



Financial Fair Play and Competitive Balance in European Football: A long term perspective

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Financial Fair Play and Competitive Balance in European Football:

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Structured Abstract:

Purpose: The paper analyzes the effects of Financial Fair Play (FFP) in the competitive balance of European football industry throughout a long-term perspective.

Design/methodology/approach: We analyze the evolution of the competitive balance in the European football industry through a time-series analysis from season 1992/93 to 2018/19.

Findings: Results indicate an industry by nature dominated by a few clubs showing a general stationary behavior. FFP has had very little impact in local competitions. Just in some leagues, such as the Spanish, German, and French leagues, we can observe an increase in the imbalance in some indicators, but these results are not very robust. The improvement on the financial situation happens especially in a small group of firms that coincide with the big leagues with a strong European market orientation and strict local financial control standards.

Originality: Our main contribution to the literature is to examine the impact of the FFP rules in the competitive balance utilizing a very broad study of 17 European markets with a rich and unusual overview and long-term perspective.

Research limitations: Although the study covered 17 European Leagues, there are several leagues not accounted for and thus results should be generalized with caution. ~~Second, the study period did not include the current COVID-19 pandemic.~~

Practical implications: We observe a heterogeneity of the results of FFP in the competitive balance, associated to how the standard has been implemented in each market. This opens opportunities to study and deepen the local codes and their influence, especially in the recommendations of future financial control standards.

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3 **Keywords:** Financial Fair Play, European football industry, Competitive Balance, Asymmetry;
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5 **Long term perspective.**
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8 **Article classification:** Research Paper.
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INTRODUCTION

The financial situation in the football industry and the risk of bankruptcy of some of its organisations was a point of concern for regulating institutions in recent years and has led several organisations to establish financial control standards to introduce more discipline and more rational spending. The football business has experienced a significant growth during the last two decades expressed with enhanced revenue streams mainly attributed to the re-organization of the big football leagues (England, Spain, Italy, France and Germany) during the 1990s, the expansion of European competitions and intense media interest and coverage (Dimitropoulos and Tsagkanos, 2012), along with the internationalization of product markets, the television broadcasts, and other related products (Nauright and Ramfjord, 2010). However, the recent COVID pandemic and the unbalanced competitive situation threatens the sustainability of the industry. Alongside this growth, concerns have been raised about the issues of competitive balance and financial stability that has led to regulatory intervention.

Since the implementation of FFP regulations, many authors have tried to investigate the effects of this regulation have had on the competitive balance in sporting terms in the different European leagues. Financial data show that European football has experienced since then is characterized by a quick financial recovery and further polarization with a continuous improvement since the year 2012 (Franck, 2018). However, we know less about its influence on the competitive balance from a long term perspective.

In this context, the main purpose of this paper is to examine the impact of the FFP rules utilizing a broad study of 17 European leagues. Thus, our study provides an important contribution to the literature on the impact of specific regulatory interventions in the football industry. Most of the work analyzing the effects of the FFP (Peeters and Szymanskyi, 2014, among others) focuses on the global analysis of the main European leagues without analyzing the internal behavior of these leagues or the competitions of other European countries. However, it is necessary to bear in mind

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3 that significant differences exist between many of Europe's football leagues and therefore FFP
4 regulations could potentially affect individual leagues in very different ways, so that it is important
5 that more research is conducted in this area to discover the impact of FFP throughout Europe
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7 (Freestone and Manoli, 2017). On this same line, Plumley *et al.* (2019), pointed out that previous
8 research examining competitive balance in European football has almost exclusively focused on
9 the aforementioned 'big five' leagues (England, France, Germany, Italy and Spain). Therefore, it is
10 also interesting to analyze the behavior of other leagues, as described in the following sections.

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20 'Financial Fair Play' was inspired by good governance mechanisms that had been applied in other
21 industries, as a result of various financial scandals. Good governance promotes equity,
22 transparency, and responsibility of companies by forming a set of methods and procedures to
23 improve the management of companies. Its conceptual framework, based on agency theory, seeks
24 to align the objective of the managers, with that of the shareholders, correcting opportunistic
25 behaviours, and generating a climate of trust for small shareholders and different stakeholders
26 (Dimitropoulos, 2011; Dimitropoulos and Tsagkanos, 2012, among others). However, as Farquhar
27 *et al.* (2005) stated, the challenges of corporate governance in sports are substantially different from
28 conventional business as to require different approaches and mechanisms for corporate governance.
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30 According to Szymansky (2014) the FFP could reinforce the dominant position of the top clubs in
31 the industry. In this sense Budzinski (2014) is one of the most critical authors with the FFP in terms
32 of competitive balance and he indicates that the budget limit is unequal among competitors, in the
33 sense that clubs with higher incomes can spend more than clubs with a lower relevant income. Such
34 a lack of balanced sporting competition may ultimately be detrimental to the industry if this
35 adversely impacts demand (Neale, 1964).

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On the other hand, Plumley *et al.* (2019) states that limiting the spending of clubs from a business perspective, may be fine in principle, but it should incorporate an external variable: the relevant market size of the clubs. A club with greater relevant market size will exceed a club with a smaller

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3 one, which will make it harder for smaller starting clubs to improve their ability to compete. The
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5 effect of this would be to strengthen further the existing hierarchy in European football industry,
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7 enhancing the power of the richest clubs and limiting the smaller clubs (Szymanski, 2014). Vopel
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9 (2013) underlines this point by stating that purchasing power provides the real competitive
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11 advantage in football, which makes it "almost impossible to catch up with larger clubs without
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13 external funding". Moreover, as Dutta *et al.* (2021) point out, European leagues are characterized
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15 by win-maximisation, where clubs prioritise winning the most number of games in a season.
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19 ~~In this sense, Following Peeters and Szymanski (2014),~~ The governance system of European
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21 football is hierarchical (Peeters and Szymanski, 2014), sometimes described as a pyramid, where
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23 international governing bodies (UEFA and the worldwide football association FIFA) sit at the top
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25 and beneath them are national member associations, professional leagues, member clubs. In this
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27 way we should find a heterogeneous result: in some markets, those where the great majority of
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29 clubs have as a relevant market the European one, any normative change and modification in the
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31 relevant income, may result in important changes in the structure of the industry. In addition, other
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33 authors (for example, Sass, 2016) point out that the fair play regulations prevent excessive spending
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35 of new entrants or the use of indebtedness so that smaller clubs can grow to get closer to the
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37 dominant clubs.
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43 After examining the effects of how FFP has affected competitive balance, our results show that the
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45 industry is asymmetric showing a general stationary outcome and we have not found any benefit in
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47 the competitive balance measures after the introduction of the European regulation. Despite UEFA's
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49 efforts to balance the accounts (even with the approval of the European Commission and its
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51 regulations) the European football industry continues being an asymmetric industry by nature.
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55 The paper is organised as follows. First, the literature on the FFP's effect ~~on the financial balance~~
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57 and on competitive balance and FFP's implementation is reviewed. This is followed by an outline
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59 of the research methods employed in the study. Then the findings of the analysis are presented and
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3 discussed in relation to the extant literature. The article concludes with a summary of the key
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5 findings and implications.
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8 **LITERATURE REVIEW: FFP's EFFECTS ON COMPETITIVE BALANCE**

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11 One of the traditional paradigms of the economics of team sport states that the reduction of
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13 competitive intensity can produce a significant fall in income (Rottenberg, 1956; Neale, 1964).
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15 Szymansky (2014) suggests that the FFP can be negative in terms of competitive equilibrium and
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17 consequently also for the fans and consumers, and thus in the end weakening the generation of income
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19 in the industry and consequently for all member clubs. ~~According to Peeters and Szymansky (2014),
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21 the break-even rule whilst potentially improving finances in the industry does far less to improve
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23 seasonal competitive balance. Furthermore, the break-even rule protects the success of the traditional
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25 big-market top teams.~~

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30 In relation to the concept of competitive balance, ~~which is a fundamental part of sport economics
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32 research (Dutta *et al.*, 2021)~~, it is necessary to indicate that the behavior of football leagues differs
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34 from that of other industries. As pointed out by Dobson and Goddard (2011) professional team sports
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36 are intrinsically different from other businesses, in which a firm is likely to prosper if it can eliminate
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38 competition and establish a position as a monopoly supplier. In sport context, however, it does not
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40 pay for one team to establish such a position due to the joint nature of 'production' in sports. ~~As Avila-
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42 Cano *et al.* (2021) point out football is a bilateral sport competition in which it is not possible for a
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44 single team to accumulate the total number of point, as it does not participate in all the encounters. It
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46 is this notion that fundamentally drives the concept of competitive balance in professional team sport
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48 leagues.~~

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53 The structure of sport leagues and regulations may have implications for competitive balance and, in
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55 turn, the 'product' (Plumley *et al.*, 2018). Buzzel (1981) suggests that distributions of market shares
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57 are asymmetric as a 'natural' phenomenon. The generalized view of academia, (Michie and Oughton,
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3 2004; Pawlowsky *et al.*, 2010; Lee and Fort, 2012; Symanski, 2014; Sass, 2016; and Plumley *et al.*,
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5 2018, among others) is that the degree of dominance has always existed, that is, the football industry
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7 is by nature asymmetrical. Sass (2016) accounts for the empirical contention that a club's market size
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9 is positively affected by historic success. An increasingly successful club can attract more and more
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11 supporters and thus yield higher revenues, improving their finance, and therefore, even more success
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13 and an ever-growing market size and dominance. In this sense, Ramchandani *et al.* (2018), point out
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15 that the 'big five' leagues in European football have historically been characterized by competitive
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17 imbalance and dominance by a select number of clubs. Dobson and Goddard (2004) suggest that firm
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19 heterogeneity, in terms of demand, determines the lack of balance in domestic competitions. Thus as,
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21 the asymmetric nature of the markets itself causes that a significant increase of the revenues generates
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23 unbalanced local competitions (Szymanski, 2003).

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29 ~~In this sense, Budzinski (2014), one of the most critical authors of the FFP in terms of competitive~~
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31 ~~balance, establishes that the budget limit is unequal among competitors, in the sense that clubs with~~
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33 ~~higher incomes can spend more than clubs with a lower relevant income. For Budzinski (2014), the~~
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35 ~~competitive balance rule is accompanied by several anticompetitive concerns. These include the~~
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37 ~~predominant protection effect and the consolidation effect. If a club enjoys high incomes, then it can~~
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39 ~~spend accordingly. If a club suffers from low incomes, it also needs to keep its expenses at a low~~
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41 ~~level. This means that clubs that enjoys high incomes at this time can maintain their competitive~~
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43 ~~advantage through higher investments, which reinforce their dominance of sports competitions,~~
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45 ~~achieves greater success thus reinforcing their income generation. A similar, but opposite scenario~~
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47 ~~occurs for lower budget clubs. Lower incomes mean lower investment in players, facilities, etc.,~~
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49 ~~reinforcing their lower position making it very difficult to break into the upper positions in their~~
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51 ~~respective leagues and maintaining their lower levels of incomes, at least without an influx of capital~~
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53 ~~from a wealthy owner.~~ According to Plumley *et al.* (2019), limiting the spending of clubs from a
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55 business perspective, may be fine, in principle, however it should incorporate an external variable,
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3 the potential market size of the clubs. A club with greater potential market will exceed a club with a
4 smaller one, which make it harder for smaller starting clubs improve their ability to compete. The
5 effect of this would be to further consolidate the existing hierarchy in European club football,
6 strengthening the power of the richest clubs and restricting the smaller clubs (Szymanski, 2014).
7
8 Vopel (2013) confirms this point of view by stating that purchasing power provides the real
9 competitive advantage in football, which makes it "almost impossible to catch up with larger clubs
10 without external funding". Following Birkhäuser *et al.* (2019) FFP might have amplified the
11 competitive imbalance supporting the view that FFP leads European football leagues to become more
12 unequal and protects current hierarchies. ~~As Szymansky (2014) pointed out, the FFP reinforces the~~
13 ~~dominant position of the top clubs in the industry.~~

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~~Therefore, according to the literature, there is an open debate on the effect that the FFP regulation has~~
~~had on competitive balance. According to some authors, we could expect a greater effect, to increase~~
~~dominance, in leagues with teams whose relevant market is the European one.~~

The objectives pursued by the regulations of the Financial Fair rules "are to achieve financial fair play in clubs that compete in UEFA competitions and improve the economic-financial situation in order to protect the viability and long-term sustainability of European football clubs." (UEFA, 2012b, p2). The following provides a summary of the main financial fair play ~~rules and its possible connection with the competitive balance.~~

First, the injection of capital into clubs ~~has to be~~ limited. This has directly affected those who received capital injections each year. Financial Fair Play establishes that only injections of capital can be made to pay salaries and make new signings. Although it should be noted that this type of contribution is accepted for the construction of infrastructures and for the training of new talent in the lower categories of the clubs. ~~Regarding the effect of this rule on the competitive balance, we could think that this rule protected the success of the traditional big-market top teams.~~

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3 In this sense, Budzinski (2014), one of the most critical authors of the FFP in terms of competitive
4 balance, establishes that the budget limit is unequal among competitors, in the sense that clubs with
5 higher incomes can spend more than clubs with a lower relevant income. For Budzinski (2014), the
6 competitive balance rule is accompanied by several anticompetitive concerns. These include the
7 predominant protection effect and the consolidation effect. If a club enjoys high incomes, then it
8 can spend accordingly. If a club suffers from low incomes, it also needs to keep its expenses at a
9 low level. This means that clubs that enjoys high incomes at this time can maintain their competitive
10 advantage through higher investments, which reinforce their dominance of sports competitions,
11 achieves greater success thus reinforcing their income generation. A similar, but opposite scenario
12 occurs for lower budget clubs. Lower incomes mean lower investment in players, facilities, etc.,
13 reinforcing their lower position making it very difficult to break into the upper positions in their
14 respective leagues and maintaining their lower levels of incomes, at least without an influx of
15 capital from a wealthy owner. As has been said, local codes and controls are very different
16 depending on the country. Therefore, we should expect little effect on the competitive balance in
17 markets where rules and controls are lax.

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38 The second highlighted measure is the so-called "Break-Even Requirement", which results in
39 equalizing the expenses (expenses necessary for the operation of the club) with the relevant
40 revenues (television rights, transfer players, etc.). In terms of competition, we should expect that
41 the rule protects the dominant position of the firms who regularly participate in European
42 competitions. Following Peeters and Szymansky (2014), the break-even rule could improve
43 finances, however, the rule has not improved the competitive balance. In a similar line, Caglio *et*
44 *al.* (2016) find that the introduction of the FFP has been associated with a significant improvement
45 in the financial outcomes of the European football clubs that is consistent with the efficacy of the
46 break-even requirements. However, this positive development has not yet been translated into better
47 overall financial sustainability. We might even think that finances might not improve much in
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3 industries where most firms are domestically oriented, where the great majority of teams have few
4 options to participate in European competitions, and also because the local rules were lax. Franck
5 (2018) or Gallagher and Quinn (2020), show that a process of polarization has occurred because
6 Financial Fair Play regulations further entrench the financial and sporting power of elite clubs that
7 have a greater orientation to the European market than to the local one.
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12 In any case, we do not know if these effects simply maintain the competitive asymmetry that
13 characterizes European football markets, or they mean a great deterioration of the competitive
14 balance such as some authors have pointed out. See for instance, Peeters and Szymanski (2014)
15 who show how absolute revenues have grown stronger at the "big clubs", and also "big clubs" have
16 become more dominant on the pitch.
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22 Finally, the third measure is the individual club's obligation to inform UEFA of any relevant
23 financial operation. This measure is largely to enable UEFA to help and provide the necessary
24 guidelines for the club to continue competing in a sporting competition under UEFA's jurisdiction.
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29 In this way, the UEFA Financial Fair Play took the domestic competitions through the Economic
30 Control Regulation of the Clubs and Public Limited Sports Companies affiliated to the National
31 Football League. However, we could advance that the development and effects of the FFP has been
32 very heterogeneous. For instance, in the English and Spanish leagues it can be seen a generalized
33 vision of improvement of the accounts from the implementation of the FFP regulation since they
34 have also implemented strict local codes. The UEFA rules began in the 2010/11 season and in Spain
35 and England in the 2012/13 season. In contrast, the outcome of financial fair play in leagues such
36 as Turkey or Greece, to cite two examples, without local rules or strict compliance mechanisms,
37 seem less clear. As stated by Caglio *et al.* (2016), our central hypothesis is that the effects of FFP
38 on the competitive balance displays different dynamics depending on the different implementation
39 of country local rules.
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3 ~~Since the implementation of FFP regulations, many authors have tried to investigate the effects of~~
4 ~~this regulation on the financial results of football clubs. Generally, the most recent data show that~~
5 ~~European football clubs are characterized by a continuous improvement in finances since 2012~~
6 ~~(Franek, 2018). However,~~
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13 Therefore, according to the literature, there is an open debate on the effect that the FFP regulation
14 has had on competitive balance. According to some authors, we could expect a greater effect to
15 increase dominance in leagues with teams whose relevant market is the European one.
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19 20 **AN OVERVIEW OF FFP'S IMPLEMENTATION** 21

22
23 Most of the work analyzing the effects of the FFP (e.g. Peeters and Szymanski, 2014; Barajas *et*
24 *al.*, 2017) focuses on the global analysis of the main European leagues without analyzing the
25 internal behavior of these leagues or the competitions of other European countries. However, it is
26 necessary to bear in mind that significant differences exist between many of Europe's football
27 leagues and therefore FFP regulations could potentially affect individual leagues in very different
28 ways. As Bachmaier *et al.* (2018) noted, at the national level, the requirements for the assessment
29 and monitoring of financial stability with the so-called big five professional football leagues within
30 Europe vary substantially as a consequence of different national conditions, historical
31 developments and organizational structure of the leagues and their participating clubs. This
32 highlights that more research is needed in this area to discover the impact of FFP throughout
33 European leagues (Freestone and Manoli, 2017; Bachmaier *et al.*, 2018). In this sense, the
34 remainder of this section will explore some similarities and differences between several European
35 football leagues in terms of their regulations regarding FFP **and the results on the financial situation.**
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3 According to these authors, the Italian Serie A is characterized as one in which the league is seen
4 as having weak powers and that it is largely driven by club policies and such policies are seen as
5 important to rebalancing power. Also, in the Italian case, Ghio *et al.* (2019) found that FFP did not
6 improve the average efficiency of the Italian first division teams and that FFP contributed to
7 leveling the playing field, reducing the gap in terms of efficiency between top teams and lower-tier
8 teams. Alternatively, Demit-Richard *et al.* (2019) in their analysis of the French case⁽²⁾ highlighted
9 the disparities that could be generated between domestic clubs when there are differences between
10 domestic financial regulations and FFP. This occurred due to clubs playing in both domestic and
11 transnational competitions simultaneously and thus followed two distinct systems of financial
12 regulation, whilst this was not the case for the other clubs which participate only in domestic
13 competitions; or in countries in which there was no domestic system of financial regulation. In this
14 sense, these authors proposed that there should be consistent financial regulation in all European
15 leagues.

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17 Supplementing these aforementioned findings, Drut and Raballan (2012) identified that there were
18 major differences between the main European leagues in terms of financial regulation. In this sense,
19 the French system was the only one where a big club had already been sanctioned because of
20 excessive deficits: this made financial regulation credible. In this context, in 1984 France
21 established the 'Direction Nationale du Contrôle de Gestion' (DNCG) which acts as a financial
22 watchdog of the professional football clubs. It may impose recruitment limits and even relegation
23 to an inferior division for clubs with recurring deficits. Whilst similarly, in Germany, the financial
24 requirement has been increasingly rigid, there is no body independent from the DFL (Deutsche
25 Fußball Liga) able to take a decision to sanction. Also, in this context associations (Verein in
26 German) hold 50% plus one voting right of any football club company (Kapitalgesellschaft), which
27 then limits the power of clubs' financiers (Dietl and Franck, 2007). However, despite these tight
28 controls, clubs in the German football pyramid do not appear less susceptible to financial distress

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3 than those in England or France (Szymanski and Weinar, 2019). These authors suggest that the
4 system of promotion and relegation is the real source of financial instability.
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8 In a similar way to Germany, the Swedish and the Norwegian Football Federation regulates the
9 clubs. It is also interesting to note that, as with the German league, the Swedish and Norwegian
10 league had early financial control and also is governed by the 50% rule, which states that external
11 shareholders must have less than 50% of the votes. In the case of the Netherlands, the Netherlands
12 Football Association (KNVB) is responsible for organizing the Dutch football league and is in
13 charge of controlling the budgets of the different clubs and the licensing system. This method is
14 noteworthy as being stricter than that imposed by UEFA.
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25 The Professional Football League (LFP) is the competent body in Spain for the economic control
26 of clubs. They are in charge of supervising, controlling and supervising football teams in terms of
27 economic and financial results. Specifically, the Economic Control Committee is in charge of
28 fulfilling all these functions. The LFP **created** its own system consisting of a set of rules with which
29 the First Division and Second Division A teams of the Spanish league must comply. The same
30 control of the domestic norm **was used** with English football. At the beginning of 2013, the teams
31 that participated in the Premier League reached an agreement to reduce the expenses required to
32 cover the salaries of the players and, in this way, diminish the losses that could be assumed in the
33 long term. **However, as has been said, other leagues such as Turkey or Greece, to cite two examples,**
34 **have not developed strict local rules or clear compliance mechanisms.**
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49 In general terms, taking data from the European Football Club Landscape four previous and four
50 post FFP years, it can be observed that the operating margin was negative, meaning that the clubs
51 generated negative results. For example, in the year 2011, the year when UEFA put into effect the
52 FFP, the European clubs generated a total of -382 million euros in losses. However, in the years
53 following the introduction of the new regulations there has been a huge improvement in the clubs
54 that compete in UEFA, with 2017 being the year with the best results, specifically, the clubs
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3 generated profits of 1,386 million euros. This growth **was** attributed mainly to the five major
4 football leagues that are the English League (English Premier League), the German (Bundesliga),
5 the Spanish (the League), the Italian (Serie A) and the French (Ligue 1). These five leagues have
6
7 54.5% of the total revenue generated by the entire football market (€ 24.6 billion) as can be seen in
8 Figure 1. Taking into account the data for the years 2015, 2016 and 2017, the improvement, by far,
9
10 **can be** explained by the major European clubs (see Top-20 clubs, € 1.21, 1.36 and 1.57 billion
11 respectively each year). Following the same source, the final losses behave in the same way as in
12 the operating margin. The year 2011 **was** presented as a turning point, since it **was** the year with the
13 highest final losses of the last decade. As of this year, with the start-up of the FFP, the results were
14 improving year after year reaching finally, in 2017, positive results. Specifically, the set of clubs
15 that competed in UEFA obtained final benefits of 615 million euros. On average, ~~between the last~~
16 ~~three years~~, the average profit was -64 million euros.

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(Insert Figure 1 about here)

Since the introduction of the FFP, the situation **was** improving, so it can be concluded again that
this new regulation **had** positive effects. This improvement in profitability **was** largely due to three
of the largest leagues, the Spanish, English and German (**the final profit of 2017 reached 615 million
euros**). Interestingly, and maybe worrying, only 8 of the 17 leagues were responsible for the benefits
registered in 2017. On average, ~~in the last three years~~, the Spanish league ~~has~~ contributed the most
with 156 million euros, followed by the English league with 148 million euros and the German
league with 114 million euros. In contrast, the Turkish league was the one that contributed least, in
fact, it is the third consecutive year that it **suffered** losses. Other league that **were** worth noting is
the Italian. The Italian league was the one that lost more in 2015 and 2016, -289 and -203 million
euros respectively. However, its situation changed drastically in 2017, when it obtained a profit of
79 million euros. **As we have commented, it should be noted that after the introduction of the FFP,
some leagues such as the Spanish or the English (in Germany twenty years before) created their**

own rules of economic-financial control, so these rules, adapted to their clubs and financial activities, have been able to encourage this improvement.

~~On average, during the last three years, there have been a number of 26 leagues that have been profitable. Focusing more on the 17 largest European leagues, the profitability has been improving significantly, although there are still differences between several European leagues. The contribution of the main leagues to the final profit of 2017 reaches 615 million euros.~~

Within each league, it should be noted that not all teams contributed in the same way to the financial results of their league. In all the leagues, 41% of the clubs that were in the top 17 leagues generated benefits, while those observed before the introduction of the FFP in 2011 that was only 35% of the clubs. On average the clubs that generated profits come from the English, German, Spanish, Russian and Italian leagues.

However, if we break down the results to a team-by-team analysis, the result was only generalized in leagues where, in addition to the FFP, a strict local code was applied. English League (18), German and Spanish League (15) had positive operating margin in more than 50% of the teams and the result was generalized. In percentage, 90% of the teams of the English league, 83% of the German league and 75% of the Spanish league have obtained positive operating margins.

In any case, in most of the European leagues, without these strong domestic controls, the results were not as positive as the aggregate figures show. Only in a range of between 3-8 teams was a positive operational result. We believe that these were the teams whose relevant market was the European one, who needed to meet the standard to participate in their competitions. Also as we can see in the following graph (Figure 2), the highest profit margins, above 10% and 20%, were situated in these three major European leagues, with tight budgetary controls.

(Insert Figure 2 about here)

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3 By using means of the data from the European Football Club Landscape (2015, 2016 and 2017) the
4 number of teams that had average profits during the last three periods (Figure 3) were in first
5 position the Spanish league (more than 16 teams), followed by the English league (14 teams) and
6 the German league (13 teams). In percentage, the leagues with more than 50% of clubs that obtained
7 benefits were the Spanish (82%), English (70%), German (67%), French (63%), Norwegian (63%)
8 and Swedish (58%). As we have said, about the operational margins, the highest margins were in
9 the Spanish and English leagues, which were two leagues with advanced compliance mechanisms
10 and firms with the greatest orientation to UEFA competitions.
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(Insert Figure 3 about here)

29 METHODS

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32 We examine the impact of FFP on competitive balance of 17 European leagues. For that, the paper
33 studies the existence of structural changes in the competitive balance related to FFP regulations. To
34 provide an accurate measure of the competitive balance, we have considered a set of 5 different
35 indicators from the final classification from season 1992/93 to season 2018/19 and we analyse the 17
36 major football leagues in Europe. The data comes from the rankings at the end of the season from
37 www.transfermarket.com. We should note that we have checked the sensitivity of the results to the
38 different scoring systems used by these different national competitions, concluding that differences
39 are irrelevant. Therefore, the results and analysis presented correspond to a two-point scoring system
40 for each win, the most frequently used for the considered period.
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53 Following Brandes and Franck (2007) and Lee and Fort (2012) the standard deviation is calculated in the
54 winning percentage (*RSD*) during each season. This competitive equilibrium dispersion indicator is
55 adapted by Cain and Haddock (2006) for variations of the number of participating teams and the scoring
56 system³.
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$$RSD = \frac{\delta_{PW}}{\sqrt{0.74N}}$$

Where δ_{PW} is the standard deviation of the points obtained at the end of the season and N number of games played. Second, from an Industrial Economics approach, the Herfindahl, Gini and Concentration Index (CR_k) have been calculated and tests of the indicator have been carried out with a sample of leagues for the two, three and four best teams in the competition (Brandes and Franck, 2007; Lee and Fort, 2012). For the study of the 17 European leagues, that of the 4 best teams has been used.

$$Gini = \left| 1 - \sum_{i=1}^{n-1} (X_{k+1} - X_k)(Y_{k+1} + Y_k) \right|$$

Gini, is the Gini index, where X is the cumulative proportion of the number of teams and Y is the cumulative proportion of the points obtained.

In the case of $HHI = \frac{(H - 1/N)}{1 - 1/N}$

Where $H = \sum_{i=1}^N S_i^2$ is the Herfindahl index and N is the number of teams in the competition .

$$CR_k = \frac{\sum_{i=1}^k P_k}{k^2 \cdot (2N - k - 1)}$$

Finally CR_k is the concentration index, where P_k is the number of points accumulated by the k teams in the season, where k points four best teams and N the number of teams in the competition.

(Insert Table 1 about here)

Table 1 reports an example of the concentration indexes. From a global vision, indicators show a very concentrated industry, where the first four teams (CR_4) accumulate more than 70% of the points they could obtain. From a more detailed analysis, it seems that the domain has increased in leagues with strong orientation to the European market. The dominants won more games than they won in past decades (CR_2 and CR_4). If we compare the values of the 1999-2010 period with those of the 2010-2019 period, we can appreciate some decline in the competitive balance for almost all the European football leagues (in

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3 England, Germany, Spain, Italy, France, Russia, Belgium, Portugal, Austria, Greece, Sweden and
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5 Norway).

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8 Taking into account the possibility that the indicators are sensitive to different leagues, the number of
9 teams and the modifications in the scoring system, the sensitivity of these indicators has been previously
10 studied through an analysis with 5 of the leagues (German Bundesliga, Spanish League, French Ligue1,
11 English Premier League and Italian Serie A) for a longer time horizon of 50 years. As the indicators are
12 sensitive to changes in industry licenses, the indices have been normalized following previous studies
13 (Pawlowski et al., 2010). Any increase in the value of the indicators implies a worsening of the balance
14 in the competition.
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25 Figure 4 collects the information regarding the evolution of the six Competitive Balance indicators (CR_k
26 where k points for two, three and four best teams). From a global vision of the behavior of the series, a
27 constant degree of imbalance stands out and with a regular behavior. The values of the indicators oscillate
28 within a fairly regular range.
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34 Related to the controversy that the literature collects, as to which of the indicators is more appropriate, a
35 certain worsening in the competitive equilibrium is pointed out for complete indicators RSD, Gini and
36 HHI. They take into account the results of all companies in the industry. In any case, a correlation analysis
37 between indicators has been carried out and a very high correlation between weighted indicators is
38 observed from its results.
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49 To determine if there is a change in the evolution of the competitive balance determining by the FFP,
50 we have performed the conventional unit root tests on the seasonal competitive balance series. Using
51 the Augmented Dickey-Fuller (1981) and Philips Perron tests (1988), we now examine whether a unit
52 root is present and whether there are differences.
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$$\Delta y_t = \mu + \rho y_{t-1} + \sum_{i=1}^n c_i \Delta y_{t-i} + e_t \quad (1)$$

Where, y_t is the variable, μ constant, $(\lambda t$ trend) y_{t-1} variable with a delay. i is the number of delays and e_t the term of error.

(Insert Table 2 about here)

Column 2 of Table 2 gives the results of the Augmented Dickey-Fuller (ADF) test. As can be seen, for only 27 series out of 85 the null hypothesis of non-stationarity (the existence of a unit root) can be rejected. For the vast majority of the leagues, 58 series out of 85, the series are in a stationary state. Therefore, we do not show changes related to the implementation of FFP rules.

In turn, according to the Phillips-Perron tests (Table 2, Column 3), in 57 series do not display a unit root. Consequently, their trend adapts well to the pattern of natural stationary of the asymmetry in the competitive balance.

To analyze the non-stationary behavior of the 27 series we have contrasted the hypothesis of structural change. Following the suggestion of Perron and Vogelsang (1992) we propose two contrasts of structural change where the year of rupture is determined endogenously. On one hand, we used the so-called Innovative Outlier Model (IO), where the change in the mean is not instantaneous but gradual, affecting in this case the mean and the trend. On the other hand, based on the work of Clemente *et al.* (1998), we propose the same contrasts of unitary roots in the case that the series present two structural changes [IO (1) and IO (2)].

The following equation generally represents models with innovative outlier, which includes dummy DTB_{it} variables with the value 1 if $t = 1$ TB_i ($i = 1, 2$) and 0 otherwise, as well as DU_{it} = 1 if $t >$ TB_i ($i = 1, 2$) and 0 otherwise. TB1 and TB2 are the breakpoints where the mean is modified:

$$y_t = \mu + \rho y_{t-1} + \delta_1 DTB_{1t} + \delta_2 DTB_{2t} + d_1 DU_{1t} + d_2 DU_{2t} + \sum_{i=1}^n c_i \Delta y_{t-i} + e_t \quad (3)$$

RESULTS

Analysis of the FFP' effects on competitive balance

Table 2 presented the results of the unit root statistics. First, we can observe that the evidence against the unit root null hypothesis is moderate when no changes in the mean are considered. However, it is always rejected when we consider the presence of changes in the intercept.

Regarding the results, if we look at table 2, we can draw the first two interesting conclusions from this analysis. First, in only 3 of the 17 leagues analyzed (we can see a structural break in the competitive balance in RSD, Herfindhal or Gini index around the introduction of FFP rules. As can be seen in table 2, 48 of 68 competitive balance indicators, show a stationary character around the average. **From a global perspective**, the European football show a natural state, that is to say, a stationary state as it was shown in the majority of leagues and indicators. **Connecting with what was said in the literature review section, the exceptions are in three leagues, Spanish league, German Bundesliga and French League, where in addition to the introduction of European regulations, strict control codes and standards have been developed.**

Only 20 of the competitive balance indicators studied show any structural rupture, only a few of them show a rupture in 2011 or in the two years following the implementation of the FFP. In Germany (1 of 4, in 2012), in Spain (2 of 4, 2013 and 2012), in France (2 of 4, in 2012) and in Russia (1 of 4 in 2013).

In this sense, as has already been said, the norm has had very little impact in leagues where the majority of clubs has had a greater orientation to the domestic market. This has happened in most of the teams of the minor leagues, where the great majority of teams have few options to participate in European competitions. Examples of this would include Ukraine, Denmark, Scotland, Greece, Russia, Turkey, Holland or Belgium.

Breaks are shown especially in the indicators CR2 and CR4, in Serie A, Bundesliga, French League and Russian League. There are breakpoints in the breakdown of these concentration indexes after FFP introduction. In these cases, our results do not show a very robust result, as it fails to occur in a generalized

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3 way in all the indicators studied. This result does not show a significant, generalized and robust increase
4 in the dominance of the top teams as a consequence of the FFP implementation. In contrast, we could say
5 that the asymmetric trend that characterizes the European football industry has been maintained.
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10 Our results are in line with those obtained by Freestone and Manoli (2017), whose results provide no
11 indication that FFP regulations have resulted in a decline in competitive balance and is in line with
12 Plumley *et al.* (2019) who showed a statistically significant decline in competitive balance post-FFP for
13 leagues in Spain, Germany and France, markets with European orientation and strict controls based on
14 the regulatory development carried out by UEFA. However, as we have verified, these results are not
15 robust since the behavior does not repeat itself in time and method of measurement of competitive balance
16 or even in cases, such as English or Italian, with characteristics similar to the previous ones.
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26 27 CONCLUSION

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30 This paper with a very broad vision, presents an analysis of the effects of the Fair Play regulations on
31 competitive balance. Our long-term approach studied 27 seasons, 17 markets and 5 different
32 indicators of competitive balance. The results have shown how there has been an improvement in
33 financial terms. However, the improvement happens specially in a small group of firms located in the
34 three of the largest leagues. It is in these leagues, where a somewhat robust deterioration of the
35 competitive balance is noted. In short, we show that this heterogeneous effect in financial and
36 competitive balance responds to the differences in the implementation of the regulations and specially
37 because governance codes and local process. In this sense, the growing interest around corporate
38 governance opens the possibility of a new line of research (in which we are immersed) that analyses
39 the proliferation of codes of good governance, their characteristics, and effects on financial and
40 competitive balance. ~~With the recent failure of 12 of the largest European clubs to set up a super
41 league there is on-going pressure on UEFA and domestic leagues to deal with the conditions that led
42 to the initial setting up of the super league. FFP was supposed to help control finances and provide
43 more balanced competitions.~~
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3 The results show that the industry is asymmetric by nature showing a general stationary behavior.
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5 This idea is confirmed with the structural break analysis carried out. Just in some leagues, such as,
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7 the Spanish, German, and French, we can observe an increase in the imbalance in some indicators
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9 because the introduction of FFP, but these results are not very robust since not all the indicators show
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11 this outcome. These results are in line with those obtained by Peeters and Szymanski (2014) who do
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13 not see any significant benefit to competitive balance from the point of view of European (inter-
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15 league) competition, an aspect already pointed out by Sass (2012).
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20 **We have not found any improvement in the competitive balance measures after the introduction of**
21 **the European regulation. Despite UEFA's efforts to balance the accounts (even with the approval of**
22 **the European Commission that its regulations) the European football industry is an asymmetric**
23 **industry by nature.**
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30 In this sense, the norm may have very little impact in the clubs with a greater orientation to the
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32 domestic market, as it happens in most cases of the leagues analysed. That is to say, where the great
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34 majority of teams have few options to participate in European competitions. Examples of this would
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36 include Ukraine, Denmark, Scotland, Greece, Russia, Turkey, Holland or Belgium. In this sense and
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38 as Di Simone and Zanardi (2021: 823) also points out, *“the purpose of future reforms of the FFP*
39 *regulation should be centred on encouraging small clubs in national competitions to adopt virtuous*
40 *behaviours aimed at social inclusion and economic sustainability, without limiting or penalizing the*
41 *larger clubs but rather by sharing the proceeds of the sponsorships not only among the participants*
42 *and winners of the champions league but also among the excluded or future aspirants to participate”*.
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50 As also Ozaydin (2020) indicates, the financial health of the clubs from smaller leagues is crucial for
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52 the sustainability of European football since it will allow to increase the competitive balance.
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56 Finally, in view of the results obtained, it can be seen that FFP is not having the expected effects. The
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58 results reinforce the image of an unbalanced industry as already pointed out by Szymanski (2014),
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3 Gallagher and Quinn (2020) or Plumley *et al.* (2020), among others. The findings of our study show
4 that financial fair play regulations are having a very limited impact in terms of improving balance in
5 European competitions. UEFA should consider further measures to enhance both the financial
6 performance of the industry but also “push” the domestic football authorities to consider other
7 measures to enhance domestic league format for competitive balance. ~~A further consideration is the
8 impact of the Covid-19 pandemic, which has had significant adverse effects of football club revenues.
9 This is highlighted in the financial problems of clubs ranging in size from Derby County, a second-
10 tier team in England to Barcelona FC, one of the largest clubs in the world and a dominant team in
11 the Spanish La Liga. Moreover, Covid-19 issue withstanding, there are on-going concerns that the
12 largest clubs continue to play a dominant influence in European football with the continuous threat
13 of a breakaway ‘Super League’ of the largest clubs in the biggest leagues. One of the reasons argued
14 by the breakaway group was that they were setting up a new competition of Super League to improve
15 competitive balance and to enhance the financial stability of the leading clubs. The super league was
16 intended to be set up on the lines of American Sports with closed entry and exit (no promotion or
17 regulation), and clubs of similar size with rules on financial controls for the member teams. The
18 expectation of the clubs in setting up the super league is it would lead to more balanced competition,
19 increasing uncertainty of outcome thus enhancing fan interest in the game and providing greater
20 revenue for all the member teams. A further push for the setting up of the super league was the
21 promise of a significant contract for global television rights that would enhance the marketability of
22 the member teams and enhance worldwide revenue generation. These factors that lead to the failed
23 breakaway are likely to remain whilst there continues to be a conflict between self-interest of the
24 largest clubs and the common interest of all football clubs in each domestic league.~~

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Our results support the conclusions of Paramio-Salcines and Giog (2018) or García del Barrio and Rossi (2020) in suggesting that it is still a significant challenge to the football authorities responsible for the regulation and governance of football to achieve a sufficient level of competitive balance in

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3 European football leagues, and ensuring the survival of those football clubs who are not benefitting
4 to the same extent as the largest clubs from the commercialisation of football and the vast increases
5 in revenues that have been seen in the last thirty years. The results of our study suggest the changes
6 introduced thus far have not had the desired effects and that the inequalities of the industry continue
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apace.

These findings are as usual subject to certain limitations with our study. The study includes only 17 European leagues and the results found here might not be replicated across the missing leagues. But given the breadth of the study and that it includes the biggest leagues as well as smaller and medium-sized leagues we believe this is a comprehensive study and likely to be generalisable to other leagues.

~~Second, the study period does not include the current coronavirus period that has had a significant impact on the industry, especially with the lack of attendance revenues being generated. A future study that covers this period would be useful to further our understanding of the impact of the virus on the football industry across Europe. As Plumley *et al.* (2020) point out, the COVID-19 must also serve as a call to action for football and its clubs to consider a financial reset for the benefit of the game. These authors indicate that “as part of a financial reset in football, broadcasting and solidarity payments could be shared more equally to boost revenues throughout the leagues and more equitable cost control measures such as salary caps should be implemented in all leagues” Plumley *et al.* (2020: 108).~~

Finally, our findings suggest that the consideration for UEFA and the domestic leagues is how they can lower the incentives for the biggest teams to want to breakaway and form their own closed league.

This matter is on-going and will likely require co-operation between UEFA and the big five leagues (England, France, Germany, Italy, and Spain) to both incentivize the largest clubs to remain within UEFA through recognizing the mutual interests of all of football. In this sense, it would be necessary to analyze the effects of a new European competition in the domestic leagues, since as Moffat (2020)

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3 points out, the participation in the Europa League group stage has a positive and statistically
4 significant effect on performance in national competitions for teams from weaker leagues but no
5 significant effect for teams from stronger leagues. Therefore, it could be convenient to know what
6 impact a new competition could have on the different teams in the domestic leagues.
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8 On the other hand, as future lines of research, it could be interesting to analyze the evolution of other
9 concepts such as competitive intensity beyond competitive balance as Scelles (2021) brings to light.
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50 ¹ Hamil *et al.* (2010) argue that the financial instability of Italian football clubs is rooted in their governance structure,
51 which is characterized by the dominance of prominent business individuals or families who own and control football clubs
52 either directly or via corporate holdings. This implies a highly-concentrated decision-making structure, leading to lower
53 external monitoring and decisions aimed at maximizing the owner or family’s utility function, which can lead to prioritizing
54 on-field success to the detriment of profitability.

55 ² The French management control organization is the National Direction for Management Control (DNCG).

56 ³ 1.74 for a 3 point win system.
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Table 1. Average of concentration indexes

<i>Index</i>	<i>CR₂</i>		<i>CR₄</i>	
	1999-2000 2009-2010	2010-2011 2018-2019	1999-2000 2009-2010	2010-2011 2018-2019
England	0.75	0.77	0.74	0.76
Germany	0.70	0.78	0.66	0.70
Spain	0.77	0.82	0.69	0.75
Italy	0.72	0.78	0.70	0.74
France	0.68	0.75	0.66	0.73
Russia	0.70	0.72	0.67	0.69
Turkey	0.77	0.73	0.71	0.69
Netherland	0.78	0.79	0.73	0.73
Belgium	0.72	0.74	0.67	0.69
Portugal	0.77	0.85	0.70	0.77
Austria	0.66	0.71	0.71	0.72
Ukranine	0.84	0.82	0.74	0.73
Denmark	0.69	0.7	0.65	0.65
Scotland	0.71	0.66	0.66	0.63
Grecce	0.77	0.80	0.71	0.73
Sweden	0.69	0.7	0.66	0.68
Norway	0.67	0.72	0.63	0.67

Source: Own elaboration with data from www.transfermarket.com

Table 2. Tests of stationarity, unit root and structural breaks

Indicador	ADF	PPerron	Break Pre FFP	Break Post FFP
RSD_England	Stationary	Not Unit Root	...	...
CR ₄ _England	-2.944*	-2.867*	2003***	Non-significance
Herfindhal_England	-3.050*	-3.028*	2003***	Non-significance
Gini_England	Stationary	Not Unit Root	...	...
RSD_Germany	Stationary	Not Unit Root	Non-significance	2012***
CR ₄ _Germany	Stationary	Not Unit Root	...	...
Herfindhal_Germany	Stationary	Not Unit Root	...	...
Gini_Germany	Stationary	Not Unit Root	...	...
RSD_Spain	-1.592***	-1.432***	2008***	Non-significance
CR ₄ _Spain	-1.543***	-1.400***	2008***	Non-significance
Herfindhal_Spain	-1.675***	-1.496***	2008***	2013***
Gini_Spain	-2.019***	-1.890***	2003***	2012***
RSD_Serie A	Stationary	Not Unit Root	...	...
CR ₄ _Serie A	Stationary	Not Unit Root	...	...
Herfindhal_Serie A	Stationary	Not Unit Root	...	...
Gini_Serie A	Stationary	Not Unit Root	...	...
RSD_France	-2.892*	-2.887*	Non-significance	2012***
CR ₄ _France	-3.128*	-3.111*	Non-significance	2012***
Herfindhal_France	-2.892*	-2.884*	2003***	2014***
Gini_France	Stationary	Not Unit Root	...	...
RSD_Russia	Stationary	Not Unit Root	...	...
CR ₄ _Russia	-0.094***	-0.094***	Non-significance	2013***
Herfindhal_Russia	Stationary	Not Unit Root	...	...
Gini_Russia	Stationary	Not Unit Root	...	...
RSD_Grecce	-2.930*	-2.890*	2003***	2014*
CR ₄ _Grecce	Stationary	Not Unit Root	...	...
Herfindhal_Grecce	-2.712**	-2.640**	2003***	2014***
Gini_Grecce	-2.516***	-2.474***	2003***	2014***
RSD_Portugal	-3.417*	-3.381*	2008***	Non-significance
CR ₄ _Portugal	-2.912*	-2.800**	2008***	Non-significance
Herfindhal_Portugal	-3.101*	-3.002**	1997** y 2008***	Non-significance
Gini_Portugal	Stationary	Not Unit Root	...	...
RSD_Sweden	Stationary	Not Unit Root	...	...
CR ₄ _Sweden	-3.383*	-3.349*	1998***	2010***
Herfindhal_Sweden	Stationary	Not Unit Root	...	...
Gini_Sweden	Stationary	Not Unit Root	...	...
RSD_Netherland	Stationary	Not Unit Root	...	...
CR ₄ _Netherland	Stationary	Not Unit Root	...	...
Herfindhal_Netherland	Stationary	Not Unit Root	...	...
Gini_Netherland	Stationary	Not Unit Root	...	...
RSD_Belgium	Stationary	Not Unit Root	...	...
CR ₄ _Belgium	Stationary	Not Unit Root	...	...
Herfindhal_Belgium	Stationary	Not Unit Root	...	...

Gini_Belgium	Stationary	Not Unit Root	...	...
RSD_Turkey	Stationary	Not Unit Root	...	...
CR ₄ _Turkey	Stationary	Not Unit Root	...	...
Herfindhal_Turkey	Stationary	Not Unit Root	...	...
Gini_Turkey	Stationary	Not Unit Root	...	...
RSD_Norway	-2.955*	-2.947	2001*** y 2007***	...
CR ₄ _Norway	Stationary	Not Unit Root	...	...
Herfindhal_Norway	Stationary	Not Unit Root	...	...
Gini_Norway	Stationary	Not Unit Root	...	...
RSD_Ukraine	Stationary	Not Unit Root	...	...
CR ₄ _Ukraine	Stationary	Not Unit Root	...	...
Herfindhal_Ukraine	Stationary	Not Unit Root	...	...
Gini_Ukraine	-3.283*	-3.258*	Non-significance	Non-significance
RSD_Scotland	Stationary	Not Unit Root	...	...
CR ₄ _Scotland	-3.324*	-3.304*	1994**	2015**
Herfindhal_Scotland	Stationary	Not Unit Root	...	...
Gini_Scotland	Stationary	Not Unit Root	...	...
RSD_Czech rep.	Stationary	Not Unit Root	...	...
CR ₄ _Czech rep.	Stationary	Not Unit Root	...	...
Herfindhal_Czech rep.	Stationary	Not Unit Root	...	...
Gini_Czech rep.	Stationary	Not Unit Root	...	...
RSD_Austria	Stationary	Not Unit Root	...	...
CR ₄ _Austria	Stationary	Not Unit Root	...	...
Herfindhal_Austria	Stationary	Not Unit Root	...	...
Gini_Austria	Stationary	Not Unit Root	...	...

Note: The Schwarz criterion was used to determine the number of delays used in the Augmented Dickey-Fuller test (ADF). Critical values for ADF are -4.156, -3.504 and -3.181. (t-ratios significance * at 1%, ** at 5% and *** at 10%)

The following equation generally represents the models of Structural Rupture. The models include dummy variables in the trend (TDUit) that take values TDUit = (t - DUit) and DUit = 1, if t ≥ TBi and 0, otherwise, TBi being the temporary moments of rupture.

$$\Delta Y_t = \mu + \beta t + \gamma Y_{t-1} + \sum c_j \Delta Y_{t-j} + \alpha DU_{it} + \beta TDU_{it} + \zeta_1 DTB_{i1t} + \zeta_2 DTB_{i2t} + \varepsilon_t$$

Coefficients between parentheses, and critical values for innovative model IO -4.94, additive model (t-ratios * at 1%, ** at 5% and *** at 10%) [(Clemente *et al.*, 1998).

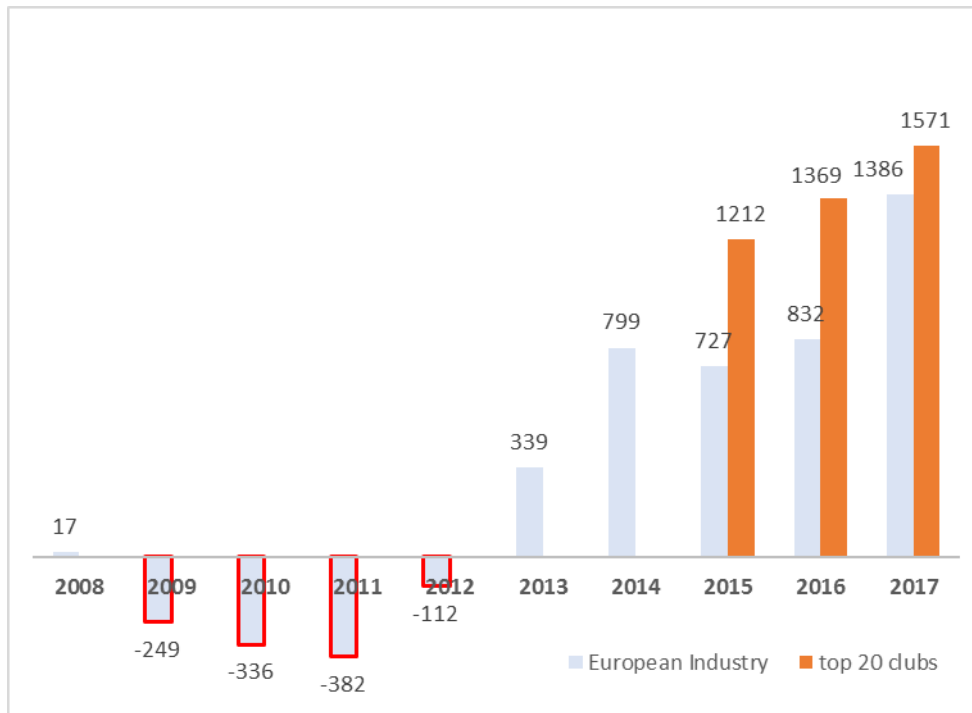


Figure 1. European aggregate operating margin (in millions of €).

Source: Own elaboration from European Football Club Landscape.

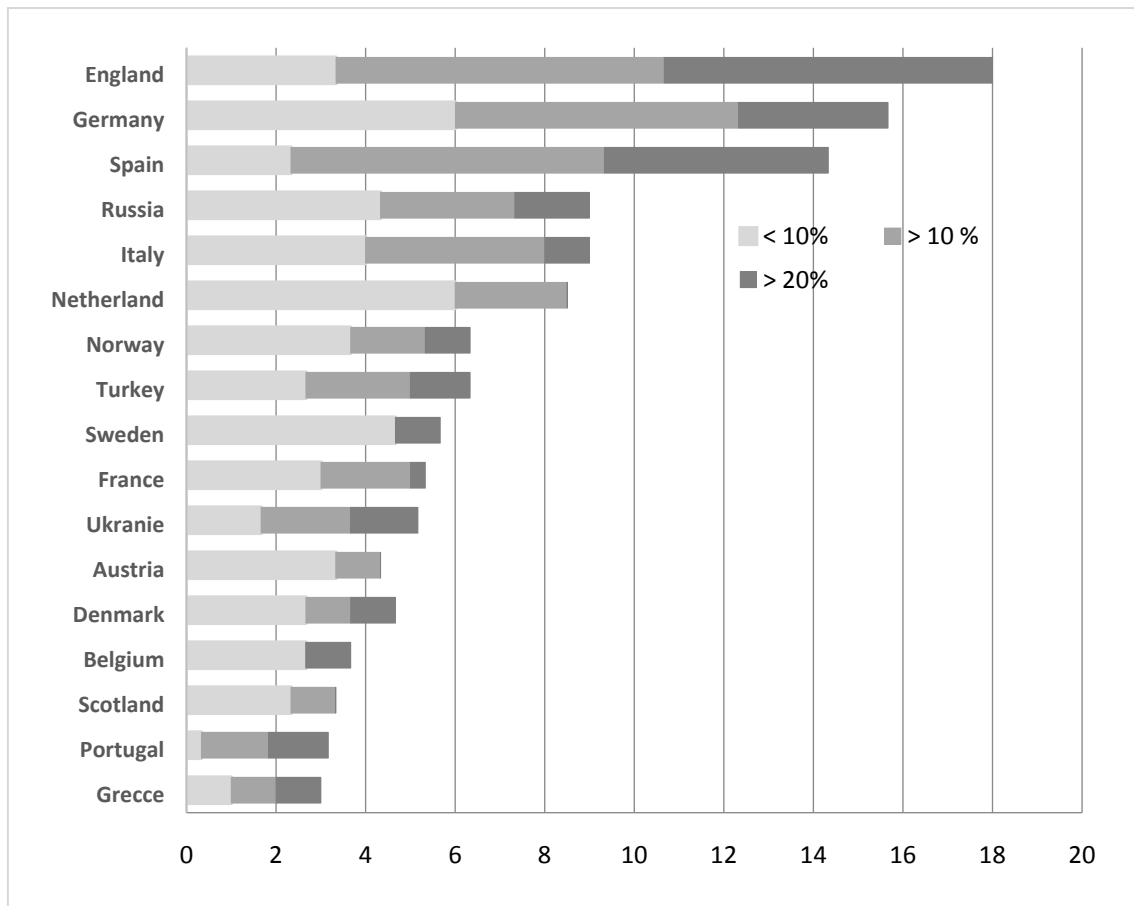


Figure 2: Average (2015-2016-2017) number of teams that have a positive operating margin within the top 17 European leagues.

Source: Own elaboration from European Football Club Landscape.

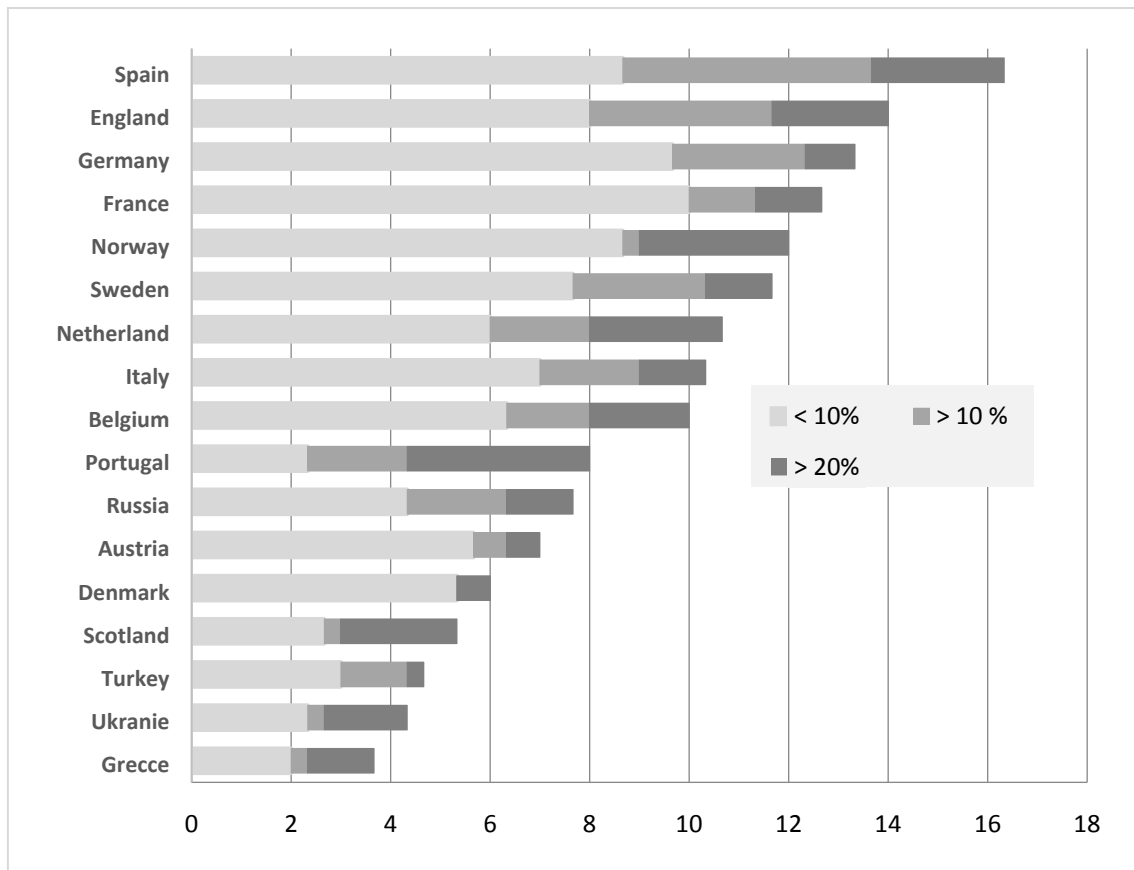


Figure 3. Average (2015-2016-2017) number of teams that have benefits within the top 17 European league.

Source: Own elaboration from European Football Club Landscape.

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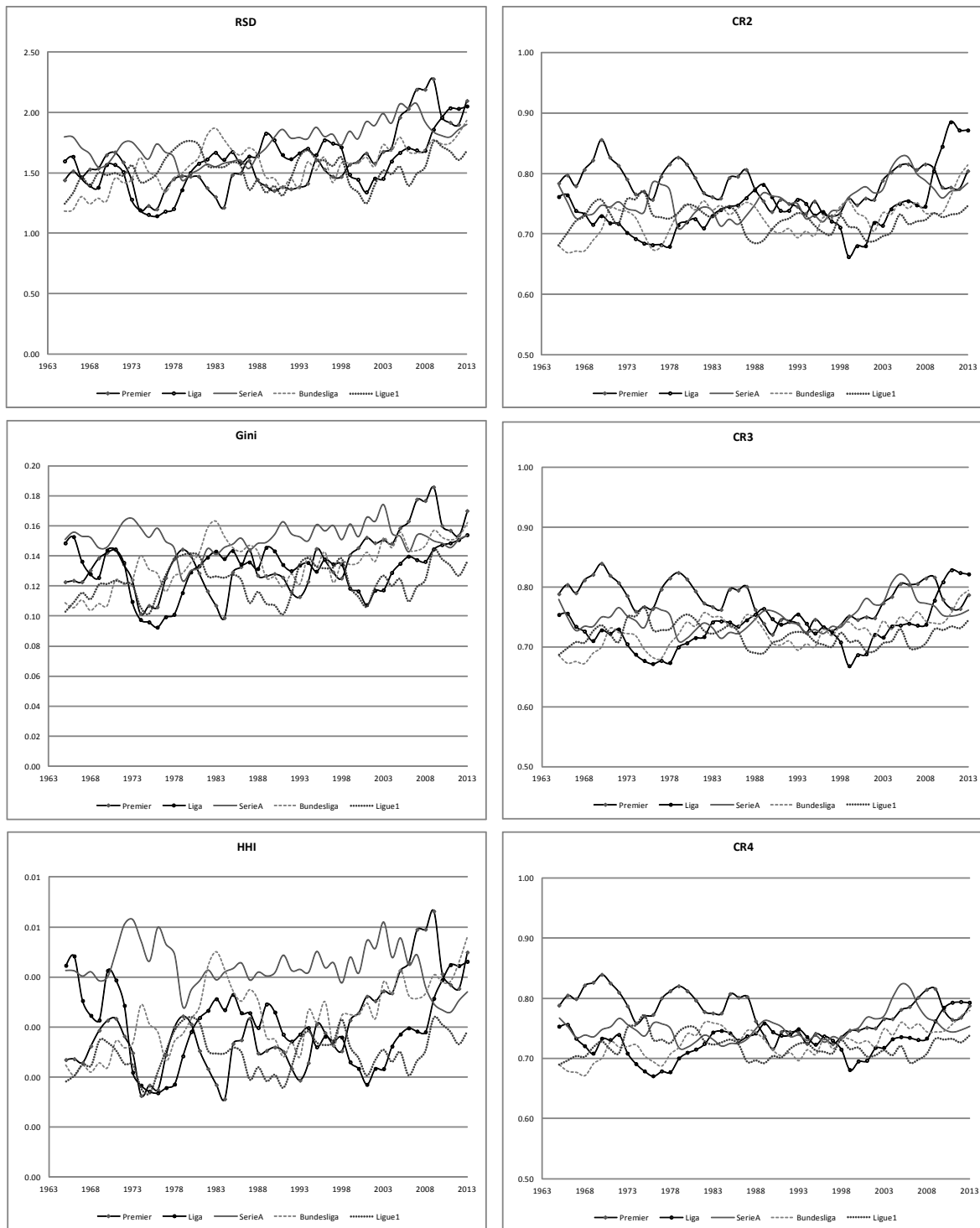


Figure 4. Evolution of the Competitive Balance indicators

Source: Own elaboration