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ORIGINAL

Levelling the playing field: concentration and competitive inequality in professional football according to the Herfindahl–Hirschman Index

Nivelando el campo de juego: concentración y desigualdad competitiva en el fútbol profesional, con base en el índice de Herfindahl-Hirschman

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ABSTRACT

The economics of sport has been a field concerned with examining the sporting asymmetries that generate hegemony and the concentration of national titles among a small number of soccer clubs across different leagues worldwide, particularly those with greater media, economic, and financial impact. This study aims to measure the concept of hegemony in sport, understood as the inequalities within the game that may lead to the concentration of titles and trophies among a limited number of soccer teams in Western European and South American leagues. The study employs a critical discourse analysis of data, examining how quantitative and qualitative evidence is embedded within broader power relations in society. In this context, the interpretation of the data is linked to the influence of foreign investment funds, wealthy family ownership structures, and the role of supporters in football governance. A sample of 23 seasons is analyzed, identifying the clubs that have most frequently won national championships. The results and conclusions suggest that competitive inequality in professional soccer during the twenty-first century is more pronounced and structurally entrenched in Western Europe (HHI = 0,357, very high structural dominance) than in South America (HHI = 0,182, moderate concentration), reflecting divergent governance models, ownership structures, and redistributive mechanisms across leagues.

Keywords: Sports economics; Competitive inequality; Hegemony in football; Ownership structures; Herfindahl–Hirschman Index (HHI).

RESUMEN

La economía del deporte ha sido una disciplina en estudiar las asimetrías deportivas que crean hegemonía y concentración de títulos nacionales en pocos equipos de fútbol en distintas ligas del mundo, particularmente de aquéllas que gozan de más impacto mediático, económico y financiero. Esta investigación tiene como objetivo medir el concepto de hegemonía en el deporte, que se refiere a las desigualdades del juego que pueden llevar a la concentración de títulos y premios entre un pequeño número de equipos de fútbol en las ligas de Europa Occidental y de Sudamérica. El método que se emplea es el del análisis crítico del discurso de datos, el cual examina cómo los datos cuantitativos y cualitativos se integran en las relaciones de poder más amplias dentro de la sociedad. Justamente, la interpretación de los datos se vincula con la influencia de los fondos de inversión extranjeros, las familias adineradas el papel de los aficionados en la gobernanza del fútbol. Se toma una muestra de 23 temporadas, en las que se identifican los equipos más ganadores de copas nacionales. Los resultados y conclusiones sugieren que la desigualdad competitiva en el fútbol profesional durante el siglo XXI es más pronunciada y estructuralmente arraigada en Europa Occidental (HHI = 0,357, dominio estructural muy alto) que en América del Sur (HHI = 0,182, concentración moderada), lo que refleja modelos de gobernanza, estructuras de propiedad y mecanismos redistributivos divergentes entre las ligas.

Palabras clave: Economía del Deporte; Desigualdad Competitiva; Hegemonía en el Fútbol; Estructuras de Propiedad; Índice Herfindahl-Hirschman (HHI).

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INTRODUCTION

Rottenberg[1] is considered the pioneer of the economic analysis of sport and the originator of the concept of competitive balance, intended to prevent the game from being dominated by a small number of teams and, consequently, to preserve its appeal to the public.

This concept has gained renewed relevance in the present context, in which a concentration of national and international titles can be observed among a limited number of football clubs in Western Europe and South America. These clubs typically possess stronger economic and financial capacities, which tend to favor their sporting success over teams with fewer economic and financial resources.[2]

Despite the evident asymmetries among these sporting actors, the media, fans, sponsoring companies, athletes, executives, and club owners appear to follow a market-oriented logic, driven by the economic profits generated by the sports industry[3] and, particularly, by football. In this article, this generalized perception is incorporated into the concept of sporting hegemony, understood as those sporting practices and structures lacking neutrality that perpetuate power relations in society,[4] although they may also become sites of contestation and social transformation led by sporting communities.[5]

It has been hypothesized that capitalism has developed mechanisms capable of mitigating or managing its own structural contradictions. According to Parry[4], Marx himself may have indirectly contributed to this interpretation, insofar as rational intervention in social reality presupposes an understanding of how the system functions. In this sense, Marxist analysis provided conceptual tools that enabled even the bourgeoisie to recognize the potential risks of its historical disappearance. Nevertheless, attention shifted toward the capacity of advanced capitalism to neutralize its inherent self-destructive tendencies, particularly through the configuration and control of social consciousness, as suggested by Gramsci.[6] From this perspective, the masses, by interpreting reality through dominant ideological categories, ultimately accept voluntarily the conditions of subordination that oppress them.[4]

This article seeks to quantitatively measure the concept of hegemony in sport, which refers to the inequities of the game that may lead to the concentration of titles and prizes among a small number of football teams in Western European leagues — whose revenues exceed one billion euros per season[7] — and, especially, in South America.

To this end, the Herfindahl–Hirschman Index (HHI) is used to measure concentration and competitive balance in professional sports leagues,[8] through the design of a scoring scale. However, the analysis does not remain limited to quantitative aspects; it also extends to qualitative dimensions, such as the influence of foreign investment funds and wealthy individuals and families on football governance, as well as the role played by fans within this equation.

Data Collection and Analysis

This study employs quantitative data analysis on a 23-year sample from the online newspaper AS,[9] covering the period from 2000 to 2023, during which the leagues of the Big 5 in Europe and the Americas took place. It is important to note that while European leagues represent 23 seasons, some leagues in the Americas may have more, as they hold two tournaments per year: the Apertura and Clausura tournaments.

The analysis focuses on the ten highest-ranked leagues in Europe and the Americas, according to the International Federation of Football History and Statistics,[10] to identify the factors that have caused significant asymmetries in competition. These include Serie A (Italy, rank 1), the Premier League (England, rank 2), La Liga (Spain, rank 3), the Bundesliga (Germany, rank 5), and Ligue 1 (France, rank 6) (the UEFA Big 5), along with the Brasileirão (rank 4) and the leagues of Argentina (rank 10), Colombia (rank 11), Paraguay (rank 13), and Ecuador (rank 17) (CONMEBOL).

The selection of these ten football leagues is justified by their role as major sources of player recruitment for leagues worldwide, including the most competitive leagues in Western European countries.[11] Leagues that are more media-centric, such as Mexico (36) and the United States (63) (CONCACAF), are not considered since the portal positively scores those that have accumulated significant victories in 2023. This research adopts a quantitative approach, as its purpose is to accurately describe the number of titles won by teams in Europe and the Americas in the twenty-first century, from the 2000 to the 2024 seasons, and subsequently interpret these data in light of the concept of hegemony, measured through the Herfindahl–Hirschman Index (HHI). This index objectively demonstrates the levels of concentration in each league under study.

The period analyzed in this study spans the first twenty-four years of the twenty-first century (2000–2024), a phase characterized by profound structural transformations in professional football. This period is particularly relevant due to the increasing conversion of football clubs into corporate entities and the growing presence of private and transnational ownership structures, which have reshaped financial capacities, investment strategies, and competitive dynamics across leagues. As recent research has shown, changes in club ownership during this period have had a direct impact on sporting ambition and competitive outcomes, contributing to greater disparities in performance and success.[12] Consequently, focusing on this timeframe allows for a systematic examination of competitive inequality and title concentration under the contemporary governance and ownership models of football.

Within this context, competitive inequality and title concentration are analyzed through the Herfindahl–Hirschman Index (HHI), grounded in Hirschman's[13] conceptualization of concentration as a function of two key variables characterizing market structure: inequality and the number of firms. Inequality exerts a direct effect on concentration, while the number of firms influences it inversely. Accordingly, at a given level of inequality, a greater number of football teams results in lower concentration, whereas, holding the number of teams constant, higher levels of inequality imply greater concentration. This framework allows for a systematic assessment of how structural changes in club ownership and financial power during the 2000–2024 period is reflected in patterns of competitive inequality and title concentration across football leagues in Western Europe and South America. The HHI formula is calculated as follows:

$$\mathrm{IHH} = \sum_{i=1}^{n} s_i^2$$

Where: s_i= the share of each actor (expressed as a percentage or fraction), and n= the total number of actors. In football, the share may correspond to the percentage of titles won by each club over a given period. The higher the HHI value, the lower the level of competitive equity and the greater the concentration of titles among a small number of football teams. The scoring scale that guides these conclusions is as follows:

Table 1. Scoring scale

IHH Value	Interpretation
< 0,10	High competitiveness (low concentration)
0,10 – 0,18	Moderate concentration
> 0,18	High concentration
> 0,25	Very high structural dominance

Source: Ausioos[14] y Trigero-Ruiz et al.[15]

The analysis and interpretation of the results are complemented by a critical data analysis approach, aimed at examining how quantitative and qualitative data are embedded in broader power relations within society, as well as how and why these relations may be subject to critical scrutiny and transformation.[16] In this study, the analytical strategy is designed to identify whether the concentration of titles in an unequal competitive context reflects a hegemonic logic, specifically associated with ownership structures and regulatory frameworks that systematically favor such outcomes.

Ethical Considerations

This study is based exclusively on the analysis of publicly available data obtained from institutional, regulatory, and openly accessible secondary sources. No personal, sensitive, or confidential data were collected or processed. Consequently, the research did not involve human subjects and did not require informed consent or approval from an institutional ethics committee. All data were used in accordance with principles of transparency, academic integrity, and responsible data use, ensuring proper attribution to original sources and minimizing the risk of misinterpretation or misuse.

RESULTS

The Herfindahl–Hirschman Index (HHI) was calculated by dividing the number of titles obtained by each team by the total number of titles in the period analyzed, squaring each share, and summing the resulting values. Tables report the distribution of titles, the corresponding shares, and the resulting HHI.

Table 2. Italian League

Team and Ownership Type	Titles	Share of titles (s_i)	(s^2_i)
Roma / Private	1	0,045	0,002
Juventus / Private	11	0,500	0,250
Milan / Private	3	0,136	0,019
Inter / Private	6	0,273	0,074
Napoli / Private	1	0,045	0,002
Total / HHI	22	1,000	0,347

The calculated Herfindahl–Hirschman Index (HHI = 0,347) reveals a very high level of title concentration, largely driven by Juventus' dominant share of championships. This result indicates a structurally unequal competitive environment, where a limited number of clubs account for most of sporting success.

In the twenty-first century, the Italian league has shown a high concentration of titles, as only 25 % of the 20 participating clubs have been crowned champions. Juventus stands as the most successful club in the period analyzed, with 11 titles, representing 50 % of the 22 championships contested, followed by Inter, with six championships, equivalent to 27,2 %.

Serie A is characterized by a predominantly private ownership model, in which shareholders — often linked to families of significant economic and social influence — play a central role.[17] At the same time, Italian football has historically been marked by recurring suspicions of match manipulation associated with sports betting. A significant example is the 2004–2005 season, in which the Italian judicial system decided not to award the league title as a consequence of the scandal known as Calciopoli. This case revealed match-fixing practices carried out through the allegedly irregular appointment of referees considered favorable to certain

clubs, including Juventus, AC Milan, Fiorentina, and Lazio, among others.[18]

Table 3. English League

Team and Ownership Type	Titles	Share of titles (s_i)	(s^2_i)
Manchester City / Private	7	0,304	0,093
Manchester United / Private	7	0,304	0,093
Chelsea / Private	5	0,217	0,047
Arsenal / Private	2	0,087	0,008
Liverpool / Private	1	0,043	0,002
Leicester City / Private	1	0,043	0,002
Total / HHI	23	1,000	0,244

The Herfindahl–Hirschman Index for the English league (HHI = 0,244) indicates a high level of title concentration. Although the distribution of championships involves a larger number of clubs than in some other major European leagues, competitive success remains strongly concentrated among a small group of teams. Manchester City and Manchester United emerge as the dominant actors, while Chelsea constitutes a secondary pole of success. The presence of occasional champions such as Leicester City does not substantially alter the overall concentration pattern.

In the twenty-first century, the English Premier League has shown a moderate diversity of champions, as 6 of the 20 participating clubs (30 %) have won the national title. Manchester City stands as the most successful team in the recent period, with seven championships won in the last decade — a period that coincides with its acquisition by the Abu Dhabi United Group, based in the United Arab Emirates — as well as with various allegations related to accounting irregularities.

In this context, the club could face financial and disciplinary sanctions for the alleged breach of UEFA (Union of European Football Associations) Financial Fair Play regulations,[19] in addition to the alleged violation of 115 financial rules of the Premier League over nine different seasons.[20] These allegations suggest that the club's expenditure systematically exceeded its revenues, along with a lack of transparency regarding certain operating costs. This pattern of investment beyond regulatory limits points to excessive spending on the recruitment of elite players, a highly qualified coaching staff, data analysts, and specialized medical and nutritional personnel, which may have generated competitive advantages over other clubs that appear to comply with existing regulations.

This dynamic can be understood because of the high structural competitiveness of the Premier League and the rivalry among the other five national champions of the twenty-first century, whose ownership models are characterized by the acquisition of clubs by foreign investors, mainly from North America and Asia.[12]

Table 4. Spanish League

Team and Ownership Type	Titles	Share of titles (s_i)	(s^2_i)
Barcelona / Collective	11	0,478	0,228
Real Madrid / Collective	8	0,348	0,121
Atlético de Madrid / Private	2	0,087	0,008
Valencia / Private	2	0,087	0,008
Total / HHI	23	1,000	0,365

The Herfindahl–Hirschman Index for the Spanish league (HHI = 0,365) reveals a very high level of title concentration, driven by a pronounced duopoly formed by FC Barcelona and Real Madrid. Together, these two clubs account for more than 80 % of the championships in the period analyzed, while the remaining titles are distributed among only two additional clubs. This result indicates a structurally polarized competitive environment, characterized by limited opportunities for sustained sporting success beyond the dominant pair.

The Spanish league is characterized by a high concentration of titles, being the competition in which the smallest number of clubs have been crowned champions. Only four teams have won the championship, which represents 20 % of the 20 participating clubs. In this context, the dominance of FC Barcelona, with 11 titles (47,8 %), and Real Madrid, with eight championships (34,7 %), stand out clearly. Unlike other European clubs, both entities have a distinctive legal structure: although they operate as sports corporations, their management rests with member associations whose members, through electoral processes, choose the board of directors and participate in administrative and sporting decision-making.

In contrast, other prominent clubs in the competition present ownership models based on private investment. Atlético de Madrid belongs to the Chinese conglomerate Wanda Group and the Israeli businessman Idan Ofer, through his company Quantum Pacific Group (in 2026, the U.S.-based Apollo Sports Capital group became the majority shareholder of the club[21]), while Valencia CF is owned by Peter Lim through Meriton Holdings.

The Spanish league has also not been free from legal controversies. In this regard, Spanish courts declared illegal the acquisition of shares by the principal shareholders of Atlético de Madrid and Real Betis, as these transactions were carried out using financial

resources from the clubs themselves rather than from the investors, according to the corresponding judicial rulings.[7]

Table 5. German League

Team and Ownership Type	Titles	Share of titles (s_i)	(s^2_i)
Bayern Munich / Collective	17	0,739	0,546
Borussia Dortmund/ Collective	3	0,130	0,017
Stuttgart/ Collective	1	0,043	0,002
Wolfsburg/ Collective	1	0,043	0,002
Werder Bremen/ Collective	1	0,043	0,002
Total / HHI	23	1,000	0,569

The Herfindahl–Hirschman Index for the German league (HHI = 0,569) indicates an extremely high level of title concentration, reflecting a strongly monopolistic competitive structure. Bayern Munich overwhelmingly dominates the distribution of championships, accounting for nearly three-quarters of all titles in the period analyzed. The remaining clubs contribute only marginally to overall competitive outcomes, highlighting a structurally imbalanced league characterized by persistent dominance and limited competitive alternation.

At first glance, the distribution of Bundesliga titles in the twenty-first century could be interpreted as relatively plural, since five of the eighteen professional clubs have won the championship, representing 27,7 % of the participating teams. However, this aggregate indicator conceals a marked competitive imbalance. Over a period of 23 seasons, Bayern Munich has won 17 titles (73,9 %), while Borussia Dortmund has secured three championships (13 %), revealing a pattern of concentration of sporting success within a very small number of institutions.

From an institutional perspective, most German clubs operate under a collectively owned and dispersed ownership model, regulated by the so-called 50+1 rule. This regulatory provision aims to preserve members' influence in strategic decision-making and to ensure that clubs remain under the control of their members and supporters.[22] Formally, the rule establishes that members must hold at least 50 % plus one share of the sporting entity, preventing external investors from acquiring majority voting power and controlling club governance.[23]

Table 6. French League

Team and Ownership Type	Titles	Share of titles (s_i)	(s^2_i)
ParisSaint-Germain(PSG)/Private	9	0,391	0,153
Olympique Lyon / Private	7	0,304	0,093
Lille / Private	2	0,087	0,008
Girondins Bordeaux / Private	1	0,043	0,002
Nantes / Private	1	0,043	0,002
Montpellier / Private	1	0,043	0,002
Olympique Marseille / Private	1	0,043	0,002
Monaco / Private	1	0,043	0,002
Total / HHI	23	1,000	0,264

The Herfindahl–Hirschman Index for the French league (HHI = 0,264) indicates a high level of title concentration, characterized by a dominant core of clubs. Although the distribution of championships includes a relatively larger number of title-winning teams, competitive success remains heavily concentrated in Paris Saint-Germain and Olympique Lyon, with PSG emerging as the principal pole of dominance in the most recent phase. The remaining titles are sparsely distributed among several clubs, suggesting that apparent diversity does not translate into sustained competitive balance.

In Ligue 1, eight of the twenty participating clubs (40 %) have won the championship during the twenty-first century, which initially suggests a relatively broad distribution of national titles, beyond the geographical location or capital availability of the teams. Nevertheless, the competitive dynamics of the last decade have been marked by the supremacy of Paris Saint-Germain (PSG), controlled by the Qatar Sports Investments (QSI) fund since the club's acquisition in 2011.

Between the 2012–2013 and 2022–2023 seasons, PSG won nine of the eleven league championships contested, consolidating a period of sporting hegemony. This process was accompanied by significant financial investment in the transfer market, most notably the signing of Brazilian player Neymar da Silva Santos Júnior in 2017 from FC Barcelona for €222 million, a record figure at the time.[24]

In terms of ownership structure, several French football clubs are controlled by majority shareholders with substantial financial capacity, including international investors. Among them are the American businessman Frank McCourt, owner of Olympique de Marseille, and the Russian billionaire Dmitry Rybolovlev, owner of AS Monaco.[25]

Table 7. Brazilian League

Team and Ownership Type	Titles	Share of titles (s_i)	(s^2_i)
Corinthians / Collective	4	0,167	0,028
Palmeiras / Collective	4	0,167	0,028
Cruzeiro / Private	3	0,125	0,016
Flamengo / Collective	3	0,125	0,016
São Paulo / Collective	3	0,125	0,016
Fluminense / Collective	2	0,083	0,007
Santos / Collective	2	0,083	0,007
Atlético Mineiro / Collective	1	0,042	0,002
Atlético Paranaense / Collective	1	0,042	0,002
Vasco da Gama / Collective	1	0,042	0,002
Total / HHI	24	1,000	0,122

The Herfindahl–Hirschman Index for the Brazilian league (HHI = 0,122) indicates a low to moderate level of title concentration. Unlike the major Western European leagues, competitive success in Brazil is distributed across a relatively large number of clubs, with no single team or stable duopoly exerting sustained dominance over the period analysed. This pattern reflects a more plural and rotational competitive structure, characterised by higher levels of championship alternation.

As shown in the table, ten clubs have won the national championship so far in the twenty-first century, which represents 50 % of the teams considered in the competition. This figure suggests a relative diversity in the distribution of titles within Brazilian football.

From an economic perspective, Brazil recorded in 2023 the largest volume of football player transfers worldwide (2375 operations, according to the Global Transfer Report [11]), generating revenues of USD 935,3 million. Player transfers constitute one of the main sources of financing in a country recognized for developing high-level footballers, although many clubs still lack specialized financial and marketing strategies that would allow them to maximize the economic value of their sporting capital.[26]

From an institutional standpoint, 87 % of Brasileirão clubs operate as non-profit organizations owned by their members. This associative model allows thousands of supporters to participate in the election of presidents and board members, positions that in many cases are performed without remuneration.[27] However, this structure can also create management difficulties, as some executives assume administrative responsibilities without specialized training and, at times, prioritize immediate sporting results over the club's financial sustainability.[26]

During the first presidential term of Luiz Inácio Lula da Silva (2003–2007), *Timemania*, a state lottery designed to provide financial support to clubs facing economic difficulties, was created. Through the distribution of resources, the program sought to reduce accumulated debts, many of them related to outstanding tax obligations to the Brazilian fiscal authority.[28]

Table 8. Argentine League

Team and Ownership Type	Titles	Share of titles (s_i)	(s^2_i)
Boca Juniors / Collective	13	0,371	0,138
River Plate / Collective	8	0,229	0,052
Vélez Sarsfield / Collective	5	0,143	0,020
Racing Club / Collective	3	0,086	0,007
San Lorenzo de Almagro / Collective	3	0,086	0,007
Estudiantes de La Plata / Collective	2	0,057	0,003
Lanús / Collective	2	0,057	0,003
Newell's Old Boys / Collective	2	0,057	0,003
Argentinos Juniors / Collective	1	0,029	0,001
Arsenal F.C. / Collective	1	0,029	0,001
Banfield / Collective	1	0,029	0,001
Colón / Collective	1	0,029	0,001
Independiente / Collective	1	0,029	0,001
Tigre / Collective	1	0,029	0,001
Rosario Central / Collective	1	0,029	0,001
Total / HHI	35	1,000	0,233

The Herfindahl–Hirschman Index for the Argentine league (HHI = 0,233) indicates a high, though not extreme, level of title

concentration. Competitive success is largely dominated by Boca Juniors and River Plate, which together account for approximately 60 % of the championships in the period analyzed. However, the presence of a relatively broad group of additional title-winning clubs moderates overall concentration, suggesting a competitive structure characterized by dominant historical actors alongside a meaningful degree of title dispersion.

The Argentine League Cup, organized under a shorter competitive format, divides the 28 first-division teams into two groups. However, the number of clubs participating in the top division has not remained stable throughout the twenty-first century, as in different periods the competition has included approximately 20 teams or slightly higher figures.

Under this criterion, the Argentine league is characterized by a notable diversity of champions per season, although largely concentrated in Boca Juniors and River Plate: 15 different clubs have won titles in the period analyzed, which represents approximately 65,2 % of the teams considered.

From an economic perspective, the Global Transfer Report[11] indicates that Argentina ranked second worldwide in international player transfers, with 1078 operations generating revenues of approximately USD 509,7 million.

Another relevant element is the collective ownership structure of clubs, in which members and supporters participate in the election of presidents and board members. However, Paradiso[29] warns that this democratic model has at times fostered clientelistic, corrupt, or violent relationships between candidates for leadership positions — often linked to politics — and organized supporter groups such as the barras bravas. This dynamic typically unfolds in two stages: first, through the offering of incentives to group leaders to influence the votes of members and supporters; and later, through expectations of reciprocity from these groups, which may demand compensation from elected authorities, even resorting to mechanisms of pressure or intimidation.

Table 9. Colombian League

Team and Ownership Type	Titles	Share of titles (s_i)	(s^2_i)
Atlético Nacional / Private	10	0,222	0,049
América / Private	6	0,133	0,018
Junior / Private	6	0,133	0,018
Independiente Medellín / Private	4	0,089	0,008
Deportes Tolima / Private	3	0,067	0,004
Deportivo Cali / Collective*	3	0,067	0,004
Millonarios / Private	3	0,067	0,004
Once Caldas / Private	3	0,067	0,004
Santa Fe / Private	3	0,067	0,004
Boyacá Chicó / Private	1	0,022	0,001
Cúcuta Deportivo / Private	1	0,022	0,001
Deportivo Pasto / Private	1	0,022	0,001
Deportivo Pereira / Private	1	0,022	0,001
Total / HHI	45	1,000	0,117

The Herfindahl–Hirschman Index for the Colombian league (HHI = 0,117) indicates a low to moderate level of title concentration. Although Atlético Nacional emerges as the most successful club in the period analyzed, championship titles are distributed across a relatively broad set of teams. This pattern reflects a competitive structure characterized by recurrent rotation and the absence of a stable hegemonic club or duopoly, contrasting sharply with the high levels of concentration observed in major Western European leagues.

The Colombian league ranks among the most balanced competitions in terms of title distribution, as thirteen clubs from ten different cities — equivalent to 65,2 % of the twenty participants — have won the national championship in the twenty-first century.

Unlike Brazil and Argentina, the ownership of Colombian clubs is largely concentrated in corporations, entrepreneurs, or families with significant economic power and political connections. In this regard, Law 1445 of 2011 encouraged the transformation of clubs into joint-stock companies.

Some examples illustrate this ownership model: the Ardila Lülle Group — with interests in the beverage industry, the automotive sector, sugar mills, media, agribusiness, and insurance — owns Atlético Nacional; América de Cali belongs to businessman Tulio Gómez; and Deportes Tolima is controlled by the Camargo Serrano family. In the international transfer market, Colombian clubs have transferred 855 players abroad, ranking fifth in the Global Transfer Report,[11] with revenues of approximately USD 132,4 million.

Criticism from supporters and the media has focused mainly on two aspects. On the one hand, club owners are said to prioritize the export of talent and the profits derived from broadcasting rights — currently administered by the Win Sports channel — rather than reinvesting resources in recruiting high-level players and coaches capable of competing for international titles.[30] On the other hand, the behavior of some barras bravas or ultra supporter groups has been questioned, as in response to unfavorable sporting results they have threatened executives and players, creating a climate of hostility inside and outside stadiums that is hardly compatible with a family-friendly environment.[31]

Table 10. Paraguayan League

Team and Ownership Type	Titles	Share of titles (s_i)	(s^2_i)
Libertad / Collective	16	0,400	0,160
Cerro Porteño / Collective	10	0,250	0,063
Olimpia / Collective	9	0,225	0,051
Nacional / Collective	3	0,075	0,006
Guaraní / Collective	2	0,050	0,003
Total / HHI	40	1,000	0,281

The Herfindahl–Hirschman Index for the Paraguayan league (HHI = 0,281) indicates a high level of title concentration. Competitive success is strongly dominated by a small group of clubs, with Club Libertad emerging as the principal pole of dominance, followed by Cerro Porteño and Olimpia. Together, these three clubs account for most championships in the period analyzed, while the remaining teams play a marginal role in title distribution. This pattern reflects a structurally concentrated competitive environment characterized by limited championship alternation.

In the period analyzed, five of the twelve teams that have participated in the competition — equivalent to 41,6 % of the clubs present over 41 seasons — have won the national championship.

Regarding institutional structure, Paraguayan clubs largely maintain a collective ownership model, in which members and executives participate in the administration of the sporting organization. However, in recent years a gradual trend has been observed toward the transformation of these entities into joint-stock companies.[32]

Table 11. Ecuadorian League

Team and Ownership Type	Titles	Share of titles (s_i)	(s^2_i)
Emelec / Private	6	0,240	0,058
Liga de Quito / Private	6	0,240	0,058
Barcelona SC / Private	3	0,120	0,014
Deportivo Quito / Private	3	0,120	0,014
El Nacional / Collective	2	0,080	0,006
Aucas / Private	1	0,040	0,002
Delfín / Private	1	0,040	0,002
Deportivo Cuenca / Private	1	0,040	0,002
Independiente del Valle / Private	1	0,040	0,002
Olmedo / Private	1	0,040	0,002
Total / HHI	25	1,000	0,160

The Herfindahl–Hirschman Index for the Ecuadorian league (HHI = 0,160) indicates a moderate level of title concentration. Competitive success is primarily concentrated around two dominant clubs—Emelec and Liga de Quito—while a secondary group of teams contributes to title dispersion. Although the league does not exhibit extreme concentration, sustained dominance by a limited number of clubs suggests a competitive structure characterized by partial rotation rather than full competitive balance.

In Ecuador, most football clubs are organized under a private ownership model, either in the hands of individuals or legal entities such as companies, consortia, and corporate investors. A notable exception is Club El Nacional, which operates under a collective ownership scheme in which members and supporters retain significant influence in institutional decision-making, although commercial sponsorship plays an important role in its financial sustainability.

In recent years, an increase in the participation of business entrepreneurs in the ownership of Ecuadorian clubs has been observed. Among the most representative cases are Michel Deller, an Ecuadorian investor linked to Independiente del Valle, as well as the Eljuri Group — with interests in the construction, tourism, and hospitality sectors — owner of Club Sport Emelec.[33]

DISCUSSION

The comparative analysis of the Herfindahl–Hirschman Index across the ten leagues under study reveals pronounced differences in competitive structures between Western European and South American football. Western European leagues exhibit systematically higher levels of title concentration, ranging from high to extremely high values, with Germany representing an extreme case of monopolistic dominance and Spain and Italy displaying entrenched hegemonic or duopolistic patterns. By contrast, South American leagues tend to show lower levels of concentration, characterized by greater championship rotation and less persistent dominance, although notable internal variations exist.

In general, the results suggest that competitive inequality in professional football during the twenty-first century is more pronounced and structurally entrenched in Western Europe (HHI = 0,357, very high structural dominance) than in South America (HHI = 0,182, moderate concentration), reflecting divergent governance models, ownership structures, and redistributive mechanisms

across leagues, as previously identified by Triguero et al.[15].

Table 12. Analytical synthesis of the ten football leagues.

League	IHH	Level of concentration	Competitive structure
Germany	0,569	Extremely high	Monopolistic dominance
Spain	0,365	Very high	Structural duopoly
Italy	0,347	Very high	Dominant club
France	0,264	High	Concentrated core
England	0,244	High	Oligopolistic (expanded)
Paraguay	0,281	High	Triple dominance
Argentina	0,233	High (moderate–high)	Duopoly + dispersion
Ecuador	0,160	Moderate	Partial duopoly
Brazil	0,122	Low	High rotation
Colombia	0,117	Low–moderate	Competitive rotation

The concentration of titles in the five Western European leagues may originate in the removal of salary caps and the transformation of football clubs into joint-stock companies. Indeed, in 1960 the British footballer Jimmy Hill led a campaign aimed at eliminating salary caps in English football.[34] Hill argued that players should receive unrestricted remuneration, given their fundamental role in generating revenue from the sale of more than 20 million tickets per season. With the support of fans, this initiative succeeded in persuading the authorities of the English league to abolish the wage ceiling, a decision that produced ambivalent effects on the economic structure of professional football.

The abolition of salary caps in English football can be interpreted as a turning point in the economic transformation of professional football, as it accelerated processes of financial differentiation among clubs.[15] In the long term, this dynamic contributed to the consolidation of increasingly concentrated competitive structures, in which a small number of teams accumulate titles and resources disproportionately.

From an analytical perspective, this trend can be observed through concentration indicators such as the Herfindahl–Hirschman Index (HHI),[15] which makes it possible to measure the degree of dominance within a league based on the distribution of championships. In this sense, the growing capacity of certain clubs to attract talent through higher wages is linked to processes of economic hegemony that reproduce structural inequalities within the football system. Thus, wage liberalization, far from producing only a more efficient labor market, also contributed to reinforcing patterns of competitive concentration that characterize contemporary football.

Regarding the conversion of clubs into joint-stock companies, in recent decades professional football has undergone a process of corporatization characterized by the transformation of clubs into business entities. Under this legal-organizational model, club ownership is distributed among individual investors or groups capable of providing significant capital, who concentrate the majority of voting rights and, consequently, control over strategic decision-making. Although traditional members may acquire shares,[35] their participation is usually minority-based, which reduces their influence on institutional governance.

In this type of corporate structure, capital is divided into shares, and the liability of owners is limited to the amount of their investment, meaning that shareholders assume only the economic risk associated with the value of their holdings, without being personally responsible for the organization's financial obligations.[36] This model has facilitated the entry of large investors into professional football, a phenomenon closely linked to the historical development of mass media. According to Cappa Polchi et al.[37] the televised broadcast of the 1960 European Cup final between Real Madrid and Eintracht Frankfurt constituted a milestone that attracted the interest of major private capital in the economic potential of football.

Although revenues derived from broadcasting rights are now central to the economics of sport, in the 1960s television represented a decisive innovation by expanding audiences beyond the stadium. Television broadcasting made it possible to attract new publics and consolidate consumer markets associated with the sporting spectacle, fostering the expansion of commercial brands in an increasingly transnational environment.[38] This process significantly increased the economic value of football as a cultural and entertainment industry.

The incorporation of multiple sources of revenue — including player transfers, broadcasting rights, ticket sales, sporting prizes, and merchandising — contributed to consolidating football as a highly profitable activity, a model that by the end of the twentieth century had already demonstrated its financial viability.[39] In this context, the role of the fans also underwent a significant transformation. Historically regarded as an actor closely linked to the symbolic ownership of the club, the supporter came to assume primarily the role of consumer within the economy of the sporting spectacle, contributing to the growth of majority shareholders' capital through the purchase of official merchandise, match tickets, and subscriptions to television or digital broadcasting services, in a scenario where free-to-air broadcasts have become progressively less frequent.

The leagues of Italy, England, Spain, Germany, and France are recognized as the principal football competitions in Europe, both for the sporting achievements attained by their clubs — according to the International Federation of Football History and

Statistics[40] and for their economic relevance, reflected in revenues exceeding one billion euros per season.[7]

This level of revenue is partly explained by the growing participation of national and international investors who, despite lacking identity-based ties to the clubs, identify professional football as a favorable arena for the maximization of economic profits. This phenomenon is embedded in a process of hyper-commodification[41] that encompasses the commercialization of television broadcasting rights, the stock-market valuation of sporting institutions, the commercial exploitation of fan loyalty, the intensification of the player transfer market, ticket sales, and the monetization of digital content on social media platforms.

According to Bi[42], U.S. investors were among the first to enter European football, motivated both by the favorable financial conditions of the eurozone and by the difficulties of internationalizing domestic sports such as American football (NFL). In this context, the transformation of clubs into corporations emerges as a central element of the contemporary economic model, as ownership shifts from traditional associative structures to small groups of majority shareholders. This corporate framework redefines the role of the fan, who moves from being an actor symbolically linked to club ownership to a consumer with limited capacity to influence institutional governance, including the election of executives and the oversight of management.[37]

Therefore, new owners operate with broad margins of financial autonomy, which in some cases translates into the accumulation of debt and the exposure of club assets to economic risks — a situation that may be facilitated by regulatory gaps.[43] In contrast, in several American leagues the economic model is oriented primarily toward the export of football players as a source of revenue.[11] Although this model may generate a greater dispersion in the distribution of national titles compared with European football structural factors such as stadium violence, deficiencies in sports infrastructure, and clientelism practices continue to affect both the democratic governance of clubs and their business development.

CONCLUSIONS

This article examined the concept of hegemony in sport, understood as the underlying inequalities within the game that lead to the concentration of titles and trophies among a small number of football teams in leagues across Western Europe and South America. To this end, the Herfindahl–Hirschman Index (HHI) was used to measure concentration and balance in sporting rivalry.

This index is essential for distinguishing between concentration and diversity in the attainment of championships, since the existence of several national cup winners within a football league does not necessarily translate into lower title concentration or greater competitive equity. In other words, the presence of more champions does not automatically imply less concentration, and the HHI precisely differentiates between nominal diversity and real structural equity.

The findings indicate that Western European football leagues are characterized by highly concentrated structures, along with a form of competitive inequality that is not merely circumstantial but hegemonic in the twenty-first century. Extreme cases include Germany, with an HHI of 0,569 (extremely high concentration, reflecting the monopolistic dominance of Bayern Munich), and Spain, with an HHI of 0,365 (very high concentration, characterized by the predictable winning duopoly represented by Real Madrid and FC Barcelona).

In South America, the league that appears to be following this hegemonic trend is Paraguay's, with an HHI of 0,281, indicating a high level of concentration, characterized by the dominance of three clubs (Libertad, Cerro Porteño, and Olimpia) among the twelve teams that participate in the national tournament each season. Even so, South American football leagues exhibit greater internal heterogeneity and lower concentration overall.

The leagues of Colombia and Brazil illustrate this pattern. The Colombian league shows an HHI of 0,117, reflecting moderately low concentration and competitive rotation, evidenced by a larger number of clubs winning national titles in relatively equitable fashion. Similarly, the Brazilian league, with an HHI of 0,122, demonstrates low concentration and a high rotation of championship-winning teams.

Overall, the findings suggest that competitive inequality in professional football during the twenty-first century is more pronounced and structurally entrenched in Western Europe than in South America, reflecting divergent governance models, ownership structures, and redistributive mechanisms across leagues.

Under these conditions, would the uncertainty-of-outcome hypothesis[1,8] be confirmed? According to this hypothesis, the less predictable the outcome of a sporting competition, the greater the level of consumer interest, which is reflected in higher match attendance and increased television audience ratings. Along with the same line of argument, Triguero et al.[15] and Ramchandani[44] argue that a decline in competitive balance may negatively affect the competition as a product, reducing its attractiveness to media organizations and sponsors, while encouraging the emergence of other sporting competitions with greater competitive balance.

However, authors such as Chung et al.[45] are not entirely convinced by these arguments, suggesting that other sporting dimensions enter the equation through which audiences enjoy football leagues, despite the evident concentration of championships among a few teams. It appears that a fan's only motivation is not necessarily for their club to win a national title, but also to value other emotional, economic, and aesthetic interests related to the game — for instance, participation in online sports betting or the appreciation of the aesthetic qualities of play.[46,47] These interests are often influenced by successful sports marketing strategies.

Public limited companies, investment funds, and wealthy families that own football clubs — particularly in Western European leagues — foster among supporters the expectation of increased investment in the acquisition of better players, coaches, data analysts, and medical staff in order to secure new national and international titles. These organizations often assume and settle the accumulated debts of the clubs they acquire. However, greater investment does not always guarantee sporting success unless the economic and financial disparities with other teams are substantial, as is the case in France and Germany. In some instances, when results are unfavorable, owners resort to illegal practices or violations of the limits established under Financial Fair Play regulations, seriously undermining the economic sustainability of clubs,[48] without leading to significant legal consequences, as has occurred

with Manchester City in England and in the Spanish league.[7,20]

Where do fans stand in this equation? One consequence is the loss of governance over their teams, as most decisions are made by the new owners. Their contribution, in effect, is largely reduced to making these owners wealthier and more powerful through the purchase of stadium tickets, subscription television packages to watch matches, symbolic club merchandise associated with fan identity, and other forms of monetization.[41]

In the leagues of Argentina, Paraguay, and Brazil, collective ownership structures predominate, whereas in Ecuador and Colombia private investors typically own football clubs. Nevertheless, the challenges facing professional football in South America lie in ensuring that organized supporter groups — such as *barras bravas* or ultras — do not interfere in club governance through violent or corrupt means, but rather through the legal and democratic channels established by football clubs.[29,31]

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