Fair sales for fair play:
Evidence from the Italian Serie A

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1. Introduction

“Barcelona have signed Ousmane Dembélé from Borussia Dortmund for an initial €105m (£97m), plus a potential €42m (£38m) in add-ons, making the 20-year-old the second most expensive player in history behind Neymar.... Liverpool have so far refused to budge but Dortmund agreed to Dembélé’s transfer once Barcelona had come close to matching their asking price. Dortmund will make a huge profit on a player they signed from Rennes for £13.5m only a year ago... Dembélé was superb for Dortmund last season as they finished third in the league and won the German Cup with the 20-year-old scoring the first goal in a 2-1 win against Eintracht Frankfurt. Dembélé’s relationship with the club and fans suffered this summer when he went away after Barcelona made their interest clear.” (The Guardian, 2017).

In this paper, we examine the asset sales behaviours and rationales found in a particular sub-domain of the sport sector, i.e. football. More specifically, we study the kinds of institutional logics (a demand for excellence in sports or a demand for financial success or stability) football clubs aim to accomplish when they sell their main assets, i.e. their players.

As the introductory quote shows through the story of Ousmane Dembélé, football management practices demonstrate a degree of ambiguity between their pursuit of competitive results and that of economic and financial performance between football as a sport and as a business.

Over the last few decades, the world of professional sports - and, above all, that of football - has become a complex and challenging field of research where the sport clubs, even if they take the form of businesses, present a range of special features that require a customised set of practices to ensure their effective operation (Smith and Stewart, 2010).

A consistent stream of research on football addresses the field of economics; mainly, uncertainty of outcome, competitive balance and profit, and utility maximisation (e.g., Buraimo et al., 2015; Leach and Szymanski, 2015). The mentioned elements are fundamental because professional sport teams operate with the aim of reaching multiple objectives, the main two of which are usually: to maintain a high level of field performance and to maximise off-field business operations (i.e., profits).

The co-presence of these prominent targets in football clubs opens an interesting discussion on the kinds of relationship that exist between them and on the ways in which these can influence managerial decision making processes. An analysis of the dual ‘field/off field’ aspects (competitive and financial) of professional team sports is difficult and opens the door to debate (Plumley et al., 2017). Some authors have identified similar objectives under the ‘institutional logics’ label. Carlsson-Wall et al. (2016) analysed the terms ‘sports logics’ and ‘business logics’—which are closely related to the financial and sporting variables mentioned above—and specified that sports and business logics can sometimes be in conflict and sometimes in harmony. Plumley et al. (2017) supported the notion that financial and sporting performances are not dichotomous variables but a single metric along which clubs measure themselves and, to a greater or lesser extent, move back and forth.

The literature concerning the role played by the accounting system under conditions of institutional diversity - in which organizations need to consider different sets of institutional demands or logics (Ezzamel et al., 2012; Lander et al., 2013; Lounsbury, 2008) - constitutes the main motivation of this study.

Previous works considered different logics in different contexts, like medical care logic in the hospital setting (Reay and Hinings, 2009) and in the finance industry (Lounsbury, 2002). Multiple institutional logics have begun to examine how such a multiplicity of logics affects organizational behaviours and decisions (Almazoez, 2014; Battilana and Dorado, 2010; Besharov and Smith, 2014; Reay and Hinings, 2009).
These studies recognized that organizations are typically subject to diverse institutional demands that reflect different logics of action (Thornton and Ocasio, 2008). The tensions created by the presence of a multiplicity of logics are often dealt with by following the prescriptions of only a single logic or by trying to find a middle ground among them (Pache and Santos, 2010). However, some studies suggested that, under particular conditions, various logics may also co-exist without generating particular tensions (Smets and Jarzabkowski, 2013). According to this point of view, the implications of multiple logics for organizations seem to be mainly driven by the field-level and organization-level factors that can affect the degree of compatibility of a set of logics (Besharov and Smith, 2014; Greenwood et al., 2011). In response to Greenwood et al.’s (2010) statement that “more attention should be given to whether overarching logics reinforce or contradict each other” (p. 536), Carlsson-Wall et al. (2016) examined the implications of compatible and incompatible logics; the authors highlighted how the same set of logics may create tensions in some situations but not in others, and suggested that some circumstances - characterised by particular actions or events - may support several logics at the same time, while others are in line with one logic but in conflict with others (Carlsson-Wall et al., 2016). Analysing a number of situations related to the purchase and sale of players for FClub, a large football organization in Sweden, the authors outlined the different dynamics that exist between the sport and business logics, where the former responds to the institutional demands for success in the field (Foster et al., 2006) and the latter addresses those for financial performance (Smith and Stewart, 2010).

Their analysis outlines how the two logics are not compatible or incompatible per se, but are prioritized based upon situations and preferences (Carlsson-Wall et al., 2016). In particular, when the football club was among the top three of the league, the authors found an “unambiguous cause-effect relationship between the two logics in the sense that good sports performance implies financial rewards” (Carlsson-Wall et al., 2016) suggesting how in this case the two logics can be in harmony each other.

The possible harmony that Carlsson-Wall et al. (2016) showed in their scenarios seems not to be in line with this study’s introductory quote and with how football clubs actually manage their player exchanges.

Over the last few decades, elite professional football has become a global industry, and has increasingly played a key role in the entertainment industry (Kennedy and Kennedy, 2012). In this context, the players are high profile assets and represent a (the) crucial part of the clubs’ worth and of their accounting figures (Binder and Findlay, 2011). Football clubs are firms and, as such, they have to generate revenues to achieve their aims and to face any liabilities and possible failures and according with the specific characteristic of their business most part of their revenue is boosting by the assets sales.

At any rate, they are dominated by the persistence of a management culture which favours the emotional logic of winning and field success as a priority, while considering financial performance as an issue of secondary importance (Barros, 2006; Dimitropoulos, 2011; Dimitropoulos and Tsagkanos, 2012). Within such a management culture, player transfers are traditionally predicated on the need to facilitate the professional sporting ambitions of both clubs and individual players.

The complexity of the multiple logics that affect the football clubs’ decision making process in their very competitive environment has generated an expensive player transfers market (UEFA, 2012) that has enhanced the football clubs’ financial deficits, characterized by high and constantly increasing amounts of debts (Deloitte, 2014; Gammelsæter, 2010; Robinson and Simmons, 2014).

In 2010, to protect the clubs’ financial viability, their governing body—the Union of European Football Associations (UEFA)—issued its Financial Fair Play Regulation (FFPR).
UEFA monitors the clubs’ financial positions and performances on the basis of the accounting information reported, requiring them to ‘balance their books’ or ‘break even’ (Morrow, 2013; UEFA, 2012). The FFPR was welcomed as an opportunity to change the mind-sets of many clubs, in the hope that they would take a more balanced approach to running their businesses (Deloitte, 2014).

The introduction of the FFPR naturally influenced the compatibility of the sport and business logics in football as an ‘event or action’ that could instigate different priorities and different actions (Carlsson-Wall et al., 2016).

According to the sport logic, the implementation of the FFPR should have downsized the player transfer market (UEFA, 2012). On the other hand, the business logic could increase managerial manipulation of earnings aimed at showing the market and regulators the expected and desired levels of financial capacity (Healy and Wahlen, 1999; Walker, 2013).

Against this background, we examine the ways in which the purchase and sale of players could engender compromise between sports and business logics—considering, above all, the findings of Carlsson-Wall et al. (2016) in their first scenario (“FClub is winning and is placed in the top three in the league”)—and whether the introduction of UEFA’s financial regulatory framework could influence the multiple logics achievable by means of the various football clubs’ decisions and behaviours. In particular, we investigate player sales as one of the distinctive features of football club economy (Morrow, 2013 and 2014) and how football club behaviours are influenced by different institutional logics under the FFPR.

Our analysis is based on Italian football league “Serie A” on a period of thirteen years from 2005 to 2017. Albeit in the 1990s Italy’s Serie A was the most glamorous and high-profile of Europe’s five main football leagues, it has since fallen behind its peers, in business and sport terms in the last decade. The clubs suffered chronic losses and corruption scandals, and the introduction by UEFA (European football’s governing body) of rules to stop clubs habitually spending more than they earn, have been a revolutionary change for the football clubs finance management. The business performance of the Italian football clubs is mainly influenced by the incapacity to turn around a club’s finances boosting match-day takings (the majority of them do not own the stadium) or from renting out VIP boxes at their grounds on match days. The most part of their finances come from broadcasters and players’ sales (i.e. 24% in season 2016-2017). The financial difficulties of Italian football clubs have been mirrored in the most important moments in terms of sport performance for a country and for a business, the failure to participate to the World Cup 2018. Moreover, the socio and cultural approach to the Italian football clubs strongly embedded in both politics and society and the Italian fans live it in a passionate, voracious, all-consuming way, show how is important for the Italian football clubs accomplish the sport logic.

According with this arguments, the Italian “Serie A” is an optimal environment for studying the interrelationship between the business logic and the sport logic in the field of the sport.

Considering the Italian financial and cultural contest in football sector (corruption and scandals), we investigate whether business logic is predominant and in which way it is compatible with sport logic using the result from player sales as a proxy of earnings management.

Earnings management is often studied by taking discretionary accrual into consideration—the reference model being “Modified Jones” (Jones, 1991)—but these models have recently been the subject of several criticisms (Guay et al., 1996) since it is not able to capture particular typologies of earnings management. Taking into consideration both this aspect and the abovementioned specifications of the football industry, we use Bartov’s (1993) model to measure football clubs’ earnings management in the specific context of the income derived from their sale of fixed assets (their players). Albeit not being completely discretionary, the income generated by the sale of assets contains a discretionary component: a club’s
management can exercise discretion in relation to the timing of its asset sales and, in some cases, even in regard to which specific assets to sell to strategically take into account any gaps between historical cost and market value (Brown, 1999, p. 62). The accounting and reporting practices enacted in relation to fixed assets in the football industry are among the football clubs’ main earnings management concerns. Fixed assets are valued at historical cost less accumulated depreciation. The difference between historical cost and market value is persistent until a fixed asset is sold, even when market value is below cost, as fixed-asset impairments are not recognized in the Italian football sector—except for those listed clubs (only three) that adopt IAS/IFRS. This means that, should a player be signed for £25m on a five-year contract, the fee would be amortised at £5m annually (according to the straight line method). After the first year with a club, the player’s book value would be £20m (Financial Times).

As the market value of individual fixed assets changes, an unrecorded holding gain or loss is created; thus, by selecting and timing the specific assets to be sold, management can influence the income recognized for the period in which the asset was sold. When current performance is below expectations, managers have an incentive to recognize holding gains in the current period and save holding losses for recognition in future periods.

By examining how players’ sales are an effect of this ambiguous relationship between different institutional logics, we extend the empirical focus of the literature on accounting and sports, which has so far been concerned with other questions such as accounting for player contracts (Risaliti and Verona, 2013), salary scandals (Andon and Free, 2012), insolvency practices (Cooper and Joyce, 2013), salary caps (Andon and Free, 2014), and hostile takeovers (Cooper and Johnston, 2012).

Additionally, by addressing the call for future research on whether, and to what extent, multiple institutional logics do indeed compete with each other in specific decision-making situations within organizations (Carlsson-Wall et al. 2016), we contribute to the growing literature on accounting and institutional complexity in the football industry and we make a contribution to the field of the application of asset sales as a proxy for earnings management in a particular field—football—to also verify whether the UEFA rules on FFPR have brought about any changes in terms of corporate behaviours.

The remainder of the paper is organized as follows. The next section sets out the background for the study. The following one develops the literature review and hypotheses. Then, the sample is introduced and the models are illustrated. The empirical findings are then discussed and, finally, the conclusions, limitations of the work are proposed, and areas for future research are suggested.

2. Background: the Italian Serie A

In this section, based on updated accounting data, we provide an overview of the evolution of the financial conditions of Italian professional football over the last ten years. Particular attention is devoted to the level and composition of costs and revenues in the top Serie A league. We document how Italian professional football has experienced a constant rise in its outstanding debt and faces a broader sustainability issue. This is in line with the previous literature based on analyses highlighting the decline of and unsustainable path taken by Italian football (Boeri and Severgnini, 2012).

From being the best football league in the world, the Italian Serie A has become more marginal. The top Italian league has become less attractive; this is because few star players are playing in it and Italian football clubs cannot compete in the international transfer market by easily poaching players from Premier League, Liga, Bundesliga, and Ligue 1 teams, as was the norm until two decades ago. Nowadays, Italian football club owners cannot afford to adopt overspending transfer policies. In 2016, the aggregated turnover of the European top
divisions reached €18.5 billion—an increase of 9.5% compared to 2015—while total costs amounted to €18.7 million, 61.5% of which was due to employment costs (Arel et al., 2018). The introduction of the Financial Fair Play regulation attenuated the economic imbalance of European football with a remarkable reduction of aggregate loss, which passed from €1.7 billion in 2011 to 0.3 billion in 2016. Moreover, the asset profile has also strongly improved, with equity increasing from €3.3 billion in 2011 to €6.7 billion in 2016. Italian football is growing at a slower pace than its European counterparts. In terms of average club revenues among the big five, Italy ranked 4th (€100.2 million), after England (€244.4 million), Germany (€149.6 million), and Spain (€126.3 million) and ahead of France (€74.2 million) (Arel et al., 2018).

In comparison with the Italian macro-economic scenario, in the last five years, the aggregated value of production of the Italian football industry has grown more than the Italian GDP, reaching its highest peak in the last decade, from €2.311 billion in 2007 to €3.35 billion in 2016 (Arel et al., 2018). In the 2016-17 season, the aggregated value of production increased by 17.2%, while the net result was still negative, but with losses decreasing by 58.1%, from €372 million to €156 million. This operational performance led to an EBITDA of €734 million, supported by the profits made on player disposals—mostly attributable to major club transfers—which increased by 71.4%, from €437 million to €719 million. In line with the macro-economic scenario, the alarming level of debt of Italian football has not recently improved, as it exceeded the €4 billion threshold for the first time in 2016 (Arel et al., 2018). The overall cost of production grew by 5.4% from €3.143 billion to €3.312 billion. The labour cost of Italian professional football also increased at a faster pace than that of the national labour market. Specifically, the level of employee costs grew by 3.7% to €1.693 billion.

The financial conditions of Italian football could be worse than those documented. The chronic losses recorded over the last few accounting years are not completely truthful as the net profits are inflated by extraordinary items derived by capital gains of market transfers of players. Figure 1 provides an overview of the impact of player disposal profits on the revenue side of Serie A football clubs (Arel et al., 2018).

[Insert Figure 1]

In the economic history of the Serie A, the 2016-17 season is remarkable for the sharp rise of player disposal profits in total revenues (24% of total value of production as shown in Figure 1), +8.4% in a single season (Arel et al., 2018). In Figure 2, the growth of player disposal profits—from €376 million to €693.4 million—has offset the negative net result and is a direct consequence of the more cautious policies adopted by clubs and of a growing inflation in line with the trend of the international player transfer market.

[Insert Figure 2]

The total cost of production has increased by 6.7%, reaching €2.752 billion, mainly because of a 21.5% increase in depreciations and amortizations (Arel et al., 2018). Equity value is equal to €301 million, the highest recorded in the previous five-year period. With respect to debt trend, the negative performance was highlighted by an 18.2% debt increase, from €3.1 billion to €3.6 billion, as shown in Figure 3. The impact of financial debt over the total is 38%; however, it is important to highlight that many clubs classify new funding solutions (bond issues, for example) under ‘other debts’, which grew by 61% when compared to previous seasons’ results (Arel et al., 2018). At the same time, debt towards other football
clubs grew by 24%, further confirming the issues encountered by some clubs in meeting payment deadlines related to player transfers.

[Insert Figure 3]

Breaking down the sources of income of the Serie A, the analysis of sport performance once again shows the strong impact of success and failure on club income statements. Over the last five years, for example, qualification to the group stage of the UEFA Champions League has guaranteed a value of production increase of €50 million as well as a net result improvement of €15 million (Arel et al., 2018). Consequently, those Italian football clubs that qualified for the UEFA Champions League invested, on average, €141.6 million on acquiring player registration rights, equal to 68% of their total fixed assets.

Finally, our analysis highlights that Italian football is constantly undercapitalised—only €358 million, which is roughly 10% of the total debt (Arel et al., 2018). However, this is considered as an improvement, as the same ratio had oscillated between 2% and 5% over the past few years. In other countries such as Germany, Spain, and England, this ratio is respectively 40%, 25%, and 36%. In other words, if we look at its direct competitors, Italian football is not as profitable as it should be. The entire industry is highly financed by the banking system. Nothing has changed in respect to ten years ago, as Severgnini and Boeri (2012) highlighted almost seven years ago, Italian football has not yet been able to diversify its revenue sources, which are highly dependent on the sale of their media rights and the capital gains from their player disposals. Moreover, the industry has been losing national and international appeal since the 2006 Calciopoli scandal, which that was followed by winning the World Cup in Germany.

3. Literature review and hypotheses development

3.1 Multiple institutional logics and football clubs

Pache and Santos (2010) underlined that, under many circumstances, organizations have to comply with the values and expectations of a varied range of stakeholders and with institutional theory, which indicates that these sets of demands should be identified as institutional logics (Thornton et al., 2012). Previous works considered different logics in different contexts, like medical care logic in the hospital setting (Reay and Hinings, 2009) and in the finance industry (Lounsbury, 2002). Glynn and Lounsbury (2005) highlighted that, during transitional times, multiple logics co-exist in a field until one gains dominance, or a new logic emerges that is a hybrid version of earlier ones. More recent studies have indicated that multiple logics may co-exist at the organisational level for substantial periods of time (Marquis and Lounsbury, 2007).

Studies on multiple institutional logics have begun to examine how these affect organizations (Almanzor, 2014; Besharov and Smith, 2014). It is thus necessary to consider some relevant points related to how a multiplicity of logics may affect a professional sport; to be aware, for instance, of differing logics placing different demands on different actors, or of whether embracing different logics engenders conflicting courses of action, the incompatibility of which would pose managerial challenges (Carlsson-Wall et al., 2016).

Carlsson-Wall et al. (2016) considered a number of situations related to the purchase and sale of players; these differed in terms of how the sports and business logics were interrelated through the mobilization of the performance measurement system. These scenarios were grouped with different levels of performance assessed using sports and business indicators. The authors did not consider all possible combinations between sports and business performance, but only those scenarios on which managers reflected, as illustrated in Table I where different possible situations are presented. These scenarios were investigated for their
important implications on both the logics applied in the field. Player purchases and sales are linked to all the factors related to the sport logic: fun, future field performance, and so on. On the business logic side, purchasing good players can be very expensive in terms of the price paid to the selling club, but also of the signing-on bonus and of the monthly salaries paid to the players themselves. Moreover, an important share of football club income is related to gains achieved through player sales as we explained before.

[Insert Table I]

The empirical results of Carlsson-Wall et al.’s (2016) analysis show that the sport and business logics are sometimes in harmony with each other. This occurs when a given situation is characterized by actions or events that benefit both competitive and financial performance (see situation 1), and because good sports performance implies financial rewards and good business performance. In other cases, the relationship between the two institutional logics is more ambiguous and which one will influence the football decision making depends on different factors; for example, the level of balance between the effects of the “sale and purchase of players” on competitive performance (field wins; i.e., winning the league, not being relegated) and on business performance (i.e., cash outflow and decreased financial results or subsequent revenues due to sale). This relationship between the two logics results in organizational actor discretion in how they are enacted (Goodrick and Salancik, 1996); in some cases, this leads to a perceived tension, which is addressed by prioritizing one or the other (for example, in situations 2 and 3, the business logic is prioritised). Thus, Carlsson-Wall et al. (2016) demonstrated that the degree of compatibility between logics varies not just between fields and organizations (Greenwood et al., 2011; Besharov and Smith, 2014), but also as a function of the situations occurring within an individual organization. Depending on the particular situation, the same two logics may be experienced as being either conflicting or compatible. In the former case, some kind of compromise is struck.

Thus, the importance of structural differentiation as a strategy to manage institutional complexity emerges (Kraatz and Block, 2008). From this literature, the authors identified the various institutional logics that can interact in different ways according to different situations and courses of actions (Battilana and Dorado, 2010). Today, the debate is open because some studies assume different level of compatibility in relation to how logics are filtered, whereas Carlsson-Wall et al. (2016) stated that different institutional logics could be more or less compatible in different situations within an organization, and that this is the case because of the ambiguous cause-effect relationships between the activities and outcomes that relate to the logics themselves.

Given the context pointed out by the authors, an important question emerges on how the multiple logics may affect football club decision making, where the point is not just measuring performance, but disclosing it on the market and dealing with particular regulatory requirements.

We are particularly interested in the results of first scenario investigated by Carlsson-Wall et al. (2016); i.e. there is no reason to buy or sell players, so that the sport and business logics are in harmony. The football clubs’ behaviours related to the purchase and sale of players seem to contradict this result. Often, the sale of players does not follow a sports logic at all, but seems more related to a business one, especially when a football club is successful in the field. Based upon the consideration made above and to test whether the logics are in harmony or in conflict, we investigate the behaviours related to the gains made from player sales in correlation with a football club’s economic and sport performances.

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Hp1. There is a positive correlation between the income from the sale of assets and the position of a club in the league.

3.2 Player sales and earnings management

Previous studies have consistently analysed and considered earnings management through the manipulation of firms’ accounting accruals (e.g., Healy and Wahlen 1999). Over the last decade, next to the traditional accrual model, researchers have investigated earnings management resulting from other forms of manipulation (called real activity management, which has also been analysed) (Dechow and Sloan, 1991; Bushee, 1998; Roychowdhury, 2006; Cohen et al., 2008; Cohen et al., 2010).

Dimitropoulos et al. (2016) applied the accrual model—as a measure of quality of earnings—to the football industry, finding that the institution of the FFPR had been accompanied by management practices which deteriorated accounting quality.

The evidence drawn from football clubs points to an increase in earnings management in the industry, which decreased conditional conservatism and produced a switch to non-big-four audit firms.

In their analysis the authors have considered all the main accruals manipulation in line with the main accounting literature. In the football contest, and above all in the Italian football context where the majority of the finances is generated by the players’ sales, we checked the results obtained by Carlsson-Wall et al. (2016) by applying real earnings management.

Real earnings management, as a recent stream examining earnings management in for-profit firms, focusses on different accounting items that can affect earnings results: the manipulation of research and development expenditures (Dechow and Sloan 1991; Bushee, 1998), movements on revenues (i.e. adoption of price discounts), overproduction (to spread fixed costs over more units with the effect of moving the cost of goods sold upwards or downwards), reductions or increases in discretionary expenses (Roychowdhury, 2006), and finally and, very importantly, considering the aim and the field of this study—the manipulation of fixed assets (Bartov, 1993; Herrmann et al., 2003).

For real activity management to affect accounting performance in a manner similar to accruals management, the real activity must have two characteristics. First, any accounting performance enhancing changes must be implementable in the short term. Second, their impact on accounting performance must be immediate. Thus, although the management of this activity may be part of an overall management strategy, it is unlikely to be used to manage end-of-period accounting performance (Dimitropoulos and Tsagkanos, 2012; Herrmann et al., 2003; Regogliosi, 2016).

The assets sales appear to adequately capture the earnings manipulation behaviour in the football fields.

From the economic point of view, football players can differentiate from the other assets that yield financial returns throughout the year. However, it is inarguable that football players can bring future economic benefits to the clubs that highly depend on the performance and skills of the players (Morrow, 1996). Morrow (1996), further explains that football players are identified as intangible because it is resource that is controlled by the clubs as a result of past event that is signing the contract and expected that players could bring the future economic benefits to clubs through their performance.

Moreover, the management behaviours on the players’ sales decision process is another element that support the application of the real activity management as a model for the earning management. The consideration of asset sales and earnings management, in fact, implies decisions pertaining to the actual occurrence and timing of real transactions in order to achieve a specific desirable level of reported earnings—as opposed to the use of more
observable techniques such as changing accounting methods or applying a classificatory choice. Indeed, some authors claimed this of the available methods for smoothing income. Wolk et al. (1989, p. 288), for instance, argued that the timing of transactions is the most direct and influential method of manipulating accounting income.

Certain types of asset sales would be more adaptable to earnings management, generally those involving investment assets and, especially, highly liquid assets. Again, the features of the players’ football markets (i.e., Risaliti and Verona, 2013 in terms of fees) support the application of this model.

Football club managers generally have some discretion over the sale of players; typically, they exercise some degree of control over which players are to be sold and when. Even in those cases in which the decisions on whether to sell players are predetermined for previous conditions, the ongoing sales process provides the possibility of slowing down or speeding up the real variable transactions, depending on the earnings management objective (Jones, 1991; Cohen et al., 2010). The level of discretion will vary according to different elements, such as the financial situation of the firm, the strategic investment plan, the degree of managerial control over firm ownership, and so on. Thus, due to the prevalence of players’ sales in the field of football and considering the arguments above, their timing could provide a more efficient earnings management technique compared to alternatives such as changing accounting methods or early debt retirement, if only because of the requirement to disclose the effects of these techniques in financial statements.

In this analysis we apply the Bartov (1993) model for the real activity management. Bartov verified two common motivations for a connection between asset sales and earnings management on a sample of 653 U.S. firm-years: the income-smoothing and the debt-equity hypothesis. He did not attempt to determine why managers may engage in income smoothing; rather, he focussed upon whether income-smoothing takes place through asset sales. Barnea et al. (1975) discussed the possible benefits of income-smoothing, including reducing noise from reported financial performance. Barth et al. (1999) provided evidence that the capital market rewards firms for long streams of increasing earnings. This leads to the formulation of this study’s second hypothesis:

\[ Hp2. \text{There is a positive correlation between income from asset sales and profitability.} \]

The second conclusive explanation for the timing of asset sales found by Bartov (1993) was the level of debt relative to equity and he found that US firms are more likely to sell assets for a gain when their debt-to-equity ratios increase.

To investigate the impact of UEFA’s reform upon management practices related to accounting, Dimitropoulos et al. (2016) studied the football industry by focussing on a sample of 109 European football clubs over the 2008-2014 seven-year period (three years before and four years after UEFA’s regulatory intervention). They used different measures of accounting quality and looked, among others, for a relationship with leverage; but the results were mixed (either positive or negative) depending on the model employed.

Considering the Italian environment, Regogliosi (2016) studied the clubs involved in the Serie A league during the 2012-2013 season. The author analysed their financial statements for the seven-year period between 2006 and 2013 (a total of 156 reports) for the relationship between Operating Profit adjusted for Gains and Losses from the Sale of Player Registration Rights and other financial and economic variables, but did not find any significant relationship between asset sales and financial leverage. This leads to the formulation of this study’s third hypothesis:
Hp3. There is a mixed correlation between income from asset sales and debt-equity ratios.

4. Research methodology

4.1 Sample selection and variables

Table II displays the sample selection process. The empirical analysis refers to the Italian Serie A league, which is contested among 20 teams, and focusses on the period between 2005 and 2017. We considered the annual reports of the teams. The Amadeus-Bureau van Dijk database was used to obtain financial information data. When the information was not available in the database, we looked at the investor relation section of football companies (if any) or at other sources (i.e., websites specialized in the industry). Four\(^1\) annual reports were not available, so the final sample consisted of an unbalanced panel dataset composed by 256 observations distributed in 36 cross sections (teams - i) for thirteen periods (years - t).

[Insert Table II]

We used two sets of variables: i) Accounting and ii) Sport. The variables in the Accounting set were derived by the database and/or through a content analysis conducted on the annual reports of each club for each year they played in the Serie A. Proper calculus was then developed in order to evaluate the size of the variables introduced in the models to estimate. In the first set, we included the dependent variables: plus\(_{mln}\), plus\(_{net\_mln}\), plus\(_{adj}\), and plus\(_{net\_adj}\). “Plus” refers to the capital gains obtained by each club after selling a player for a value greater than the carrying amount reported in the balance sheet. In the first models (categorized by A) we used the absolute value of the capital gain (plus\(_{mln}\)) and the income associated to asset sale of players (capital gain minus capital loss) (plus\(_{net\_mln}\)); both variables are expressed in mlm/€. The decision to introduce the absolute values of capital gains reflects a tendency of football clubs, particularly Italian ones, to use that item as a key variable in their business as discussed above. In the model categorized by “B” we use capital gain—gross (plus\(_{adj}\)) and net (plus\(_{net\_adj}\)) of losses—weighted by the invested capital (total assets) at time t-1. This approach reflects the idea that, from an accounting point of view, the managers’ earnings manipulation strategy often occurs at a later point, when financial situations and results have been clarified at the end of the previous fiscal year. The set of independent variables is the adjusted Return on Investment (ROI\(_{adj}\)) calculated as (EBIT\(_h\) / (Total Assets)\(_{i-1}\)). It is well known that ROI is a key indicator employed in financial reports to measure the effectiveness of a firm’s investments, and it is usually associated with the concept of productivity. The second independent variable is DETEQ\(_{adj}\), which summarises the financial position of a club and is calculated as (Financial Debts\(_{i-1}\) / (Total assets)\(_{i-1}\).

A company's financial debt to net asset ratio shows the percentage of total assets that were paid for with borrowed money. It can be seen as an indicator of financial leverage, or as a measure of solvency. As for the other variables, the data refer to the previous fiscal year. The last “accounting” independent variable is AMM. It is calculated as (Amortisation of players’ multi-year services rights + players labour costs)\(_i\) / (Total Costs)\(_i\), and is a measure of the incidence of player labour costs on total costs in the year under observation.
The second set—‘Sport’—includes the ‘UEFA_Cup’ dummy variable; it is equal to 1 if the team had qualified and played in a UEFA competition in the year under observation. We introduced the UEFA_Cup dummy variable because it can help our analysis in term of “harmony/disharmony” of the two main institutional logics. If on the base of the business institutional logic the participation in an international competition requires that the teams involved respect the rights, duties, and responsibilities stated in the UEFA Club Licensing and Financial Fair Play Regulations (2018), in particular, minimum financial criteria are to be met by a club in order to be granted a licence to take part of the admission procedure for UEFA club competitions, on the other side the participation in an international competition is an expression of the success of the football clubs “on field”.

The descriptive statistics of the common sample are summarized in table III, while the variance-covariance matrix is reported in table IV.

[Insert Table III]

[Insert Table IV]

4.2 Model specification

To test player disposal and linkages with earnings manipulation, we relied on the model developed by Bartov (1993), which we adapted to the football industry. The model aims at investigating the potential association between a club’s financial performance/structure and earnings manipulation by way of its player market strategy. As indicated in the introduction, we tested the hypothesis that clubs possibly manipulate earnings, and then financial results, through the disposal of their main assets, the players’ services rights; this is done so that capital gains (or losses) resulting from the disposal of players could be associated with profitability, with debt position, with cost structure other than field sport achievements. We then estimate the following equation:

\[
Plus_{i,t} = \alpha_i + \beta_1 ROI_{adj_{i,t}} + \beta_2 DETEQ_{adj_{j,t}} + \beta_3 AMM_{i,t} + \beta_4 UEFA_CUP_{i,t} + e_{i,t}
\] (1)

where Plus is introduced in the model in the four ways we explained in the previous section in model A, we first use plus_mln (models A1 and A2) and then plus_adj_mln (A3 and A4); in model B we use plus_adj (models B1 and B2) and plus_net_adj (B3 and B4). \(\alpha_i\) is the unknown intercept for each club, \(\beta_j\) (j=1,2,….4) are the coefficients associated with each covariate, \(e_{i,t}\) is the error term. The empirical strategy involves the application of two techniques usually employed to analyse panel data: fixed and random effects estimations (henceforth, FE and RE) (Hausman, 1978; Davidson and MacKinnon, 1989; Davidson and MacKinnon, 1993). To test for the presence of FE from both the cross sections (clubs) and periods (seasons) perspectives, we employed the EViews 7 software. Traditional tests were performed in order to evaluate the most effective technique. The likelihood Ratio test enabled us to investigate the redundancy of fixed effect estimation (cross section and period). The Hausman test suggested the model to prefer (FE or RE) by comparing two sets of estimates, one of which was consistent under both the null (RE is the model to be preferred) and the alternative hypotheses (FE was the best model), while the other was consistent only under the null hypothesis. A large difference between the two sets of estimates, that was low
probability (lower than the level of significance selected = 0.05), was taken as evidence in favour of the alternative hypothesis. The results of the tests are reported in the relevant tables. We first estimated the models by introducing only the accounting variables, then we added the UEFA_Cup sport variable to test for the robustness of the model when the accounting and sport variables meet each other. We then estimated eight different equations divided in two groups of four: in model A, equations from A1 to A4; and, in model B, from B1 to B4. In model B we preferred to introduce both cross section and period FE to take into account the potential changes in the rules from the accounting perspectives and the changes in the club’s management. The rejection of the hypothesis of the redundancy of period FE confirmed our hypothesis. All equations were estimated with White standard error correction.

5. Findings and discussion

First of all, it should be noted that, as each cross section (club) was characterized by its own features, the FE model must be preferred to the RE one, as suggested by the value of the Chi squared associated to the Hausman test. In model A, all the coefficients associated with the accounting variables are positive and statistically significant except for the selection of the dependent variable plus; if it expresses gross or net of capital losses, positive values of ROI_adj, DETEQ_adj and AMM are associated with positive values of capital gains. As illustrated in Table V, focussing on models A1 and A2, we note that a 1% increase in ROI_adj is associated with an increase of about 31 mln/€ in capital gains, suggesting that the disposal of players’ rights, the only assets held by Italian clubs, is a key tool for clubs to improve their economic performance. The positive values of the coefficients associated with DETEQ_adj confirm our initial idea that the disposal of players is often a consequence of any financial problems faced by teams. The deeper a club is indebted, the more it is forced to sell its players in a quest to balance its financial structure. Both results show the predominance of the business logic as the motive for player sales. On the other hand, the sport logic supports the positive values of AMM that associate positive total labour cost values with capital gains. The results support the hypothesis that, when the assets of a club are ‘removed’ from the balance by selling players—and capital gains (or losses) are realized—clubs soon replace their players with others, not only to recompose technical (field) requirements, but also to create conditions for future capital (expected) gains. One of the most significant results is the positive association between the UEFA_Cup variable and capital gains, independently from the model estimated. Qualification for international competitions increases capital gains by about 5 mln/€, which can be ascribed to the increase in player market values that follows positive field performances and to the greater visibility gained by those players that had helped the football clubs to be successful on the field and thus to take part in an international competition. Actually, the positive association between participation in an international competition and player sales is in contradiction to the sport logic and supports both the business one and our first two variables. Success on the field should suggest that winning football clubs’ would aim at keeping their best players instead of selling them on the market even if their value is increased as a result of their competitive results. Unfortunately, the findings show how football clubs use their field success and boosted visibility to increase their player sales and make higher gains, which suggests a predominance of the business logic.

[Insert Table V]
The results of the A models open the discussion on the earnings management model used for the B models. The findings partially confirm those presented above. The positive association with ROI confirms the use of player sales as a means to boost the football clubs’ earnings and economic results. The main differences are the changes in the signs of the coefficients associated with the debt variable (DETEQ_adj) and the statistical non-significance of the variable associated with labour costs (AMM). In terms of the first result, the negative association between the manipulation of earnings and the financial solvency of the football clubs can be mainly explained considering the seemingly paradoxical situation in football finance, by which increasing revenues are countered by a decline in financial performance and position. Professional football clubs still operate as companies that have social implications, are subject to soft budget constraints, and are always able to renegotiate additional subsidies (Storm and Nielsen, 2012). To address their social role from a ‘sport perspective’, football clubs still need to put together competitive teams, even if they are trying to preserve financial equilibrium. The statistical non-significance of the AMM variable can also be explained by this sport management strategy. Again, the most important finding is the positive association between player sales and the UEFA sport proxy. This finding supports that of the first model, suggesting the predominance of the business logic on the sport one. Additionally, based upon the main regulatory requirements imposed by UEFA, this result suggests that football club managers engage in higher degrees of upwards manipulations of their earnings through player sales when their clubs are set to participate in international competitions. The positive effects on ROI attained through earnings manipulation help football clubs to satisfy the main UEFA financial constraints. In conclusion, in Italy, the disposal of club assets (players) is an expression of the predominance of the business logic and affirms how, under particular conditions (financial and sport crises) the use of earnings management is mainly affected by financial and economic performance and by regulatory requirements, as opposed to the usual social and sport logics of the sector.

[Insert Table VI]

6. Conclusions
In this study, we investigated asset sales behaviours and the rationales behind them in a particular sub-domain of the sport sector—i.e., football. Specifically, we studied the kinds of institutional logics (demands for excellence in sports and demands for financial success or stability) that football clubs follow when they sell their main assets—i.e., their players (Carlsson-Wall et al., 2016).

Considering the implications of player sales on football clubs’ finances (Morrow, 2013 and 2014; Boeri and Severgnini, 2012), the latter’s market sales strategies represent typical and unique management behaviours suited to enable an examination of the compatibility or incompatibility of sport and business logics in this particular field (Foster et al., 2006; Smith and Stewart, 2010). Moreover, we empirically tested the conclusions drawn by Carlsson-Wall et al. (2016) on the ‘harmony’ of the two logics in player sales and purchases scenarios, in which the football clubs’ sport successes seem to suggest football teams adopting a consolidation strategy, rather than playing an active role in the player market.

The introduction of UEFA’s financial regulatory framework has been emphasised as an external ‘action or event’ that can affect the fulfilment of one logic over the other through various football clubs’ behaviours. UEFA’s Financial Fair Play rules were first published in 2010; they were then enforced in season 2013/2014 based on season 2011/2012 financial data. The four main criteria indicated
are: being able to remain a going concern until the end of the license season, not being in a condition of negative equity, being in a better than break-even financial situation, and having no overdue payables. Football clubs must meet the designated criteria in terms of profitability and solvency in order to be allowed to participate in UEFA competitions. By addressing the inconsistency between the findings of Carlsson-Wall et al. (2016) and actual player market operations, as suggested by the Dembélé case (which is only one of many examples of sales of players that had been pivotal for sport success), we analysed the ways in which managers in football organizations behave in accomplishing the two institutional logics of sport and business when they sell their players.

We applied a multi institutional logic to the Italian Serie A and then, by applying earnings management models, we checked the behaviours of all clubs playing in the league in the 2005-2017 period.

The Italian Serie A is, in fact, an ideal environment in which to test the dynamics of multi institutional logics combined with earnings management; this is because the financial conditions of Italian football clubs are chronically ‘unhealthy’ and only partially saved by the capital gains made through the market transfers of players. This is even more important in consideration of the consistent trends—in terms of capital gains amounts, both in absolute values and in percentage—of the value of production and of operating profits of football clubs.

First of all, our findings contribute to the main literature on multi institutional logics (Pache and Santos, 2010; Besharov and Smith, 2014) by suggesting that management behaviour strategies linked to player sales adopted by Italian football clubs are in contrast with the main results highlighted by Carlsson-Wall et al. (2016); i.e., that there is no ‘harmony’ between the sport and business logics. The positive correlations of player sales and economic performance and sport results confirm the predominance of the business logic in a sector in which the main Leagues are gradually discarding their social aims and are mainly being affected by conventional ‘business logic’ (Slack, 1998). Above all, the results are significant for the literature as they show that business behaviours are more evident for those football clubs that had been successful on the field.

Moving to the earnings management literature, our findings contribute to the stream of research that applies real activities management as a model to evaluate earnings manipulation enacted by managers (Roychowdhury, 2006; Cohen et al., 2008; Cohen et al., 2010). Applying Bartov’s (1993) earnings management model based on asset sales, our results confirm that the model is useful to evaluate earnings management behaviours in a field—i.e., football—in which player sales are the main elements affecting economic performance. The positive relationship with ROI found in all models confirms Bartov’s (1993) results and satisfies the predicted second hypothesis, clearly suggesting the enactment of manipulative behaviours in following logics of profitability. In term of solvency (debt over equity ratios) our model contradicts Bartov’s. This result is explained by the particular sample analysed in this paper, in which capital market logic is not full applied and the social implications of football clubs still play a role in their finances. Football clubs are still companies that operate within soft budget constraints and are always able to renegotiate additional subsidies (Storm and Nielsen, 2012) with only a few cases in which the insolvency law are applied (Cooper and Joyce, 2013).

At any rate, our findings confirm our third hypothesis of a mixed approach being taken in terms of asset sales and solvency, and are in line with part of the literature on real activities management (Herrmann et al., 2003; Dimitropoulos et al., 2016; Regolliosi, 2016).

In addition to its contribution to the main literature streams, this paper presents a particular regulatory implication. Considering the influence of UEFA’s Financial Fair Play Regulations on management behaviours in pursuing the sport and/or the business logic, this paper
highlights how recourse to earnings management increases in the presence of financial constraints. UEFA’s regulations could be assessed and modified in order to enable them to prevent and reveal the real activities and dynamics behind the player transfer market (profit smoothing behaviours) and to help football clubs to continue to play a credible social role. The regulations should enhance innovation in the football field in terms of infrastructures and other possible avenues of returns (e.g., stadiums, tickets, and sponsorships), and create requirements in terms of other aspects of the role played by football clubs in society.

The main limitations of this work are as follows. The first one concerns its single country setting. Next to this, a wider investigation of other non-accounting factors should be considered in order to highlight any possible patterns driving the income derived from player sales.

This study opens avenues for future research on player sales. The present analysis, in fact, questions the accounting treatment of player allocation in financial reporting; thus, it could provide specific suggestions to accounting regulators. Future research should also investigate the dynamics linked to governance and ownership structures in influencing the multiple institutional logics and earnings management behaviours.

Notes


2. https://it.uefa.com/MultimediaFiles/Download/Tech/uefaorg/General/02/56/20/15/2562015_DOWNLOAD.pdf

3. Details about estimations are available from the authors, on request.

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Arel, PricewaterhouseCoopers and Federcalcio (2018), Report calcio, Roma: AREL.


The Guardian (2017), Barcelona sign Ousmane Dembélé from Borussia Dortmund for initial £97m.


Figure I. % profit on players’ disposals on total revenues in Serie A

Source: Own construction
Figure II. % profit on players’ disposals and players’ rights amortization in Serie A

Source: Own construction
**Figure III.** Serie A total debt

![Bar chart showing Serie A total debt from 2007-08 to 2016-17 with values: 1892, 2111, 2332, 2569, 2892, 2947, 3093, 2974, 3066, 3625.]

Source: Own construction
**Table I. Summary of different scenarios**

<table>
<thead>
<tr>
<th>Situation</th>
<th>The distance between the sports-related performance measure and the target to be top three in the league</th>
<th>Enacted relationship between the institutional logics</th>
<th>Compromising behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Club is winning and is placed in the top three in the league</td>
<td>None, target achieved</td>
<td>The sports and business logics are in harmony: success in sports leads to improved finances</td>
<td>No compromise needed</td>
</tr>
<tr>
<td>2 Club has relatively stable finances and is placed 6th to 9th in the league</td>
<td>Medium (Zone of indifference)</td>
<td>The sports and business logics are enacted as conflicting: buying new players would jeopardize the short-term financial situation</td>
<td>The business logic is prioritized over the sports logic: sell first, then buy</td>
</tr>
<tr>
<td>3 Club has financial problems and is placed 6th to 9th in the league</td>
<td>Medium (Zone of indifference)</td>
<td>The sports and business logics are enacted as conflicting: improving the short-term financial situation requires sports compromises</td>
<td>The business logic is prioritized over the sports logic: use players who need exposure so they can be sold, even if they are not the best ones</td>
</tr>
<tr>
<td>4 Risk of relegation – placed 10th or lower in the league</td>
<td>High (risk of relegation)</td>
<td>The sports and business logics are enacted as being in harmony: avoiding relegation means avoiding negative financial consequences the next year</td>
<td>No compromise needed. Buying new players is in line with both logics</td>
</tr>
<tr>
<td>5 Placed 4th to 5th in the league</td>
<td>Low (sensing the possibility to become champion)</td>
<td>The sports and business logics are enacted as conflicting: trying to win the league implies running into financial losses</td>
<td>The sports logic is prioritized over the business logic: buy new players even if this means running into financial losses</td>
</tr>
</tbody>
</table>

Source: Charlsson-Wall et al. (2016)
### Table II. Sample selection process

<table>
<thead>
<tr>
<th></th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teams playing Serie A</td>
<td>20</td>
</tr>
<tr>
<td>Seasons</td>
<td>13</td>
</tr>
<tr>
<td>Firm-year observations</td>
<td>260</td>
</tr>
<tr>
<td>Annual reports not available</td>
<td>4</td>
</tr>
<tr>
<td><strong>Final sample</strong></td>
<td><strong>256</strong></td>
</tr>
</tbody>
</table>
Table III. Descriptive statistics of the common sample - 256 obs

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Median</th>
<th>Maximum</th>
<th>Minimum</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plus_mln</td>
<td>17.677</td>
<td>12.273</td>
<td>140.309</td>
<td>0.000</td>
<td>19.101</td>
</tr>
<tr>
<td>Plus_adj_mln</td>
<td>15.515</td>
<td>10.643</td>
<td>104.411</td>
<td>-11.255</td>
<td>17.522</td>
</tr>
<tr>
<td>Plus_adj</td>
<td>0.158</td>
<td>0.116</td>
<td>0.791</td>
<td>0.000</td>
<td>0.147</td>
</tr>
<tr>
<td>Plus_net_adj</td>
<td>0.139</td>
<td>0.106</td>
<td>0.758</td>
<td>-0.101</td>
<td>0.137</td>
</tr>
<tr>
<td>ROI_adj</td>
<td>-0.014</td>
<td>-0.012</td>
<td>0.809</td>
<td>-0.684</td>
<td>0.192</td>
</tr>
<tr>
<td>DETEQ_adj</td>
<td>2.999</td>
<td>0.606</td>
<td>108.703</td>
<td>-30.605</td>
<td>11.778</td>
</tr>
<tr>
<td>AMM</td>
<td>0.600</td>
<td>0.598</td>
<td>0.923</td>
<td>0.299</td>
<td>0.113</td>
</tr>
<tr>
<td>UEFA_Cup</td>
<td>0.344</td>
<td>0.000</td>
<td>1.000</td>
<td>0.000</td>
<td>0.476</td>
</tr>
</tbody>
</table>
Table IV. Variance-Covariance matrix of all variables - common sample - 256 obs

<table>
<thead>
<tr>
<th></th>
<th>Plus_mln</th>
<th>Plus_adj_mln</th>
<th>Plus_adj</th>
<th>Plus_net_adj</th>
<th>ROI_adj</th>
<th>DETEQ_adj</th>
<th>AMM</th>
<th>UEFA_Cup</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plus_mln</td>
<td>363.428</td>
<td>326.516</td>
<td>1.128</td>
<td>1.049</td>
<td>0.353</td>
<td>32.242</td>
<td>0.453</td>
<td>2.739</td>
</tr>
<tr>
<td>Plus_adj_mln</td>
<td>305.854</td>
<td>1.062</td>
<td>1.076</td>
<td>0.427</td>
<td>25.712</td>
<td>0.426</td>
<td>2.316</td>
<td></td>
</tr>
<tr>
<td>Plus_adj</td>
<td>0.022</td>
<td>0.019</td>
<td>0.012</td>
<td>-0.020</td>
<td>-0.002</td>
<td>-0.009</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plus_net_adj</td>
<td>0.019</td>
<td>0.011</td>
<td>-0.013</td>
<td>-0.002</td>
<td>-0.009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROI_adj</td>
<td>0.037</td>
<td>-0.066</td>
<td>-0.003</td>
<td>-0.009</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DETEQ_adj</td>
<td></td>
<td>138.176</td>
<td>-0.011</td>
<td>-0.588</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AMM</td>
<td></td>
<td></td>
<td></td>
<td>0.013</td>
<td>0.014</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UEFA_Cup</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.226</td>
</tr>
</tbody>
</table>
Table V. Panel Least Squares - cross sections 36, periods 13 (2005-2017) - 256 obs

<table>
<thead>
<tr>
<th>Model A</th>
<th>A1</th>
<th>A2</th>
<th>A3</th>
<th>A4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable</td>
<td>plus_mln</td>
<td>plus_mln</td>
<td>plus_net_mln</td>
<td>plus_net_mln</td>
</tr>
<tr>
<td>Constant</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>DETEQ_adj</td>
<td>0.203***</td>
<td>0.052</td>
<td>0.206***</td>
<td>0.046</td>
</tr>
<tr>
<td>UEFA_Cup</td>
<td>5.538**</td>
<td>2.666</td>
<td>4.679*</td>
<td>2.576</td>
</tr>
<tr>
<td>Cross Section FE</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Period FE</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>94.792</td>
<td>0.000</td>
<td>75.233</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>9.953</td>
<td>0.019</td>
<td>18.377</td>
<td>0.001</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.255</td>
<td>0.263</td>
<td>0.219</td>
<td>0.226</td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>105.491</td>
<td>16.392</td>
<td>15.481</td>
<td>15.419</td>
</tr>
<tr>
<td>Log likelihood</td>
<td>3.301</td>
<td>3.339</td>
<td>2.887</td>
<td>2.906</td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Mean dependent var</td>
<td>17.677</td>
<td>15.515</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.D. dependent var</td>
<td>19.101</td>
<td>17.523</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

White cross section SE correction (no d.f).

*, ** and *** indicate significance for two-tailed tests at the 0.1, 0.05, and 0.01 significance levels respectively.
### Table VI. Panel Least Squares - cross sections 36, periods 13 (2005-2017) - 256 obs

<table>
<thead>
<tr>
<th>Model B</th>
<th>B1</th>
<th>B2</th>
<th>B3</th>
<th>B4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable</td>
<td>plus_adj</td>
<td>plus_adj</td>
<td>plus_net_adj</td>
<td>plus_net_adj</td>
</tr>
<tr>
<td>Coeff</td>
<td>S.E.</td>
<td>Coeff</td>
<td>S.E.</td>
<td>Coeff</td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>ROI_adj</strong></td>
<td>0.393***</td>
<td>0.062</td>
<td>0.391***</td>
<td>0.060</td>
</tr>
<tr>
<td><strong>DETEQ_adj</strong></td>
<td>-0.001**</td>
<td>0.001</td>
<td>-0.001**</td>
<td>0.001</td>
</tr>
<tr>
<td><strong>AMM</strong></td>
<td>0.014</td>
<td>0.078</td>
<td>0.02</td>
<td>0.076</td>
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<tr>
<td><strong>UEFA_Cup</strong></td>
<td>0.041**</td>
<td>0.019</td>
<td>0.034*</td>
<td>0.018</td>
</tr>
<tr>
<td><strong>Cross Section FE</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Period FE</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>144.156</td>
<td>0.000</td>
<td>147.464</td>
<td>0.000</td>
<td>134.932</td>
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<td>8.942</td>
<td>0.030</td>
<td>13.219</td>
<td>0.010</td>
<td>10.666</td>
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<tr>
<td><strong>Adjusted R-squared</strong></td>
<td>0.415</td>
<td>0.423</td>
<td>0.414</td>
<td>0.420</td>
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<tr>
<td><strong>S.E. of regression</strong></td>
<td>0.113</td>
<td>0.112</td>
<td>0.105</td>
<td>0.105</td>
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<tr>
<td><strong>Log likelihood</strong></td>
<td>225.109</td>
<td>227.509</td>
<td>242.421</td>
<td>244.346</td>
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<tr>
<td><strong>F-statistic</strong></td>
<td>4.634</td>
<td>4.682</td>
<td>4.625</td>
<td>4.461</td>
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<tr>
<td><strong>Prob(F-statistic)</strong></td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
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<tr>
<td><strong>Mean dependent var</strong></td>
<td>0.157</td>
<td>0.139</td>
<td></td>
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<tr>
<td><strong>S.D. dependent var</strong></td>
<td>0.147</td>
<td>0.138</td>
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<td></td>
</tr>
</tbody>
</table>

White diagonal SE correction (no d.f).

*, ** and *** indicate significance for two-tailed tests at the 0.1, 0.05, and 0.01 significance levels respectively.