International Entrepreneurship Review

2022, Vol. 8, No. 3

10.15678/IER.2022.0803.06

The effects of participation in European competitions on the domestic competitiveness of Polish football clubs

Szczepan Kościółek

ABSTRACT

Objective: The objective of this study was to establish whether participation in European football competitions affects the sports performance of Polish football clubs in the domestic league. Accordingly, negative short-term effects and positive medium-term effects were hypothesized.

Research Design & Methods: Based on the case of Polish Ekstraklasa, observations covering a 10-year competition period (seasons 2011/12 to 2020/21) were tested in regression models that included the league points and positions in the table as dependent variables and participation in the European UEFA competition and promotion to the group stage as explanatory variables.

Findings: The results revealed that if a Polish football club competes in European competitions, there are neither negative consequences for its domestic competitiveness in the short run nor positive consequences in the medium-term period.

Implications & Recommendations: Every season, football teams throughout Europe make an effort to internationalize themselves through UEFA competitions. This study demonstrates to sports managers that, contrary to common belief, engaging limited resources of football clubs outside the top leagues to compete in two competitions simultaneously has neutral effect.

Contribution & Value Added: To date, researchers have been interested in determining the influence of international competitions on the level of competitive balance. This is the first study on the impact of participation in European UEFA competitions on sports performance in domestic leagues outside Western Europe.

Article type: research article

Keywords: competitive imbalance; financial fair-play (FFP); resource-based view (RBV); sport performance; sports clubs; UEFA

JEL codes: F23, Z21

Received: 4 July 2022 Revised: 8 August 2022 Accepted: 9 September 2022

Suggested citation:
Kościółek, S. (2022). The effects of participation in European competitions on the domestic competitiveness of Polish football clubs. *International Entrepreneurship Review,* 8(3), 81-92. https://doi.org/10.15678/IER.2022.0803.06

INTRODUCTION

The format of European football club competitions has evolved over the years. The general direction of these changes is to open access for more units from the richest and highly competitive leagues, especially the so-called 'Big Five' (English *Premier League*, French *Ligue 1*, German *Bundesliga*, Italian *Serie A*, and Spanish *La Liga*), to compete at the cost of limiting the number of poorer, weaker, and less recognizable global clubs from eastern Europe (Bullough, 2018). Meanwhile, the prizes for participation in both UEFA tournaments, the Champions League (UCL) and the Europa League (EL), have been growing constantly (UEFA, 2021). According to Késenne (2015), these two tendencies have deepened international imbalances in European football in terms of both the financial and sporting situations of clubs in different countries.

Currently, the Big Five leagues are responsible for 60% of the revenue in the entire professional football industry, and their shares in the market have been continuously growing. At the opposite end

of the spectrum, leagues outside the top 10 leagues make up 15% of the revenue of European football clubs (UEFA, 2022). Among all the clubs that played in the UCL between 2003/04 and 2016/17, less than one in four represented leagues outside the top 10 (Bullough, 2018). Consequently, when football clubs from leading leagues compete in such competitions, most of the representatives from leagues outside the top ten face challenges of being promoted to the group stage of UCL and EL. Taking into account their budgets, the starting fees paid by the UEFA for group stage participation may be seen as a significant financial injection that will improve club sports performance in the near future.

In Poland, which suffers from the divergence of wealth in the global football industry, there is a common belief that clubs that take part in UEFA competitions show decreased sports performance in the domestic league (see, for instance, Iwankiewicz, 2021). In line with the resource-based view (RBV), we can indeed assume that clubs representing less competitive leagues, drained from most productive players (Dimitropoulos & Scafarto, 2021), lack the quantity and quality of human resources to be able to play in two competitions simultaneously (Barney, 1991).

Therefore, it can be hypothesized that, on the one hand, the use of limited resources for international competitions makes football clubs less competitive in the domestic league during a given season (H1). On the other hand, however, it is expected that promotion to international competition in one year positively affects a club's sports performance in the following season (H2). To test the given hypotheses, this study aimed to establish whether participation in European football competitions (UCL and EL) affects the sports performance of Polish clubs in the domestic league.

It is hoped that this research will contribute to a deeper understanding of the link between domestic and international competitions. To date, we have evidence that the growing asymmetry of revenues in European football, partially resulting from the participation in UEFA competitions, leads to an improvement in the competitive imbalance within the Big Five in favor of the biggest clubs (Dietl *et al.*, 2008; Pawlowski *et al.*, 2010). However, the question remains as to how competing in UEFA tournaments affects the competitive position of clubs outside the top leagues in a given season and subsequent seasons. In this paper, we focus on the case of Polish football clubs by investigating a 10-year period of sports performance in ECL, EL and Ekstraklasa (the domestic league in Poland). This study aims to answer this question and provide relevant implications for the governance bodies of football clubs.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

According to RBV, which assumes that an organization is a set of resources and competencies that builds a competitive advantage (Barney, 1991), the success of a football club depends on its access to physical (including financial revenue), organizational, and human resources (Omondi-Ochieng, 2019). However, the distribution of these resources among clubs is highly uneven, leading to a high variation in sports levels between European football competitions (Késenne, 2000). The literature on this topic thoroughly describes the factors that have driven European football into a progressive competitive imbalance since the mid-1990s.

First, the Bosman ruling in 1995 eliminated the legal restrictions on the player transfer market (Frick, 2009), allowing players to exercise their freedom in the labor market after the expiration of their contract with the current club. Equally important was the elimination of the 'three plus one' rule. The limit on foreign players in EU leagues no longer exists and, consequently, barriers to the supply of players from less developed markets on a massive scale have disappeared. Currently, in each of the Big Five leagues, non-nationals accounted for more than 50% of the total minutes played in the 2020/21 season (UEFA, 2022).

Second, the new format of European competitions, especially the UCL, closed the door to clubs representing less affluent leagues and exceeded the payments for those clubs participating in the UCL. One of the most relevant modifications was made in the 1999/2000 season when the number of participants was increased from 24 to 32 teams; the payments for the clubs participating in the UCL have been rising significantly since then (Pawlowski *et al.*, 2010). The competitions originally dedicated to national league champions have been transformed into championships in which the most competitive leagues have four slots to fill, while some leagues notoriously do not have a representative in the group

stage, as they are not promoted from the qualifying phase. These processes were accompanied by an increase in the internationalization of European football, mainly through the increased availability of sports broadcasts in various parts of the world (Andreff & Bourg, 2006). Therefore, fees obtained from the UEFA grew alongside the interest of investors willing to invest money in football clubs, not for profits but to gain prestige from and satisfaction with their successes (Lang *et al.*, 2011).

The presence of such investors has strengthened the win maximization orientation in European football instead of the profit-maximization model that is dominant in US sports (Késenne, 2000; Sloane, 1971). Therefore, the largest clubs operate in soft budget-constrained conditions and overinvest the resources available on the market beyond what the clubs can cover from self-generated revenues (Andreff, 2007). In such conditions, the role of financial resources in sports competitions has increased and depends on the spending power of club owners (Franck, 2010; Franck & Lang, 2014).

The Financial Fair Play (FFP) regulation, introduced by UEFA in 2009, aimed to restrict that practice through the rule of no overdue payables and the break-even rule (Peeters & Szymanski, 2014). The financial effects of the introduction of FFP are highly debated in the literature. Ahtiainen and Jarva (2022) provided evidence that FFP improved the profitability of Spanish football clubs and, to a lesser extent, English and German football clubs. On the other hand, such positive outcomes were not found for French, Spanish or Italian clubs (Ahtiainen & Jarva, 2022; Ghio *et al.*, 2019). Francois *et al.* (2021) supported these outcomes by showing the increased profitability of English football clubs compared to French clubs. However, this pattern only applies to entities that are not participating in UEFA internation competition. In general, FFP outputs vary between countries. According to Rohde and Breuer (2018), the ownership structure is what differentiates football clubs in this regard, as FFP has increased the efficiency with which the resources of football clubs owned by private majority investors are managed.

However, in the context of this study, the influence on international competitive balance is a more important consequence of the FFP regulation. Peeters and Szymanski (2014) believed that FFP would not significantly reduce competitive imbalance, but rather protect the competitive position of the wealthiest clubs. In effect, the most valuable resources, that is, the most skilled players, are still concentrated in the Big Five leagues (Frick, 2009; Tovar, 2020), often at the cost of overmanned rosters (Andreff, 2018).

Meanwhile, even if experiences from international tournaments significantly boost the morale of players, the sports science literature provides evidence that previous workload (such as the three-day-match routine that occurs during simultaneous international and domestic competition participation) negatively affects the sports performance of professional football players (Springham *et al.*, 2020). Under such circumstances, and considering that football clubs outside the top leagues operate with a shortage of effective workers in the current market conditions, the following can be hypothesized:

H1: The use of limited resources for international competitions makes football clubs less competitive in the domestic league during a given season.

The described changes have led to an increase in inequality not only at the international level but also domestically, where the biggest clubs have enhanced domination in the league competition (Norbäck *et al.*, 2021; Pawlowski *et al.*, 2010). According to Maclean *et al.* (2022), board managers of Scottish football clubs share this viewpoint, as they believe that the introduction of FFP creates a 'poverty trap' for smaller teams. Researchers (e.g. Birkhauser *et al.*, 2019; Gallagher & Quinn, 2020; Garcia-del-Barrio & Rossi, 2020; Plumbley *et al.*, 2019) have emphasized that FFP regulations limited the possibility of private investors entering the market and recapitalizing smaller clubs to make them more competitive in the national league. Consequently, such restriction drives the consolidation of the current hierarchy of forces within a given league. In the most recent paper on this issue, Serrano *et al.* (2022) applied a long-term perspective, and with a sample of 17 different leagues. They confirmed the heterogeneity of the impact of FFP on competitive balance at the national level, which was claimed in previous research, and observed a slight tendency to escalate the imbalance within the leagues. Plumley *et al.* (2019) postulated that club size should be included as an external variable in the FFP regulation to make smaller clubs competitive. However, this suggestion has not yet been applied.

Although Franck (2014) argued that FFP only regulated the payroll and that football club owners could build a competitive advantage through investment in other resources such as infrastructure and

youth academies, it must be noted that such investments only offer returns over a long period of time. In practice, on average, about 60% of club revenue on average is spent on player salaries (Deloitte Sports Business Group, 2022). The most successful teams receive increasing pay-outs from the UCL, increasing their financial and, subsequently, sporting advantage over the rest of the clubs. Therefore, it can be assumed that football clubs from outside the top level that manage to join the UEFA can improve their domestic competitiveness using the funds and experience obtained in exactly the same way as units from the Big Five leagues (Ruta *et al.*, 2022). Based on this and following the approach of Rohde and Breuer (2016), we have assumed a one-year lag[1] for the short-term sporting outcomes of football clubs' potential investments and hypothesized that:

H2: Promotion to international competition in one year positively affects a club's sports performance in the following season.

RESEARCH METHODOLOGY

Research Design and Case Selection

This study analyzes the case of Polish Ekstraklasa. The choice of this league was based on two irrefutable arguments. First, this league is a typical example of a football league outside of the top class: it was ranked 30th in the UEFA league ranking at the end of the 2020/21 season (Kassies, 2021). This outcome gives the best clubs in the league one slot in the ECL and three slots in the EL qualification. Second, Ekstraklasa is one of the most competitively balanced leagues in Europe (Lubaś, 2020), resulting in a high diversity of clubs representing the country in European competitions. During the last 10 years (seasons 2011/12–2020/21), 12 Polish clubs participated in the ECL and EL qualifications (Table 1). Technically, the volatility of the teams that appear in European cups provides the option to investigate the impact of that factor on domestic competitiveness.

Table 1. Football clubs representing Polish Ekstraklasa in UEFA competitions (seasons 2011/12–2020/21)

Club / Season	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	Times of participation
Legia Warszawa	▲	●	▲	▲	▲	▲	●	●	●	●	10
Lech Poznan	○	●	●	●	▲	○	●	●	○	▲	7
Slask Wrocław	●	●	●	●	●	○	○	○	○	●	6
Jagiellonia Bialystok	●	○	○	●	●	○	●	●	○	○	5
Piast Gliwice	○	○	●	○	○	●	○	○	●	●	4
Cracovia	○	○	○	○	○	●	○	○	●	○	2
Wisla Krakow	▲	○	○	○	○	○	○	○	○	○	1
Ruch Chorzow	○	●	○	○	○	○	○	○	○	○	1
Zaglebie Lubin	○	○	○	○	○	●	○	○	○	○	1
Arka Gdynia	○	○	○	○	○	○	●	○	○	○	1
Gornik Zabrze	○	○	○	○	○	○	○	●	○	○	1
Lechia Gdansk	○	○	○	○	○	○	○	○	●	○	1

Note: ▲ The club participates in a group stage of UEFA competitions ● The club participates in UEFA competitions but not in the group stage; ○ The club does not participate in UEFA competitions.
Source: own elaboration based on 90minut.pl.

To test the first research hypothesis regarding the effects of competing internationally on sports performance in the domestic league in the ongoing season, the following equation was estimated:

$$LEAGUE\_POINTS_{it} = f(UEFA\_COMPETITION_{it}, controls) + \in_{it} \quad (1)$$

[1] Scenarios for two- and three-year lags were also tested. They both provided consistent results, and the solutions are presented later in the paper. These results are available from the author on request.

here LEAGUE_POINTS stands for the league points achieved by the *i*-th team in season *t* according to the regular system, in which three points are assigned for winning the game and one point is assigned for a draw. UEFA_COMPETITION means participation in a European competition, which, in the case of European football clubs, means playing in the UEFA Champions League or UEFA Europa League, including qualifications to both tournaments.

Considering how long the unit is affected by European competition may matter for domestic competitiveness, thus, the second equation to be solved was estimated as follows:

$$LEAGUE\_POINTS_{it} = f(GROUP\_STAGE_{it}, controls) + \in_{it} \quad (2)$$

where GROUP_STAGE means participation in European competition when being promoted to the main round of UCL or EL (when winning the qualification phase).

To test the second research hypothesis, regarding the effects of competing internationally on sports performance in the domestic league in the subsequent season, equations analogous to those presented before were estimated. Thus, the following formulas were obtained:

$$LEAGUE\_POINTS_{it} = f(GROUP\_STAGE_{it}, controls) + \in_{it} \quad (3)$$

$$LEAGUE\_POINTS_{it} = f(GROUP\_STAGE_{it-1}, controls) + \in_{it} \quad (4)$$

where both UEFA_COMPETITION and GROUP_STAGE mean the same thing as described above, but they were both taken for the season preceding the period under examination.

The estimated models also include control variables that were considered to explain sports performance in professional football. Player wage expenditures (WAGES) were considered to be a dominant factor explaining sports performance in professional football (Barajas & Rodríguez, 2010; Caruso *et al.*, 2017). Following the approach of Gasparetto and Barajas (2018), this factor was included in the models as a logarithm of payroll. Second, Barros and Leach (2006) and Barros *et al.* (2015) asserted that the number of fans influences the sports performance of football clubs. Thus, the empirical models contain the ratio of the average home attendance of a given team in a given season to the average attendance in the league in that period (FAN_BASE). Third, as some authors have claimed, historical success (PAST_SUCCESS) could influence the current results of a football club (Gasparetto & Barajas, 2018; Macmillan & Smith, 2007; Pitts, 2016). The total number of points achieved by a given club in league history was determined to be the most accurate and accessible data in this matter. PAST_SUCCESS was formed as a ratio of points achieved by a club on the opening day of the season to the average of all clubs participating in the league in a given season. Finally, to include observations in various time periods (2011-12 to 2020-21), the SEASON dummy variable was also included.

To explore the robustness of the finding, the same type of sports performance predictors were applied for models with league positions as dependent variables. Consequently, the four ordered logistic regressions were calculated as follows:

$$LEAGUE\_POSITION_{it} = f(UEFA\_COMPETITION_{it}, controls) + \in_{it} \quad (5)$$

$$LEAGUE\_POSITION_{it} = f(GROUP\_STAGE_{it}, controls) + \in_{it} \quad (6)$$

$$LEAGUE\_POSITION_{it} = f(UEFA\_COMPETITION_{it-1}, controls) + \in_{it} \quad (7)$$

$$LEAGUE\_POSITION_{it} = f(GROUP\_STAGE_{it-1}, controls) + \in_{it} \quad (8)$$

where LEAGUE_POINTS stands for a categorical variable taking the values {0,1,2,3,…,16}, while UEFA_COMPETITION, UEFA_COMPETITION$_{t-1}$, GROUP_STAGE, GROUP_STAGE$_{t-1}$, and all the control variables remain unchanged.

Data Collection and Analysis

A summary of the variables used in the analyses and descriptive statistics is presented in Table 2. The Ekstraklasa league consists of 16 teams, and, following the availability of the data, the 10 seasons were analyzed. This makes each season responsible for 0.10 observations in the sample. The average number of points collected per team in one season was 40.90 (SD = 9.70), and the average league position achieved was 8.36 (SD = 4.56), resulting from the size of the league and three missing observations. On average, clubs spent 20.84 million PLN (ca. 5 million EUR) on wages (with SD = 15.40), which gives an average value of 2.81 (SD = 0.69) for the LN(WAGES) variable. The average match attendance during

the entire 10-year period equaled 8,394 (SD = 5,243), which was transformed into a FAN_BASE ratio giving the mean of 1.01 and standard deviation of 0.60, while the average historical points were 1,278 (SD = 910), which gave the average ratio of 1.00 (SD = 0.71) for PAST_SUCCESS. As only three top clubs from the previous season and the winner of the national cup play in UEFA competitions in any given year, one in four clubs each year fulfills the requirement to be considered a UEFA competition participant. However, promotion to the group stage is a challenge for Polish football clubs: in the given 10-year period, it has happened only eight times.

Table 2. Overview and descriptive statistics of variables

Variable / Measure	Description	Type	M	SD
Dependent variables				
LEAGUE_POINTS	League points achieved by the *i*-th team after the 30th round of the season *t*	Metric	40.90	9.92
LEAGUE_POSITION	League position achieved by the *i*-th team after the 30th round in season *t*	Ordinal	8.36	4.56
Explanatory variables				
UEFA_COMPETITION	The club participates in an international competition in UCL or EL (1 = yes)	Dummy	0.25	–
GROUP_STAGE	The club participates in an international competition in the UCL or EL group stage (1 = yes)	Dummy	0.05	–
UEFA_COMPETITION_t-1	The club participates in an international competition in UCL or EL in season *t-1* (1 = yes)	Dummy	0.25	–
GROUP_STAGE_t-1	The club participates in an international competition in UCL or EL group stage in season t-1 (1 = yes)	Dummy	0.05	–
Control variables				
LN(WAGES)	Logarithm of total amount spent on players' wages by the *i*-th team in season *t* (in million PLN)	Metric	2.81	0.69
FAN_BASE	Ratio of the average home attendance of the *i*-th team in season *t* to the average attendance in the given season	Metric	1.01	0.60
PAST_SUCCESS	Ratio of the total number of points achieved by the *i*-th team before the start of season *t* to the average total number of points achieved by league participants before the given season	Metric	1.00	0.71
SEASON	Season *t* when the results given were obtained (2015/16 – 2020/21; 1 = yes)	Dummy	0.16 0.15[a]	–

[a] Related to seasons 2015/16, 2016/17, and 2017/18.
Source: own study.

These data were retrieved from the following sources: (*i*) the players' wages were acquired from EY's (2012, 2014, 2015) and Deloitte's (2013, 2016, 2017, 2018, 2019, 2020, 2021) annual reports considering the financial situation of the Ekstraklasa football clubs; (*ii*) the league points and indications of the clubs participating in international competitions were easily found in the league tables on the Ekstraklasa website (Ekstraklasa.org); (*iii*) the average seasonal home attendance was acquired from the Transfermarkt (2022) database; and (*iv*) the historical point achievements were acquired from the Polska-Piłka website (2022). Although sourcing player wages from two different audit groups may seem alarming at first glance, it should be noted that both of them took the data from the same primary sources: clubs' financial reports.

The dataset includes 157 observations in total. These are all the results for each club that played in Ekstraklasa between the 2011/12 and 2020/21 seasons (without observations for Bruk-Bet Termalica, which spent three years in Ekstraklasa without providing access to its financial data).

RESULTS AND DISCUSSION

The results of the ordinary least squares (OLS) regression (Table 3) and the ordered logistic regression models (Table 4) confirmed the dominant role of wages and the relevance of the fan base in explaining

the sports performance of football clubs. However, neither past successes (historically achieved league points) nor participation in international competition was a statistically significant predictor. All estimated models offer results that are consistent in terms of the signification of variables and stable in terms of the fit indices ($F > 7.500$; $p < 0.001$; adjusted-$R^2 > 0.350$ for the OLS regression and the Lr chi-square [13] > 789; [Prob > chi-square] < 0.001; McFadden's pseudo R-square ≥ 0.090 for ordered logistic regression).

Consequently, both the tested hypotheses were rejected. Participating in the European UEFA competition, regardless of whether it occurs at the group stage level (models 3-5 and 7-8) or in the qualification phase (1-2, 5-7), does not affect domestic competitiveness. Regardless of whether we took into account the number of points (1-4) or the position the league achieved at the end of the season (5-8), neither positive effects in the next season nor negative consequences in the same season were found.

Table 3. Results of OLS regression analyses

Variable / Model	**(1)**		**(2)**		**(3)**		**(4)**	
Explanatory variables								
UEFA_COMPETITION	1.784	(1.647)	–	–	–	–	–	–
GROUP_STAGE	–	–	-1.207	(3.267)	–	–	–	–
UEFA_COMPETITIONt-1	–	–	–	–	2.744	(1.527)	–	–
GROUP_STAGEt-1	–	–	–	–	–	–	4.297	(3.217)
Control variables								
LN(WAGES)	7.079***	(1.356)	7.424***	(3.267)	6.938***	(1.343)	7.017***	(1.353)
FAN_BASE	4.835**	(1.461)	5.475***	(1.412)	4.933**	(1.388)	5.137***	(1.385)
PAST_SUCCESS	-1.059	(1.118)	-1.074	(1.129)	-1.138	(1.109)	-1.365	(1.129)
Season dummies (Ref: 2011/12)	*included*		*included*		*included*		*included*	
Constant	15.319***	(3.944)	14.246***	(3.939)	15.485***	(3.882)	15.687	(3.964)
Model assessment								
adj-R^2	**0.371**		**0.366**		**0.380**		**0.373**	
F	8.069		7.932		8.341		7.675	
p	<0.001		<0.001		<0.001		<0.001	
Observations	157		157		157		157	

The unstandardized coefficients and standard errors (in brackets) are displayed. *p < 0.05; **p < 0.01; ***p < 0.001.
Source: own study.

On this basis, it can be claimed that the inconvenience related to starting in the European cups is not a problem for players from the weaker Polish league. The inconvenience mentioned is related to the need to organize a different mode of preparation for the competition, which, for teams that play in the UEFA qualifiers, begins earlier and, in the case of promotion to the group stage, involves competitions every three days (while the league's competitors only play once a week). Although it does not seem to be a problem for the wealthy top clubs with more productive players (Dimitropoulos & Scafarto, 2021) and broad, well-balanced teams (Andreff, 2018), it may be surprising for the case discussed.

However, equally interesting is the fact that the experience and extra fees obtained in the UEFA competition did not lead to an improvement in the competitive position of the Polish football clubs, even on a domestic basis. This could be because the exposure of players in such competitions leads to more highly ranked leagues becoming more interested in them (Lago-Peñas *et al.*, 2019; Simmons & Deutscher, 2012). Therefore, it seems that the fees obtained from the UEFA and the transfer receipts in the disguised player market are difficult to supplement in a way that improves the sports level. The findings of this study align with the concept of 'freezing' the hierarchy of forces in the European football market, which was observed after the implementation of the FFP (Dimitropoulos & Scafarto, 2021; Sass, 2016; Vöpel, 2011). In the context of Poland, the wide variance and general low level of spending efficiency among most Ekstraklasa football clubs could also explain why reinvesting the funds obtained from UEFA does not have the expected outcome (Wyszyński, 2016).

Table 4. Results of ordered logistic regression analyses

Variable / Model	(5)		(6)		(7)		(8)	
Explanatory variables								
UEFA_COMPETITION	-0.225	(0.374)	–	–	–	–	–	–
GROUP_STAGE	–	–	0.342	0.752	–	–	–	–
UEFA_COMPETITIONt-1	–	–	–	–	-0.510	(0.0351)	–	–
GROUP_STAGEt-1	–	–	–	–	–	–	-0.466	(0.758)
Control variables								
LN(WAGES)	-1.570***	(0.330)	-1.628***	(0.330)	-1.512***	(0.327)	-1.564***	(0.329)
FAN_BASE	-1.295***	(0.346)	-1.392***	(0.336)	-1.302***	(0.332)	-1.341***	(0.331)
PAST_SUCCESS	0.345	(0.256)	0.352	(0.257)	0.352	(0.255)	0.385	(0.258)
Season dummies (Ref: 2011/12)	*included*		*included*		*included*		*included*	
Constant cut 1	-9.342***	(1.138)	-9.453***	(1.136)	-9,240***	(1,130)	-9,298***	(1,139)
Constant cut 2	-8.328***	(1.084)	-8.461***	(1.084)	-8,222***	(1,074)	-8,290***	(1,087)
Constant cut 3	-7.658***	(1.055)	-7.802***	(1.056)	-7,553***	(1,044)	-7,623***	(1,059)
Constant cut 4	-7.124***	(1.035)	-7.273***	(1.037)	-7,020***	(1,024)	-7,088***	(1,040)
Constant cut 5	-6.686***	(1.022)	-6.834***	(1.023)	-6,583***	(1,010)	-6,649***	(1,027)
Constant cut 6	-6.316***	(1.011)	-6.463***	(1.012)	-6,214***	(1,000)	-6,278***	(1,017)
Constant cut 7	-5.972***	(1.003)	-6.119***	(1.004)	-5,869***	(0,991)	-5,934***	(1,008)
Constant cut 8	-5.636***	(0.995)	-5.783***	(0.996)	-5,530***	(0,984)	-5,598***	(1,000)
Constant cut 9	-5.301***	(0.987)	-5.446***	(0.988)	-5,194***	(0,976)	-5,263***	(0,992)
Constant cut 10	-4.964***	(0.980)	-5.107***	(0.980)	-4,854***	(0,969)	-4,926***	(0,985)
Constant cut 11	-4.612***	(0.973)	-4.752***	(0.972)	-4,496***	(0,962)	-4,572***	(0,977)
Constant cut 12	-4.216***	(0.964)	-4.353***	(0.963)	-4,095***	(0,954)	-4,175***	(0,968)
Constant cut 13	-3.733***	(0.954)	-3.866***	(0.952)	-3,608***	(0,944)	-3,692***	(0,958)
Constant cut 14	-3.051**	(0.943)	-3.178**	(0.940)	-2,926**	(0,934)	-3,012**	(0,947)
Constant cut 15	-1.883*	(0.952)	-2.000*	(0.947)	-1,758*	(0,945)	-1,846*	(0,956)
Model assessment								
Pseudo R-square	**0.090**		**0.090**		**0.092**		**0.090**	
Log likelihood	791.179		791.333		789.374		791.108	
Lr chi-square (13)	78.464		78.310		80.269		78.535	
Prob > chi2	<0.001		<0.001		<0.001		<0.001	
Observations	157		157		157		157	

The unstandardized coefficients and standard errors (in brackets) are displayed. *p < 0.05; **p < 0.01; ***p < 0.001.
Source: own study.

Considering our control variables, player wages (LN[WAGES]) and market size (FAN_BASE) turned out to be good predictors of the domestic sports performance of Polish football clubs, while historical points achieved (PAST_SUCCESS) was not significant. The players' wages are, in fact, a measure of their sports level. As Hall *et al.* (2002) pointed out, the bigger the payroll in relation to the competition, the better the players a club can hire. This influence is basically unquestionable in the literature (e.g., Barajas & Rodríguez, 2010; Caruso *et al.*, 2017; Gasparetto & Barajas, 2018) and it was confirmed again in this study.

However, the influence of the number of fans (i.e., market size) and past successes on football clubs' sports performance has been a topic of debate in the literature. Some have found the population and number of fans to be predictors of sports performance in the English Premier League and Brazilian League authors (e.g., Barros & Leach, 2006; Barros *et al.*, 2015), while others have obtained contradictory findings (Gasparetto & Barajas, 2018). For example, Gasparetto and Barajas (2018), Macmillan and Smith (2007), and Pitts (2016) argued for the influence of historical success on current performance, while Barros *et al.* (2011) argued against the existence of such an effect. In our case, as with Gasparetto and Barajas (2018), only one of these variables was significant: the number of fans. A solution to this inconsistency may be to consider that fan engagement and loyalty are, to some extent, a

result of previous successes and traditions of the club (Bauer *et al.*, 2008). This relationship is also visible in our case through the correlation between these variables (r = 0.59).

CONCLUSIONS

All this leads to the conclusion that the resources of football clubs outside the top leagues, such as Poland, do not limit the possibility of competing in two fields at the same time. It turns out that the efforts of football clubs to compete in the foreign market and their position in the domestic market remain independent of each other despite the use of the same resources to compete in both markets. However, the experience and fees from the UEFA are not sufficient to gain a lasting advantage in the domestic market and cover the potential loss of the most effective players being transferred out as a result of their increased profile during the European cups. This is how the 'poverty trap', in which football clubs' governing bodies believe in, works in practice (Maclean *et al.*, 2022). However, the question remains as to whether this trap is inevitable or results from the ineffective management of professional football clubs in the Polish context.

These findings have important implications for the management of football clubs in Poland and possibly for representatives of clubs from other leagues outside the top leagues as well. Football clubs' governing bodies should be aware that participation in UEFA competitions will not have negative consequences for their clubs and that, based on aggregated data for the experience of Polish clubs, participation does not provide the funds needed to improve their competitive position. Managers of Polish football clubs act very impulsively, leading to a high rotation of head coach positions after they are promoted to the European cups with their teams (Iwankiewicz, 2021). Based on the results, it seems that this turnover may result from the excessive expectations of the owners after the success of being promoted to UEFA competitions. This is because the influence of participation in European cups on sports results remains neutral in both short- and medium-term periods. Club managers should be aware of this.

The implications presented in this work apply to Polish football clubs and should be treated with due caution in the case of clubs from other countries outside the top leagues. The most relevant limitations of this paper lie in the limited scope of the research to one country and the sample size, which was affected by limited access to data. Thus, a cross-national study of two simultaneous competitions is now required. Additionally, our second hypothesis tests the sports results of football clubs in the following season (and, in the working versions, also in subsequent single periods), and thus tests the short-term effects of participation in international competitions. In future research, it would be worth testing whether such participation for a sustained period could lead to a better competitive position over time, but not necessarily in the years that immediately follow.

REFERENCES

90minut.pl (2022). *Archiwum,* Retrieved June 26, 2022, from http://www.90minut.pl/szukaj.php

Ahtiainen, S., & Jarva, H. (2022). Has UEFA's financial fair play regulation increased football clubs' profitability?. *European Sport Management Quarterly*, *22*(4), 569-587. https://doi.org/10.1080/16184742.2020.1820062

Andreff, W. (2007). French football: A financial crisis rooted in weak governance. *Journal of Sports Economics*, *8*(6), 652-661. https://doi.org/10.1177/1527002506297021

Andreff, W. (2018). Financial and Sporting Performance in French Football Ligue 1 : Influence on the Players' Market. *International Journal of Financial Studies*, *6*(4), 91-118. https://doi.org/10.3390/ijfs6040091

Andreff, W., & Bourg, J.-F. (2006). Broadcasting rights and competition in European football. In C. Jeanrenaud & S. Késenne (Eds.), *The economics of sport and the media* (pp. 37-70). Cheltenham: Edward Elgar.

Barajas, Á., & Rodríguez, P. (2010). Spanish football clubs' finances: Crisis and player salaries. *International Journal of Sport Finance*, *5*(1), 52-66.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99-120. https://doi.org/10.1177/014920639101700108

Barros, C. P., Assaf, A. G., & de Araujo Jr, A. F. (2011). Cost performance of Brazilian soccer clubs: A Bayesian varying efficiency distribution model. *Economic Modelling*, *28*(6), 2730-2735.

https://doi.org/10.1016/j.econmod.2011.08.002

Barros, C. P., & Leach, S. (2006). Performance evaluation of the English Premier Football League with data envelopment analysis. *Applied Economics*, *38*(12), 1449-1458. https://doi.org/10.1080/00036840500396574

Barros, C. P., Wanke, P., & Figueiredo, O. (2015). The Brazilian Soccer Championship: an efficiency analysis. *Applied Economics*, *47*(9), 906-915. https://doi.org/10.1080/00036846.2014.982857

Bauer, H. H., Stokburger-Sauer, N. E., & Exler, S. (2008). Brand Image and Fan Loyalty in Professional Team Sport : A Refined Model and Empirical Assessment. *Journal of Sport Management*, *22*, 205-226. https://doi.org/10.1123/jsm.22.2.205

Birkhäuser, S., Kaserer, C., & Urban, D. (2019). Did UEFA's financial fair play harm competition in European football leagues?. *Review of Managerial Science*, *13*(1), 113-145. https://doi.org/10.1007/s11846-017-0246-z

Bullough, S. (2018). UEFA champions league revenues, performance and participation 2003-2004 to 2016-2017. *Managing Sport and Leisure*, *23*(1-2), 139-156. https://doi.org/10.1080/23750472.2018.1513341

Caruso, R., Di Domizio, M., & Rossignoli, D. (2017). Aggregate wages of players and performance in Italian Serie A. *Economia Politica*, *34*(3), 515-531. https://doi.org/10.1007/s40888-017-0062-6

Deloitte Sports Business Group (2022). *Football Money League,* Deloitte. Retrieved June 26, 2022, from https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/sports-business-group/deloitte-uk-dfml22.pdf

Dietl, H. M., Franck, E., & Lang, M. (2008). Overinvestment in team sports leagues: A contest theory model. *Scottish Journal of Political Economy*, *55*(3), 353-368. https://doi.org/10.1111/j.1467-9485.2008.00457.x

Dimitropoulos, P., & 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*, *21*(1), 20-38. https://doi.org/10.1080/16184742.2019.1674896

Franck, E. (2010). Private firm, public corporation or member's association governance structures in European football. *International Journal of Sport Finance*, *5*(2), 108.

Franck, E., & Lang, M. (2014). A theoretical analysis of the influence of money injections on risk taking in football clubs. *Scottish Journal of Political Economy*, *61*(4), 430-454. https://doi.org/10.1111/sjpe.12052

Francois, A., Dermit-Richard, N., Plumley, D., Wilson, R., & Heutte, N. (2021). The effectiveness of UEFA Financial Fair Play: evidence from England and France, 2008-2018. *Sport, Business and Management*, Vol. 12 No. 3, pp. 342-362. https://doi.org/10.1108/SBM-03-2021-0024

Frick, B. (2009). Globalization and Factor Mobility: The Impact of the "Bosman-Ruling" on Player Migration in Professional Soccer. *Journal of Sports Economics*, *10*(1), 88-106. https://doi.org/10.1177/1527002508327399

Gallagher, R., & Quinn, B. (2020). Regulatory own goals: The unintended consequences of economic regulation in professional football. *European Sport Management Quarterly*, *20*(2), 151-170. https://doi.org/10.1080/16184742.2019.1588344

Garcia-del-Barrio, P., & Rossi, G. (2020). How the UEFA Financial Fair Play regulations affect football clubs' priorities and leagues' competitive balance?. *European Journal of Government and Economics*, *9*(2), 119-142. https://doi.org/10.17979/ejge.2020.9.2.5842

Gasparetto, T., & Barajas, A. (2018). The determinants of sporting success in the Brazilian football league. *International Journal of Sport Finance*, *13*(2), 183-197.

Ghio, A., Ruberti, M., & Verona, R. (2019). Financial constraints on sport organizations' cost efficiency: The impact of financial fair play on Italian soccer clubs. *Applied Economics*, *51*(24), 2623-2638. https://doi.org/10.1080/00036846.2018.1558348

Hall, S., Szymanski, S., & Zimbalist, A. S. (2002). Testing Causality Between Team Performance and Payroll: The Cases of Major League Baseball and English Soccer. *Journal of Sports Economics*, *3*(2), 149-168. https://doi.org/10.1177/152700250200300204

Iwankiewicz, M. (2021). Pucharowy pocałunek śmierci istnieje. Czesław Michniewicz tylko wpisał się w trend. *TVP Sport*. Retrieved June 26, 2022, from https://sport.tvp.pl/56571735/europejskie-puchary-powodem-zwolnien-trenerow-w-polsce-czeslaw-michniewicz-wpisal-sie-w-trend-pucharowy-pocalunek-smierci-istnieje.

Kesenne, S. (2015). The growing gap between small-and large-country football teams in Europe. In *Ethics and Governance in Sport* (pp. 137-144). Routledge.

Késenne, S. (2000). Revenue sharing and competitive balance in professional team sports. *Journal of Sports Economics*, *1*(1), 56-65. https://doi.org/10.1177/152700250000100105

Lago-Peñas, C., Lago-Peñas, S., & Lago, I. (2019). Player migration and soccer performance. *Frontiers in Psychology*, *10*, 616. https://doi.org/10.3389/fpsyg.2019.00616

Lang, M., Grossmann, M., & Theiler, P. (2011). The sugar daddy game: how wealthy investors change competition in professional team sports. *Journal of Institutional and Theoretical Economics (JITE)/Zeitschrift Für Die Gesamte Staatswissenschaft*, 557-577.

Lubaś, M. (2020). Równowaga konkurencyjna europejskich lig piłkarskich. In J. Batorski & S. Kościółek (Eds.), *Zarządzanie z kodeksem: młodzi o sporcie 2020* (pp. 21-34). Kraków: Uniwersytet Jagielloński Instytut Przedsiębiorczości.

Maclean, F., Cordina, R., & Gannon, M. J. (2022). Caught in a trap? Financial Fair Play Regulations and the case of Scottish football. *Qualitative Research in Financial Markets*, 14(4), 584-601. https://doi.org/10.1108/QRFM-02-2021-0031

Macmillan, P., & Smith, I. (2007). Explaining International Soccer Rankings. *Journal of Sports Economics*, *8*(2), 202-213. https://doi.org/10.1177/1527002505279344

Norbäck, P. J., Olsson, M., & Persson, L. (2021). Talent development and labour market integration in European football. *World Economy*, *44*(2), 367-408. https://doi.org/10.1111/twec.13071

Omondi-Ochieng, P. (2019). Resource-based theory of college football team competitiveness. *International Journal of Organizational Analysis*, *27*(4), 834-856. https://doi.org/10.1108/IJOA-04-2018-1403

Pawlowski, T., Breuer, C., & Hovemann, A. (2010). Top clubs' performance and the competitive situation in european domestic football competitions. *Journal of Sports Economics*, *11*(2), 186-202. https://doi.org/10.1177/1527002510363100

Peeters, T., & Szymanski, S. (2014). Financial fair play in European football. *Economic Policy*, *29*(78), 343-390. https://doi.org/10.1111/1468-0327.12031

Pitts, J. D. (2016). Determinants of Success in the National Football League's Postseason: How Important Is Previous Playoff Experience? *Journal of Sports Economics*, *17*(1), 86-111. https://doi.org/10.1177/1527002514525409

Plumley, D., Ramchandani, G.M. and Wilson, R. (2019), The unintended consequence of Financial Fair Play: An examination of competitive balance across five European football leagues, *Sport, Business and Management, 9*(2), 118-133. https://doi.org/10.1108/SBM-03-2018-0025

Polska-pilka (2022). Tabela wszech czasów ekstraklasy: 1927 – 2021/22. *Polska Piłka Nożna*. Retrieved June 26, 2022, from https://polska-pilka.pl/pilka-ligowa/zestawienia-i-tabele/tabela-wszech-czasow-ekstraklasy-1927-2021-22-jesien

Rohde, M., & Breuer, C. (2016). Europe's Elite Football: Financial Growth, Sporting Success, Transfer Investment, and Private Majority Investors. *International Journal of Financial Studies*, *4*(2), 12-32. https://doi.org/10.3390/ijfs4020012

Rohde, M., & Breuer, C. (2018). Competing by investments or efficiency? Exploring financial and sporting efficiency of club ownership structures in European football. *Sport Management Review*, *21*(5), 563-581. https://doi.org/10.1016/j.smr.2018.01.001

Ruta, D., Lorenzon, L., Lolli, N. and Gorlero, P.G. (2022), The impact of money prizes from UEFA competitions on clubs' national performance, *Sport, Business and Management, 12*(1), 77-92. https://doi.org/10.1108/SBM-03-2021-0036

Sass, M. (2016). Glory Hunters, Sugar Daddies, and Long-Term Competitive Balance Under UEFA Financial Fair Play. *Journal of Sports Economics*, *17*(2), 148-158. https://doi.org/10.1177/1527002514526412

Serrano, R., Acero, I., Farquhar, S. and Espitia Escuer, M.A. (2022), Financial fair play and competitive balance in European football: a long term perspective, *Sport, Business and Management*, ahead-of-print. https://doi.org/10.1108/SBM-05-2021-0060

Simmons, R., & Deutscher, C. (2012). The economics of the World Cup. *The Economics of Sports*, 449-469.

Sloane, P. J. (1971). The Economics of Professional Football: The Football Club as a Utility Maximizer. *Scottish Journal Of Political Economy*, *17*, 121-146.

Springham, M., Williams, S., Waldron, M., Strudwick, A. J., Mclellan, C., & Newton, R. U. (2020). Prior workload has moderate effects on high-intensity match performance in elite-level professional football players when controlling for situational and contextual variables. *Journal of Sports Sciences*, *38*(20), 2279-2290. https://doi.org/10.1080/02640414.2020.1778355

Tovar, J. (2020). Performance, Diversity and National Identity Evidence from Association Football. *Economic*

Inquiry, *58*(2), 897-916. https://doi.org/10.1111/ecin.12861

Transfermarkt (2022). *PKO Ekstraklasa*. Retrieved June 26, 2022, from https://www.transfermarkt.pl/pko-ekstraklasa/startseite/wettbewerb/PL1

Wyszyński, A. (2016). Efficiency of Football Clubs in Poland. *Olsztyn Economic Journal*, *11*(1), 59-72. https://doi.org/10.31648/oej.2902

UEFA (2021). *UEFA Financial Report 2019/20.* Retrieved June 26, 2022, from https://editorial.uefa.com/resources/0268-1215a6daaf78-a6ca16cd1df1-1000/04_uefa_financial_report_2019-20_en.pdf

UEFA (2022). *The European Club Footballing Landscape*. Retrieved June 26, 2022, from https://editorial.uefa.com/resources/0272-145b03c04a9e-26dc16d0c545-1000/master_bm_high_res_20220203104923.pdf

Vöpel, H. (2011). Do we really need financial fair play in european club football? an economic analysis. *CESifo DICE Report*, *9*(3), 54-59.

Author

Szczepan Kościółek

Assistant Professor at the Institute of Entrepreneurship of Jagiellonian University (Poland). PhD in management (2022, Jagiellonian University). His research interests include both sports economics and management, specifically, the areas of sectoral policies, consumer behaviours, and competitiveness.

Correspondence to: Szczepan Kościółek, PhD, Jagiellonian University in Poland, Faculty of Management and Social Communication, Institute of Entrepreneurship, Łojasiewicza 4, 30-348 Kraków, Poland, e-mail: szczepan.kosciolek@uj.edu.pl

ORCID http://orcid.org/0000-0001-7705-4216

Conflict of Interest

The author has no conflict of interest to declare. The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright and License

This article is published under the terms of the Creative Commons Attribution – NoDerivs (CC BY-ND 4.0) License
http://creativecommons.org/licenses/by-nd/4.0/

Published by Cracow University of Economics – Krakow, Poland