clubs/teams in the English top league do. In order to substantiate these claims, it is essential to examine economic performance in addition to sporting performance indicators over the given time period. In the present study, this is exactly what the present study aims to do by examining the league revenues, the market value of players in the squads and the player transfer structure of the leagues under scrutiny.

Competitive advantage can be described through market power or market share, which means that a higher level of dominance implies higher market share. It is a basic economic premise that a more concentrated structure – i.e., where a small number of entities on the supply side of the market hold a significant share of the same market – is anti-competitive or not exactly favorable for competition (Kovács, 2010), while competitive equilibrium comes from a balance of power (Conn, 2018).

In sport, competitive balance can be manifested by the fact that all clubs competing in a given league season start off with the same conditions, so that the outcome of the individual games and the final standings of the league as a whole should be unpredictable (Scelles et al., 2020; Avila-Cano-Triguero-Ruiz, 2023; Gasparetto et al., 2023). Numerous authors have demonstrated both theoretically and empirically how “uncertain outcomes” have an effect that increases and sustains consumer demand (Borland-MacDonald, 2003; Fűrész-Rappai, 2018) in short (game), medium (championship season) (Buzzacchi et al., 2003; Humphreys, 2019) and long terms (Andersen-Nielsen, 2013; Álvarez-López-Rodríguez-Puerta, 2015; Pawlowski-Nalbantis, 2019; Serrano et al., 2023), while, as a counterpoint, how the easily predictable outcomes diminish or reduce fan interest (Zimbalist, 2003; Késenne, 2006).

It is not so difficult to realize that a perfect competitive balance in sport is not really viable (Burton, 1999). Clubs competing in European spectacle team sports do not dispose of the same amount of capital. Consequently, clubs that are financially less affluent do not, or only seldom do, make it to the top tier of their league, compared to clubs having greater resources (Pawlowski, 2020).

In North America, the major leagues try to maintain a competitive balance by various regulatory means (for example, a draft system, salary caps, etc.). Even so, it is not possible to ensure perfect competition, as a consequence of which the term “real competition” can be applied to these leagues. While in the case of perfect competition, no single club can influence the market situation and, as a result, price is a given factor, in real competition, clubs have an influence on the market structure (Szortyka, 2021), as they seek the most favorable solutions for themselves.

As sports companies/enterprises also seek to maximize profit and efficiency, they need to bear in mind that they can maximize profit if marginal costs fall short of marginal revenue. Thus, sports clubs that are better resourced can perform at a higher level than their less well-funded competitors (Humphreys-Brad, 2013), which may imply better sporting performance and, with it, economic performance and profit.

Both national and international sports federations have taken several measures to ensure that balanced competition should be maximized in European leagues. One means of achieving this objective has been the introduction of the system of home and away games, which is designed to balance out the advantage of the home ground. Another implement is the redistribution of revenues (Késenne, 2006; Feess-Stähler, 2009; Vrooman, 2009; Dietl et al., 2011) and the restriction of the players’ labor market. Switching to the 3-points-for-a win system in football also serves the purpose of increasing the “effort of teams in the league to win and thus increase the economic power of the league” (Szymanski, 2003).

The capital directed towards the teams depends rather significantly on the ownership structure of the clubs. This means that major investors (or so-called “sugar daddies”) can significantly influence the player composition of teams, the results of matches, and the overall outcome of the league season (Jagielski, 2024; Rohde-Breuer, 2016; 2017; Lang et al., 2011). Based on this, it can be confidently stated that there is no perfect competitive balance in European football. Over 50% of the total revenue in European club football comes from the top five leagues, commonly referred to as the “Big Five,” which include the English, German, Spanish, Italian and French first division leagues. In the other leagues of the world, clubs can only dispose of as much money as the international and national federations do (Peeters-Szymanski, 2014; Jaworska, 2020).

*Problem statement:* previous studies have shown that football leagues have an even competitive balance of teams so that teams of equal strength compete on the pitch, making the match's outcome difficult to predict and ensuring an exciting experience, promising more exciting matches. If this is ensured, more spectators go to the matches, increasing the interest of broadcasters and sponsors in the game and the teams. In other words, the optimal competitive balance increases aggregate revenues for individual clubs and leagues (Martinez-Wilner, 2017). The strength of clubs depends on their player pool, and the signing of a prominent player can easily upset the competitive balance and give his team a sporting and economic advantage (Metelski, 2021). Overall, a more balanced league is also a “fairer” one. In our study, we intend to examine the English Premier League and the Spanish La Liga seasons between 2014 and 2018, with the aim of identifying which of these two leagues is more balanced when clubs are compared and analyzed in terms of the revenue they receive from the leagues, their player pool and their player transfer activity. Our previous findings that we have obtained by analyzing former sports statistics indicators (such as the dispersion of win rates, the goals conceded indicators and the HHI indices) show that the Premier League is the more balanced league of the two. We assume that this finding would be also supported by our economic analysis.

**Material & methods**

The basis for this research effort is a database of 1,600 items, which contains data from the English and Spanish first division men's football leagues covering the period between the 2014/2015 season and the 2017/2018 season. To minimize the impact of the Covid-19 pandemic on our analysis, we specifically selected seasons during which the league competitions were conducted under “normal” circumstances. In the database, we examined data related to the financial situation of the clubs in the respective seasons, such as the market value of the squads, the fees and costs related to player transfers, and the revenue per season from the league. The data were analyzed using statistical methods (distribution calculations were primarily performed). We analyzed the incomes of the teams, the value of their player stock, and the value of player transfers according to the league position of the teams.

**Results**

*An analysis of the teams' market values*

In order to examine the value of the roster in the top-flight English and Spanish football, we grouped them into four categories, applying the classification approach established in our previous studies, based on their league positions. There were five teams in each category, their player frame values were added together and compared to the player frame values of all the teams in the league. Our analysis was based on the premise that a team with a higher squad value would likely exhibit superior sporting performance. From the aspect of competitive balance, it would be advantageous if the four different categories had almost the same percentage of the total of the squad market values.

**Table 1.** Breakdown of market values of clubs in English and Spanish Leagues

Seasons	player frame value (MEuro) 100%	1st-5th place	6th-10th place	11th-15th place	16th-20th place
Premier League					
2014-15	4103,9	56%	16%	15%	13%
2015-16	4288,95	37%	33%	16%	14%
2016-17	5378,2	47%	23%	18%	12%
2017- 18	6114,7	48%	24%	14%	14%
La Liga					
2014-15	2638,5	68%	13%	11%	8%
2015-16	3140,25	60%	17%	14%	9%
2016-17	3722,5	64%	12%	16%	8%
2017- 18	4056,1	62%	13%	12%	13%

Source: own construction based on Transfermarkt

In the analyzed period in the Premier League and La Liga, it was observed that teams with more valuable squads tend to rank higher in the league standings. As shown in Table 1, the disparity between the ratios of the grouped teams is greater in La Liga compared to the Premier League. The teams in positions 1 to 5 are most responsible for the reduced competitive balance, as these teams have the highest ratios related to the total squad market values. The most unbalanced situation occurred in the 2014/2015 season, when the value of the player pool of the top five teams in Spanish Championship exceeded €1,794 million, comprising 68% of the value of all of the league teams. In La Liga, the combined value of the top five teams surpassed €1,794 million, representing 68% of the total team worth of all league teams. While the high-ranking squads, on average, accounted for approximately 60% of the total squad valuation, the championship lower house teams—except in the 2017/2018 season—barely reached 10%. When comparing these figures to the Premier League, the highest proportion observed was 56%, recorded in the 2014/2015 season. A similar disparity is evident among the bottom-ranked clubs in the Premier League, akin to those in La Liga, though to a slightly lesser extent. However, the Premier League shows a more balanced distribution within the bottom three groups.

There, even the clubs in the bottommost group, i.e., in positions 16 to 20, typically have a player market value between 12% and 14%. As a matter of course, this is nowhere near the optimal competitive balance, but it is certainly closer to it than in La Liga.

If we look at the market value of squads excluding the top clubs, i.e. the clubs in positions 1 to 5, we find that La Liga has a more optimal competitive balance, as the relative deviation of the distribution of the remaining three categories is lower than in the Premier League. An interesting anomaly occurred in the 2016/2017 season, where La Liga clubs ranked 11th to 15th had higher squad market values than those ranked 6th to 10th. This was not observed in the Premier League in the analyzed seasons.

*Comparison of revenues received from the league*

For football clubs, a significant source of income is represented by the amount that the league distributes back to them at the end of the season out of the revenue total. These amounts usually depend on the final rankings in the league, on attendances at the venues and on television, as well as on advertising revenues. However, the proportions between these, and the amount and method of distribution of the money returned at the end of the season, vary from league to league. On the basis of all of the above factors, we compared the Premier League and La Liga to see what proportion of this money was distributed and returned to the clubs finishing in different places in the table. In this case, the methodology was the same as before; the twenty clubs/teams in the leagues were divided into four categories according to their position in the table.

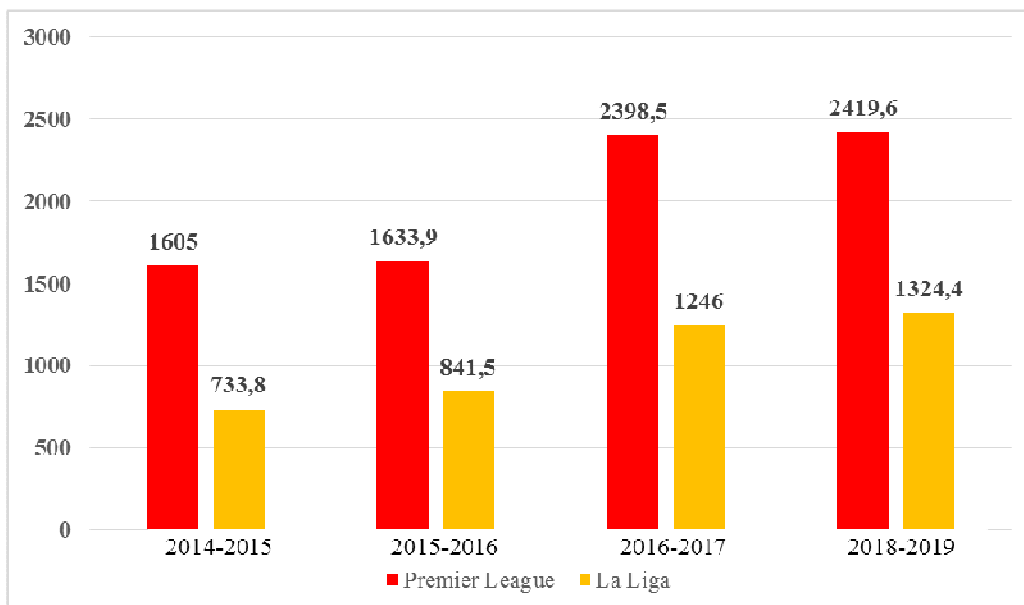
**Table 2.** Distribution of league revenues by position (%)

Seasons	league revenue (MEuro) 100%	1st-5th place	6th-10th place	11th-15th place	16th-20th place
Premier League					
2014-15	1605	30%	25%	24%	21%
2015-16	1633,9	30%	26%	23%	21%
2016-17	2398,5	30%	26%	23%	21%
2017-18	2419,6	30%	26%	23%	21%
La Liga					
2014-15	733,8	55%	19%	3%	12%
2015-16	841,5	50%	18%	26%	13%
2016-17	1246	41%	20%	15%	17%
2017-18	1324,4	41%	20%	8%	20%

Source: Own construction based on La Liga and Premier League data

Table 2 shows that during the same period, the Premier League demonstrated a more equitable distribution of league revenue compared to La Liga. In both leagues, the top five clubs received the largest share of the total revenue. However, while this share was 30% in the Premier League, it reached 55% in La Liga during the 2014/2015 season. The league money was evenly distributed between the lower placed clubs on both sides. In La Liga, the disparity between the leading club and the others was bigger than in the Premier League.

Based on a more thorough examination of the seasons of La Liga, it may be stated that the league's revenue situation did improve over the years. From the 2014/2015 season to 2017/2018, the share of league revenue for the top clubs decreased from 55% to 41%, which means that clubs lower down the table were able to receive more money, albeit slightly, which had a positive effect on the overall competitive balance.



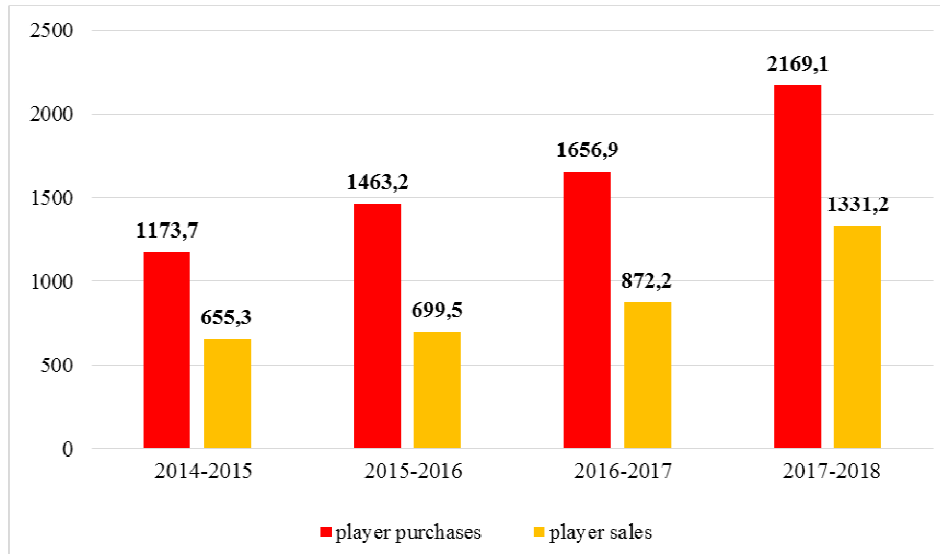
**Figure 1.** League revenues for Premier League and La Liga (MEUR)

Source: Own construction based on La Liga and Premier League

Although our analysis suggests that while the Premier League's distribution system promotes a more balanced competitive environment compared to La Liga, it is also evident from Figure 1 that the total funds available for redistribution are significantly higher in the Premier League than in Spain, allowing for a broader allocation across all teams.

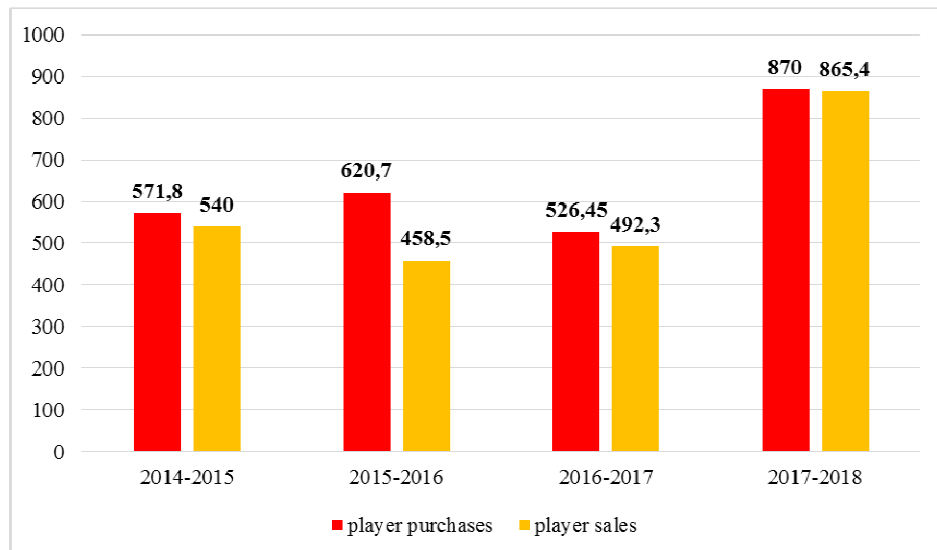
*Analysis of player transfers*

First, the “characteristic nature” of these leagues was determined, i.e., whether it is the sale or the purchase of players that characterizes the Premier League and La Liga to a greater extent.



**Figure 2:** Breakdown of Premier League player purchases and sales by season (M EUR)  
Source: Own construction based on Transfermarkt

Figure 2 shows the characterization of Premier League player transfers in the period 2014 to 2018. The chart clearly displays that the Premier League in the give period was more like a “player-buying” league, as the value of player acquisitions far exceeded the revenue from sales.



**Figure 3.** Breakdown of La Liga player purchases and sales by season (M EUR)  
Source: own construction based on Transfermarkt

The analysis of player transfers in La Liga (Figure 3) shows that the amounts received from player acquisitions were, if not much, higher than the amounts received for sales, but the gap between the two was much smaller than in the Premier League. If the value of the player purchases of the two most prestigious Spanish clubs, Real Madrid and Barcelona, were taken out of the player purchase side, this ratio would even be reversed and the value of player sales would be higher.

**Table 3.** Breakdown by position of expenditure on player purchases

Seasons	player purchases	1st-5th place	6th-10th place	11th-15th place	16th-20th place
Premier League					
2014-15	1173,7	50%	28%	14%	8%
2015-16	1463,2	35%	26%	15%	24%
2016-17	1656,9	38%	25%	22%	15%
2017- 18	2169,1	49%	24%	13%	14%
La Liga					
2014-15	571,5	85%	11%	3%	1%
2015-16	620,7	55%	17%	26%	126%
2016-17	526,45	70%	10%	15%	5%
2017- 18	870	69%	16%	8%	7%

Source: Own construction based on Transfermarkt

Table 3 shows the distribution of the total amount spent on player purchases in the two first division leagues examined in the respective seasons between the different groups according to their specific positions in the table. As before, the clubs are grouped into five different categories. In this case, the optimal situation, i.e. the most evenly balanced competitive equilibrium, would be for the different categories to spend the same amount of money on player purchases. The Premier League aligns more closely with this ideal scenario than La Liga. In the 2014/2015 season, the top five squads in the English top-flight, ranked 1st to 5th, accounted for the largest share of transfer spending when considering the total expenditure across all clubs. During that season, these teams were responsible for 55% of the €1,173.7 million spent on transfers. By contrast, the same season in La Liga saw a significantly higher concentration of spending among the top five clubs, where €571.5 million was spent overall, and 85% of it was attributed to these teams. Across the four seasons analyzed, Spanish top-tier clubs consistently outspent their English counterparts.

When examining clubs ranked 6th to 10th, it becomes evident that Premier League teams spent much closer to the top clubs than their La Liga equivalents. On average, during the four seasons, teams in these positions in the Premier League accounted for 25% of total spending, whereas their La Liga counterparts represented only 13.5%. For clubs ranked 10th to 15th, while their spending was lower than those in the Premier League, the differences were not substantial enough to significantly disrupt the competitive balance. However, in La Liga, spending among these clubs was highly uneven. For instance, in the 2014/2015 season, teams in these positions contributed only 3% to the total expenditure, which increased to 26% in the following season, then dropped to 15% and 8% in subsequent seasons. These fluctuations highlight how some clubs with larger budgets, such as Valencia, struggled despite significant spending. For example, during the 2015/2016 and 2016/2017 seasons, Valencia spent €179.9 million in total but finished in 14th place both times. Similarly, in the 2017/2018 season, Bilbao spent €32 million out of a €188.5 million budget yet ended the season in 18th place.

As for clubs ranked 16th to 20th, the situation mirrors that of the top-tier teams, with the competitive balance being less than ideal in both leagues. Nevertheless, the overall structure of transfers in the Premier League appears more promising. Lower-ranked teams in England's top flight were able to secure player transfers at a relatively higher rate than their Spanish counterparts over the observed period compared to other categories.

### Dicussion

The summary of results from our previous research was that the Premier League had performed better than La Liga in respect of sporting performance in the period between 2014 and 2018. In the present study, we have compared the two leagues in terms of economic indicators.

When comparing the market value of teams in these two leagues, it is evident that the disparity between the top, middle, and bottom tiers is more pronounced in La Liga than in the Premier League. However, if we exclude the top five teams from the Spanish league, the level of competitiveness becomes more favourable than in the English league.

In terms of revenue from national leagues, the top-flight English football features a more balanced distribution of money than the Spanish one. It is true that, when observing the seasons of La Liga, we can see that the results are getting better as the years go by, and there is a shift towards a more balanced situation. This is also a consequence of the switch to a collective sale of broadcasting rights in Spanish Championship as of the 2015/2016 season, as opposed to the previous practice when clubs used to sell these individually. Obviously, the previous practice favored the major clubs. Thanks to the new system, not only were the revenues from the sale of broadcasting rights more equally distributed and returned to the clubs, but the league's revenues also increased over the period under review.

Concerning the nature of player transfers, the Premier League is evidently rather a “purchaser” of players, while in La Liga, the dividing line is less clear, with player sales and purchases much closer to one another. Even if we leave the two biggest clubs out of consideration, the balance would tip in favor of player sales. On the other hand, when analyzing how the total spending on player transfers in a given season is allocated across the league standings, the Premier League demonstrates a distribution closer to the ideal compared to La Liga. Over the four seasons reviewed, the top teams in La Liga consistently spent a higher proportion relative to other clubs than their counterparts in the Premier League.

Across all three economic indicators analyzed, the English top league presented a more equitable scenario than the Spanish league. So our study confirms our hypothesis that the economic competitive equilibrium of a championship with a more balanced competitive landscape in terms of sports performance indicators is close to optimal. Of the two leagues examined, the English league is the more competitive, suggesting that passive sports consumers will continue to demand more of this league (Andersen-Nielsen, 2013; Álvarez-López-Rodríguez-Puerta, 2015; Fűrész-Rappai, 2018; Pawlowski-Nalbantis, 2019; Humphreys, 2019; Serrano et al., 2023). Given the globalisation of consumption trends, such studies can significantly forecast demand. They can provide necessary guidance to league regulators on the direction of regulatory changes to target leagues with uncertain outcomes and, therefore, higher revenues.

### Conclusions

In conclusion, we can safely state that the economic indicators, including the ratios of the market values of the squads in the two leagues, of the money redistributed by the football federations and of the player transfers in terms of table positions, all show the same result as the sporting indicators did. That is to say, the Premier League happens to be a more balanced league compared to La Liga. Nonetheless, there are clear signs of a shift identifiable towards a more even competitive balance in La Liga as well.

In our research both sporting (Nagy-Bács\_Bácsné, 2023), and economic indicators showed the English league to be more balanced. This is also supported by the attendance data for the examined periods. (As an example, in the last examined (2017/18) season, a total of 14,544,093 people watched the English league matches, and 10,342,948 people watched the Spanish league matches, i.e., an average of 38,273 people attended the English matches, and an average of 27,290 people participated at the Spanish matches, according to Transfermarkt. This summary is also shaded by the capacity of the stadiums in each country, which in the year under review was an average of 39,387.5 for the English and 36,826.4 for the Spanish stadiums. That is, the average stadium capacity utilization was 97.1% in England and 74.1% in Spain, which only supports our summary conclusion.)

We envision the future continuation of our research by analyzing the post-Covid period. In this way, the results of the period before and after the pandemic will be comparable, from which it will be determined whether football has recovered from the downturn caused by the pandemic and has reached the economic level before the pandemic, whether the indicators of competitive balance have further improved or worsened.

### Conflicts of interest

No potential conflict of interest was reported by the author(s)

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