WHAT DRIVES THE VALUE OF FOOTBALL CLUBS: AN APPROACH BASED ON PRIVATE AND SOCIO-EMOTIONAL BENEFITS

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Abstract

The present paper shows how, in the soccer clubs sector, where the average financial results are negative, the value of football clubs is not related to income, but to sales turnover and gives a theoretical explanation for that. The literature has shown that the profitability of the industry is generally negative already at the level of operating profit. However, the difference between market value and book value is broadly positive, showing that the market recognizes to these companies a *quid pluris* in terms of value, not explained by the most rational and generally accepted methods of business valuation. The present study aims to explain, through an empirical analysis, why the value of a football company can not be estimated only on the basis of expected financial results, but it requires considering the overall benefits for shareholders, represented also by private benefits of control and socio-emotional benefits.

Keywords: Football Clubs, Business Valuation, Value Drivers, Private Benefits, Socio Emotional Wealth

1. INTRODUCTION

Stakeholders interested in the corporate activity of soccer clubs can be divided into two main categories: i) entities animating the competitive system and ii) social actors carrying specific expectations[15]. Given the social and collective relevance of soccer clubs, their activity is characterized by peculiar relationships of bargaining power and integration along the supply chain of the sporting spectacle, between operators that interface variously both on rivalry and cooperation, as well as by the presence of social partners that involve, to varying degrees, the collectivity (spectators, institutions, citizenship, etc.). Firstly, the economic success of a football club is dependent on the media distribution of sporting events[16], whose value depends on the balance and intensity of the competition, which in turn requires to limit the asymmetry between companies leaders and its competitors. Secondly, the clubs and their members have a wide notoriety and presence in the mass media, that would be impossible to replicate for other companies, if not at the cost of disproportionate promotional investments. This work aims to demonstrate, even through the use of empirical data, that football companies have highly specific value drivers, not fully explained by the most rational methods of business valuation, which imply using, still in the context of the generally accepted valuation principles, peculiar methods and parameters.

The valuation of a company operating in the football sector presents significant problems, because the market express an "appreciation" that is not found in other sectors, in presence of and unsatisfactory, and not infrequently negative, profitability. Therefore, the market values are not explained solely by profitability. Indeed, as also shown in literature (R. Mazzei and C. Mazzoleni, 2002), the profitability of the sector is generally negative already at the level of operating profit. Nevertheless, the difference between market value and book value is largely positive, showing that the market recognizes to these companies a *quid pluris* in terms of value, not explained by the most rational methods of financial valuation. This means that operators are systematically willing to invest in the sector even with unfair or negative profitability, resulting in the paradox that the football industry opportunity cost of capital would be void, or negative, when evaluated with common financial valuation methods and from a stand-alone perspective.

Previous studies (T. Markham, 2003) underline the need, for evaluating the football clubs, to take into account not only the traditional financial variables, but also some specific non financial variables of the football market. However, previous studies did not use any econometric analysis to demonstrate the correlation between the economic results of football clubs and its value.

This study proposes an alternative methodology for the valuation, which must take due account, in addition to the economic results, of the market value of the intangible assets, which are reflected in the main drivers of the value of a

[15] Ciampaglia G.M., LA CREAZIONE DEL VALORE NELLE SOCIETA' DI CALCIO, Accademia Italiana di Economia Aziendale, (AIDEA).
[16] R. Cafferata, Governance e Management nell'economia dello sporti, Symphonya, Emerging Issues in Management, 2/2004.

football club, represented by the sporting success and the commercial reputation.

The results of this study show that for the soccer clubs the aim of economic viability would seem to be referred to a super-entity and meta-economic viability, for which the performance will be measured by including the external or emotional benefits generated for shareholders. This study shows that in the foorball business, private and socio-emotional benefits represent the external benefits for which shareholders are willing to tolerate an under-remuneration and have therefore to be considered in the football club valuation methods.

2. LITERATURE

Large part of the academic literature (eg. Demirakos DG et al., 2004) and professional practice believes that the DCF method (which discounts, at a certain rate, the expected cash flows) is generally the most rational and accurate method for the valuation of a business. According to authoritative literature (Guatri L., M. Bini, 2009) the DCF is more objective than the valuation methods based on income, because the DCF is based on cash flow from operations and excludes the non-monetary cost and revenue items (the so-called accruals in the Anglo-Saxon terminology), whose determination is to some extent exposed to the conventional and subjective assessments of the management, but which indeed response precisely to the need of normalizing profits. Yet, despite this method is widely and successfully used for the evaluation of companies in various fields, its use does not return satisfactory results for the valuation of football clubs (Thornton and Matyszczyk, 2010). The use of the DCF for the evaluation of football club generates two problems. First, it is necessary to emphasize that the clubs are, in most cases, loss-making entities, which generate negative cash flow that, discounted at any discount rate, would return a void value for the company, or anyway significantly lower than the market value. Even where these flows resulted positive, their unpredictability and high volatility, inherent in the nature of the sector, would make it impossible to perform accurate ex ante estimates (Markham, 2013). Some of the restrictions set out above are partially overcome by the use of the multiples method, which is independent of the estimate of future cash flows and is considered suitable for the evaluation of companies in highly volatile sectors (Damodaran, 2012)[17].

The multiple methods, initially born as a mean for controlling the estimates, have assumed increasing importance, becoming an independent company valuation method. According to a study of Markham (2003), estimates made by the use of multiples can lead to relatively reliable values for companies with lower size revenues, but not for companies showing the highest volume of revenues.

Among the options for appreciating the financial value of football clubs, there is also the simple calculation of the Market Capitalization.

An empirical methodology proposed as an alternative to the "traditional" valuation methodologies listed above is represented by the method employed by Forbes[18]. This model develops a multiple that expresses the relation between previous transaction prices, financial variables and variables like the size of the stadium, because a new stadium is potentially able to increase the annual sales. This model provide for the analysis of financial documents and for interaction with industry experts to estimate operating revenues, debt and the value of each team (Ozanian, 2012). The evaluation of clubs, through the use of multiple based on revenues (multiple revenues) developed by Forbes, was, however, inaccurate. This shortcoming became apparent when the expected values - in the period between 1998 and 2003 - of North American companies were compared to the prices of the transactions that occurred during the same period.

Still referring to specific empirical methods for the football sector, it is particularly important the study of Markham, who proposes a specific evaluation methodology, based on an empirical multivariate analysis. Markham identifies any meaningful key indicators of the performance of the football clubs. In addition to the classic economic fundamentals, the main indicators, expressed in terms of cost management, is represented by the percentage of revenue to support the cost of players' salaries (Wage Ratio). In particular, according to Markham, for a prudent management of costs, it is necessary that the costs incurred to pay the salaries to the players is equal to or less than 50%.

The author points out the importance, for financial valuation, of the ability of a soccer club to attract revenue streams. It is also needed to take into account the distinctive assets that affect the financial value of football clubs. In fact, in addition to common assets and liabilities, the appraiser must pay special attention to assets such as the stadium, the training ground/center, the exploitation of television rights, the rights to the services of the players. Ownership and management should take into account the contribution that each of these assets produces in determining the value of a football club.

In particular, the contradiction between costs and values, after a more accurate analysis of the cause – effect relation, is only apparent. A team that has particularly re-known players must necessarily support high spending on their salaries, which could be interpreted as an element causing a reduction in operating income. In contrast, a fleet of talented players is a resource that helps to increase not only the company's revenues but also the reputation, the number of fans and the general appeal of the club, thus producing a positive impact on the value of the soccer club. In other words, players are one of the assets of clubs, whose effect on value is only partially explained by the difference between increased revenues and higher costs attributable to them. In fact, the improvement of sporting performance and, consequently, the reputation, attracts a greater number of fans, increasing revenue from ticket sales, television rights, sponsorship and merchandising, which have a significant correlation

[17] Damodaran, A. (2012) Investment Valuation: Tools and Techniques for Determining the Value of Any Asset (3rd edition), John Wiley & Sons, New York.

[18] Ratings for American football clubs.

with the value exceeding what is explained by the income. Therefore, even if the salaries do not find sufficient coverage in the increase of revenues, the company's value can, however, increase precisely because of the stronger correlation with revenues than with income.

The above gives evidence that a strategy of minimizing costs, aimed at increasing the income, does not appear an appropriate policy to the increase of the company's value in the football sector (Scelles N., Helleu B., C. Durand, Bonnal L., 2014). This does not mean, of course, that the clubs should not pursue economic sustainability and cost control. As mentioned, in fact, great attention is paid to the issue of cost management because, on the basis of the findings in the analysis, it is an element that over the years has caused considerable difficulties for football companies. Markham's study shows that revenues between 1996/97 and 2010/11 increased by 267%, whereas the players' salaries - which are the main source of the clubs' costs - in the same period increased by 450 %. Moreover, it is precisely in the light of the fact that these companies find it difficult to generate profits, that Markham includes net income in the multivariate evaluation model. In the Markham's algorithm, revenue (Revenue) are added to net assets (Net Assets) because both are considered the basis of the ability of a company to generate future income and, therefore, are of paramount importance in the valuation model. The sum of net assets and income is multiplied by the ratio of the sum of net income (or loss) and revenues, as the numerator, and the same revenue, as the denominator. This means that the model proves rewarding for profitable companies and adopt, instead, a more conservative approach for loss-making companies. In fact, in the case of profitable companies, the turnover and the net assets will be multiplied by a factor greater than 1, whereas if the company generates losses, the same amount will be multiplied by a value lower than 1. The overall figure is then multiplied by the average percentage of use of the stadium, expression of how the football club is effectively taking advantage of their assets. Finally, the overall figure is divided by the index of the costs incurred to pay the salaries to the players (Wage Ratio), which is the indicator of a football club's ability to keep tabs on the typical costs of personnel, expressing a cautious approach management[19]. As regards, in particular, an analysis of revenues, Markham makes a comparison between the results achieved by the various EPL teams, noting that those deriving from the exploitation of television rights are similar between the various companies that play in the Premier League. Conversely, the analysis of income linked to the match-day highlights very different results depending on the capacity of the stadium.

In the light of the above, it appears that the model developed by Markham has the merit of taking into account not only the financial variables, but also certain non financial variables which are peculiar of the football industry. In fact, Markham's multivariate valuation model balances the variables traditionally used to appreciate the earnings power of a company, with the total turnover, related to the number of fans, with the incidence of costs for salaries to players and the degree of use of the stadium, expressed in terms of percentage of available seats.

The analysis illustrated so far confirms that the value of soccer clubs is only partly explained by profitability, so that an investor driven by the only logic of economic profitability should not have, in most cases, interest to invest in the shares of a football company. Nevertheless, the apparent attractiveness of the ownership of clubs leads to the conclusion that the rationale behind these investments is to be found in some additional benefits than merely the profits generated by the stand-alone company. This shows how operators are therefore willing to invest in the sector even with unfair, if not negative, profitability, resulting in the paradox that in the football sector the opportunity cost of capital would be void, or negative, when evaluated with common financial valuation methods and from a stand-alone perspective. However, the mentioned analyses have not tested econometrically the correlations between the operating results and the companies' values.

In order to test the correlation between economic performance and value of football clubs, an empirical analysis was conducted on a sample of European football clubs listed on the Stock Exchange.

3. METHODOLOGY

The study resulted in the application of an empirical methodology, with the analysis of a sample consisting of all listed European football clubs (22 clubs). For each company were identified and compared EBIT, Sales, Enterprise Value, ROA and the multiples EV/Ebit and EV/Sales, for a time period between the year 2011 and the year 2015.

In the table 1 the average value of the sample, the median, the trimmed mean (eliminating 20% of the more external values) and the total.

The 57% of the companies had an average negative EBIT in the entire reference period. The data of the Enterprise Value (EV) are defined by Bloomberg as the theoretical purchase price of a company estimated as the sum of Market Capitalization (Current Shares Outstanding * Last Price) and other EV Components (Preferred Equity + Minority Interest + Total Debt - Cash & Equivalents - Adjustments).

[19] Markham T., What is the optimal method to value a football club?, 2012, ICMA Centre, Henley Business School, University of Reading, disponibile in SSRN: http://ssrn com/abstract=2238265 o http://dx doi org/10 2139/ssrn 2238265.

Table 1. Descriptive statistics

TEAM	EBIT	EV	REVENUE	EV/EBIT	EV/REVENUE	ROA
AS ROMA SPA	- 32.344.000	207.669.080	138.716.600	- 6,42	1,50	- 25,15
AARHUS ELITE A/S	- 2.680.793	5.908.553	12.249.001	- 2,20	0,48	- 32,78
BRONDBYERNES IF FODBOLD A/S	- 13.112.844	25.770.477	17.669.946	- 1,97	1,46	- 40,08
SILKEBORG IF INVEST AS	1.952.516	54.131.712	8.907.157	27,72	6,08	- 0,68
SOCIETA' SPORTIVA LAZIO SPA	7.494.363	31.012.780	103.482.106	4,14	0,30	2,30
JUVENTUS FOOTBALL CLUB SPA	- 21.799.929	374.989.900	136.660.664	- 17,20	2,74	2,25
AALBROG BOLDSPILKLUB A/S	105.620	4.210.091	11.104.663	39,86	0,38	- 3,57
SPORT LISBOA E BENFICA-FUT S	8.073.233	294.813.900	93.840.877	36,52	3,14	11,78
BORUSSIA DORTMUN D GMBH & CO	30.606.000	259.881.600	249.092.400	8,49	1,04	- 9,58
GALATASARAY SPORTIF SINAI	- 21.542.394	340.989.034	87.318.750	- 15,83	3,91	1,41
TRABZONSPOR SPORTIF YATIRIM	- 1.327.099	106.557.441	38.410.141	- 80,29	2,77	1,93
AIK FOTBOLLAB	- 2.222.104	2.348.301	14.932.938	- 1,06	0,16	- 93,97
OLGROUP	- 27.805.000	123.348.520	132.674.200	- 4,44	0,93	- 0,51
RUCH CHORZOW SA	- 1.154.769	-	3.898.292	-	-	7,60
MANCHESTER UNITED PLC-CLA	65.438.698	2.599.070.444	455.922.352	39,72	5,70	- 19,71
CELTIC PLC	2.956.090	67.080.041	72.511.063	22,69	0,93	- 28,83
FUTBOL CLUBE DO PORTO	4.181.051	122.185.660	81.328.426	29,22	1,50	7,95
ARSENAL HOLDINGS PLC	- 1.341.242	1.257.109.743	353.733.293	- 937,27	3,55	- 9,51
AFC AJAX	17.392.600	107.172.540	103.286.200	6,16	1,04	-
RANGERS INTERNATIONAL F.C.	- 14.757.470	18.402.300	22.391.298	- 1,25	0,82	- 1,60
BESIKTAS FUTBOLY ATIRIMLAR	- 32.830.123	199.817.776	62.289.554	- 6,09	3,21	3,95
AVARAGE	- 1.653.219	310.123.495	104.781.901	- 42,97	2,08	- 11,34
TRIMMED MEAN	- 1.187.919	114.816.040	79.457.734	- 0,03	1,38	- 1,59
MEDIAN	- 1.327.099	114.679.100	81.328.426	- 1,15	1,48	- 1,14
TOTAL	- 34.717.596	6.202.469.892	2.200.419.922	n/a	n/a	n/a

The analysis of the data shows that on average there is a clear value gap between the value recognized by the market to football clubs, expressed in terms of EV, and the generated income, expressed in terms of EBIT, which is on average negative. It is therefore carried out a comparison between the EV/EBIT industry average for the industry "recreational plant and services" (which is the upper industry category in the Bloomberg classification) in Europe and the EV/EBIT average of the sample, from which it emerged that the EV/EBIT of the upper sector is on average lower than the analyzed football companies' one. Instead, the comparison between the industry average EV/Sales of the upper sector and the same multiple of the selected sample, shows an EV/Sales of the football sector on average in line with the broader upper sector "recreational plant and services" .

The analyses carried out so far allows to detect, even as a first approximation, that the EV presents more connotations of proportionality with revenues than with EBIT.

Using a regression model, it is possible to test the correlation between the variables described above. It is appropriate then to use panel methods with Fixed and Random Effects, where the EV value is the dependent variable, and the variables EBIT, Net Profit and Sales are the independent variables. For completeness of analysis, and to further support the results, we also verified the correlation using the linear regression model. Below we briefly report the results of the method for fixed effects (fixed), the method for random effects (random), and the linear regression method (OLS).

Table 2. Results of the method for fixed effects (fixed), the method for random effects (random), and the linear regression method (OLS)

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. estimates table fixed random ols, star stats(N r2 r2_a)
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Variable	fixed	random	ols
ebit	-.48202612	-1.2664129	-1.5231018
redditonetto	-.31621628	.37679119	2.1544585
ricavi	1.1266751***	2.1157567***	3.8465718***
_cons	1.557e+08***	71088453	-1.423e+08**
N	87	87	87
r2	.20325208		.76955581
r2_a	-.07063002		.7612265

legend: * p<0.05; ** p<0.01; *** p<0.001

The results show no significant direct correlation of EV with EBIT and Net Income, while there is a strong direct correlation between revenues and EV. One can therefore conclude that there is not a positive correlation between income generating capacity and the EV, while there is a correlation

between EV and Sales turnover. In light of this analysis, it is evident that the enterprise value of football clubs is dependent on the value of turnover and not on the value of EBIT and Net Profit.

In order to validate the analysis, we carried out a Student's t-test on the correlation coefficients. This test has largely confirmed that among the variables EBIT, Net Profit and EV there aren't linear relationships; while, the EV values are greatly influenced by the value of sales. For the purposes of this discussion we also carried out a further analysis comparing the results obtained so far with the data obtained from the "Report Soccer 2015", prepared by PricewaterhouseCoopers for the Italian market, which confirm the evidence of a constantly negative average profitability, togheter with market prices higher than justified by the company's profitability.

To take into account the peculiarities of the Italian market, the latest transfers of significant shareholdings interests (implying the change of control) were analyzed. The transactions occurred at very high prices, which are not in line with the earnings performance of the companies. We analyzed the Italian clubs that in the period 2010 - 2015 were affected by transactions of equity capital and corporate control. In the following table 3, EBIT and Net income are the average of the period 2010-2015 and Value is the price of the transaction:

Table 3. Transactions of control of Italian clubs in 2011-2015

TEAM	EBIT	NET INCOME	VALUE
FC INTER	-104,6	-56,9	600
ATALANTA	-4,4	-3,2	26,8
AS ROMA	-40,8	-41,8	215,2
SAMPDORIA	-34,0	-23,0	40,5
BOLOGNA FC	-9,0	-11,7	6,0
BRESCIA	-4,7	-4,2	5,8

Amounts in EUR million

4. RESULTS AND IMPLICATIONS

The evidence above confirm the hypotheses underlying the present article, according to which the value of football companies is not explained by the income statement results and, therefore, the methods for estimating the company's shareholding interests, having to simulate the behavior of market participants, require the use of additional criteria and specific parameters than those currently used for most companies. Indeed, the elements that influence investment decisions in a football club and its market valuation are multiple and variously configured; a significant number of them, however, is not related to the firm's profitability. The data presented above show that between market prices and the part of corporate value explained by financial results there is a "value gap" that must be explained by investment motives different from the company's profitability

The following discussion is dedicated to the analysis of the reasons that induce an investor to enter the equity capital of a football club, despite the low or negative profitability. These reasons help drawing indications for the development of valuation methods consistent with the decision-making of market participants and as such suitable to express fair market values.

The valuation limits set out above are partially overcome by the use of the multiples method, which is independent of the estimate of future cash flows and is considered suitable for the evaluation of companies in highly volatile sectors (Damodaran, 2012)[20]. The multiple methods tend to replicate the behavior of market participants and are thus able, at least in theory, to grasp the magnitude of the average "value gap" under investigation. The main problem, however, is that they only seize average trends of a sample, so that the explanatory power for a specific company depends on the actual comparability of the company being valued with the sample from which multiples are derived.

The multiple methods are distinguished according to criteria based on equity approach to valuation and on entity approach to valuation. The equity side approach uses multiples that allow to estimate the equity value directly. They have in the numerator the Market Capitalization of the company and in the denominator variables represented by accounting figures, such as net income, net book value, the cash flow for shareholders, dividends[21]. However, since the income and the net cash flows are generally negative, the analyses with multiple Price/Earnings, Price/Cash Flow and Price/Dividend do not show significant values on which to base the valuation of the football clubs. In this regard, referring for example to Italian companies subject to the transactions of control in the period 2011-2015, it is noted that, out of a total of 30 observations per company/year, only 6 cases (20%) represent profits positive on which to apply the P/E multiple. In fact, at least they should be taken off Inter's results in 2014 (a result regarded as outliers), because influenced by the capital gains generated as a result of the contribution in kind of the "commercial" business branch.

By applying the P/E multiple for listed European companies in the sample, calculating an annual average for the only cases in which the profits are positive, to the earnings of Italian companies that were the subject of the transaction, as shown previously, the values are on average lower than those for which the companies were purchased and sold. This happens because the market price refers to the outstanding shares, while the transaction prices refers to controlling shareholding interests[22]. The difference between the transaction

[20] Damodaran, A. (2012) Investment Valuation: Tools and Techniques for Determining the Value of Any Asset (3rd edition), John Wiley & Sons, New York

[21] Zanda G., Lacchini M., Onesti T., La valutazione delle aziende, Giappichelli Editore, Torino, 2005.

[22] The control awards are a plus recognized the value of an investment compared to the corresponding portion of the total economic capital, for the simple fact of allowing the control of a company (Zanda, Lacchini, Onesti, 2005).
The control premium should be understood as "pure" award, in the sense that it is an addition to the fundamental value of the majority stake. This database already includes, in fact, is the value of synergies, both operational and structural improvements achievable by a possible buyer. In this context, the

price and the values implicit in the P/E (also taking into account, in particular, that is predominant the number of observations in which the multiple P/E loses significance for the existence of losses) demonstrates the existence of very significant control premiums, well above what was found in the generality of other sectors[23].

Less problematic, from a technical standpoint, it is the use of the multiple Price/Book Value, which however has the disadvantage of quitting apart from the turnover and profit margins, which, at different levels, capture the dynamics of commercial success and economic efficiency of the company. For the football sector, in which the gap between market values and carrying amounts of intangibles (eg trademark, registration rights, etc.) is very marked and volatile (also because, quite often, of the chronic underfunding of the company), the utility of the P/BV multiple is very limited.

The entity approach to valuation uses, however, multiples that make an indirect estimate of the equity value subtracting from the market value of assets (enterprise value) the market value of the financial debts. In the multiples using the asset side approach the numerator is the market value of the net investments(EV) and the denominator is a variable expressing firm performance before the net financial costs, such as operating income (EBIT), gross operating profit (EBITDA) sales or operating revenues (SALES), the net operating assets (Net invested capital, NIC)[24].

The EV/EBIT has the same application problems of equity side multiple based on earnings and cash flows, being the average EBIT generally negative. More technically useful are, at least in principle, the multiples EV/EBITDA, EV/NIC and EV/Sales. However, given the regression results, the EV/Sales appears the one that best combines the technical applicability with the ability to express the behavior of market participants. Just think, in fact, of the relative stability of the values expressed by this multiple compared to the extreme volatility of multiples based on margins and cash flows, which again shows that the value of football clubs is more reasonably related to the commercial dimension that to direct income generating capacity.

However, it can not be hidden that the EV/Sales allows a very partial understanding of the value generating dynamic since there is no consideration of the assets controlled by the various companies, their financial position and their profitability. Value generation, however, could be explained by a further dimension of performance, the sporting performance, different from the economic one, which can clarify the drivers of the "value gap" between the market prices and the theoretical values based on the expected results.

Many industry experts believe that the analysis of the shares prices of a football club is to be conducted jointly with that of its sporting results, though distinguishing between events that have an immediate, but transitory, impact and sporting successes that have a broader and long-term effect on company value. In this sense, we can distinguish "transitory effects" and "lasting effects" of sports performance.

In particular, certain phenomena of a purely speculative nature, which take place in the moments immediately prior or subsequent to a particular sporting event, generate short-term effects that may cause volatility, even large, in the share price, but are not lasting, because they are linked to emotional reasons more than related to economic fundamentals. Conversely, achieving sporting goals for the entire season (which, as noted, is the "exercise" for a football club) can have a strong and relatively long-lasting impact on the economic performance of the company and consequently on its value (which for listed companies should find a long-term correlation with the share price). Sporting performance represent the link between economic investments in key business assets, including, first and foremost, the football players[25], and the company's value, in the sense that in a physiological management good sporting performance generate higher revenues and at the same time also feed the value of the same football players, which is closely related to sports performance and that, through a suitable dynamic management of the rose of players, contributes to the generation of net capital gains on disposals, and therefore, ultimately, to earnings. Sports performance, however, do not explain the "value gap" between prices and values based on economic fundamentals. The transient effects of sporting performance, in fact, generate price movements intended to offset in the short term and do not explain the "value gap". The lasting effects of sporting performance, however, may be related or not to the company's economic fundamentals. In the first case, they are value drivers caught also by methods based on the expected results and therefore does not explain the "gap". In the second case, they can, in theory, be a determinant of the "value gap" because they are not captured by the results of discounting methods. Although, the analysis of the available evidence indicates that this "gap" has little connection to sports scores, so that the latter represent a very limited indicator of company value.

Particularly significant in this regard is the correlation, made for listed European companies in the sample, of the UEFA rankings attributed to football clubs and their enterprise value. As known, the UEFA rankings allows for a ranking of clubs based on the performance in Europe by attributing a score (so-called coefficient). The coefficient attributed to each team is determined based on the results obtained by the team in the UEFA Champions League and UEFA Europa League in the previous five seasons[26]. The calculation of the ratio of each club is determined as the sum of all the points scored in the last five years, in addition to a percentage of 20% of the coefficient of membership in the federation.

"pure" premium control is included in the main countries, in the range of 2 - 5% of its market capitalization, which means that the percentage of the prize "Pure" apply pro rata to a specific stake is defined by the following formula: percent "pure premium" = percent of market capitalization (range 2 - 5%) / interest rate de package (Guatri, Bini, 2009).

[23] The literature identifies the size of the majority of awards in the range of up to 25% - 35% of the economic capital. See, for example: Guatri, Bini, New treatise on the valuation of companies, 2009, p. 946 et seq.; Zanda, Lacchini, Onesti, Evaluation of companies, Giappichelli, 2013, p. 520.

[24] Guatri L., Bini M., "Nuovo trattato sulla valutazione delle aziende", Egea, Milano, 2009.

[25] Mazzei R., Mazzoleni C., Aspetti di rilievo nella valutazione di una società di calcio: il caso dell'A.S. Roma S.p.A., in La valutazione delle aziende, Riv. Trim. n. 25 giugno 2002. The process of "investment" in football players includes both investments in the registration rights, which are intangible assets, that the mountain engagements, which is the leverage to attract the best players by increasing the chances of sporting success.

[26] http://it.uefa.com/memberassociations/uefarankings/.

Table 4. Uefa ranking and enterprise value of European listed football company

	RANKING					ENTERPRISE VALUE				
TEAM	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Aalborg BK	1,3	0,6	0,7	1,3	6,6	5	5	4	1	7
AFC Ajax	15,2	14,7	9,8	11,2	15,2	126	112	94	117	86
AGF Aarhus	1,3	0,6	1,2	0,8	0,6	6	7	4	9	4
AIK Solna	2,0	0,6	4,0	0,6	1,8		1	3	3	
Arsenal FC	22,7	22,1	21,3	21,4	22,7	1.043	1.367	1.278	1.219	1.379
AS Roma	18,3	3,8	2,9	2,8	15,8	147	127	168	231	365
Beşiktaş JK	9,9	11,0	2,0	1,3	12,2	208	131	194	224	241
Borussia Dort.	10,1	10,1	33,6	24,9	21,2	221	213	246	339	281
Brondby IF	2,8	1,6	0,7	0,8	1,6	26	21	31	27	23
Celtic FC	2,2	5,6	16,9	6,7	7,8	45	48	61	85	97
FC Porto	31,8	12,4	22,4	18,0	26,8	88	102	82	132	207
Galatasaray AŞ	2,4	1,0	24,0	16,3	6,2	525	264	271	286	359
Juventus	8,3	2,3	25,9	25,8	32,8	299	316	361	437	462
Manch. Un. FC	36,7	16,1	21,3	26,4	2,7			2.384	2.474	2.939
Ol.Lyonnais	19,2	19,1	14,4	16,7	3,7	107	58	78	119	254
Rangers FC	12,7	2,1	0,9	0,7	0,8				18	
Ruch Chorzow	1,9	1,3	1,5	0,6	2,5					
SL Benfica	25,8	23,4	28,4	31,0	9,8	247	276	292	334	326
SS Lazio	2,3	9,3	20,9	12,8	3,8	28	15	28	40	45
Trabzonspor AŞ	2,4	11,0	3,5	11,3	8,2		145	97	78	

The analysis performed shows that the ranking given by UEFA, at least in the short term, is not closely related to the market value of the club, as confirmed by the regression model carried out in respect of such data. (The results show that there is a direct correlation between the UEFA ranking and EV.)

Table 5. Results of Uefa ranking regression model

```
. estimates table fixed random, star stats(N r2 r2_a)
```

Variable	fixed	random
rankinguefa	3024545.7	3759978.8
_cons	2.548e+08***	2.734e+08*
N	85	85
r2	.03143686	
r2_a	-.25168159	

```
legend: * p<0.05; ** p<0.01; *** p<0.001
```

This suggests that in the football industry there are very important value drivers, additional to the profitability of capital and to sporting performance.

In particular, in the valuation it is necessary to consider specific categories of benefits, other than the extraction of direct economic benefits from the company, which are relevant in the football sector, thus making it acceptable a direct entrepreneurial remuneration that would be considered unsatisfactory in other contexts. They are, in particular, socio-emotional benefits and particular categories of private benefits of control.

Specifically, the results obtained so far can lead to the belief that the valuation of clubs can be carried out with other methods as alternatives to those based on expected results (assets and liabilities methods, excess earnings methods, etc.). In business valuation literature, assets and liabilities methods are generally not considered rational methods for the evaluation of companies, since they neglect the income generating capacity[27]. However, they are rational methods in cases where the income variable is included in the valuation of the individual assets, as is the case for certain types of companies (real estate companies, a holding company, etc.) or, sometimes, when the value of the prevailing intangibles explains, essentially, most part of the value of the company. Based on the arguments carried out above, the rationality of the assets and liabilities method (hereinafter also balance sheet method or net assets value) can be appreciated taking into account some specific features of the football field, based on which its explanatory power of the value of companies is higher compared to the generality of companies.

As the cost of equity capital is the threshold parameter to evaluate the existence of a positive or

[27] Zanda G, Lacchini M, Onesti T, La valutazione delle aziende, Giappichelli Editore, Torino, 2005.
Guatri L, Bini M, "Nuovo trattato sulla valutazione delle aziende", Egea, Milano, 2009; Caramiello C., La valutazione dell'azienda. Prime riflessioni introduttive, Giuffrè, 1993.

negative excess-income - and thus a positive or negative goodwill – it must be inferred that the income adjustment aimed at estimating the value of goodwill should take into account the return on equity required by shareholders, which are reduced by the effect of the further benefits (private external economic benefits or socio-emotional benefits) obtainable from the participation in the football club. Where these expected returns are, for example, zero, the company's value would be equal to its net asset value. In this case, the company's value could be estimated based on the balance sheet method, giving the value of the capital resources available to the company, provided they generate benefits from their use or their disposal on the market. The lack of profits would not result in a negative goodwill, given the expectation of a void required return to the shareholders. Moreover, such a valuation procedure would not be entirely independent of variables that express the remuneration generated by the company, since it is generally accepted in theory and practice that the balance sheet method incorporates the key factors of value in the estimate of intangibles (because the value of the latter is estimated by considering the expected results, in the case of use, or current market values, by selling the assets). No doubt, in this regard, can arise as to whether the balance sheet method expresses the value in use or realizable value of the total capital resources available to the company. This method, moreover, is recognized under generally accepted methods for the valuation of the investments by most accounting standards sets (i.e., for Italy, the OIC, in Appendix B to the OIC document 3). In addition, the literature considers the net assets value, in the absence of restrictions on continuing the going concern at a loss, the lower floor to the value of equity investments.

More complex and industry-specific is the problem regarding the need to apply the so-called "income correction" (or “excess-earnings correction”) in case of an unsatisfactory profitability. In this context, the "income correction" aimed at subtracting the present value of the missed expected remunerations, that is the rewards of comparable alternative investments with the same risk profile. However, empirical evidence confirms that operators invest in the equity capital of football clubs despite a void or negative return. If the profitability of the sector is structurally void or negative, and investors do not exit from the market, it means that the required remuneration for them (i.e. the cost of capital) is also void, or negative.

This does not mean that the football sector is a non-profit sector, whose businesses are not geared to generating benefits for shareholders, but only that those benefits are not necessarily related to the direct remuneration of equity capital through corporate profits and dividends. In other words, as shown in the preceding sections, it is believed that the fact that there are individuals who continue to invest in the sector implies that the benefits they extract from the investment are of a different kind. These benefits have an economic value and, therefore, allow to tolerate a sub-return on capital invested in the football club.

As previously demonstrated, there are many authoritative studies which demonstrate the existence and the economic value of private benefits of control. In general terms, their existence is demonstrated by the existence of the "control premium", i.e. the phenomenon by virtue of which the shares that guarantee the control of a company are worth more than the minority shares. In football, again, there are clear private benefits of control, that are both of an extra-economic or socio-emotional type (reputation in the community, attachment to the team, etc.), both of an economic external type (business opportunities indirectly related to the ownership of the football club, exploitation of the communicational resonance, etc.).

The socio-emotional private benefits - in soccer clubs in part attributable also to non-controlling shareholders (so-called fan-shareholder) - represent benefits of a psychological or emotional type, such as the pleasure of being at the head of a large company (so-called empire building), the emotional gratification of recognition in their community, the pride of belonging to a family company transmitted generation by generation or, in this specific case, to the football club which has fans. Although part of the socio-emotional private benefits accounts both to the controlling shareholders and to minority shareholders, the valuation problem arises differently in one and in the other case which must, therefore, be treated separately. By applying the "income correction", it is necessary to take into account the private benefits - external or extra-economic - for the owner, in order to determine the value of the controlling shareholding interests. Such private benefits, as mentioned, generate the "control premium" and are the same benefits for which entrepreneurs are willing to tolerate the under-remuneration of equity capital. In this perspective, if the "income correction" is applied, then it is necessary to take into account also the control premium; alternatively, neither the former nor the latter is applied. Since the origin of the "income correction" (the value of under-remuneration tolerated) and the control premium (the value of the disproportionate benefits for those who control) are the same extra-economic or external private benefits, the value of the controlling interests, in general, does not change depending on which procedure is applied. For this reason, applying the "income correction" without estimating the private benefits of control would lead to an underestimation of the company, since values according to which a general investor would be willing to invest would be taken into account.

Of course, the reasoning does not mean that football clubs can generate losses at will without negative effects on the value of the shares. When, in fact, the losses and the capital under-remuneration shall be such as to exceed the expected value of private benefits, then the stock value correspondingly decreased. In other words, the negative "income correction" does not apply until the badwill is less than the expected value of private benefits, and is equal to the excess of the badwill on the expected value of private benefits, in the opposite case. The opportunity to apply the net assets value method, therefore, does not imply the irrelevance of income flows and profit orientation, but only the need, even with the help of industry benchmarks, of an evaluation of the fairness of any under-remuneration tolerated compared to the private benefits obtainable from the company itself,

so as to ascertain whether the first rise, or not, the need to apply a negative "income correction".

In particular, the fair market value of the equity capital, calculated using the balance sheet method, can be expressed by the following formula:

$$W = K' + BInc + \sum_{t=1}^{n} \frac{R_t - Ke(K + BInc) + BSE_t + BPC_t}{(1+i)^t} \quad (1)$$

where:

K '= Equity adjusted (Net Assets Value adjusted); BInc = value of unrecorded intangibles; R_t = expected net income; Ke = cost of equity capital; BSE_t = socio-economic benefits; BPC = private benefits of control; i = discount rate of over (under) income.

In the presence of under-remuneration of capital, with R < Ke (K + BINC), the "income correction" will not be necessary if the private benefits of control and the socio-emotional benefits outweigh the under-remuneration, namely whether:

$$R_t - Ke(K + BInc) + BSE_t + BPC_t = 0$$

In practice, the estimation of private benefits of control and social-emotional benefits is not simple and determines the particular difficulties in appraising the value of football clubs, which is not properly caught by generally accepted valuation methods based on the discounting of financial results, such as the DCF method. The sum of socio-emotional benefits and private benefits of control can be measured starting from market prices of listed football clubs, estimating the cost of equity capital expressed by the market (Ke_{sc}) and comparing it with the cost of the equity expressed by the market for investments with similar degree of risk, but without the external benefits that characterize the football clubs, such as investments in the general field of entertainment services. In formula would, therefore:

$$BSE_t + BPC_t = (Ke - Ke_{sc})(K + BInc) \quad (2)$$

Regarding as the private benefits of control, it can be assumed, as a first approximation, that they are equal to the marketing costs that the business of the controlling shareholders should bear to achieve notoriety and a media presence equivalent to that afforded by the control of the football club. The private benefits of control, in other words, would be equal to the marketing costs "avoided" with the control of the club, which in turn are positively correlated to the number of fans. Also in this case the estimate has high difficulty and uncertainty, but may find anchor objective parameters in estimating the cost that the controller would bear in order to have an equivalent media exposure, suitably cut down to take into account the mediated and indirect efficacy of a marketing presence which is not strictly focused on the target of the company that benefits from the externalities. In formula you would have:

$$BPC_t = Mktcost_t(1 - a) \quad (3)$$

As for the socio-emotional benefits, involving both the controlling and the minority interests, you can assume at first that their value has, at least basically, its maximum in the same fair return on capital, in the sense that shareholders are likely to tolerate the lack of return on invested capital, but not the continuous generation of losses. This means estimating the socio-emotional benefits BSE in an amount equal to the fair remuneration of equity capital Ke (K + BINC). In any case, once estimated the total external benefits on the basis of the under-remuneration expressed by the market and the private benefits of control on the basis of avoided marketing costs, the social and emotional benefits are equal to the difference between the first and second. In light of these considerations, the condition for which the "income correction" does not apply in the presence of under-remuneration of equity capital would thus become:

$$Ke(K + BInc) - Mktcost_t(1 - a) = BSE \quad (4)$$

In this perspective, the value obtained by the balance sheet method (with intangible revaluation and with a possible earnings correction according to the logic presented) leads, applying the percentage of owned capital, at the estimate of the controlling interests. The minority shares, however, will tend to lower values because, while incorporating some of the socio-emotional private benefits (mainly for fans of shareholders effect), does not allow the extraction of the same private benefits attributable to the controlling shareholders.

For the estimation of the minority interests the average multiples expressed by stock prices are a useful information, because these prices reflect only the portion of socio-emotional benefits enjoyed by minority shareholders, but not the exclusive benefits of the controlling shareholders. Moreover, this is one of the reasons why in the estimation of the controlling interests the stock market value has a limited relevance: the share price, in fact, refers to the so-called floating shares and not to the value of controlling interests. In light of the foregoing considerations, it appears obvious the particular importance assumed, for the purpose of determining the fair market value of a football club, the estimate of its intangible assets. In particular, the main intangible assets of clubs are essentially represented by the registration rights of the players and the brand, both linked to the reputation and team followers with the fans, as well as the success in sports competitions. These are evidently values characterized by a high degree of volatility, correlated to the number of fans and to sports performances, much more than the company's economic results.

The brand is undoubtedly one of the most important components in the evaluation of a football club. Since the existence of an established brand is an important part of the company's value even independently of sporting success, the brand is a value that, compared to others, has a lower volatility. It has, in fact, an autonomous asset relevance and is characterized by a recognition and a reputation that are independent, within certain limits, by contingent elements such as sports results. The greatest strength of the brand of a football club is made up of the so-called "brand

loyalty", that brand loyalty from the public, the trust of the fans, which is a critical success factor for the company. The brand value of the football clubs is tied, on the one hand, to the "notoriety" guaranteed by publicizing in the media the sporting events carried out by newspapers and television, on the other hand, to the loyalty of the fans against their team.

Other particularly significant intangible assets consist, as mentioned, in the portfolio of the rights to the performance of players, the value of which is very sensitive to sports results and is therefore characterized by high volatility. The total value of the performance rights should be maintained and enhanced through a dynamic management of the players.

Another additional intangible asset of clubs is the sporting title, namely the right to participate in official competitions. Not being transferable independently of the company, however, the sports title can not be subject to a separate evaluation from other corporate assets.

The brand and the sportive title, however, are two closely related intangible assets since, if the company were to lose the sportive title, even the brand would lose part of its economic potential, while maintaining those related to the memory of the team, but losing those related to presence in major competitions. The brand may, however, be subject to separate negotiation and may be associated with a new sports title.

In conclusion, this paper does not intend to question one point unanimously shared by the literature: for the evaluation of a company as a going concern is generally used a valuation method that includes the present value of expected future cash flows, as in the evaluation conducted by the net assets method can sometimes lead to illusory assessments, and therefore unreliable, for the companies in business continuity. However, in the soccer clubs, to the effects of the private benefits on the cost of equity capital, the relationship between income value and asset value is narrower than in most other business. The first, therefore, can be rationally determined, although based on the analysis of the assets of which it was already said with reference to the estimated intangibles and "income correction".

The choice of the revalued net assets value method, as an appropriate method to represent the value of service companies, which the clubs may appear conflicting with the consideration whereby in service companies the income component of the value is greater than the asset. However, the specific identity of the football industry will enable a possible and rational adoption of the revalued net assets methods. In particular, the emotional component of the value, as well as indirect benefits of control, are not appreciable based on the financial results generated, but are positively correlated to the main corporate intangibles, such as brand value and football players, which therefore represent indirect estimation drivers. In addition, the strong dependence of economic performance by athletes and sports scores - notoriously difficult to predict - and the resulting difficulty in drawing up a business plan make difficult the adoption of methodologies based on discounting future results, such as Discounted Cash Flow Analysis. Finally, the importance of emotional and external benefits of control makes multiple markets inadequate to express reliable values for the majority packages. Recourse to the revalued net assets method is therefore justified by the fact that the sector is not governed by logic strictly related to the direct profitability, as also demonstrated by empirical evidence to the effect that the value of football clubs depends on turnover, but not by income company.

5. CONCLUSIONS

Empirical evidence shows clearly how the field of football clubs present on average negative economic results. This does not mean that the sector is not characterized by profit orientation, but rather that the soccer clubs should not be appreciated from a stand-alone perspective, but referring to a concept of super-enterprise economy, in relation to which the cost-effectiveness will be measured by an analysis of the external or emotional effects that flow to shareholders (i.e. the sum of private economic benefits and the socio-emotional value). In other words, traders are willing to invest in the sector also in the presence of profitability systematically void or negative expressed by the companies. The cost of the equity capital opportunities in the football sector is therefore substantially zero, meaning that the equity investment in the sector would not find, on average, alternative positive performance. In fact, the cost of capital is not void, or negative, but absorbed in part by external or emotional private benefits, through which the controlling shareholders portray remuneration from the investment required.

Contrary to what happens to the generality of the companies, the empirical evidence shows that the value of football clubs is not related to income, but to the turnover. This is explained by the fact that the benefits portraits by shareholders are partly external, private and socio-emotional. They are "priced" in the values expressed by the market (especially for transactions of control, but also, to a lesser extent in equity prices), they are not reflected in the company's income, but are tied to sales income, which in turn depend on the result and the reputation of the club. The latter, in fact, are the original drivers of private and socio-emotional benefits.

The value of the company, in an industry that operates with logical not strictly anchored to the direct profitability, can not be estimated only on the basis of financial results expected by the soccer club. Due to the anchor and to the expected results, the value is then expressed by the least available to the company's capital resources, provided they generate benefits related to their use or their disposal on the market.

For the evaluation of the football clubs may then find successful application a revalued net assets value method, which take due account of the fair value of the intangible assets. In them are reflected the main driver of the value of a football club, who are represented by the sporting success and reputation with the public. Sports performance is a natural correlation with the current value of the rights of players, while the follow-up and the notoriety increasing the brand value, linked to the commercial revenues.

The estimated value using the balance sheet method, therefore, captures the value of sport and commercial resources that determine the success of a football club. The assets must, however, be subject to an income test of net asset value, in accordance with the literature and practice for the majority of economic sectors. For the soccer clubs that verification must take into account not only the actual income generated by the company and the cost of capital in similar areas devoid of private and socio-emotional benefits that characterize the football clubs, but also the esteem of the latter, representing external benefits extracted by shareholders against which they tolerate an under-remuneration pertaining to the football club.

The estimation of these external benefits has high uncertainty and technical difficulties. Primarily because their value depends on the subject from the perspective of which the estimate is made. This paper identifies a number of guidelines for the identification of parameters on which to base such an estimate. In particular, the estimate of the private benefits of control can be based on marketing costs avoided, ie costs that the controlling shareholders would have to incur to have an equivalent exposure in the media, properly felled to hold mediated account of the effectiveness and indirect presence of a non-targeted on the target company that benefits from the external benefits.

The estimate of the social and emotional benefits (partly attributable to minorities) is instead eminently subjective and difficult to be anchored in observable parameters. It can be assumed at first that their value has, at least basically, its maximum in the same fair return on capital, in the sense that shareholders are likely to get to tolerate the lack of return on invested capital, but not the continuous generation of losses. The observation on the market of under-remunerations tolerated by investors, however, allows us to estimate the overall size of external private benefits and thus, once estimated the private benefits of control on the basis of avoided marketing costs, the social and emotional benefits are equal the difference between the first and second.

The estimate of total external private benefits and the development of the analysis of the determinants of value are the main empirical lines for future research development.

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