The effectiveness of UEFA Financial Fair-Play: Evidence from England and France, 2008-2018

FRANCOIS, Aurelien, DERMIT-RICHARD, Nadine, PLUMLEY, Daniel <http://orcid.org/0000-0001-7875-0969>, WILSON, Robert <http://orcid.org/0000-0002-9657-7570> and HEUTTE, Natacha

Published version

FRANCOIS, Aurelien, DERMIT-RICHARD, Nadine, PLUMLEY, Daniel, WILSON, Robert and HEUTTE, Natacha (2021). The effectiveness of UEFA Financial Fair-Play: Evidence from England and France, 2008-2018. Sport, Business and Management: An International Journal.

The effectiveness of UEFA Financial Fair-Play: Evidence from England and France, 2008-2018

(AM title was: Financial fair-play effectiveness: Evidences from the French and English cases 2008-2018)

Purpose – This paper analyses the effectiveness of UEFA's Financial Fair-Play (FFP) under the break-even requirement.

Design/methodology/approach – Data was collected from English and French football clubs competing in the English Premier League (EPL) and in Ligue 1 (L1) for the financial years 2008-2018. Our sample includes 395 club-year observations. Relevant statistical tests have been conducted with the aim of analyzing the effects of pre (2008-2012) and post (2012-2018) FFP enforcement under both profitability and cost efficiency assumptions.

Findings – In the EPL, an increase is observed in clubs' profitability through both operating and break-even results. In L1, this improvement is only significant for break-even results of clubs not participating regularly in European competitions (non Euro-oriented clubs). Player expenditures, measured through two wage-to-revenue ratios excluding trading activity for one and including it for the other, have significantly decreased in the EPL except for the Euro-oriented clubs for this latter. Conversely, in L1, this decrease is only significant in both wage-to-revenue ratios for non Euro-oriented clubs and for the whole sample when trading is included.

Originality/value – This article provides further contribution to empirical studies on FFP effectiveness that have often been focused on a single country.

Practical implications – In addition to evidencing contrasting results in FFP effectiveness across countries, our results suggest it is not the sole cause of such an improvement in clubs' finances. We suggest that UEFA should pursue its efforts to scrutinize the level of clubs' player expenditures and that there is a need for a wider look at the FFP regulations questioning whether they are fit for purpose in their current format.

Keywords: Financial Fair-Play, Regulation, Effectiveness, Cross-national comparisons, Football.

Introduction

Financial Fair Play (FFP) was introduced to European Football by UEFA in 2010, with the stated rationale of improving the financial health of European football clubs. This decision was taken as a result of persistent losses amongst Europe's elite clubs, culminating in so-called 'financial crises' (Lago *et al.*, 2006) in the 'Big 5' leagues as in France (Andreff, 2007), Spain (Ascari and Gagnepain, 2007), Italy (Baroncelli and Lago, 2006), England (Buraimo *et al.*, 2006) and Germany (Dietl and Franck, 2007). At the time of the introduction of FFP, there was a growing concern about the financial plight of European club football with Storm and Nielsen (2012) stating that, despite ever-increasing revenues, clubs were still collectively failing to break-even. Net losses among the 734 European member clubs had increased by 760% over the five-year period between 2006-2011 (Franck and Lang, 2013) and European club football had a substantial debt problem. These figures were perplexing given that club and league revenues had risen exponentially during the same time period and have continued to do so up to the present day.

Indeed, the European football market has continued to show that it is immune to wider economic pressures, growing significantly during the last two decades. In 2018/19, the total value of the market was €28.9 billion (Deloitte, 2021). This figure did contract by 13% in 2019/20 owing to the Covid-19 pandemic but this was the first reduction in revenues since the impact of the global financial crisis in 2008/09 (Deloitte, 2021). The majority of this growth (accounting for 59% of the total market value) has been driven by the 'Big 5'. At the time of writing, the English Premier League sits comfortably above its main four rivals (from a revenue perspective) as the highest revenue generating league in European football, grossing €5.13 billion in 2019/20. This figure is almost €2 billion more than its closest rivals such as the Bundesliga in Germany (€3.21 billion) and La Liga in Spain (€3.12 billion). Serie A in Italy (€2.05 billion) and Ligue 1 in France (€1.60 billion) complete the list with the next placed

league (Russia in 6th) someway behind the 'big 5' with total revenues of €877m (Deloitte, 2021).

However, despite such increases in revenue, European football clubs have, in the past, found it difficult to balance the books, hence the introduction of FFP. The regulations were designed with two primary objectives in mind. The first was to provide a means through which to introduce discipline and rationality to club finances to help safeguard the stability of European football (UEFA, 2018). In essence, clubs were being told to spend within their means (hence the fundamental concept of 'break-even') (Dermit-Richard *et al.*, 2017). The second was the narrative that these regulations would enable the industry (and individual leagues) to become more competitively balanced (Ramchandani *et al.*, 2018).

It is the first of these objectives that this paper considers following the call from some researchers who state that it is time to evaluate the effectiveness of FFP from a financial standpoint (Franck, 2018). Based on recent empirical studies (e.g. Ahtiainen and Jarva, 2020), we assumed that FFP is likely to restore sustainabilty to football club finance in Europe. However, considering the vast financial differences between European leagues and clubs, it is arguable that such elements of financial sustainability would vary across nations. For this reason, we adopted a cross-national comparative approach allowing us to contrast the impact of FFP according the context within which it operates at league level. Thus, we analyse the effectiveness of FFP regulations with regard to the break-even requirement in both English and French leagues. The first national divisions in these two countries, namely the English Premier League (EPL) and Ligue 1 (L1), differ from an economic perspective as the EPL outperforms L1 in terms of revenues (see figures above) (Deloitte, 2021). To reach our aim, we collected a range of financial variables from English and French clubs competing in their respective first national divisions, namely the EPL and L1, for the financial year ends 2008-2018. This enables us to calculate financial indicators that we then test against FFP pre (2008-2012) and post

(2012-2018) implementation in order to measure the effects. All of these indicators have been scrutinized by separating Euro-oriented clubs (i.e. clubs competing regularly in European competitions) from non-Euro-oriented clubs (i.e. clubs that do not compete regularly in European competitions). Our results reveal strong differences in terms of profitability and cost efficiency between English and French cases that we explain through the distinct economic characteristics within these two leagues. We conclude by providing future insights for UEFA with regards to FFP including incentivising cost-reduction targets and wage bills in particular.

Theoretical background: FFP as a financial tool for mitigating clubs' financial distress

The utility-maximisation hypothesis: Controversies in European football

In the past, many studies in sports economics attributed financial losses in European football clubs to the behaviour of club executives described in the literature as being utility-maximisers. As an illustration, Sloane (1971) argued, in a valuable contribution, that British football club owners were more likely to maximise utility instead of profits, in a time of persistent deficits. This distinction was at the origin of the theory of professional sports leagues distinguishing the North American model on one side and the European model on the other (El Hodiri and Quirk, 1971, Quirk and El Hodiri, 1974). Prior to FFP, many teams in European leagues were considered to be win-maximizers (Dietl, 2011; Kesenne, 1996, 2007; Szymanski, 2003). This assumption explains why clubs, especially the largest ones, have invested significantly in playing talent who constitute a key factor in sporting success as claimed by many academic works (see notably Hall *et al*., 2002). However, recent research has partially rejected this assumption. In his essay review of literature for tracking the development of the utility maximisation as a managerial objective in pro team sports, Fort (2015) noted blurred boundaries regarding the distinction between the profit-maximising hypothesis, which might operate in North America, and utility-maximising hypothesis, which might characterise the football clubs

in Europe. For instance, Fort (2015) notes that Sloane (1971), in his seminal article, used self-professed elements on maximisation to build his utility maximisation framework on English football clubs while rejecting the profit maximisation assumption. Conversely, he argues that the profit maximisation hypothesis does not fit so well with the North American model quoting an excerpt from Quirck and El Hodiri (1974, p. 42) which states "*The assumption that the actions of franchise owners are motivated solely by profits from operation of their franchise is admittedly somewhat unrealistic*".

Leach and Szymanski (2015) offer a slightly different argument in regards to this distinction. By examining the performance of English football clubs that acquired a stock exchange listing in the mid-1990s, the authors found no shift in their financial behaviour after flotation. This finding seems contradictory to the received view that only North American franchises are profit maximizers which led the authors to conclude that '*football clubs in England have been much more oriented toward profit objectives than is normally assumed*' (Leach and Szymanski, 2015, p. 25). More recently, Ahtiainen and Jarva (2020) suggested that poor financial situations were more related to the institutional environment than the clubs' objective function attributing, by the same token, clubs' financial distress as the cause of a soft budget constraint situation widely encountered in European football.

Soft budget constraint approach as an explanation of the financial crisis in European football?

A number of academic papers focused on financial instability in team sport have recently attributed these situations to the softening process of the club's budget constraint (Andreff, 2015; Nielsen and Storm, 2017; Storm and Nielsen, 2012; 2015). Identified and developed by Kornai (1980), the soft budget constraint (SBC) approach has been originally used to analyse centrally planned economies and has been described by some authors as a syndrome arising when an 'unprofitable enterprise is bailed out by the governments or the enterprise's creditors'

(Maskin, 1999, p. 421), However, SBC has not only been applied to socialist systems. Recently, this research line has interested authors whose studies put the focus on liberal market economies. As argued by Kornai *et al.* (2003, p. 1095), the concept of SBC 'is increasingly acknowledged to be pertinent well beyond the realm of socialist and transition economies' and is now encountered in various national business systems and situations (Kornai, 2014).

This is true for a large range of professional sectors and particularly in the professional sport industry where a SBC syndrome seems to prevail at least in European football. Indeed, football clubs in Europe are characterized by a production-orientated (rather than profit-orientated) profile which, in the European football model based on a promotion and relegation system, leads to the prioritisation of sporting success sometimes at the expense of financial sustainability. Indeed, Storm and Nielsen (2012) have questioned the small proportion of professional football clubs having filed for bankruptcy in Europe with regards to the persistent losses and growing debts in the sector. As revealed by UEFA itself, which publish annually a club benchmarking report, the financial situation was somewhat worrying in the late 2000s. In the financial year 2010, before UEFA FFP's enforcement, the cumulative deficit of the 665 clubs from the 53 first tier leagues in Europe was culminating at €1.641 billion (UEFA, 2011). Despite these figures, there were still high survival rates of European football clubs (from a business perspective) within the top leagues such as the English and French ones (Beech *et al.*, 2008; Scelles *et al.*, 2018).

Storm and Nielsen (2015) have attempted to apply the SBC concept to European football by postulating the existence of a 'softness' with regards to the club's budget constraints. They identified six types of softness which cover items such as tax exemptions, soft subsidies from shareholders and investors (in all forms), soft investments and soft accounting as shown by the reduction of financial information retrieved from the financial accounts of clubs (a concept also noted by Dimitropoulos, 2015). These instances of 'softness' have all been identified by Storm

and Nielsen (2015) in the 'Big 5' leagues and can be exemplified in the English and French leagues. In their financial analysis of the English clubs, Beech *et al.* (2008) reported 56 cases of insolvency from the EPL inception in 1985 to 2008. Despite negative aggregate pre-tax profit, only three cases of bankruptcy (i.e. a situation where, by due legal process, control of an organisation has passed from its directors to an outside independent party acting in the interests of the creditors) in the first four top divisions have occurred. More recently, Plumley, Serbera and Wilson (2020) found that the majority of clubs in the EPL and English Football Championship (tier 2 of English football) were in significant financial distress when measured against bankruptcy indicators and that in some cases this situation had worsend post-FFP. In France, Scelles *et al.* (2018) had identified 79 cases of insolvency between 1970 and 2014 in the top French divisions but only seven within the first tier. Financial losses remained persistent in French football but insolvencies were rare.

FFP: The promise of enhanced financial health?

FFP was designed to regulate the financial behaviour of clubs competing in UEFA competitions (Peeters and Szymanski, 2014; UEFA, 2018). It has two main components which are summarised as follows: the no overdue payables and the break-even requirement (Peeters and Szymanski, 2014). The 'no overdue payables' rule compels a club to be fully up-to-date with its creditors whereas the 'break even' rule acts as a constraint to balance its 'relevant' income and 'relevant' expenses calculated on a three-year period and subject to an acceptable deviation of €5M up to €30M if such excess is entirely covered by contributions from equity participants and/or related parties (UEFA, 2018). Through these two rules, FFP is similar to traditional regulatory corporate governance. It is thus possible to view both rules as acting for hardening the clubs' budget constraints capable of enhancing the governance at the corporate level. Although the 'no overdue payables' rule has clearly been devised to avoid a general bankruptcy

in European football, this first requirement operates on the club/individual stage with the aim of enhancing the club's corporate governance by introducing more rationality in terms of expenditures. The break-even requirement operates first at club level and was designed to balance each club's financial books.

There has been a proliferation of academic articles published since the inception of FFP from various disciplines. In a philosophical essay on FFP, Schubert and Lopes Frias (2017, p. 36) stated that "*contributions on FFP can be grouped in economic (or finance), socio-political, and juridical perspectives, while the first category clearly dominates*". Within this first category, much of the literature covered sporting and economic issues, two closely related areas in the world of professional sport. Peeters and Szymanski (2014) were one of the first to theoretically predict both sporting and financial impacts of FFP enforcement. The authors established a predictive model aimed at simulating the introduction of the break-even rule in the English, French, Italian and Spanish leagues under the assumption that such regulations had applied in 2010 and 2011 just before FFP was in full force. Concerning the financial results, their model outlines two main outcomes showing a higher clubs' profitability, on one side, gained by a reduction in average payrolls and subsequent wage-to-turnover ratio, on the other side. Other scholars have attempted to establish predictive models aimed in particular at anticipating clubs' financial distress with specific reference to FFP (Alaminos and Fernandez, 2019; Plumley *et al*., 2021; Preuss *et al*., 2014). However, a range of articles have recently dealt with the real (and sometimes unintended) consequences of the introduction of FFP regulations through empirical evidence. Thus, FFP has been analysed with regards to its impact on both sporting and economic aspects that should be considered jointly in the spirit of the regulations according to some researches (Gallagher and Quinn, 2020; Peeters and Szymanki, 2014). From a sporting standpoint, analyses have been carried out by looking at the impact of FFP on seasonal league competitive balance (Birkhäuser *et al*., 2017, Freestone and Manoli, 2017;

Garcia-del-Barrio and Rossi, 2020; Plumley *et al.*, 2019). Although a few contributions argued that such effect can not be attributed to FFP directly (Di Simone and Zanardi, 2020), most of them led to the conclusion that FFP might have further increased competitive imbalance in European football. From a financial standpoint, the debate on the so-called effect of FFP on leagues' and clubs' financial health still remains (Di Simone and Zanardi, 2020; Franck, 2018). This ongoing concern triggered further research on this topic. For instance, a special issue on sports finance in the *International Journal of Financial Studies* has focused on the impact of FFP on a range of financial items such as cash-flows and earnings as well as audit fees (Dimitropoulos and Koronios, 2018; Mareque *et al.*, 2018). Franck (2018) also provided an economic analysis of FFP by providing plausible reasons about its contribution to the financial recovery observed in the first tiers of European football. Recently, Ahtiainen and Jarva (2020) conducted a study on the top five European football leagues to evaluate the impact of FFP on football clubs' profitability. A positive effect was found in Spain and there was weak evidence of such an improvement in England and Germany. No statistically significance results were found in the case of France and Italy. Contrary to Ahtianen and Jarva (2020)'s study, researches on FFP from a financial perspective have been mainly focused on a single country due to the availability of data. Most of them were focused on the 'Big 5' covering England (Plumley *et al*., 2021), Italy (Dimitropoulos and Scarfanto, 2021) and France (Barros *et al*., 2014). Occassionally, some of these covered some of the lesser leagues in European football such as the Russian Premier League (Özaydin, 2020). Our study aims to enhance the contribution of such research further by contrasting the effectiveness of FFP within two of the 'Big 5' leagues to provide cross-national comparisons.

Methodology

Research hypotheses

This study seeks to test the consequences of the FFP enforcement with regard to the break-even requirement. In line with previous studies (Ahtiainen and Jarva, 2020), we present two main hypotheses assuming the effectiveness of UEFA FFP both in terms of profitability and cost efficiency. From a 'profitability' perspective and considering the high financial distress in football (Plumley *et al.*, 2021), we hypothesise that FFP has reduced clubs' losses. From a cost efficiency perspective, we hypothesise that FFP has reduced costs. Within these costs, wage spending represents the majority of the overall expense of the clubs as illustrated by the talent arms' race in which club executives are engaged (Dimitropoulos and Scarfanto, 2021). Based on the effectiveness assumption, FFP would have an impact on cost efficiency, particularly on player expenditures – wage bills and transfer fees – (Barros *et al.*, 2014; Ghio *et al.*, 2019). For instance, Andreff (2007, 2015) evidenced that club managers are likely to pay higher salaries and transfer fees in order to attract top players with the guarantee by private owners of bailing them out. The private ownership structure of football clubs in Europe, and the SBC under which larger ones are operating, is commonly considered as the cause of huge investments on playing talent and the subsequent lowering of the clubs' profitability (Franck, 2010; Rohde and Breuer, 2017). By enhancing cost efficiency stemming from more rationality, FFP is expected to play an active role in the supervision and control by football club managers of the money spent on players that are under higher scrutiny since its enforcement[1].

Consistent with the cross-national tradition, "*there are reasons to believe that the effect of FFP is not uniform across countries*" (Ahtiainen and Jarva, 2020, p. 13). Indeed, the impact of FFP is expected to vary according to the national contexts in which they operate. Among these

[1] This idea is also supported at least for wage spending since the introduction of the FFP rule in 2010 in which European football institution stated its right to ask for more financial information when the employee benefits expenses exceed 70% of total revenue, a right which is still in force today. See article 62 of UEFA (2018)'s FFP regulation.

differences, the economic orientation of a league is an important consideration. We therefore hypothesize that a league, whose general objective function is more towards profit maximization rather than utility maximization, is more impacted by FFP both in terms of profitability and cost efficiency. It allows us to develop the first set of two hypotheses as such:

(H1a) Clubs from leagues that would operate under the profit-maximising assumption are more likely to have a better profitability

(H1b) Clubs from leagues that would operate under the profit-maximising assumption are more likely to have a higher cost efficiency

Beyond cross-national differences, it is also expected that clubs' organizational characteristics moderate the influence of FFP. For example, as the FFP regulation only applies to clubs taking part to European competitions, it is arguable that these clubs, generally those generating the highest revenues, are more affected by these regulations. The rationale behind FFP is that the regulations would promote better financial behaviors in clubs that regularly participate in its associated competitions, namely the Champions League (CL) and the Europa League (EL). As such, the second set of two hypotheses are presented as follows:

(H2a) Clubs playing in European competitions are more likely to have a better profitability

(H2b) Clubs playing in European competitions are more likely to have a higher cost efficiency

Variable selection and indicators associated

To address the two sets of hypotheses, we calculated financial indicators resulting from a set of five financial variables described hereafter:

1) **Operating Revenues (OR)** include all the traditional streams of revenues associated to a club's economic activity from football such as broadcasting rights, gate receipts, commercial activities and others (i.e. catering, merchandising and so on).

2) **Operating Expenses (OE)** gather all expenses, including the administrative expenses, that should face a club such as wages in particular and other expenses like organization fees, travel expenses and material depreciation but excluding trading expenses (i.e. the amortisations and impairment of player registrations as well as the player's agent or other intermediary fees).

3) ***Wages (W)*** are included in the operating expenses and refers to all the employee benefits expenses comprising coaches' and players' wages and salaries in particular, as well as social and security costs and other pensions costs.

4) **Trading Revenue (TR)** accounts for players' sales which appear as "profit on disposal of player registrations" (or "profit on disposal of intangible fixed assets") in the clubs' financial books.

5) **Trading Expense (TE)** accounts for the amortizations and impairment of player registrations including the other costs of players' acquisitions (agents and intermediary fees) in Ligue 1 but excluding them in the EPL[2].

From a profitability and cost efficiency perspective, we provide two indicators including trading activity from one side and excluding it from the other. Although the UEFA reasoning

[2] It is worth noting that the way of presention of financial accounts slightly differs between both countries. Trading expense is underestimated in the English case in particular. Thus, some costs linked to a player's acquisition, such as players' agents and intermediaries fees, do not appear in the trading activity and is incorporated in the operating expenses. Conversely, these costs are incorporated in the trading expenses in French clubs' financial books without being able to isolate them to make a totally fair comparison in terms of trading expense as well as trading income.

relies on both notions of 'relevant' income and 'relevant' expenses incorporating the trading activity (football-related income)[3], it is worth separating this element to measure its impact on clubs' financial behaviours and to add further value to our analysis. For 'profitability', we calculated a first indicator (operating profit or loss) excluding the trading income then a second one (break-even results) including it.

'Profitability' indicators	**Indicator 1** Operating Profit/Loss	Operating revenues (OR) – Operating expenses (OE)
	Indicator 1' Break-even result	Operating Profit/Loss + Trading income (TR - TE)

For cost efficiency, two indicators were calculated in line with the rationale supported above, thereby separating trading activity for one and including it for the other. Each indicator takes the form of a ratio and are used to measure the investment on players. The first one (wage-to-revenue ratio – also labelled wage-to-turnover ratio in the literature) constitutes a key performance indicator in terms of cost efficiency (Barajas *et al.*, 2017; Dimitropoulos and Scarfanto, 2021; Peeters and Szymanski, 2014). It weights costs intended for staff payroll in operating revenues by excluding the trading activity. The second one (player expenditures level ratio) does the same albeit incorporating trading income.

'Cost efficiency' indicators	**Indicator 2** Wage-to-revenue ratio	Wages (W) / Operating Revenues (OR)
	Indicator 2' Player expenditures level ratio	Wages (W) + Trading Expense (TE) / Operating Revenues (OR) + Trading Revenue (TR)

[3] For more details, see Annex 10 of UEFA (2018) set of regulations.

Data collection and sampling

Our research is focused on the English Premier League (EPL) and the French Ligue 1 (L1). The rationale for this choice is two-fold. Firstly, football is deeply-rooted in both countries and their domestic leagues are among the 'Big 5' in Europe. Secondly, both markets have struggled with financial issues in recent years (Andreff, 2007; Buraimo *et al.*, 2006) and both have also had clubs that have been involved in the highest fines and sanctions to date linked to FFP (e.g. Paris Saint-Germain and Manchester City). Besides, England and France have a long tradition of financial transparency and regulation by compelling national companies to publicly disclose their financial books. Football clubs are nowadays entirely established as private companies, and we have been able to retrieve all the financial data from official sources. For the EPL, we obtained the original club financial accounts from Companies House, which is the registrar of companies in the UK. For the L1, we gained these data from the Direction Nationale du Contrôle de Gestion (DNCG), the French official financial control body in charge of controlling the club's financial accounts that published a general annual report since the end of the nineties in addition to annual individual club accounts since 2004.

This choice also aligns with the attmept to provide cross-national comparisons aimed at contrasting the effects of a same set of regulation (FFP) on leagues with different characteristics (see H1a and H1b). The important peculiaritity here is the general economic orientation of a league. On this point, English clubs generally appear to be more oriented towards profit maximisation (Leach and Szymanski, 2015) than their French counterparts, who remain more in the classical conception of utility maximisers (Andreff, 2007). This is further evidenced by

investment in EPL clubs since the early 2000s where some of the richest clubs are nowadays run by profit-maximising owners (e.g. Arsenal, Liverpool, Manchester United, Tottenham)[4].

Our dataset is composed of club-year observations as previously done by recent studies (Ahtianen and Jarva, 2020; Ghio *et al.*, 2019). We gathered data from 2008-2018 to ensure a sufficient numbers of years pre and post FFP application to test its effects through the research hypotheses. We split the data collection period into two sub-periods (i.e. 2008-2012 and 2012-2018) under the rationale that the break-even rule was fully implemented from 2012 onwards. As stated by UEFA in repsect of FFP regulations , the first monitoring period was assessed for the season 2013-2014 and covered reporting periods starting in 2012. Our initial sample comprises of 72 different football clubs (36 in each country) competing in the EPL or in L1 for the financial year ends 2008-2018. As the format of competition in both countries is the same, it represents a total of 400 club-year observations (20 clubs per year x 10 years x 2 countries). In the EPL, all observations have been retrieved with the exception of three whereas, in Ligue 1, one observation was missing and a further one was removed due to it being an explicit outlier[5]. In total, the final data sample gathers 395 club-year observations (197 in EPL and 198 in Ligue 1). To provide a realistic cross-national comparison between both French and English leagues, we converted our financial data into euros by using an average Pounds-Euros conversion rate calculated from monthly rates disclosed by the European Central Bank between August 2008 and July 2018[6].

In addition, we proceeded to produce a clusterisation approach so that the clubs most sensitive to FFP regulations are isolated from the others in accordance with assumptions put

[4] As an example, the American Glazer family, by the end of the 2017-2018 season, had managed to take out more than £1 billion over the 13 years in which they owned Manchester United (see https://www.theguardian.com/football/2018/oct/04/glazers-manchester-united).

[5] In the EPL, the accounts for Portsmouth were missing in 2008-2009 and 2009-2010 due to filing for insolvency over this period and consistently with Peeters and Szymanski (2014, p. 376)'s study as well as that of Blackpool in 2010-2011 which showed outliers. In L1, data for Bastia in 2016-2017 were unavailable and we removed AS Monaco's financial data for the 2013-2014 season from our sample. Although available, this season following the promotion of Monaco to the elite in 2013 had resulted in outliers.

[6] Cf. http://webstat.banque-france.fr/fr/quickview.do?SERIES_KEY=248.EXR.M.GBP.EUR.SP00.A

forward in our hypotheses (see H2a and H2b). As such, we used the same terminology as Ghio *et al*. (2019)'s study which allows us to separate 'Euro-oriented' clubs from the others. To make this delineation, we applied a 50% participation threshold in European competitions between 2011 as the first year of the FFP enforcement, and 2018 as the last year of our study. This criterion provided us with six English clubs and seven French clubs that have participated a minimum of four times in the UEFA Champions League (CL) or the UEFA Europa League (EL) between 2011-2018. Table 1 shows the number of participations in UEFA competitions and UEFA points in aggregate form as well as the average for each Euro-oriented club over the time period studied. Figure 1 contrasts the evolution of the average of UEFA club points in the EPL and in L1.

Insert Table 1

Insert Figure 1

The clusterisation made is consistent with studies such as that of Plumley *et al.* (2021) distinguishing the 'Big 6' clubs from the others in their predictions of financial distress in the EPL. Likewise, the French Euro-oriented clubs overlap the cluster made by Barros *et al*. (2020) that identified the same teams as having operated outside the boundaries of FFP in the early 2010's.

Findings

The summary statistics for the dataset are provided for both countries in Table 2[7]. We conducted comparison tests to analyse the impact of FFP on both sub-periods identified (i.e. 2008-2012 vs 2012-2018) for each financial variable and indicator. To decide whether to use parametric or

[7] Files detailing financial variables between 2008-2018 for both English and French samples can be sent on request.

non-parametric methods, normality tests were conducted allowing us to use Student tests when the data distribution was normal and Mann-Whitney's tests when it was not.

Insert Table 2

Cross-leagues analysis: contrasted effects across countries

Insert Table 3

Cross-national comparisons on both clubs' profitability and cost efficiency are provided in Table 3. From a general perspective, they show a contrast in the presumed effectiveness of FFP across leagues, subsequently confirming the first set of our hypotheses. Indeed, operating results for clubs playing in the EPL, which were already making a profit on average between 2008 and 2012 at €6.9m, increased by 460% to reach an average of €38.9m over the 2012-2018 period. This significant increase can be explained particularly by a more sustained growth in operating revenues (+70.3%) compared to that of expenses. The difference between the two periods is also high (+48.3%) (see descriptive statistics in Table 2). Findings on break-even results including trading activity are similar. They show a significant increase, which went from an average deficit of €8M to a surplus of more than €17M. Conversely, findings on profitability for clubs in L1 are completely different. Operating losses barely improved, falling just below the €2m average deficit over the period 2012-2018, which does not allow for a significant difference between the two periods. Although they improved significantly from an average deficit of €4 million in 2008-2012 to a slight surplus in 2012-2018, the results do not allow us to claim that profitability has improved. Irrespective of the the indicator of profitability selected, there is a clear contrast between the English and French samples, thus validating the first hypothesis (H1a).

Findings on cost efficiency are more contrasted. They show a significant decrease in the wage-to-revenue ratio, as the first 'cost efficiency' indicator, falling below the target 70% threshold for clubs participating to the EPL (63.3%). Simialr to the operating results, these conclusions can also be explained by a higher growth in revenues compared to salaries between the two sub-periods (+70.3% vs. +48.5%). In contrast, this ratio for clubs in L1 decreased but not significantly which allows us to state differences between the English and French leagues. However, this cross-national variation was not found with regards to the players' expenditures level ratio, as the second 'cost efficiency' ratio. Indeed, both in the EPL and in L1, significant differences were shown. As such, the second hypothesis (H1b) is only partially validated.

Within-league analysis: confirmation of cross-national variations

Findings within leagues on both profitability and cost efficiency are presented in Table 4 for the EPL and in Table 5 for L1, respectively. We analysed the evolution of financial indicators to address the second set of hypotheses assuming a better profitability and higher cost efficiency with regards to the clubs' participation in European competitions.

Insert Table 4

Insert Table 5

In the EPL (Table 4), the profitability hypothesis (H2a) is not validated. Although significant differences were observed for Euro-oriented clubs, similar significant differences were noted for non Euro-oriented clubs, no matter which profitability indicator was selected. Operating profits of Euro-oriented clubs rose from €13M to more than €80M, while that of non-Euro-oriented clubs increased from €3.9M to more than €21M. In respect of break-even results we also found significant differences in both clusters. Indeed, Euro-oriented clubs went from a deficit of nearly €15M to a surplus of more than €36M while at the same time non Euro-oriented

clubs also became profitable over the period 2012-2018 turning a deficit of €5M pre-FFP into a profit of slightly over €9M afterwards. As a consequence, one cannot assert that FFP is more likely to act in a more effective manner for the European clubs directly subject to FFP regulations since clubs not regularly participating to European competitions have also enhanced their financial results. Findings on cost efficiency are different depending on the indicator chosen for measuring the weight of wage spending in revenues. Therefore, the cost efficiency hypothesis (H2b) is not validated when examining wage-to-revenue ratios. Indeed, significant differences were found on wage-to-revenue ratios for Euro-oriented clubs and non Euro-oriented clubs that have fallen below 70% in the first cluster (66.4%) and 60% in the second cluster (56.1%). This finding does not allow us to validate this assumption especially since the p-value is higher ($p < .05$) for the Euro-oriented clubs than for the non Euro-oriented clubs ($p < .01$). The same hypothesis (H2b) is rejected when examining players' expenditures level ratio, which includes trading, as shown by the absence of a significant difference for Euro-oriented clubs. Non Euro-oriented clubs have seen a significant decline for this ratio which constitutes the first paradox (albeit the only one) among our findings in the EPL.

Unlike the EPL, findings in L1 (Table 5) are striking and reveal many counter-intuitive findings as well as paradoxes that run counter to the assumptions drawn up previously. A careful examination of financial indicators indicates that both profitability and cost efficiency hypotheses are not validated, and are mostly rejected. Therefore, profitability hypothesis (H2a) cannot be validated when analysing operating profits (operating losses in L1). The first profitability indicator revealed no significant differences for either Euro-oriented or non-Euro-oriented clubs. This hypothesis is also rejected when examining break-even results. Not only is the difference for break-even results of Euro-oriented clubs not significant, although an increase of 88% is noted, but it is significant for non Euro-oriented clubs with a clear improvement of 169% between the two sub-periods. Findings on cost efficiency also show unexpected

behaviours allowing us to reject the second hypothesis (H2b) as statistical tests show significant differences in favour of clubs not participating regularly in European competitions and, as such, less subject to the FFP rules. Indeed, a significant difference in wage-to-revenue ratios was only observed for non-Euro oriented clubs (p=.007) while for Euro-oriented clubs, not only is the difference not significant (p=.774) but the ratio unexpectedly increased to an average of over 75% after 2012. Finally, on players' expenditures level ratio, tests were only significant on the non-Euro oriented clubs unlike the Euro oriented clubs for which no significant differences were found. This cluster is also the only one to see the players' expenditures level ratio exceed that of wage-to-revenue after 2012 (75.9% vs. 75.7%) due to a loss-making in trading activity. This is in contrast to the non-Euro oriented clubs, who recorded a positive trading result over the 2012-2018 period.

Discussion and contributions

Our findings present some interesting discussion points with regards to the effectiveness of FFP. We have outlined how operating profits in the EPL have increased, through increases in operating revenues rather than expenses, and we also find a significant difference in the break-even situation in EPL clubs with them showing better financial health post-FFP. However, in L1, the opposite is true. Operating profits have not improved and in respect of cost-efficiency measures, the Euro-centred French clubs are spending more now on salaries than pre-FFP. This seems counterintuitive against the objectives of FFP. In relation to the extant literature, our findings can be summarised as follows. The financial crisis cited in the mid-2000s in English football (Buraimo et al., 2006) and French football (Andreff, 2007) appears to have abated somewhat in respect of the EPL but not in the case of L1. The concern over losses and debt in European club football at the time of FFP implementation was also called into question by Storm and Nielsen (2012) and Franck and Lang (2013). Again, in respect of these studies, our

findings show positive movement in the financial performance of EPL clubs but not L1 clubs considering the post-FFP data. More recently, Scelles et al. (2018) also found evidence of insolvency and financial problems in French clubs and our data confirms these findings also. In English football, Plumley, Serbera and Wilson (2020) did state that some EPL clubs were performing poorly against bankruptcy measures with a notable excpetion being the 'big 6' clubs in the league. Our findings do not show evidence to support a financial problem in the EPL based on our aggregate data.

It may be that these findings are partially influenced by the economic characteristics of the two leagues, particularly in the context of television rights deals. The EPL has been the dominant league in revenue terms in recent years (Deloitte, 2021) and this is mainly attributable to the growth in television rights. Indeed, for the most recent data available the value of the domestic rights deal in the EPL was worth €4.95bn compared to the L1 deal which was worth €2.90bn. These figures were based on the period between 2016 and 2022 although the EPL have recently rolled over their existing deal for another three years to cover the period 2022-2025 (Sweney, 2021). Additionally, the EPL has made significant gains in the international sale of television rights with the total value of the most recent deal for 2019-2022 being closer to €10.73bn (Carp, 2019). Other leagues are catching up but L1 in particular still lags behind considerably. L1 have secured huge growth in their next domestic cycle (2020-2024) with revenue up 59% (from €2.9bn to €4.6bn) but international rights are least attractive among 'big 5' (almost 20 times smaller than the EPL) (KPMG Football Benchmark, 2019). This discrepancy is also outlined by Scelles, Dermit-Richard and Haynes (2021) and may be causing some of the difference we see between the EPL and L1 in terms of operating profits rising because of an increase in operating revenues rather than a reduction in expenses.

The economic power of the EPL could also cause conjecture surrounding the theory of profit maximisation and utility maximisation put forward in the literature review. The findings

from the EPL would appear to support the theory of Leach and Szymanski (2015) in that football clubs in the EPL are perhaps more orientated towards profit maximisation than we originally assumed. Likewise, we may also assume that given our findings that Ligue 1 clubs have been more aligned with utility maximisation. However, it may be that in actual fact, profit maximisation is not the motive here and rather that the clubs in the EPL are benefitting from the 'institutional environment' of the league itself (Ahtiainen and Jarva, 2020).

In this regard, and based on our findings, we suggest that FFP is not really tightening the budget constraint that much in general, particularly as we have found differences between the non euro-oriented clubs and for the Euro-oriented clubs in respect of profitability and cost efficiency. As such we can hypothetize that FFP acts more as an environmental constraint (among others) than a real regulation tool in football. Indeed, our study seems to reinforce the soft budget constraint approach (cf. Andreff, 2015; Nielsen and Storm, 2017; Storm and Nielsen, 2012; 2015) as differences in financial indicators are not significant for the richest clubs whereas they are significant for the poorest ones. It may indicate that the less successful clubs act more on a hard budget constraint comparatively to the richest ones that act more on a soft budget constraint.

Such polarization is noted by Franck (2018) and has implications for the sporting aspect of competition (Plumley et al., 2019). Based on extant literature in this area, there is already a partial suggestion that, from a sporting standpoint, FFP tends to polarize/fix the sporting rankings by favouring (deliberately or unintendendly) 'established' clubs. Based on our findings, we propose a parallel from a financial perspective. We suggest that FFP polarizes the leagues according their respective economic weights. Our study show that financial indicators are better in EPL than in L1 which would support the rationale that the richest leagues are more likely to respect the financial regulation (such as FFP) because they can. Here, we can imagine that clubs in EPL are the "masters" of the game so vast are the differences between the two

leagues. In particular, English clus are wage makers and not wage takers as appears to be the case for the clubs in L1. Thus, FFP allows the richest leagues to perform from a sporting perspective whilst simultaneously making profits in contrast to the 'poorer' leagues anc clubs. For example, clubs in L1, except perhaps PSG and Monaco, are obliged to sell their best young players but, in return, they weaken their squad and thus their sporting performance. This is also evidenced by our findings on the importance of trading activity in L1. Thus, our findings (in particular with EPL clubs) would also partially support the theory of unintended consequences of FFP in respect of sporting competition (e.g. Ramchandani *et al.*, 2018) and the notion of the bigger clubs becoming more dominant in their respective leagues (e.g. Plumley *et al.*, 2021). That is to say that in some ways, the FFP regulations might be excerbating the financial imbalance between clubs and leagues themselves.

Our paper provides both theoretical and practical contributions on the effectiveness of FFP. On a theoretical basis, it adds to the current literature on FFP based on empirical financial evidence and becomes one of the few studies to consider multiple leagues as part of the analysis. It also provides further evidence of the soft budget constraint approach adopted in European football and provides additional thought on the notion of FFP being more reflective of environmental considerations rather than a geniune regulation tool.

Consequently, we present some practical contributions for UEFA to consider. Our results, particularly in the case of L1 clubs show that there is further need for a review of FFP and a look towards other regulatory practices that may be needed to safeguard the financial sustainability of clubs in a post-Covid footballing landscape. Whilst our paper shows some strong empirical evidence towards the impact and effectiveness of FFP regulations it is also one factor in a myriad of others that will affect the financial performance of a professional football club relative to the league that it is in. Indeed, in a similar way to suggestions made by Plumley et al. (2021), we also call for a more detailed enquiry into the current FFP regulations and

whether they are still fit for purpose. There are arguably better suggestions for the industry to consider to address not just financial sustainability but the financial imbalance between leagues and clubs. On the latter, we would address this through redistibution of broadcasting rights more equally across the pyramid, rewarding positive financial behaviour, incentivised cost-reduction targets or relevant cost control techniques such as salary caps. Indeed, there have been recent suggestions that UEFA themselves are wanting to replace FFP with a salary cap and luxury tax similar to those found in American team sports (Ziegler, 2021). Once again though, merely focusing on capping spending does not address the issue of wider financial imbalance which causes greater problems at club level. We should instead be looking towards club sustainability indices, rewarding clubs for good financial management and re-distributing some of the wealth that is ringfenced for the established elite in the current governance structures and systems. A combination of these items and a collective action by the clubs themselves might go further than FFP ever did or was ever going to.

Limitations and Future Research

Our study does have some limitations that are important to note. First, we cannot claim a direct causal inference linked to FFP and financial performance. Much like other papers that have researched this area (e.g. Plumley et al., 2019) we acknowledge that there are a multitude of other factors that are likely to effect the financial performance of clubs. Indeed, we have mentioned some of these here in respect of television right deals to discuss our findings. Second, it may be that some of the differences we outline between the EPL and L1 is linked to the differences in domestic financial regulation between the two leagues. In the case of French clubs, while FFP is concerned with profitability, the DNCG, the French body in charge of controlling clubs is focused on solvency (Dermit-Richard *et al.*, 2017). Hence, a French club may be loss-making and not compliant with FFP, while at the same time being solvent in

accordance with DNCG rules. In the EPL, they have their own version of FFP that is applied at league level with some notable differences to UEFA's version regarding the acceptable loss deviation. Here, again, a club could breach UEFA's version of FFP but be compliant with the EPL version. Third, whilst our study does provide cross-national comparisons as a contribution, a limitation is that it does not cover other leagues included in the 'big 5' in Europe or some of the perceived 'smaller' leagues. Future research on this topic would be well directed to a comparative study or more leagues both including and outside of the 'big 5' in European football to continue to measure the effectiveness of FFP and to challenge the existing narrative.

Conclusion

Our findings show that FFP has made some positive impacts in the EPL and L1 in respect of club finances. However, we also encourage UEFA to revisit the current structure of FFP with particular reference to the player expenditure level ratio. This element of cost control still appears to be an issue for some clubs in the EPL and L1 including the so called 'bigger' Euro-oriented clubs. Furthermore, a wider look at football governance and financial regulation is needed including the distribution of broadcasting rights, salary caps and incentivised cost reduction targets.

References

Ahtiainen, S. and Jarva, H. (2020), "Has UEFA's financial fair play regulation increased football clubs' profitability?", *European Sport Management Quarterly*, Online publication. https://doi.org/10.1080/16184742.2020.1820062.

Alaminos, D. and Fernández, M. A. (2019), "Why do football clubs fail financially? A financial distress prediction model for European professional football industry", *PLoS ONE*, Vol. 14 No. 12, e0225989. Doi: 10.1371/journal.pone.0225989.

Andreff, W. (2007), "French football: a financial crisis rooted in weak governance", *Journal of Sports Economics*, Vol. 8 No. 6, pp. 652-661. Doi: 10.1177/1527002506297021.

Andreff, W. (2015), "Governance of professional team sports clubs: agency problem and soft budget constraint", Andreff, W. (Ed.), *Disequilibrium Sports Economics. Competitive imbalance and budget constraints*, Edwar Elgar Publishing, Heltenham, UK, pp. 151-174.

Ascari, G. and Gagnepain, P. (2007), "Evaluating rent dissipation in the Spanish football industry", *Journal of Sports Economics*, Vol. 8 No. 5, pp. 468-490. Doi: 10.1177/1527002506292582.

Barajas, A., Castro-Limeres, O. and Gasparetto, T. (2017), "Application of MCDA to evaluate financial fair play and financial stability in European football clubs", *Journal of Sports Economics & Management*, Vol. 7 No. 3, pp. 143-164.

Baroncelli A. and Lago, U. (2006), "Italian football", *Journal of Sports Economics*, Vol. 7 No. 1, pp. 3-12. Doi: 10.1177/1527002505282863.

Barros, C. P., Peypoch, N. and Tainsky, S. (2014), "Cost efficiency of French soccer league teams", *Applied Economics*, Vol. 46 No. 8, pp. 781-789. Doi: 10.1080/00036846.2013.854304.

Beech, J., Horsman, S. and Magraw, J. (2008), "The circumstances in which English clubs become insolvent", working paper, Coventry University, Coventry, UK.

Birkhäuser, S., Kaserer, C. and Urban. D. (2019), "Did UEFA's financial fair play harm competition in European football leagues?", *Review of Managerial Science*, Vol. 13 No. 1, pp. 113- 145. Doi: 10.1007/s11846-017-0246-z

Buraimo, B., Simmons, R. and Szymanski, S. (2006), "English football", *Journal of Sports Economics*, Vol. 7 No. 1, pp. 29-46. Doi: 10.1177/1527002505282911.

Carp, S. (2019), *Overseas deals see Premier League broadcast rights hit UK£9.2bn*, available at: https://www.sportspromedia.com/news/premier-league-tv-rights-value-domestic-international/ (accessed 24th September 2021)

Deloitte (2021), "Riding the challenge". Annual Review of Football Finance 2021, available at: https://www2.deloitte.com/uk/en/pages/sports-business-group/articles/annual-review-of-football-finance.html (accessed 23rd September 2021).

Dermit-Richard, N., Scelles, N. and Morrow, S. (2017), "French DNCG management control versus UEFA Financial Fair Play: a divergent conception of financial regulation objectives", *Soccer and Society*, Vol. 20 No. 3, pp. 408-430. Doi: 10.1080/14660970.2017.1323740.

Dietl, H.M. and Franck, E. (2007), "Governance failure and financial crisis in German football", *Journal of Sports Economics*, Vol. 8 No. 6, pp. 662-669. Doi: 10.1177/1527002506297022.

Dietl, H.M., Grossman, M. and Lang, M. (2011). "Competitive balance and revenue sharing in sports leagues with utility-maximizing teams". *Journal of Sports Economics*, Vol. 12 No. 3, pp. 284–308. Doi: 10.1177/1527002511404787

Dimitropoulos, P. (2015), "The new UEFA club licensing regulations and the quality of financial information: evidence from European football clubs", working paper, University of the Peloponese.

Dimitropoulos, P.E. and Koronios, K. (2018), "Earnings persistence of European football clubs under UEFA's FFP", *International Journal of Financial Studies*, Vol. 6 No. 4, pp. 1-15. Doi: 10.3390/ijfs6020043.

Dimitropoulos, P. and Scafarto, V. (2021), "The impact of UEFA financial fair play on player expenditures, sporting success and financial performance: Evidence from the Italian top league", *European Sport Management Quarterly*, Vol. 21 No. 1, pp. 20-38. Doi: 10.1080/16184742.2019.1674896.

Di Simone, L. and Zanardi, D. (2020), "On the relationship between sport and financial performances: an empirical investigation", *Managerial Finance*. Article online. Doi: 10.1108/MF-09-2020-0478.

El Hodiri, M. and Quirk, J. (1971). "An economic model of a professional sports league". *Journal of Political Economy*, Vol. 79 No. 6, pp. 1302–19. Doi: 10.1086/259837

Fort, R. (2015), "Managerial objectives: A retrospective on utility maximization in pro team sports". *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 75-89. Doi: 10.1111/sjpe.12061

Franck, E. (2010), "Private firm, public corporation or member's association – governance structures in European football", *International Journal of Sport Finance*, Vol. 5 No. 2, pp. 108-127. Doi: 10.5167/uzh-35150.

Franck, E. (2018), "European Club Football after "Five Treatments" with Financial Fair Play-Time for an Assessment", *International Journal of Financial Studies*, Vol. 6 No. 4, pp. 16-34. Doi: 10.3390/ijfs6040097.

Franck, E. and Lang, M. (2013), "A theoretical analysis of the influence of money injections on risk taking in football clubs", working paper, UZH Business, Zürich.

Freestone, C. and Manoli, A. (2017), "Financial fair play and competitive balance in the premier league", *Sport, Business and Management: An International Journal*, Vol. 7 No. 2, pp. 175-196. Doi: 10.3390/ijfs6040097.

Gallagher, R. and Quinn, B. (2020), "Regulatory own goals: the unintended consequences of economic regulation in professional football", *European Sport Management Quarterly*, Vol. 20 No. 2, pp. 151-170. Doi: 10.1080/16184742.2019.1588344

Garcia-del-Barrio, P. and Rossi, G. (2020), "How the UEFA financial fair play regulations affect football clubs' priorities and leagues' competitive balance?", *European Journal of Government and Economics*, Vol. 9 No. 2, pp. 119-142. Doi: 10.17979/ejge.2020.9.2.5842

Ghio, A., Ruberti, M. and Verona, R. (2019), "Financial constraints on sport organizations' cost efficiency: The impact of financial fair play on Italian soceer clubs", *Applied economics*, Vol. 51, No. 24, pp. 2623-2638. Doi: 10.1080/00036846.2018.1558348.

Hall, S., Szymanski, S. and Zimbalist, A. S. (2002), "Testing causality between team performance and payroll: The cases of major league baseball and English soccer", Journal of Sports Economics, Vol. 3 No. 2, pp. 149-168.

Kesenne, S. (1996). "League management in professional team sports with win maximizing clubs". *European Journal for Sport Management*, Vol. 2 No. 2, pp. 14–22.

Kesenne, S. (2007). "*The economic theory of professional team sports. An analytical treatment*", Edwar Elgar, Cheltenham (UK).

Kornai, J. (1980), *Economics of shortage*, North Holland Publishing Company, Amsterdam.

Kornai, J. (2014), "The soft budget constraint. An introductory study to volume IV of the life's work series", *Acta Oeconomica*, Vol. 64 No. S1, pp. 25-79.

Kornai, J., Maskin, E. and Roland, G. (2003), "Understanding the soft budget constraint", *Journal of Economic Literature*, Vol. 41 No. 4, pp. 1095-1136. Doi: 10.1257/002205103771799999.

Lago, U., Simmons, R. and Szymanski, S. (2006), "The financial crisis in European football. An introduction", *Journal of Sports Economics*, Vol. 7 No. 1, pp. 3-12. Doi: 10.1177/1527002505282871.

Leach, S. and Szymanski, S. (2015). "Making money out of football". *Scottish Journal of Political Economy*, Vol. 62 No. 1, pp. 25-50. Doi: 10.1111/sjpe.12065.

Mareque, M. Barajas, A. and Lopez-Corrales, F. (2018), "The impact of Union of European Football Associations (UEFA) Financial Fair Play Regulation on audit fees: Evidence from Spanish football", *International Journal of Financial Studies*, Vol. 6 No. 4, pp. 35-54. Doi: 10.3390/ijfs6040092.

Maskin, E.S. (1999), "Recent theoretical work on the soft budget constraint", *American Economic Review*, Vol. 89 No. 2, pp. 421-425.

Nielsen, K. and Storm, R.K. (2017), "Profit maximization, win optimization and soft budget constraints in professional team sports", Nielsen, K., Wagner, U. and Storm, R.K. (Eds.) *When Sport Meets Business: Capabilities, Challenges, Critiques*, Sage Publications, London, pp. 153-166).

Özaydin, S. (2020), "An empirical analysis of financial fair-play: The case of Russian Premier League", *Russian Journal of Economics*, Vol. 6 No. 2, pp. 196-212. Doi: 10.32609/j.ruje.6.49642

Peeters, T. and Szymanski, S. (2014), "Financial fair play in European football", *Economic Policy*, Vol. 29 No. 78, pp. 343-390. Doi: 10.1111/1468-0327.12031.

Plumley, D., Ramchandani, G.M. and Wilson, R. (2019), "The unintended consequences of financial fair-play: An examination of competitive balance across five European football leagues", *Sport, Business and Management: An International Journal*, Vol. 9 No. 2, pp. 118-133. Doi: 10.1108/SBM-03-2018-0025.

Plumley, D., Serbera, J. and Wilson, R. (2020), "Too big to fail? Accounting for predictions of financial distress in English professional football clubs", *Journal of Applied Accounting Research*, Vol. 22 No. 1, pp. 93-113. Doi: 10.1108/JAAR-05-2020-0095.

Preuss, H., Haugen, K.K. and Schubert, M. (2014), "UEFA financial fair play: The curse of regulation", *European Journal of Sport Studies*, Vol. 2 No. 1, pp. 33-51. Doi: 10.12863/ejssax2x1-2014x1.

Quirk, J. and El Hodiri, M. (1974), "The economic theory of a professional sports league", Noll, R.G. (Ed.) *Government and the Sports Business*, The Brookings Institution, Washington DC, pp. 33-80.

Ramchandani, G., Plumley, D., Boyes, S. and Wilson, R. (2018), "A longitudinal and comparative analysis of competitive balance in five European football leagues", *Team Performance Management Review*, Vol. 24 No. 5/6, pp. 265-282. Doi: 10.1108/TPM-09-2017-0055.

Rohde, M. and Breuer, C. (2017), "The market for football club investors: a review of theory and empirical evidence from professional European football", *European Sport Management Quarterly*, Vol. 17 No. 3, pp. 265-289. Doi: 10.1080/16184742.2017.1279203.

Scelles N., Dermit-Richard, N. and Haynes R. (2020), "What drives sports TV rights? A comparative analysis of their evolution in English and French men's football first divisions, 1980–2020", *Soccer & Society*, Vol. 21 No. 5, pp. 491‑509. Doi: 10.1080/14660970.2019.1681406.

Scelles, N., Szymanski, S. and Dermit-Richard, N. (2018), "Insolvency in French soccer: The case of payment failure", *Journal of Sports Economics*, Vol. 19 No. 5, pp. 603-624. Doi: 10.1177/1527002516674510.

Schubert, M. and Lopez Frias, F. J. (2019), "Walk the Talk: Financial Fairness in European Club Football", *Sport, Ethics and Philosophy*, Vol. 13 No. 1, pp. 33-48. Doi: 10.1080/17511321.2017.1371790

Sloane, P.J. (1971), "The economics of professional football: the football club as a utility maximizer", *Scottish Journal of Political Economy*, Vol. 18 No. 2, pp. 121–46. Doi: 10.1111/j.1467-9485.1971.tb00979.x.

Storm, R.K. and Nielsen, K. (2012), "Soft budget constraints in professional football", *European Sport Management Quarterly*, Vol. 12 No. 2, pp. 183-201. Doi: 10.1080/16184742.2012.670660.

Storm, R.K. and Nielsen, K. (2015), "Soft budget constraints in European and US leagues", Andreff, W. (Ed.), *Disequilibrium Sports Economics. Competitive imbalance and budget constraints*, Edwar Elgar Publishing, Heltenham, UK, pp. 151-174.

Sweney, M. (2021), *Premier League renews £4.8bn TV deal with extra £100m trickle-down funds*, Guardian, available at: https://www.theguardian.com/football/2021/may/12/premier-league-set-for-45bn-new-tv-deal-with-sky-bt-and-amazon (accessed 24th September 2021)

Szymanski, S. (2003), "The economic design of sporting contests", *Journal of Economic Literature*, Vol. 41 No. 4, pp. 1137-1187. Doi: 10.1257/002205103771800004.

UEFA (2011), "The European club footballing landscape. Club licensing benchmarking report financial year 2010", available at: https://www.uefa.com/MultimediaFiles/Download/Tech/uefaorg/General/01/74/41/25/1744125_DOWNLOAD.pdf (accessed 18th september 2020).

UEFA (2018). "UEFA club licensing and financial fair play regulations", available at: https://documents.uefa.com/v/u/MFxeqLNKelkYyh5JSafuhg (accessed 18th september 2020).

Ziegler, M. (2021). *Uefa plans salary cap and 'luxury tax' for teams who breach it,* available at : https://www.thetimes.co.uk/article/uefa-plans-salary-cap-and-luxury-tax-for-teams-who-breach-it-5vrwf8cm7 (accessed 24th September, 2021)

Clubs	Number of participations in European competitions			**Aggregated UEFA points**	**Average of UEFA club points**
	Pre (08-12)	Post (12-16)	Total		
Arsenal	4	6	10	190.0	19.000
Chelsea	4	5	9	203.0	22.556
Liverpool	3	4	7	124.0	17.714
Manchester City	3	6	9	154.0	17.111
Manchester United	4	5	9	196.0	21.778
Tottenham	3	6	9	120.0	13.333
EPL	**21**	**32**	**53**	**987**	**18.622**
Bordeaux	2	4	6	55.0	9.167
Lille	3	3	6	39.0	6.500
Lyon	4	6	10	143.5	14.350
Marseille	4	4	8	99.0	12.375
Monaco	0	4	4	57.0	14.250
Paris	3	6	9	169.0	18.778
Saint-Etienne	1	4	5	39.5	7.900
L1	**17**	**31**	**48**	**602**	**12.542**

Source: Bert Kassies (https://kassiesa.net/uefa/).

Table 1. Characteristics of the Euro-oriented clusters in the EPL and in L1.

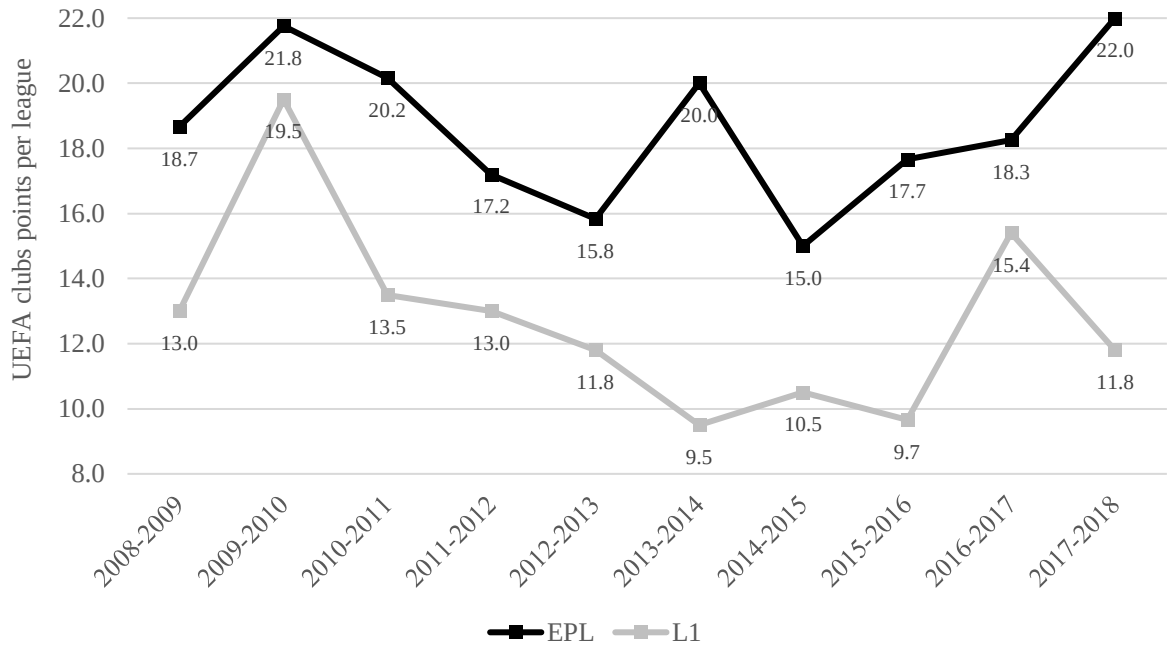

Figure 1. Evolution of the average of UEFA club points for both Euro-oriented clusters in the EPL and in L1, 2008-2018.

	EPL						**L1**					
	Total		Euro-oriented clubs		Non Euro-oriented clubs		**Total**		Euro-oriented clubs		Non Euro-oriented clubs	
	2008-2012 ***(n=77)***	**2012-2018** ***(n=120)***	2008-2012 *(n=24)*	2012-2018 *(n=36)*	2008-2012 *(n=53)*	2012-2018 *(n=84)*	**2008-2012** ***(n=80)***	**2012-2018** ***(n=118)***	2008-2012 *(n=27)*	2012-2018 *(n=40)*	2008-2012 *(n=53)*	2012-2018 *(n=78)*
OR	**129 697**	**220 925**	241 497	419 158	79 070	135 968	**54 031**	**74 849**	94 046	153 361	33 646	34 586
OE	**122 750**	**182 004**	227 882	338 971	75 143	114 732	**56 122**	**76 841**	95 160	153 949	36 235	37 298
W	***88 406***	***131 296***	*155 003*	*230 588*	*58 249*	*88 743*	***39 451***	***51 031***	66 012	101 580	25 919	25 109
TR	**14 291**	**24 621**	25 329	42 915	9 292	16 781	**7 709**	**16 683**	11 080	33 552	5 991	8 032
TE	**29 306**	**46 252**	53 736	86 607	18 243	28 958	**9 755**	**14 193**	18 597	33 992	5 250	4 040

Note: n = number of club-year observations.
OR=Operating Revenues / OE=Operating Expenses / W= Wages / TR=Trading Revenue / TE=Trading Expense.

Table 2: Mean values of financial variables pre and post FFP both in the EPL and in L1.

		EPL			L1		
		2008-2012 *(n=77)*	2012-2018 *(n=120)*	Tests	2008-2012 *(n=80)*	2012-2018 *(n=118)*	Tests
Profitability hypothesis	Indicator 1	6 947	38 921	T = .000**	-2 091	-1 992	T = .970
	Indicator 1'	-8 068	17 290	T = .000**	-4 137	497	T = .056
Cost efficiency hypothesis	Indicator 2	0.718	0.633	T = .000**	0.763	0.732	T = .105
	Indicator 2'	0.863	0.759	T = .000**	0.799	0.709	T = .000**

Note: T = Student's t-test
*** means significant at 1%.*

Table 3: Cross-national comparisons of both profitability and cost efficiency hypotheses.

		Euro-oriented			Non Euro-oriented		
		2008-2012 *(n=24)*	2012-2018 *(n=36)*	Tests	2008-2012 *(n=53)*	2012-2018 *(n=84)*	Tests
Profitability hypothesis	Indicator 1	13 615	80 187	T = .000**	3 927	21 236	T = .000**
	Indicator 1'	-14 792	36 495	T = .008**	-5 064	9 059	T = .000**
Cost efficiency hypothesis	Indicator 2	0.669	0.561	T = .047*	0.740	0.664	T = .000**
	Indicator 2'	0.840	0.693	T = .133	0.873	0.787	T = .001**

Note: T = Student's t-test
** and ** mean significant at 5% and 1%, respectively.*

Table 4: Comparisons of both profitability and cost efficiency hypotheses within clubs in the EPL according their profile (Euro-oriented vs non Euro-oriented).

		Euro-oriented			Non Euro-oriented		
		2008-2012 *(n=27)*	2012-2018 *(n=40)*	Tests	2008-2012 *(n=53)*	2012-2018 *(n=78)*	Tests
Profitability hypothesis	Indicator 1	-1 114	-588	U = .106	-2 589	-2 712	T = .895
	Indicator 1'	-8 630	-1 029	U = .486	-1 848	1 280	T = .004**
Cost efficiency hypothesis	Indicator 2	0.736	0.757	U = .774	0.777	0.720	T = .007**
	Indicator 2'	0.811	0.759	T = .099	0.794	0.684	T = .000**

Note: T = Student's t-test / U = Mann-Whitney's test
*** means significant at 1%.*

Table 5: Comparisons of both profitability and cost efficiency hypotheses within clubs in L1 according their profile (Euro-oriented vs non Euro-oriented).