

## Article

# Financial and Sporting Performance in French Football Ligue 1: Influence on the Players' Market

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**Abstract:** Despite the globalisation of European soccer, each professional league exhibits specificities. French Ligue 1 sometimes contends with the trading-off of financial performance against sporting performance of its teams in European soccer competitions, and its inner auditing body, the Direction Nationale du Contrôle de Gestion (DNCG), is in charge of controlling clubs' financial accounts. Moreover, Ligue 1 operates with one of the best competitive balances in the Big Five, which is detrimental to its clubs' success at the European level. However, the league and a number of clubs have not been able to curb payroll inflation and have not avoided being recurrently run in a deficit and accumulating debts, in particular payment arrears and player transfer overdue. Lax management occurs, since very few clubs have been sanctioned by a payment failure, even fewer by liquidation, and there has been no bankruptcy. The concept of a soft budget constraint theoretically encapsulates such empirical evidence. The novelty of the paper is to establish a link between the soft budget constraint and the players' labour market where it crucially triggers market disequilibria: an excess of demand for superstars' talents and an excess of supply for journeymen players are modelled. Data paucity about player individual wages hinders econometric testing of the aforementioned link and the model. However, a look at transfer fees that concentrates on a few of the top European soccer clubs provides a first insight into the arms race for talent that fuels an excess of demand for superstars and dips a number of clubs' finance into the red.

**Keywords:** sports finance; soft budget constraint; payment failure; disequilibrium modelling; segmented labour market; French soccer

**JEL Classification:** Z10; G30; J42

## 1. Introduction

The globalisation of European football (soccer) started up in the 1990s. The labour market for football players was fully liberalised as a result of the Bosman case (1995), a liberalisation that was extended to most developing countries by an international agreement called the Lomé Convention (2001). In 1999, following a failed attempt by Media Partners to launch a European football super league, a dramatic change in the format and financial endowment of UEFA (Union of European Football Associations) competitions completed the transformation of the economic model in a number of professional football clubs and leagues, in particular those benefiting from the new money godsend.

However, all national football leagues have kept some specificity when compared to the new global model. French professional football Ligue 1 is a case in point, namely as regards its trade-off between financial and sporting performance (Section 1), evolving financial structure, and management of deficits and debts (Section 2), payment arrears, and payment failures (Section 3). Such a recurrent situation can be conceptualised with the notion of a soft budget constraint that rules the economic

model of clubs in an open league system; the soft budget constraint paves the way to a disequilibrium labour market for talent: players. This is in no way specific to French professional football, and can be encapsulated into more general disequilibrium modelling (Section 4) that opens up an avenue for further research and empirical testing of the relationship between lax financial disciplines on the one hand and, on the other hand, skyrocketing payroll and transfer fee inflation in the case of superstar players.

## 2. Trading-Off Financial versus Sporting Performance in Ligue 1

The economic model of top professional football in France is marked by various specificities. First, television (TV) rights revenues account for the lion's share of the league's finance (Andreff and Staudohar 2000) and, through a redistribution scheme, in club finance. Second, French football clubs attempt to cover their operating deficits by a players' transfer excess balance, sometimes without success, and a rather effective marketing strategy (Andreff and Scelles 2017). Some French football analysts are used to considering a third characteristic, according to which the French Ligue 1 (FL1) is the best-managed football league in Europe or, at least, they admit that it is one of the two best-managed leagues together with the German Bundesliga (GBL). Indeed, the experiences of auditing clubs' financial accounts before delivering them a license to participate in the Bundesliga, as well as the Direction Nationale du Contrôle de Gestion (DNCG)'s role of inner audit for the sake of the French football league (the Ligue du Football Professionnel, LFP), had been scrutinised at the UEFA level before launching the Financial Fair Play (FFP) rules in 2012, and might have had some influence on the design of this new financial regulation in European football.

However, the French model of management and financing for professional football is not actually admired, especially in those countries with the richest and highest-performing football leagues. It is sometimes an argument pushed forward by the LFP and other French football stakeholders that the price to pay for maintaining a sound financial management à la française is a relatively weak sporting performance of the French clubs in UEFA competitions (Champions League and Europa League) compared to other Big Five leagues. In a nutshell, the level of sporting achievement is lower in FL1 than in other major European football leagues, while the financial performance does not appear to be worse than in other Big Five soccer leagues on average (Andreff 2014a). As a consequence, in the UEFA rankings, France's rank dropped from fourth in 2008 to eighth in 2015, though it recovered to fifth in 2017.

A glimpse at Table 1 confirms the FL1's low sporting performance and shows that the argument applies also to some extent to the German Bundesliga; indeed, these two leagues exhibit small numbers of winners and quarter-finalists in European football competitions over 2000–2018. From such an observation it may be derived that there is a kind of trade-off between financial and sporting performance that is somewhat detrimental to the sporting performance. The opposite strategy is conducted by the English Premier League (EPL) and the Spanish La Liga (SLL), where sporting performance seems to be privileged, with some efficiency, over financial disciplines, while the Italian Serie A (ISA) is in dire financial straits and has not had many significant sporting successes over the past decade.

**Table 1.** The performance of major European leagues in UEFA competitions, 2000–2018.

Champions League	EPL	FL1	GBL	ISA	SLL
Number of winners from	2	0	1	3	11
Number of quarter finalists	38	13	21	21	43
Europa League	English EPL	French FL1	German BL	Italian LC	Spanish LF
Number of winners from	2	0	0	0	10
Number of quarter finalists	14	9	19	12	31
Total	English EPL	French FL1	German BL	Italian LC	Spanish LF
Number of winners from	4	0	1	3	21
Number of quarter finalists	52	22	40	33	74

EPL, English Premier League; FL1, French Ligue 1; GBL, German Bundesliga; ISA, Italian Serie A; SLL, Spanish La Liga. Source: UEFA (2000 is for the 1999–2000 season, and so on).

The FL1's most favourable sporting dimension is often presented as being also its level of competitive balance. The most widely used measure of competitive balance over one season, the Noll–Scully index, which refers to the observed win percentage distribution to the distribution that would be theoretically expected if the league were perfectly balanced, in which all teams would have exactly a 50% win percentage, is written as:

$$NS = \sigma / (0.5 / \sqrt{N}) \quad (1)$$

where  $\sigma = \sqrt{1/N \sum_i (v_i - 0.5)^2}$  is the actually observed standard deviation of a real league,  $0.5/\sqrt{N}$  is the standard deviation of the theoretical perfectly balanced league,  $N$  is the number of matches played by each team in the league, and  $v_i$  is the win percentage of team  $i$ . The closer is  $NS$  to 1, the more a championship is balanced in a season; the further it is from 1, the less the league is balanced.

With such a metric at hand, FL1 appears to have been the most balanced major European league over the 1996–2012 period on average (Table 2), followed by La Liga and Bundesliga in 1996–2008, and by Bundesliga and Serie A in 2008–2012. The general trend is that all of the Big Five leagues are becoming more imbalanced, except for Serie A in 2008–2012. Since 2012, the introduction of the UEFA FFP has not stopped imbalances from increasing in the five leagues; quite the contrary. The three leagues that benefit from the most important player transfers from abroad, i.e., the EPL, SLL, and ISA, were much more imbalanced than the two other leagues on average in 2012–2018. FL1 is no longer the most balanced league among the Big Five, since the Bundesliga exhibited a slightly lower Noll–Scully index in 2012–2018. This switch not only coincides with the UEFA FFP's enforcement, but also probably more with the aggressive talent recruitment strategy of Paris Saint-Germain, which is fuelled by Qatari funding, and, to a lesser extent, Monaco's recruitment strategy, which is benefiting from Mr. Rybolovlev's finance and recently Marseille's one after its takeover by Frank McCourt, an American billionaire and former owner of a major league baseball (MLB) franchise, the Los Angeles Dodgers.

**Table 2.** The competitive balance in five major European football leagues.

1997–2018					
A/Noll–Scully Index					
Season	French L1	English PL	Italian SA	Spanish LF	German BL
1996/1997	1.47	1.23	1.33	1.61	1.43
1997/1998	1.31	1.28	1.76	1.39	1.14
1998/1999	1.42	1.52	1.35	1.41	1.52
1999/2000	0.88	1.69	1.65	1.03	1.43
2000/2001	1.15	1.43	1.60	1.29	1.14
2001/2002	1.18	1.72	1.71	1.14	1.54
2002/2003	1.28	1.62	1.56	1.32	1.23
2003/2004	1.46	1.57	1.86	1.28	1.61
2004/2005	1.10	1.73	1.45	1.51	1.50
2005/2006	1.44	1.94	1.97	1.49	1.53
2006/2007	1.06	1.64	1.78	1.39	1.30
2007/2008	1.36	2.09	1.60	1.46	1.47
Mean 1996/2008	1.26	1.62	1.64	1.36	1.40
2008/2009	1.58	1.91	1.59	1.50	1.59
2009/2010	1.60	1.87	1.56	1.84	1.53
2010/2011	1.25	1.33	1.52	1.71	1.38
2011/2012	1.48	1.78	1.56	1.70	1.60
Mean 2008/2012	1.48	1.72	1.56	1.69	1.53
2012/2013	1.42	1.82	1.71	1.82	1.73
2013/2014	1.69	1.99	2.02	1.89	1.85
2014/2015	1.62	1.69	1.59	2.11	1.45
2015/2016	1.56	1.67	1.78	1.82	1.68
2016/2017	1.82	2.09	2.13	2.13	1.59
2017/2018	1.84	1.92	2.14	1.94	1.49
Mean 2012/2018	1.66	1.86	1.90	1.95	1.63

Table 2. Cont.

B/Spearman Rank Correlation between Season $t$ and Season $t - 1$ Rankings					
Season $t$	French L1	English EPL	Italian LC	Spanish LF	German BL
1996/1997	0.50	0.63	n.d.	0.55	<b>0.34</b>
1997/1998	0.46	0.43	0.65	0.61	<b>0.39</b>
1998/1999	0.49	0.71	0.53	0.71	<b>0.37</b>
1999/2000	<b>0.24</b>	0.83	0.81	0.59	0.70
2000/2001	<b>0.00</b>	0.88	0.85	0.65	0.25
2001/2002	<b>0.08</b>	0.61	0.75	0.61	0.69
2002/2003	<b>0.28</b>	0.63	0.62	0.55	0.53
2003/2004	0.60	<b>0.43</b>	0.81	0.45	0.44
2004/2005	0.68	<b>0.45</b>	0.64	0.59	0.61
2005/2006	0.67	0.66	<b>0.43</b>	0.48	0.75
2006/2007	<b>0.48</b>	0.66	0.52	0.58	0.72
2007/2008	<b>0.20</b>	0.66	0.65	0.59	0.49
2008/2009	<b>0.23</b>	0.70	0.80	0.87	0.65
2009/2010	0.71	0.75	0.59	0.63	<b>0.34</b>
2010/2011	0.33	0.87	0.46	0.60	<b>0.09</b>
2011/2012	0.48	0.86	0.75	0.40	<b>0.09</b>
2012/2013	<b>0.40</b>	0.77	0.75	0.52	0.58
2013/2014	0.59	0.56	0.49	0.49	<b>0.34</b>
2014/2015	0.57	0.83	<b>0.47</b>	0.86	0.80
2015/2016	0.66	0.57	0.59	0.71	<b>0.43</b>
2016/2017	0.43	0.53	0.61	0.78	<b>0.21</b>
2017/2018	0.75	0.53	0.92	0.48	<b>0.40</b>
Mean 1996/2017	<b>0.45</b>	<b>0.66</b>	<b>0.65</b>	<b>0.58</b>	<b>0.51</b>

In bold (except the mean value): the lowest value of the rank correlation coefficient in a year; Source: calculated from the leagues' rankings.

The long-term competitive balance can be measured by a Spearman rank correlation between one year's final ranking and the previous year's ranking in the championship, which is written as:

$$r_s = 1 - \frac{6 \sum_i d_i^2}{n(n^2 - 1)}. \quad (2)$$

The closer is this index to zero, the less two consecutive championships in the same league exhibit a correlated ranking, and the more the competition is balanced. The other way round,  $r_s = 1$  would mean that the same ranking is observed in a season  $t$  and the past season  $t - 1$ , i.e., the competition is absolutely imbalanced. Therefore, one can exactly predict the  $t$  ranking when one knows the  $t - 1$  ranking; the championship result is entirely predictable, and there is no outcome uncertainty.

As Table 2 shows, FL1 performs even better in terms of long-term competitive balance, in particular from 1999 to 2002 and from 2006 to 2008, but also on average over all the observed period. Until 2008, on average, FL1 definitely was the least imbalanced among the Big Five leagues. In the following seasons, in particular after 2013, the competitive imbalance was fuelled by Paris Saint-Germain's and Monaco's recruitment strategy, which was geared toward attracting superstars. Since then, the German Bundesliga has become the most balanced league every year in the long run, except for 2012 and 2014. This confirms again that those clubs that belong to a more balanced league do not perform the best in European competitions, even if German clubs are ahead of French ones in this regard (Table 1).

The most imbalanced among the Big Five are, on average, the English Premier League and the Italian Serie A, followed by the Spanish La Liga (which is the only league among the five that has never been the most balanced in a year), i.e., the best three performing leagues in terms of winning European competitions. Since 2009, and despite the enforcement of the UEFA FFP after 2012, two trends have emerged: (a) the competitive balance in the Big Five leagues has deteriorated on average except for the Bundesliga; and (b) the English and Spanish leagues are becoming increasingly imbalanced, with a 2009–2017 Spearman correlation mean (0.70 and 0.61, respectively) that is higher than their overall long-term average over 1996–2017.

One can conclude that the more a league is balanced, the less strong are its top clubs compared to lower-ranked clubs, and the weaker they are in European competitions. As put by Sloane (2006, p. 221) “The most successful national teams gain entry into European club competitions and it may be necessary to be ‘too strong’ in terms of domestic competitions to compete successfully in Europe”. It was found (Andreff and Bourg 2006) that FL1’s most balanced championship eventually was a handicap for the top French clubs, whereas a worse domestic competitive balance seemed to be a good precondition or even a required launch pad in the English, Italian, and Spanish leagues for achieving the best sport performances in European competitions. The FL1 is still a typical case in point, all the more so because it is the poorest of the Big Five leagues in terms of average stadium attendance—that eventually translates also into the lowest TV rights revenues—and annual league revenue (Table 3). Even in 2017, the FL1 was still lagging behind the Italian Serie A in terms of attendance and revenue, and far behind the three other Big Five European soccer leagues. Conclusion: a more balanced domestic competition in a lower revenue league is not a springboard for its clubs toward high performance in European football contests.

**Table 3.** The average attendance per match and annual revenue, Big Five 1997–2017.

Big Five		Average Attendance				Annual Revenue				
Leagues	(in Thousands)					(in Million Euros)				
Season	GBL	EPL	SLL	ISA	FL1	GBL	EPL	SLL	ISA	FL1
1996–1997	30.9	28.4	24.2	29.5	14.2	444	689	524	551	293
1998–1999	30.9	30.6	22.4	30.7	19.8	577	995	612	714	393
1999–2000	28.9	30.7	23.1	29.7	21.6	681	1147	722	1059	607
2000–2001	28.4	32.8	21.4	29.1	22.6	880	1392	676	1151	644
2001–2002	31.1	34.3	23.2	25.9	21.4	1043	1682	776	1127	643
2002–2003	31.9	35.4	25.0	25.5	19.6	1108	1851	847	1162	689
2003–2004	35.0	35.0	25.2	25.7	20.1	1058	1970	953	1153	655
2004–2005	35.2	33.9	24.6	25.0	21.3	1236	1975	1029	1219	696
2005–2006	38.2	33.9	25.7	21.4	21.5	1195	1995	1158	1277	910
2006–2007	37.6	34.4	25.7	18.9	21.8	1379	2273	1326	1064	972
2007–2008	39.0	36.1	25.3	23.1	21.8	1438	2441	1438	1421	989
2008–2009	41.9	35.7	24.6	24.7	21.1	1575	2326	1501	1494	1048
2009–2010	41.8	34.2	25.3	24.1	20.1	1664	2479	1644	1532	1072
2010–2011	42.1	35.4	25.9	23.5	19.7	1746	2517	1719	1553	1040
2011–2012	44.3	34.6	26.1	22.0	18.9	1872	2917	1782	1585	1136
2012–2013	41.9	35.9	25.5	22.6	19.2	2018	2946	1868	1677	1297
2013–2014	42.6	36.7	25.3	23.0	21.1	2275	3897	1933	1699	1498
2014–2015	42.7	36.2	25.7	21.6	22.3	2392	4400	2053	1792	1418
2015–2016	42.4	36.5	27.6	21.7	20.9	2712	4865	2437	1917	1485
2016–2017	40.7	35.8	27.6	21.3	21.1	2793	5297	2854	2075	1643

EPL, English Premier League; FL1, French Ligue 1; GBL, German Bundesliga; ISA, Italian Serie A; SLL, Spanish La Liga. Source: Deloitte (1998–2018).

Finally, compared to the other Big Five leagues, although the FL1 was the most-balanced league, it did not perform exceptionally well in European competitions, and did not attract large crowds to the stadia and large revenues to the clubs’ budgets. Two questions emerge in the background: in current European football, are uncertainty of outcome (Rottenberg 1956) and competitive balance (Groot 2008) still strong factors of fan attractiveness, as has been assumed for decades about team sports leagues in standard sports economics? Is the described FL1 situation an acceptable price that is worthwhile paying to impose stringent club management and potential sanctions when a club does not stick to the DNCG rules and recommendations?

### 3. Financial Deficits and Debts

Lower sporting performance and lower revenue unfortunately did not translate into significantly lower wages and payrolls in top French football. Defining the gross payroll or gross wage cost of a football club as the sum of salaries and associated social contributions, the ratio between these

expenditures and total revenue signals the pressure of labour (players' talent) costs on a club's management. In 1997, 1998, 2007, and 2008, this ratio was the highest in the FL1 among the Big Five leagues; in the other years, the FL1 often showed the second highest payroll to revenue ratio—usually over 60%—behind the Italian Serie A, which is anything but an exemplary benchmark of good financial league management (Table 4).

**Table 4.** The ratio between gross payroll \* (wage cost) and total revenue, Big Five 1997–2007.

Season	GBL	EPL	SLL	ISA	FL1
1996–1997	50	48	44	58	61
1997–1998	54	52	53	64	69
1998–1999	55	58	56	72	69
1999–2000	56	62	54	62	53
2000–2001	54	60	73	75	64
2001–2002	53	62	72	90	69
2002–2003	50	61	72	76	68
2003–2004	55	61	64	73	69
2004–2005	47	59	64	62	63
2005–2006	51	62	64	58	59
2006–2007	45	63	62	62	64
2007–2008	50	62	63	68	71
2008–2009	51	67	63	73	69
2009–2010	54	69	59	77	73
2010–2011	53	70	60	75	75
2011–2012	51	70	59	74	74
2012–2013	51	71	57	71	66
2013–2014	49	58	63	71	64
2014–2015	52	61	62	72	67
2015–2016	49	63	61	70	69
2016–2017	53	55	59	67	66

Source: Deloitte (1998–2018).

The common explanation for such a high weight of wages in the clubs' and league's budgets is, in an open league system, an arms race between clubs to acquire the best talents (Andreff 2012), which ends up in an excess of investment into players (Dietl et al. 2008). Clubs overbid each other for the best players and pay both high wages and skyrocketing transfer fees so that the arms race continuously fuels wage and fee inflation. More specifically, in the FL1 case, it was found that, in order to cover the cost of the arms race and the subsequent overinvestment in the payroll, the French league was able to ex post negotiate increasing TV rights revenues with TV channels in a kind of vicious circle between payroll inflation and TV rights inflation (Andreff 2007a). What is the consequence of such a strategy on the FL1's operating profit or loss?

First, it must be considered that, in the long run, the FL1 is a net exporting league as regards trade in players' talent. A priori, a trade surplus in player transfers could compensate, or more, for a league operating deficit. In some periods since 1997 (2000–2002, 2009, 2012–2013, 2016), the French league was a net importer of players for an overall amount of €502.7 million; all other years, it was a net exporter with a cumulative €692.4 million trade surplus (Table 5). At the end of the day, player transfer activity helped the FL1 come closer to balancing its current accounts thanks to a €189.7 million surplus over 20 seasons. However, this was not enough to guarantee that, every year, the league would break even or make an operating profit.



**Table 5.** The French league's operating profit/loss and transfer fee balance, 1997–2007.

Season	(Million €)	
	Operating	Transfer
	Profit/Loss	Fee Balance
1996–1997	−7.0	25.1
1997–1998	−46.0	51.1
1998–1999	−70.0	65.9
1999–2000	36.0	8.1
2000–2001	−41.0	−19.3
2001–2002	−98.0	−68.1
2002–2003	−61.0	−100.2
2003–2004	−102.0	17.9
2004–2005	−15.0	3.0
2005–2006	37.0	14.7
2006–2007	23.0	31.7
2007–2008	−84.0	58.8
2008–2009	−64.0	41.9
2009–2010	−102.0	−91.7
2010–2011	−97.0	73.4
2011–2012	−67.0	38.9
2012–2013	−3.0	−26.8
2013–2014	−208.1	−184.5
2014–2015	−57.3	114.7
2015–2016	42.6	147.2
2016–2017	−31.8	−12.1

Source: Direction Nationale du Contrôle de Gestion (DNCG 1998–2018).

For 17 years out of 20, the entire league was in the red, which means that the losses of those clubs in deficit were higher than the profits of those in the black despite the recurrent DNCG control and watchword for balancing expenditures with actual revenues. Recurrent deficits are quite common in open European football leagues. For instance, in 2012, right before the enforcement of the UEFA FFP, 63% of the 733 top division clubs in European football were in the red with an aggregate loss of €1675 million. French clubs, whatever their good or bad management and the role of the DNCG, were not able to escape this consequence of the arms race for talent on their current accounts.

Moreover, even though it has been assessed that the UEFA FFP regulation started to have an effect after 2012–2013, namely as presented in the UEFA benchmarking reports, this conclusion is not crystal clear in the case of the FL1. Indeed, its 2012–2013 deficits (€3 million) were the lowest since the two profitable years 2006 and 2007. As early as 2013–2014, the FL1 exhibited its highest deficit ever reached. Over the next three years, the 2015–2016 operating profit did not compensate for the operating losses that were cumulated in 2014–2015 and 2016–2017. Thus, the UEFA FFP has not yet mopped up the recurrent deficits in the top French football league.

One problem with player transfers in European football is that often they are not entirely paid right at the moment when the player moves from club A to club B. Therefore, such a delayed payment creates in club A's balance sheet a specific debt that is coined the 'player transfer overdue' or a payment arrear. The payment arrear does not appear per se in Table 6, but the player transfer overdue represented 14% of all payment arrears in 2005–2006, 10% in 2006–2007, 18% in 2007–2008, and, though they have been subject to more control since the enforcement of the UEFA FFP, these specific arrears were still up to 13% of the overall payment arrears in 2013–2014, 9% in 2014–2015, and 11% in 2015–2016 and 2016–2017.

**Table 6.** The Ligue 1 balance sheet: liabilities, 2000–2017 (million €).

Season	Net	Shareholders	Provisions	Financial	Payment	Total	Arrears/Total
	Equity	Accounts	Risks	Debts	Arrears *	Liabilities	Debts (%)
1999–2000	89.3	163.5	123.0	64.5	362.9	803.2	84.9
2000–2001	84.0	223.1	101.0	96.3	424.9	929.3	81.5
2001–2002	142.8	141.7	59.6	86.1	416.9	847.2	82.9
2002–2003	93.2	119.9	49.9	112.7	344.8	720.5	75.4
2003–2004	139.4	60.1	37.3	66.1	298.1	601.0	81.9
2004–2005	111.7	53.1	37.5	63.0	403.4	668.7	86.5
2005–2006	159.6	75.2	52.5	70.4	461.6	819.3	86.8
2006–2007	208.6	51.2	54.0	71.3	507.7	892.8	87.7
2007–2008	213.4	61.8	34.6	62.4	627.6	999.7	91.0
2008–2009	265.6	56.6	32.7	60.2	532.6	947.7	89.8
2009–2010	189.0	104.9	25.4	94.2	515.7	929.3	84.6
2010–2011	183.7	100.9	29.0	87.2	524.3	925.1	85.7
2011–2012	143.2	214.6	24.6	105.2	392.8	1007.8	78.9
2012–2013	167.5	83.5	32.1	105.0	597.6	1112.6	85.1
2013–2014	225.3	243.8	39.9	194.3	806.4	1509.8	80.6
2014–2015	286.4	412.3	42.5	297.4	814.5	1853.2	73.3
2015–2016	291.2	449.8	51.9	460.2	718.0	1971.1	60.9
2016–2017	346.0	573.0	62.1	386.5	735.8	2103.4	65.6

\* Payment arrears, tax arrears, and social contribution arrears. Source: [DNCG \(1998–2018\)](#).

Notice that other payment arrears aggregate in the league's balance sheet different commercial payment arrears, tax arrears, and social contribution arrears. Until 2011, they were about half of the total liabilities of FL1 clubs and the most important share, compared to financial debts (owed to banks and other credit institutions), of the clubs' debt: usually over 80% of total debts (Table 6). Whatever the assessment about the stringency or the latitudinarianism of DNCG auditing over French professional football clubs, recurrent, and rather large, payment arrears are not a signal that clubs are as well-managed as is often advertised by some French football supporters and decision-makers. Such evidence calls for a more theoretical approach (Section 5 below) of the so-called soft budget constraint in French and European football leagues and clubs.

#### 4. Payment Arrears and Payment Failure: A French Football Club Would Never Die!

As early as 1974, the supervision of French professional football clubs' management had been entrusted to a body that became the DNCG in 1990. Since then, the DNCG has acted as a real auditing body, capable of implementing disciplinary sanctions against poorly managed clubs. Every season, the DNCG inspects the financial accounts of all clubs, and, since 2002, clubs' financial data are openly published. The DNCG's main official tasks are to audit clubs' financial accounts, supervise their bookkeeping, detect instances of misreporting, and assess the clubs' financial situation.

When a club is continually in the red, the DNCG can use carrot-and-stick tactics to encourage changes in management practice, so that the club's accounts return to the black. The process begins with warnings, advice, and recommendations with regard to urgent policy measures to be taken by the club's management. If the financial deficit does not disappear, sanctions can be applied: the DNCG is allowed to audit the payroll in detail, to prohibit the recruitment of new players for a certain period, to impose fines, and, as a last resort, to relegate the club to a lower division. Several clubs have been relegated since 1990 under this provision. The objective is to ensure the financial viability of the French championship in the sense that any club that starts the competition must be able to complete its fixture list over the entire season. The DNCG guarantees that each club will have sufficient financial resources throughout the season. However, the FL1 has experimented with more years in the red than in the black, although the deficits and debts were smaller than in the English, Italian, and Spanish leagues. The auditing body has prevented French clubs from sinking as deeply into indebtedness as some Italian, Spanish, and English clubs.



It may seem strange that, on the one hand, French football has a strong auditing body, while on the other hand the FL1 repeatedly reports financial deficits. This paradox can be explained by a so-called soft budget constraint (Section 5 below). Questions have also been raised as to whether the DNCG is an independent auditor. All of its members are appointed from football backgrounds, such as the French Football Federation (FFF), the Ligue du Football Professionnel (LFP), and football players', coaches', and managers' unions.

As regards club debts, since 1999 the enforcement of the European competition policy has restricted the possibility of providing direct municipal subsidies to professional football clubs, in particular for bailing them out. Nevertheless, in contrast to most other industries, in European football a company (club) that is in the red will always find a way to be rescued, for instance through exceptional public subsidisation as during the Italian Calcio crisis in the mid-2000s, or with Catalan banks granting credits to FC Barcelona and Castilian banks to Real Madrid (Ascari and Gagnepain 2007), or by some sugar daddy, such as Abramovich in Chelsea, sheikh Mansur in Manchester City, Qatar Sports Investment in Paris-Saint-Germain, and Rybolovlev in Monaco. Leaving payment arrears to accumulate is another option for indirectly rescuing professional football clubs, if not bailing them out, a solution that was for many years privileged in the FL1.

Consequently, heavily indebted clubs—that would have been going bankrupt in another industry—are used to survive in French as well as European football. Storm and Nielsen (2012) underlined that a number of European professional football clubs chronically operated on the brink of insolvency for over a decade or so without going out of the business. For example, most Spanish clubs were operating at loss without ending in bankruptcies (Barajas and Rodriguez 2010). Despite recurrent losses, deficits, and debts, the clubs' survival rate is very high in English football (Kuper and Szymanski 2009). Even from 1893 to 1935, 22 English football clubs were liquidated, including well-known teams, such as Manchester United, Arsenal, and Aston Villa; most of them reappeared with the same or a different name, and only three definitely disappeared for ever, i.e., were actually liquidated.

In French football, and under French law, any debtor unable to meet its obligations is liable to enter a collective insolvency proceeding (Bayle 2009). More precisely, payment failure situations that trigger a legal response, which are defined as situations where current liabilities are greater than disposable assets,<sup>1</sup> have been studied for the top two professional divisions (Ligue 1 and Ligue 2) from the 1970–71 to the 2013–14 seasons, and for the third basically amateur division (National 1) from 1993–94 to 2013–14 (Scelles et al. 2018). Seventy-nine cases of payment failure were found, of which only seven were from clubs in Ligue 1 despite many FL1 clubs having been in the red over the observed period. This again calls for an analysis of lax management fuelled by the soft budget constraint of FL1 clubs that are capable of attracting bailing out funds from banks, sugar daddies, other financiers, or, more simply, football regulation authorities that allow payment arrears to grow instead of calling for payment failure, liquidation, or bankruptcy.

The biggest share of payment failures is concentrated in Ligue 2, where smaller clubs (with lower revenue) are less able to attract bail-outs or new benefactors (Table 7). In fact, among the 25 professional and amateur clubs (in the top seven divisions) that have actually been liquidated<sup>2</sup> between 1978 and 2017, only one really vanished: Calais, which was liquidated in 2017, has not (yet?) re-created an amateur team of adult football (Arrondel and Duhautois 2018). Arrondel and Duhautois paradoxically contend that professional football clubs are 'too small to fail' companies; even more so as regards amateur clubs.

<sup>1</sup> Thus, a payment failure situation is different from what is usually defined as insolvency, i.e., when total liabilities are greater than total assets.

<sup>2</sup> Only three of them are professional clubs that were, respectively, liquidated in 1991 (Reims, Ligue 2), 1993 (Tours, Ligue 2), and 2011 (Strasbourg, Ligue 1). In 2018–2019, they, respectively, played in Ligue 1 (Reims and Strasbourg) and Ligue 2 (Tours).

**Table 7.** The number of payment failures in French football, 1970–2014.

Period	Ligue 1	Ligue 2	National 1	Total
1970–1981	2	8	0	10
1981–1992	2	27	0	29
1992–2003	2	6	16	24
2003–2014	1	3	12	16
Entire period	7	44	28	79

Source: Scelles et al. (2018).

Scelles et al. (2018) were not able to find a clear-cut relationship between pre-failure average stadium attendances that were assumed to be declining—thus match day revenues were decreasing as well—and the occurrence of payment failures. Such a result is consistent with the view that failures are probably more linked to lax club management—a soft budget constraint in more theoretical terms—than to a demand shock, as was contended by Szymanski (2012) in the case of English soccer.

### 5. The Soft Budget Constraint's Influence on the Players' Labour Market

The standard equilibrium model of North American closed team sports leagues (Fort and Quirk 1995) has been adapted to open leagues by Késenne (1996) under the following assumptions: (a) teams are win-maximisers; (b) therefore, they recruit as much talent as possible within their budget constraints and break-even; (c) talent is measured in units such that an additional unit of talent increases the win percent by one unit; under this convention,  $\frac{\partial w_i}{\partial t_i} = 1$ , which allows for the substitution of the win percent  $w_i$  of team  $i$  by the quantity of recruited talent  $t_i$  in its revenue function  $R_i$ ; and (d) in a now globalised labour market that is triggered by the Bosman jurisprudence that rules open leagues, the free entry of players makes irrelevant the assumption of a fixed supply of talent (Késenne 2017). Teams are wage-takers in this market so that team  $i$ :

$$\text{Max } t_i \quad (3)$$

$$R_i(m_i, t_i) - s \cdot t_i - c_i^0 = 0 \quad (4)$$

where  $m_i$  stands for team  $i$ 's market size,  $s$  for the market equilibrium wage, and  $c_i^0$  for team  $i$ 's fixed cost.

Obviously, constraint Equation (4) is not satisfied in the European and French football leagues, since, recurrently, a number of clubs are in the red. It must be replaced by:

$$R_i(m_i, t_i) - s \cdot t_i - c_i^0 \leq 0. \quad (5)$$

However, such a constraint substitution has both theoretical and modelling implications. First, Equation (5) means that some teams recurrently or permanently are not able to break even; thus, they are in the red without going bankrupt or being liquidated. This was a regular characteristic of state-owned enterprises in former communist centrally planned economies. Firms or other entities that were recurrently losing money without their activity being phased out were enjoying a so-called soft budget constraint in communist shortage economies (Kornai 1980); a similar situation may theoretically and empirically prevail in some sectors of a market economy as well (Kornai et al. 2003). When firms are run with a soft budget constraint, they form an excess demand for inputs that is coined a “Kornai effect”; the Kornai effect has been tested successfully (Goldfeld and Quandt 1988, 1993). When all or most enterprises do not break even, the whole economy is all the time in a typical disequilibrium of global excess demand of inputs, which is coined a ‘shortage economy’.

When applied to a football league (Andreff 2007b, 2014b), the same theoretical story says: clubs that are run with a soft budget constraint recurrently develop an excess demand for their major input, i.e., players' talent. In practical terms, they overbid for talent on the players' labour market and engage

in an arms race for inputs that are in short supply, in particular superstar players. Consequently, the players' market is in a permanent state of excess demand.

If several or most football clubs are managed with a soft budget constraint, the modelling consequences are as follows. Clubs Max  $t_i$  under constraint Equation (5). Without a hard or balanced budget constraint (break-even point), there is no brake on an ever-growing demand for talent, while the number of players that are talented enough to play in professional football leagues is limited, say to  $T_0$ . The labour market for talents is in disequilibrium due to a team's aggregated excess demand in the face of a limited supply of player talents to the league  $T_0$ :

$$\sum_{i=1}^n t_i = T; T \geq T_0 \quad (6)$$

where the number of teams in the league is  $n$  ( $i = 1, \dots, n$ ).

With an excess demand for talents, the marginal revenue productivity of labour  $RM_i = \frac{\partial R_i(m_i, t_i)}{\partial t_i}$  cannot equalise the marginal unit cost of labour when the last unit of the  $T_0$  talents is recruited, and the disequilibrium in the labour market for talents implies:

$$RM_i = \frac{\partial R_i(m_i, t_i)}{\partial t_i} \leq s. \quad (7)$$

All of the labour units, up to the last one recruited, are overpaid when excess demand prevails in the players' market. Due to their aggregate overall excess demand, teams are rationed by a short supply of talents and are eager to pay a salary that is much higher than the marginal labour productivity of talent, that is, to overpay players in order to attract them in a context of relative player shortage and harsh competition across the teams on the demand side of the labour market.<sup>3</sup> Then, recruited players provide a lower labour productivity than the equilibrium salary they are paid for, which sounds like the exact opposite of Scully's sense of player exploitation (Scully 1974).

In European football leagues with win-maximising teams that operate under a soft budget constraint, players are paid more than they would have been at an equilibrium wage. Since all teams have embarked on an arms race to recruit players, namely, the few available superstars, they accept paying a wage that is quite higher than the marginal revenue productivity of labour<sup>4</sup> in order to outbid competing teams: a fact that is evidenced in all European leagues after the Bosman case. At the end of the day, teams are cursed into paying too many wages for the marginal labour productivity they obtain from players (Andreff 2014b). Paying more than the equilibrium wage and recruiting less than the quantity of talents they demand, rationed teams are involved in an endless skyrocketing race of payroll and transfer fee increases, which is observed in European football as regards superstars' recruitment.

Another implication of excess demand in the labour market for player talents is that football teams with soft budget constraints attempt to recruit too many players, although they cannot afford as many as they would have wished due to the short supply of superstars. Teams spend their money without counting and accept making losses—and sometimes they cook the books to hide this reality—due to soft budget constraints. Moreover, when operating on the demand side of an excess demand input market, teams are always scared of being short of inputs without being certain that they will find one more superstar in the market due to inequality Equation (6). Thus, in reaction,

<sup>3</sup> When a market is in disequilibrium, one side (for instance, supply) of the market is shorter than the other one (demand); therefore, excess demand. In an excess demand market, aggregating all the microeconomic demands (of all teams) results in a bigger quantity of talents than the aggregated quantity that is supplied by suppliers (all players). Usually, those economic agents on the shorter side of a market have stronger bargaining power than those on the longer side; they successfully negotiate and bargain on their own terms—for prices and transaction conditions—and obtain a better payoff for what they deliver to the market. Those agents on the longer side of the market have to adjust, reduce their demand (when there is excess demand), and accept forced substitutions.

<sup>4</sup> And skyrocketing transfer fees as well.

teams hoard labour (in large rosters) to circumvent the consequences of operating on a short supply input market. In European football, the very existence of a reservation and transfer system, until the Bosman ruling in 1995, enabled teams to keep their players. After the Bosman case, teams recruited on their rosters more players than they really needed.<sup>5</sup> Thus, there is some slack in each team; teams are overmanned. This slack is beneficial to players in terms of the relationship between wages and both working time (very few players play all 90 min of each game in a season)—that is, work intensity—and labour productivity.

If one gives up the unrealistic and simplifying assumption of a homogeneous unit of talent that is adopted in the above standard model of team sports leagues, one has to introduce a qualitative differentiation between the most talented superstars and less talented journeymen players. It was assumed above that the supply of player talents is limited. Is this as likely to be true for journeymen players as for superstars? Obviously not, since one can witness in all top European football leagues a number of journeymen players who are unemployed at the start of every season.<sup>6</sup> Unemployment is a crucial index of excess supply. Such an observation apparently contradicts inequality Equation (6). Therefore, for the journeymen player segment of the labour market, excess supply is to be modelled instead of excess demand on a superstar segment.

The next point to consider is whether teams' excess demand for superstars in one market segment is compensated by an excess supply of journeymen players in the other market segment. It is assumed here that there is not full compensation: excess demand for superstars exceeds excess supply of journeymen players, and inequality Equation (6) still remains relevant for the players' market overall.

Let  $T_s$  stand for the overall number of available superstars and  $T_a$  the overall number of available journeymen players. It follows that:

$$T_s + T_a = T_0. \quad (8)$$

Now, a team has to maximise an assortment of superstar and journeymen player talents in order to maximise its wins Equation (9), and its soft budget constraint is to be rewritten in such a way as to take this assortment into account Equation (10). Below,  $t_{si}$  is defined as the demand for superstars by team  $i$ ,  $t_{ai}$  the demand for journeymen players by team  $i$ ,  $s_s$  the market wage for superstars, and  $s_a$  the market wage for journeymen players. Thus, for team  $i$ :

$$\text{Max } (t_{si} + t_{ai}). \quad (9)$$

Under a soft budget constraint, such as:

$$R_i(m_i, t_{si} + t_{ai}) - s_s \cdot t_{si} - s_a \cdot t_{ai} \leq 0 \quad (10)$$

And

$$\sum_{i=1}^n (t_{si} + t_{ai}) \geq T_0 \quad (11)$$

If, as is assumed, the excess demand for superstars more than compensates for the excess supply for journeymen players, the labour market disequilibrium in the superstar segment becomes:

$$\sum_{i=1}^n t_{si} \geq T_s. \quad (12)$$

<sup>5</sup> Since a soft budget constraint leads to labour hoarding within the enterprise (team)—thus hedging against the expected future labour market shortage—all European football teams are eager to recruit as many players as possible, including disposing of a great number of potential substitutes to seat on the touch-bench. This is also a means to deprive competing teams of talents.

<sup>6</sup> Some of them, often not accounted for as unemployed, simply revise downwards the terms of their supply of talent and spill over their labour supply to a lower division team or a weaker foreign league. Supply (and demand) revision by spilling over from one market to another is a basic effect that results from rationing schemes and quantitative adjustment processes in disequilibrium models.

In the superstar segment of the market, excess demand coincides with a wage that is higher than the marginal revenue productivity of labour:

$$RM_{si} = \frac{\partial R_i(m_i, t_{si})}{\partial t_i} \leq s_s. \quad (13)$$

Superstars are not directly competing against each other, with every superstar being in a monopoly position over his/her practically non-substitutable specific talent. In the journeymen player segment of the market, the excess supply of talents Equation (14) drives the market wage down until it is lower than the marginal revenue productivity of labour Equation (15) for these lower quality and higher-competing talents:

$$\sum_{i=1}^n t_{ai} \leq T_a \quad (14)$$

$$RM_{ai} = \frac{\partial R_i(m_i, t_{ai})}{\partial t_i} \geq s_a. \quad (15)$$

Inequality Equation (15) shows that journeymen players are subject to exploitation in Scully's sense; they are paid less than their marginal productivity. They suffer from being in excess supply as well as from the monopsonistic situation of the league, which encompasses team owners that are more or less coordinated in the labour market; thus, journeymen players bear a rent that is levied by owners on their salaries. An opposite asymmetry prevails in the superstar segment, where the league's monopsony is countervailed by a strong monopoly situation of each superstar due to the uniqueness of his/her talents, skills, reputation, performances, record of achievements, and so on, and his/her absolute exclusivity over them. Thus, team owners have to overbid in terms of wage and transfer fee for recruiting Lionel Messi, Cristiano Ronaldo, and other superstars.

A disequilibrium model of a league with win-maximising teams operating under soft budget constraints in a segmented labour market describes an arms race for superstar talents that is fuelled by excess demand, superstars' skyrocketing wages that trigger teams' payroll overruns—and superstars' skyrocketing transfer fees—that deteriorate teams' financial balance, the unemployment of journeymen players that are in excess supply and are used as a safety valve or an adjustment variable by team owners, and their lower wages, which are paid at a rate below their marginal labour productivity. Consequently, both superstar wages and transfer fee inflation jeopardise clubs' financial stability, increase the risk of repeated deficits, and, in a kind of vicious circle, trigger lax management, which is possible due to a soft budget constraint that is fuelled by payment arrears (including overdue transfer fees), bail-outs, or another kind of subsidisation; in such a context, payment failure, and even more so bankruptcy, are more the exception than the rule.

The above model remains to be empirically tested. The paucity of data regarding clubs' payrolls and individual wages in all Big Five leagues cannot afford a straightforward testing of inequalities Equations (13) and (15). However, [Bryson et al. \(2014\)](#) have found a wage premium for migrant professional football players that partly reflects the superstar status of such players. Thus, observing the biggest transfers in European football can provide a first insight into the very existence of a superstar segment on the player transfer market with skyrocketing fees, which are probably accompanied by high wages.

Table 8 shows the aggregated value of transfer fees over 2014–2018 in the seven highest-spending clubs of the Big Five leagues. Most of them operate on the superstar segment of the market, and some of them have been implicated in transfers with fees in excess of €50 million (Neymar, M'Bappé, Pogba, etc.). Notice the large disparities across the leagues whose clubs drag the superstars: the English Premier League's top seven spending clubs have spent 70% more on transfer fees than the top seven spending clubs in La Liga and Serie A, and even 2.4 times and 3.2 times, respectively, the amount spent by the top seven clubs in the Bundesliga and Ligue 1. Expenditure disparities in the superstar transfer market, which generate financial gaps, are even deeper across the clubs than the leagues, with only FC

Barcelona, Atletico Madrid, Real Madrid, Juventus, Inter Milan, AS Roma, and Paris Saint-Germain operating at a nearly comparable level of transfer expenditures as the top seven spending English clubs.

**Table 8.** The transfer fees for each of the Big Five's top seven spending clubs, 2014 to 2018.

English PL	Fees	Spanish LL	Fees	German BL	Fees
Manchester City	951.4	FC Barcelona	778.0	Bayern Munich	390.9
Manchester United	777.9	Atletico Madrid	479.6	Borussia Dortmund	368.7
Chelsea	749.2	Real Madrid	457.5	Wolfsburg	308.1
Liverpool	582.9	Valencia	308.5	Bayer Leverkusen	230.5
Tottenham Hotspur	446.5	Sevilla	253.0	Leipzig	191.0
Arsenal	420.6	Villareal	183.9	Schalke 04	155.8
Everton	410.2	Real Sociedad	83.1	Borussia Monchenglad	134.2
Total	4338.6	Total	2543.6	Total	1779.1
Italian SA	Fees	French L1	Fees		
Juventus	592.7	Paris Saint-Germain	678.0		
Inter Milan	432.7	Olympique Marseille	191.1		
AS Roma	428.7	Olympique Lyon	139.2		
AC Milan	368.5	Lille OSC	108.4		
Napoli	344.3	Rennes	92.00		
Fiorentina	186.5	Saint-Etienne	67.2		
Sampdoria	167.8	Bordeaux	63.8		
Total	2521.2	Total	1339.6		

Source: [Transfermarkt \(2018\)](#).

A further empirical test would be to check whether the positive difference between the wage and the marginal revenue productivity of labour for superstar players is bigger in the English Premier League than in the Spanish La Liga and the Italian Serie A, and whether the difference in the Italian Serie A is bigger than in the German Bundesliga and the French Ligue 1. Analysing whether such differences are correlated with more or less stringent financial management in each league would open a new avenue for further research.

## 6. Conclusions

The empirical evidence that was gathered in this paper shows, in the case of French football Ligue 1, that financial performance has usually been presented by the league as a trade-off between sporting performance in European competitions and the league's finance, often detrimental to the first option, even though the actual financial performance of some French clubs is far from outstanding. The poor performance of French clubs in European competitions is worsened by the league having the best competitive balance among the Big Five European soccer leagues in the long run. This trend may be changing, though slightly, since the acquisition of Paris-Saint-Germain by Qatar Sports Investment, whose strategy of providing an abundance of money enables the club to recruit intensively with the explicit aim of winning a European competition. However, the UEFA's Financial Fair Play rules, in addition to the DNCG's financial audits, contain such a strategy within some definite limits. Clubs' accounting, deficits, payment arrears, player transfer overdue, and debts are now audited twice more in the French Ligue 1, once by the DNCG and then by the UEFA financial rules; however, some clubs are not yet able to curb payroll inflation and skyrocketing transfer fees. Nevertheless, clubs' budget constraints will remain soft as long as the threat of bankruptcy or definitive liquidation continues to be more a potential rather than a real practical perspective.

The novelty of the paper is to establish a link between the soft budget constraint and the players' labour market for talent where it crucially triggers an excess demand for players, in particular superstar players. Disequilibrium modelling of the labour market for talent has shown that the link with a club's finance is more complex than is usually analysed in theoretical mainstream (equilibrium)



models of a team sports league. Overbidding to attract superstars, such as Neymar, Ronaldo, Messi, and M'Bappé, clubs consequently save on the other side of their payroll; that is, lower-paid journeymen players that are in excess supply on the labour market. Data paucity about players' individual wages hinders econometric testing of the aforementioned link and model so far, but a look at transfer fees, concentrating on a few of the top European soccer clubs, has provided a first insight into the arms race for talent that fuels excess demand for superstars and drives a number of clubs' finances into the red. Excess demand on the players' labour market will continue to be the price to pay for a persistent soft budget constraint with its fellow travelers payroll inflation and skyrocketing transfer fees.

There are two sides of the coin as regards policy implications. The first one is strictly financial, while the second one is about the belief that recruiting superstars is the only avenue to sporting success, recouping recruitment costs, and the subsequent club demand policy on the labour market for talent. The financial prerequisites of the UEFA's Financial Fair Play rules must be satisfied; otherwise, a club will be exposed to the threat of financial and sporting sanctions, including disqualification from participating to European competitions. With the French soccer league, a club will always be well advised to preliminary comply with the DNCG rules before passing the test of the UEFA rules, in particular if the DNCG rules will be stringently enforced. Subsequently, the number of French soccer clubs that do not break even should reduce and tend toward zero. However, this will neither make the payroll management easier nor the overbidding strategy on the labour market for talent viable.

The second set of implications is that those clubs that are overbidding for superstars must be aware that only a few of them (those winning the national championships or qualifying for European competitions) will be able to recoup their recruitment expenditures—transfer fees—and their subsequent superstar-inflated payrolls. Most of them are regularly doomed to be driven into a deficit after a poorer sporting performance than expected that does not accrue enough revenue to recoup recruitment expenditures. A number of French clubs have been cases in point, even Paris-Saint-Germain, in the past few years. Advising a less ambitious—often meaning less expensive—strategy on the labour market for talent in any case is sensible whatever the means. For example, the French rugby league has experimented with a salary cap since 2012, whereas soccer superstars playing in the French league are committed to paying an extra tax over €1 million revenue per month threshold (but, in fact, their clubs pay this tax instead). Overbidding, overbidding again, and repeatedly overbidding for superstar players is the easiest way for a club to attract the winner's curse in the labour market with its payment arrears, deficit, and debt.

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