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Chair of Financial Statement Analysis

Failures in the Italian football sector: an empirical analysis  
and evaluation through KPIs

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## INTRODUCTION

The purpose of this research is to analyse the economic performance of companies in the football sector during the decade 2008 – 2018 in Italy.

In particular, the period in question was chosen in order to achieve results that were not affected by the Covid-19 epidemic that spread at the turn of the 2020 - 2021 season.

It is important to highlight how the research aims to describe the most common realities of the soccer industry, therefore, avoiding focus on the big teams in the top league (Serie A), but majorly taking into consideration those in the lower championships (Serie B, C, D) that are undoubtedly a better reflection of industry trends.

As also better explained within the following research, soccer clubs operate within a sector that is perpetually in crisis, and the reason lies not only in the low ability to make profits, but also in the number of clubs that manage to operate continuously within that industry. In fact, it will be analysed how the number of teams that fail each year is constantly increasing, portending how, if the situation does not change in the future, we could be faced with a crisis that is far worse than the one underway to date.

In this regard, the analysis first focused on a framing of the industry from a regulatory and accounting perspective, and then continued with experimental research focusing on two samples consisting of 42 failed and non-failed teams, respectively.

The objective of the latter was, in the first instance, to find similarities and differences between the two samples considered on the basis of the indicators imposed by federal bodies such as, the Federazione Italiana Giuoco Calcio (F.I.G.C.).

Once this step was completed, based on the results obtained, was implemented an econometric analysis to understand how suitable the indicators imposed by the aforementioned bodies were for monitoring the economic performance of football clubs.

The whole process just described was necessary to find the underlying reasons for the continuing bankruptcies of soccer clubs and, more generally, for the perpetual state of crisis that has plagued the football sector for decades.

# **CHAPTER 1: THE MAIN HISTORICAL AND ACCOUNTING ASPECTS OF ITALIAN FOOTBALL**

## **1.1. Historical notes on the Italian Football**

As we can well imagine, Italian soccer has been, and still is, characterized by a path of growth that has led it to be one of the most important businesses in our country.

In this sense we can say that 1898 is considered the starting point, since it is the time when the first official matches were played in regional tournaments, and at semi-professional levels.

All of this was organized by the newly founded Federazione Italiana Giuoco Calcio (F.I.G.C.), which from then until today will contribute to making football the most important national sporting phenomenon. Furthermore, the latter in 1929, decided to organize a major tournament that drew the best regional teams, forcing them to compete head-to-head in what would soon become the Serie A championship.

Italian soccer had experienced an impetuous growth also thanks to the massive support offered by the fascist regime (which had understood the formidable propaganda effectiveness of soccer) to the organizational structure, which gave the best results in the occasion of the second World Championship, in 1934.

Since 1949, the Italian Federation has permitted the use of foreign players, which has improved the spectacle through the addition of foreign elements, simultaneously transforming soccer into a major industry.

Following some disappointing football results, which occurred in the following decade, in 1959 the commissioner Bruno Zauli launched the renewal of the F.I.G.C. establishing the three Leagues (Professional, Semi-Professional, Amateurs), the Technical Sector and the Youth and Scholastic Sector.

Although on a European level, it is important to underline that it was during this period that the Union des Associations Européennes de Football (UEFA) was founded in 1954.

Since then, the governing body of European soccer - one of six continental confederations affiliated with FIFA - has seen its importance growing exponentially, acting alongside and on behalf of the various European national federations and all stakeholders to promote soccer and reinforce its status as the world's most popular sport.

It will be in the 90's that Italian football will begin to experience a period of profound transformation. In fact, among the many changes we can remember: the birth of pay TV (1991) and the question of television rights; the reform of international club competitions (1992), the effects of the Bosman ruling (1995), the decree law (1999) that instituted the representation of technical components in Federal councils.

## **1.2. The evolution of the concept of football club over the years**

All the aforementioned events have allowed the football sector to develop exponentially from the early 2000s to the present day. In fact, as we will analyse in more detail during this research, the management of football clubs has taken on the typical characteristics of an entrepreneurial activity (Gravina, 2016).

For many years, up until 1995, football clubs had to contend with the obligation of the legal form of joint stock companies to which the recognition of the profit-making purpose typical of businesses did not apply. This obligation obviously limited the development of the sector in general and was inevitably reflected on the economic and financial level.

Only since 1996 (Law 18 November 1996 n. 586), with the acquisition of profit-making purposes, sports clubs have begun to think like real companies with the aim of growing in an environment made up of different players and different modes of regulation.

At this point, companies entered the view of creating value within a market, automatically triggering economic dynamics related to costs, revenues, and economic risk.

Although rarely achieved, the same objective of budgetary equilibrium can be considered present, because the various types of coverage implemented must fulfil specific criteria from a patrimonial, financial, and income point of view in order to avoid the club's exit from the system.

It is precisely in this perspective that the football clubs must be sustainable over time and independent of other economies for coverage or support.

Therefore, nowadays, these are real businesses that play the role of both producers of goods offered on the market (the matches), and of employers for those very special production factors that are the players (Gravina, 2016).

It is easy to understand therefore how in the course of the new millennium what was born as a simple passion (nothing more than a game), has turned into a true business made up of many companies capable of moving millions of euros at a national level and billions at a global level.

### **1.3. The governance and control bodies of Italian football**

In order to enter into the merits of the requirements that football clubs must respect in economic-financial terms, it is necessary to first define the governance system of the sector in question.

In fact, the organization of football in Italy depends on a set of actors, both individual and collective, operating at different levels.

At the top we can identify the C.O.N.I. (“Comitato Olimpico Nazionale Italiano”), a public body subject to the supervision of the ministry for cultural assets and activities, which has the burden of supervising various federations including the above mentioned F.I.G.C.

It is precisely this latter which holds the formal and substantial monopoly of the organization of football in Italy since the C.O.N.I. recognizes only one national federation for each sport.

Finally, at the base of this hierarchical scale we can identify the different leagues formed by the various sports clubs.

At this point, it is possible to understand how football clubs are supervised by the F.I.G.C. which has the task of exercising control through a specific set of regulations, the so called “Norme Organizzative Interne Federali”.

The “Norme Organizzative Interne Federali” (N.O.I.F.) are the normative body that governs the football clubs that compete in the tournaments. These have adequate justification in the general obligation of financial vigilance imposed by ordinary legislation to the federations in order to ensure the proper conduct of athletic competitions.

Among the various sections included in this legislation, the one regarding controls on the economic and financial management of professional companies is particularly relevant. In fact, it is precisely from here that it will be possible to understand which are the requirements that companies must meet in order to be sustainable, independent and continuous in business operations.

#### **1.3.1. The Internal organizational rules of the F.I.G.C. (“Norme Organizzative Interne Federali”)**

Before going into the merits of this specific section, it is necessary to take a brief step back by recalling the article 16 of the F.I.G.C. statute which states, in the first paragraph, that:

"for the sole purpose of guaranteeing the regular running of the Championships, professional football clubs are subject, in order to verify their financial equilibrium, to the controls and consequent measures established by the F.I.G.C., by delegation and according to the methods and principles approved by the C.O.N.I." (Bianchi & Corrado, 2005).

However, what is extremely important is the third paragraph of the article in question, which provides that for the tasks referred to the abstract just mentioned, the F.I.G.C. avails itself, according to the norms adopted by the Federal Council, of a special technical body.

The latter, known as "Commissione di Vigilanza sulle Società di Calcio" (Co.Vi.So.C.) is extensively regulated under the Title VI of the F.I.G.C.'s internal organizational rules (N.O.I.F.).

It is within this set of regulations that article 78 establishes that the Co.Vi.So.C., regulates its composition, sets up a support inspection structure and establishes professionalism and independence requirements for its members.

#### **1.3.1.1. The main aspects of the legislation**

Once the controlling body has been defined, it is necessary to focus on some of the most important articles of the accounting discipline of the professional football sector.

The article 80 of the N.O.I.F., which establishes that "the Co.Vi.So.C. is entrusted with the function of controlling the economic-financial balance of professional soccer clubs" (F.I.G.C., 2022), is undoubtedly the starting point from which it will be possible to understand how this body of legislation is capable of affecting the accounting of football clubs.

Furthermore, by continuing with the analysis of the articles it is possible to understand how the legislation directly affects the accounting system.

In this sense, the N.O.I.F. prescribe a wide range of information obligations, regulating in detail the content and form of the periodic communications that companies must send to the commission.

More specifically, the "control of financial balance" is carried out in two distinct ways:

- through the periodic examination of the economic-financial documentation required by civil law and federal regulations;
- through the examination of summary balance sheet ratios. (Bianchi & Corrado, 2005)

As far as the first aspect is concerned (Article 84 of the N.O.I.F.), the member companies of the professional leagues are obliged to present the financial statements drawn up in ordinary form, the six-monthly report, and the interim balance sheets.

In addition, the financial statements must be drafted on the basis of national and international accounting standards, where applicable.

It is also obvious that the rules of transparency and, more specifically, "clarity" imposed by Art. 2423 of the Italian Civil Code must be scrupulously complied when it comes to professional soccer clubs' accounting documentation.

As far as general reporting guidelines are concerned, article 84 of the NOIF can be defined as more than exhaustive, however, it is necessary to go into more detail about the obligations to which professional soccer clubs are subject.

#### **1.3.1.2. System of indicators for monitoring economic and financial equilibrium**

With article 85 of the N.O.I.F., we have the possibility to go into more detail regarding both the informative obligations of soccer clubs in terms of documentation and the economic-financial monitoring indicators. In fact, this article is structured in such a way as to offer an overview of the topics just mentioned with regard to the A, B and C championships.

For what regards the documentation, the article does no more than define the frequency and deadlines with which certain documents must be submitted during the year with reference to the financial statements, half-yearly report, interim balance sheets, budgets and other records for the purposes of proper operational management.

As far as the control of the economic-financial balance is concerned, a series of indicators have been defined, with slightly different characteristics depending on the league in question, which must be calculated and filed with the Co.Vi.So.C. and the previously mentioned documentation.

Therefore, among the indicators in question we can identify:

- The Liquidity ratio (required for all three leagues)
- The Debt ratio (required for all three leagues)
- The Expanded Labor Cost ratio (required for all three leagues)
- The Capitalization ratio (required for Series B and C championships)



Taking into consideration the first one, the **Liquidity ratio**, we can state that it is mainly used to determine a possible financial shortfall calculated through the ratio between current Assets and Liabilities (CA/CL).

The following aggregates, taken from the chart of accounts of the FIGC, are to be considered in order to determine the ratio Current Assets/Current Liabilities:

- Current Assets, for the purposes of the numerator of the ratio, include cash and cash equivalents and receivables due within 12 months and are made up of the following items: Cash and cash equivalents, Receivables due from clients, receivables due from subsidiary, associated and parent companies, tax credits, excluding those for prepaid taxes, receivables due from specific sector bodies and receivables due from others;
- Current liabilities, for the purposes of the denominator of the ratio, include payables falling due within 12 months and consist of the following items: Ordinary and convertible bonds, Payables due to shareholders for loans, excluding subordinated and non-interest bearing loans, Payables due to banks, Payables due to other lenders, Advances, Payables due to suppliers, Payables represented by credit instruments, Payables due to subsidiaries, associates and parent companies, Taxes payable, Payables due to social security institutions, Payables due to specific sector entities, Other payables and lease payments due within 12 months (F.I.G.C., 2022).

The liquidity ratio can be calculated on the basis of the results provided by the approved annual financial statements, the approved semi-annual report and the approved interim balance sheets.

The **Debt ratio**, as the word itself implies, has the objective of defining the level of indebtedness of the companies taken into consideration and is calculated through the division between debts (D) and revenues (R).

The following aggregates, taken from the chart of accounts of the F.I.G.C., are to be considered in order to determine the ratio D/R:

- Debts, for the purposes of the numerator of the ratio, include the following items: Ordinary and convertible bonds, amounts due to shareholders for loans, excluding subordinated and non-interest bearing loans, amounts due to banks, Amounts due to

other lenders, Advances, Amounts due to suppliers, Amounts represented by debt securities, Amounts due to subsidiaries, associates and parent companies, Taxes payable, Amounts due to social security institutions, Amounts due to specific sector entities, Other payables and lease payments (F.I.G.C., 2022). The amount of Current Assets (CA) must be subtracted from this aggregate;

- Revenues, for the purposes of the denominator of the ratio, include the following items: Revenues from sales and services, Operating grants, Sponsorship income, Advertising income, Commercial income and royalties, Income from the sale of television rights, Miscellaneous income, Income from the temporary sale of players' services, net of costs incurred for the same, Other income from players' management, net of costs incurred for the same, and Capital gains from the sale of players' registration rights net of related Capital losses (F.I.G.C., 2022).

The Debts can be calculated on the basis of the results provided by the approved annual financial statements, the approved semi-annual report and the approved interim balance sheets while the revenues come from their average values of the last three approved financial statements.

When the Debt ratio has a value lower than the set level-threshold, it is used as a corrective indicator to reduce the amount of money needed to cover the cost of the eventual financial shortfall predicted by the liquidity ratio.

The **Expanded Labour Cost ratio** can be calculated as the ratio of the Expanded Labor Cost (ELC) to revenue (R). It is used to calculate the amount of costs deriving from personnel (including those relating to players) with respect to the amount of revenues.

The following aggregates, taken from the chart of accounts of the F.I.G.C., are to be considered in order to determine the ratio ELC/R:

- The Expanded Labour Cost, for the purposes of the ratio numerator, includes personnel costs, including amortization of players' performance rights;
- Revenues, for the purposes of the denominator of the ratio, include the following items: Revenues from sales and services, Operating grants, Sponsorship income, Advertising income, Commercial income and royalties, Income from the sale of television rights, Miscellaneous income, Income from the temporary sale of players' services, net of costs incurred for the same, Other income from players' management, net of costs incurred

for the same, and Capital gains from the sale of players' registration rights net of related Capital losses (F.I.G.C., 2022).

The Expanded Labour Cost can be calculated on the basis of the results provided by the approved annual financial statements, the approved semi-annual report and the approved interim balance sheets while the revenues come from their average values of the last three approved financial statements.

When the Expanded Labour Cost ratio has a value lower than the set level-threshold, it is used as a corrective indicator to reduce the amount of money needed to cover the cost of the eventual financial shortfall predicted by the liquidity ratio.

If the value of both corrective indicators (Debt ratio and Expanded Labour Cost ratio) is less than the set level-threshold, the eventual financial shortfall will be reduced by 2/3. This reduction will apply to all newly promoted teams from Serie B to Serie A, as well as those that have competed in at least one Serie B tournament in the previous three seasons.

A fourth very important indicator required exclusively for football clubs participating in the championships of series B and series C is the **Capitalization ratio**.

The latter can be calculated as the ratio of Heritage to Assets. The following aggregates, taken from the chart of accounts of the F.I.G.C., are to be considered in order to determine the ratio H/A.

- The numerator of the ratio is equal to shareholders' equity increased by the value of non-interest-bearing and subordinated shareholder loans and less amounts due from shareholders for payments still due (F.I.G.C., 2022). The value of intangible fixed assets, other than players' registration rights and costs incurred for the renovation and extraordinary maintenance of facilities received under long-term concession from third parties, must be deducted from this aggregate;
- The denominator of the ratio is equal to the sum of the following items: fixed assets, excluding intangible assets other than players' registration rights and costs sustained for the restructuring and extraordinary maintenance of facilities acquired under long-term concession from third parties; current assets; accruals and deferrals (F.I.G.C., 2022). In the case of investments sustained for the construction, restructuring and extraordinary maintenance of facilities owned or leased from third parties, the related fixed assets are

considered net of the residual debt contracted to finance such investments (F.I.G.C., 2022).

The Capitalization ratio can be calculated on the basis of the results provided by the approved annual financial statements, the approved semi-annual report and the approved interim balance sheets.

#### **1.4. The financial statements and the accounting recommendations**

Reconnecting to what has been said in the previous chapters, the decision to adopt the form of entrepreneurial activity for football clubs was certainly dictated by a need for greater transparency and managerial clarity with regard to third parties.

In fact, it is undeniable that in this industry there are typical and very peculiar items that have inevitably required an effort of accounting regulation.

In addition, the peculiarity of the sector in question is also based on the possibility of encountering problems related to the incompatibility of certain rules present in the two different regulatory systems, that of football sector and that of traditional legislation.

Precisely in relation to this problem, the F.I.G.C. has intervened by introducing the so-called "Unified Chart of Accounts" with the aim of providing a reference for sports clubs in the preparation of their annual accounting schedules.

Over the years, typical items of the sector have been identified, and continually updated, with a corresponding position in the balance sheet or income statement.

The last updated version dates back to 2006, when further typical items were introduced, relating to the different treatment of financial income and expenses deriving from the sale of players.

The unified chart of accounts is structured in such a way as to present first the so-called "classes of accounts" for which, in correspondence of each of them, we can find a table of connection between the federal and civil law legislation schemes. Currently we can identify 9 of them and they are:

1. **Long-term sources of financing:** Shareholders' equity, provisions for risks and charges, severance indemnities, ordinary and convertible bonds, and debt related to equity investments;
2. **Fixed Assets:** tangible fixed assets, intangible fixed assets, financial fixed assets;

3. **Inventories:** opening inventories, closing inventories;
4. **Current receivables and payables:** receivables, receivables from group companies, tax credits, sundry receivables, other amounts receivable, trade payables, sundry payables, other amounts payable;
5. **Liquidity:** financial assets that do not constitute real estate, cash and cash equivalents;
6. **Cost accounts:** production costs, personnel costs, amortization and depreciation, other production and operating costs, interest and other financial charges, adjustments to the value of financial assets, extraordinary charges, transactions relating to taxable income;
7. **Revenue accounts:** value of production, income from equity investments, other financial income, adjustments to the value of financial assets, extraordinary income;
8. **Result accounts:** income statement, opening balance sheet, closing balance sheet.
9. **Memorandum accounts:** guarantees given to third parties, options for performance rights, lease payments, factoring with recourse (Gravina, 2016).

The FIGC, in addition to assisting sports clubs in the preparation of their financial statements, has further improved the work of accounting harmonization by issuing a series of accounting recommendations. The latter are recommendations of a technical-accounting nature, which refer to a series of typical items, aimed at facilitating the overcoming and resolution of a whole series of problems linked to the activity carried out. These items are:

players' registration rights, capitalization of nursery costs, co-participations ex. Art. 102-bis NOIF, temporary transfer of contract, receivables from soccer clubs, payables due to soccer clubs, shareholders' payments, revenues and income of football clubs, individual and collective bonuses ex art. 93 NOIF, reserve ex. Art. 10 paragraph 3 of Law no. 91/81 (Gravina, 2016).

The purpose of these recommendations, which are constantly reviewed and updated, is to describe the procedure to be followed for the correct accounting of typical items with reference to the income statement and balance sheet.

In this sense, they provide for the reconciliation of civil law provisions concerning financial statements and accounting practices, thus promoting not only a clear, true and correct representation, but also ensuring the comparability of data for federal control purposes.

## 1.5. The balance sheet

Many researchers' attention to themes such as income, working capital, and managerial operations indicates the importance of financial statements as an informational tool regarding a corporation operating in the market with all the risks that entails.

Such attention, with regard to the industry object of our analysis, is even more necessary given the complexity of the regulatory and accounting system with which we are familiar.

Over the years, the accounting framework of the football sector's financial statements has undergone various changes, mainly due to the liberalization of transfers of professional athletes (Bosman ruling<sup>1</sup>) and the development of modern broadcasting technologies (pay-tv and pay-per-view).

At the same time, the turnover of the companies began to increase exponentially, the economic value of the "player base", like that of the revenues from the sale of television rights, took on a not indifferent patrimonial weight.

Inevitably, these phenomena have had a direct impact on the accounting framework, increasing the importance of correct financial statement reporting necessary to understand the real operating dynamics of clubs.

For these reasons, football clubs have financial statements that contain some peculiarities that must be considered in relation to a triple order of factors: The recipients, the budget items, the system of controls.

Generally speaking, it is possible to affirm that the drawing up of a balance sheet of a football club does not differ from that of a commercial company, however, the elements of peculiarity are both the product (i.e. the football spectacle) and the factors of production (i.e. the players).

As a result, there are particular underlying relationships that must be adequately detailed in the budget system.

The presence of the latter has led the F.I.G.C. to prepare indications within a Chart of Accounts on which football clubs are obliged to draw up a balance sheet.

It should also be remembered that, within the general reference framework of the budget writers, there are the previously mentioned Accounting Recommendations whose application is mandatory.

These regulations and recommendations support federal agencies in their oversight activities by making them easier and more immediate.

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<sup>1</sup> Judgment C-415/95 of the Court of justice of the European Union.

However, going into the specifics of the regulations, it is important to underline how there is a well-defined perimeter relative to ordinary management (represented by the formation, preparation and management of soccer teams, the organization of tournaments, competitions and football events) beyond which it is possible to fall into extraordinary management.

For this reason, every extraordinary activity is treated, from an accounting point of view, both within the Profit and Loss Account and the Balance Sheet through the presence of some "typical items" whose interpretation and representation stem from precise indications coming from the Chart of Accounts and from the Federal Accounting Recommendations.

### **1.5.1. Typical Balance sheet items: Players' registration rights**

Regarding the balance sheet, we can identify 3 different types of typical items:

- Players' registration rights;
- Capitalization of nursery costs;
- Provisions for mutual purposes.

Players' registration rights is one of the main items on the balance sheet and can be considered the best representation of the peculiarity of this sector. In fact, it is based on the relationship established between the club and the professional athlete on the basis of Law no. 91 of 1981.

The latter was the measure by which a bond of employment was formed, between the aforementioned parties, through the stipulation of a signed and filed contract.

It is precisely through the modification of this contract, and the compilation of the appropriate forms prepared by the federal bodies, that the so-called "transfer" of the player can materialize.

This type of operation is of fundamental importance since it is the one that allows the development of the so-called "soccer market", that is, the transfer of players between the various clubs.

However, this mechanism of transferring players has raised quite a few doubts about the accounting nature of the same. In this regard, it is possible to affirm that the transfer of a football player is based on the transfer of the employment relationship, from the transferor

company to the transferee company, through the substitution of the original contract with the new one.

In this regard, the dispute lies in the fact that, in theory, the object of the negotiation between the clubs is not the employment contract, but an indemnity to be paid for the early termination of that relationship which, as a consequence, allows the transferee company to conclude a new contract with the player.

If the orientation just described had prevailed, these operations would have been placed under item B.I.7 "other intangible fixed assets".

On the other hand, however, it is true that Art. 5 of Law 91/81 expressly states that: "It is permitted to transfer the contract, before its expiry, from one sports club to another..." (Gazzetta Ufficiale), expressly referring to the transfer of a contract.

Precisely in this sense, the F.I.G.C. accounting recommendation established that: "The cost sustained for the acquisition of the right must be entered as a specific item in the assets of the Balance Sheet among intangible fixed assets, using the following denomination: B.I. 8 - Players' registration rights" (F.I.G.C., 2021).

These rights are therefore considered intangible fixed assets and, given their autonomous nature and their ability to be used on a long-term basis in the sports business cycle, they are obligatorily subject to systematic amortization of the cost in relation to the residual possibility of use (Gravina, 2016).

For instance, this amortization shall be performed on an ongoing basis from the time the membership became enforceable.

It is also important to underline how the valuation of players for the purposes of recognition in the financial statements is based on the figure resulting from the transfer contract, and not on the presumed future realizable value (given the presence of numerous variables relating to physical, psychological, technical factors etc.).

It is therefore possible to affirm that the treatment of this item is anything but ordinary and, for this reason, it is foreseen that every intervention in this area be exhaustively detailed in the explanatory notes.

Great attention must also be given to capital gains and losses deriving from the signing of contracts of sale and purchase.

This is because an incorrect or incomplete accounting could give clubs the opportunity for mitigation of operating losses by anticipating capital gains or deferring capital losses.

By way of example, considering this operation from the perspective of the transferring company, against the fee deriving from the transfer of a player, a capital gain or loss will be



found, comparing this fee with the value deriving from the historical cost net of the annual depreciation already made. If, on the other hand, the transfer concerns a player purchased in the past without any cost, there is a revenue to be entered as an "extraordinary contingent asset"; these items are relevant in the income statement (Gravina, 2016).

### **1.5.2. Typical balance sheet items: Capitalization of nursery costs**

Youth nurseries within football clubs represent a fundamental aspect from a strategic and economic point of view, especially for minor clubs.

The main reason lies in the fact that clubs are able to benefit both when a player remains within the club until he reaches the first team, and when he is sold to other clubs.

Particular attention should be paid to the costs related to the management of the nursery. This is because, on the one hand, they could be treated as normal operating costs propaedeutics to participation in the various category competitions but, on the other, they are very close to the kind of research & development costs.

In this sense, the entry into force of Legislative Decree 139/2015, has led to a revision of OIC 24 through the elimination of the balance sheet item relating to the cost of research.

For this reason, therefore, the definition of basic research cost has been adjusted to that contained in the international accounting standards, specifying that this cost is normally incurred at a time prior to that in which the product or process to be developed is clearly defined and identified, and it has also been clarified in the definition of development cost that this is the result of the application of basic research.

While it is established that basic research costs are recognized in the profit and loss account of the period in which they are incurred as period costs, development costs may only be capitalized if they have the following characteristics:

- They must be relatable in some way to a product or process, identifiable and measurable. Obviously, the company must be able to demonstrate this, and if there is any doubt arising from the generic nature of the cost it may not be capitalized;
- The project to which these costs relate must be technically feasible and, again, an estimation plan must be submitted that demonstrates its viability;
- Cost recoverability must be demonstrated by providing that project-related revenues are at least sufficient to cover the costs of the project study, development, production and sales (marketing of the product).

In the light of the changed regulatory framework and the indications in the new OIC 24 - and also taking into account the fact that experience has shown that the criteria of identifiability, measurability and punctual recoverability explicitly mentioned in the modified accounting standard are difficult to recognize in practice -, it is believed that the costs that soccer clubs sustain for the promotion and organization of the youth sector, generically defined as nursery costs, can no longer be capitalized (F.I.G.C., 2021).

For this reason, the costs of the nursery must be recognized in the income statement under "Production costs", going beyond all previous interpretative indications.

### **1.5.3. Typical balance sheet items: Provision for mutual purposes**

These provisions are based on the Article 4 of Law 586 of November 18, 1996, according to which: "The constitutive act must provide that a share of profits, not less than 10 percent, is allocated to youth schools of technical-sports training and education" (Normattiva, 1996).

Such sums are then transferred to the specific reserve under liabilities in item B.3 (Allowances for risks and charges - other) of the balance sheet.

### **1.5.4. Typical income statement items**

Once the balance sheet has been analysed, it is important to focus on the typical items of the profit and loss account:

- Revenues from the sale of television rights;
- Losses/gains from disposal of players' registration rights;
- Amortization of players' registration rights;
- Temporary disposals (Gravina, 2016).

Over the years, these components of the income statement have been less problematic than those deriving from the balance sheet in terms of accounting representation.

However, it must be stressed that these items have undergone modifications due to the evolution of the football industry.

Television rights, for example, have been subject to strong growth in a short period, and this phenomenon has also been reflected in other elements such as sponsorships, competitiveness and the running of competitions.

#### **1.5.4.1. Revenues from the sale of television rights**

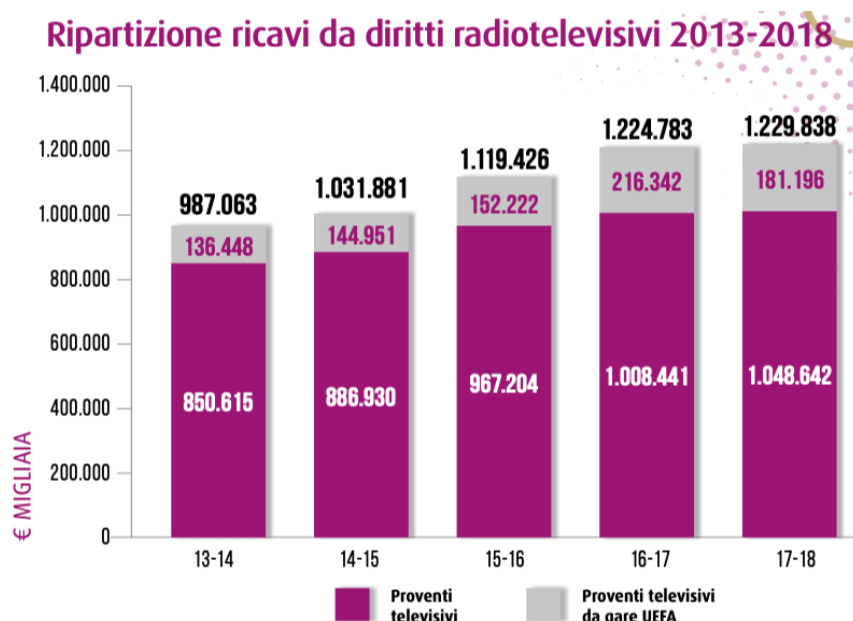
Starting in the 90s, the spread of new broadcasting technologies has allowed more and more people to interface with sports events, and this has generated a major transformation in the revenue picture of football clubs.

As an example, it is important to underline that in the three-year period 1990-1993, Rai offered 108 billion lire per season for free-to-air rights to the Serie A championship, while for the 1995-1996 season alone, the rights were sold for 200 billion lire (Gravina, 2016).

However, Television rights represent the main source of income for soccer clubs and are entered in the Income Statement under item A.5 Other revenues and income (Grasso, 2013).

The rights are negotiated by the Leagues on a collective basis and are distributed as follows:

- 1) 40% of the proceeds shall be distributed equally to all clubs participating in the competition;
- 2) 30% on the basis of sporting results, of which:
  - a) 10% for results achieved from 1946 to the present;
  - b) 15% for the last 5 years and;
  - c) 5% for the last season;
- 3) 30% according to the "popularity of the club" established for 5% on the basis of the population living in the municipality of reference of the club and for 25% on the basis of the "catchment area" (Grasso, 2013)



*Serie A ricavi operativi: il profilo economico e finanziario del calcio professionistico, 2013-2018.<sup>2</sup>*

#### 1.5.4.2. Losses/gains from disposal of players' registration rights

They represent the reflection in the income statement of the transactions recorded in the balance sheet (under item B.I.8 - multi-year players' registration rights) (Gravina, 2016).

Every time a club sells a player, it must compare the amount received with the historical cost of the player, net of depreciation.

As previously explained, if this difference were negative/positive, there would be a capital loss/gain to be charged to the income statement.

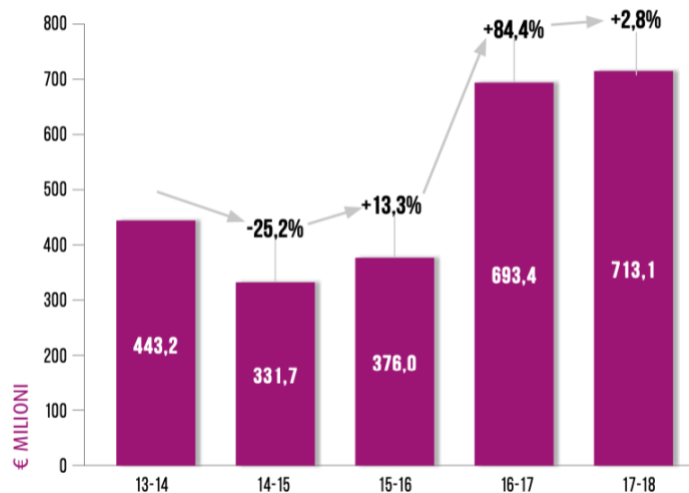
A particular case is when the player has been purchased in the past for a consideration equal to 0 because he is unemployed, or his contract is expiring.

In fact, in this case the company, once the sale has taken place, in addition to recording a receivable, records proceeds equal to the amount received from the sale indicated as a contingent asset.

<sup>2</sup> Pwc, *Report Calcio 2019*.



**Ricavi da plusvalenze 2013-2018**



*Serie A Ricavi da plusvalenze: Il profilo economico e finanziario del calcio professionistico.<sup>3</sup>*

#### 1.5.4.3. Amortization of players' registration rights

Amortization represents the share pertaining to the period of the cost incurred for the purchase of players' registration rights (Grasso, 2013).

In this sense, article 2426, n. 2 of the Italian Civil Code states that: "the cost of tangible and intangible fixed assets, the use of which is limited in time, must be systematically amortized in each financial year in relation to their residual possibility of use" (Gazzetta Ufficiale), making no reference to any criterion of constant quotas.

However, In the F.I.G.C. recommendations, it is stated that: "The recommended criteria for the amortization of players' registration rights is the division of the cost of the right [...] in constant quotas for the entire duration of the contract that links the player to the club" (F.I.G.C., 2021).

Again, within the accounting recommendations, decreasing balance depreciation is permitted only if this procedure is more consistent with the principle of prudence nonetheless, the only permissible forms of depreciation are those just mentioned.

In the case in which a player renews his contract before its eventual expiration, the original amortization plan will have to be changed in relation to the net book value and the new duration of the same.

<sup>3</sup> Pwc, *Report Calcio 2019*.

#### **1.5.4.4. Temporary disposals**

Provided for by article 103 N.O.I.F., they consist in the possibility to grant the right to the services of a football player to a third club.

It is also provided for by the rule in question that the ceding club is allowed the option right to transform the temporary transfer of the contract into a definitive transfer, provided that:

1. such option right results in the temporary transfer agreement, of which the agreed consideration must be indicated;
2. the expiry date of the transferred contract is not prior to the end of the first season following the one in which the option right can be exercised;
3. the club selling the player with option rights stipulates a contract with the player whose expiry date is not prior to the end of the first season following the one in which the option right may be exercised (F.I.G.C., 2022).

As far as accounting is concerned, the transferee company has to record a cost under item B.8 - Expenses for use of third-party assets, while the ceding company records a revenue under A.5.a - Other revenues and proceeds - revenues from temporary transfer of players.

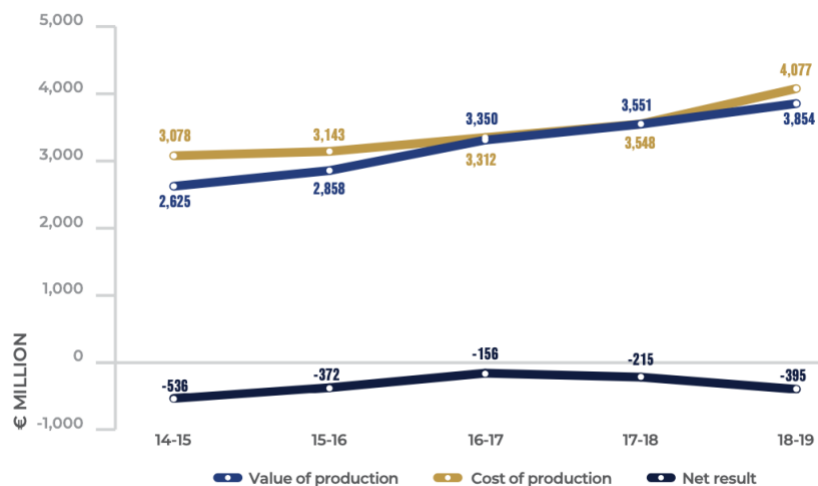
### **1.6. The economic and financial profile of professional football in Italy in the period 2014 - 2019**

To understand the importance of the topic at hand, it is necessary to frame the industry from an economic perspective as well.

For instance, it will be necessary to focus on the data found through the 2018/2019 year thus avoiding the negative impact of the Covid-19 pandemic given the extraordinary nature of the event.

FIGC's registered members in 2018-2019 amounted to almost 1.4 million, of which 78% are football players (almost 1.1 million), 18% (237,338) by club officials and the remaining 4% by referees (31,534) and technical staff (31,031) (Pwc, 2019). From the mentioned numbers, we can deduce that football is the main Italian movement compared to the other 44 federations affiliated with CONI since, in terms of volume, it alone represents 22% of the total number of recognized sports.

From an economic-financial point of view, the football movement continues to grow in terms of both revenues and costs. In fact, Overall revenues from professional football continued to rise in the 2018-2019 season, with the value of production of the 3 professional championships exceeding € 3.8 billion, growing by 8.5% compared to the previous year (Pwc, 2019).



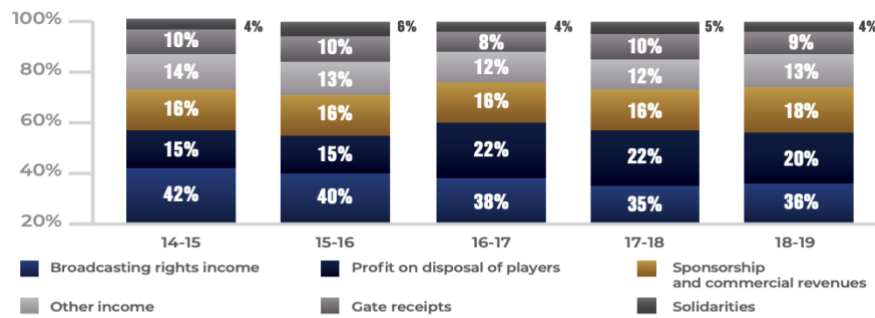
*Value, cost of production and net result 2014-2019.<sup>4</sup>*

Although revenues are constantly increasing thanks to the growth of individual items such as income from television rights, from the sale of players or from the exceptional performance of sponsorships, costs are moving in the same direction.

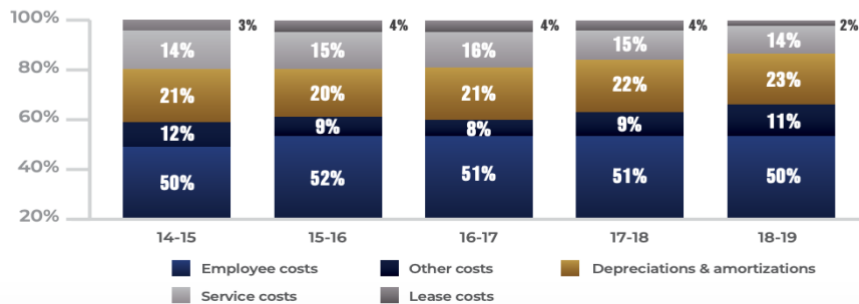
In particular, there has been a rise in the items relative to employee costs (mainly for the recruitment of players) and to amortization (above all for the costs linked to players' transfer market), increasing investments mainly because of the desire of clubs to consolidate their competitiveness (Pwc, 2019).

<sup>4</sup> Report Calcio 2020, Arel & Pwc.

### Breakdown of sources of income 2014-2019



### Breakdown of costs 2014-2019



*Breakdown of sources of income/costs in the period 2014-2019.<sup>5</sup>*

These changes contributed to a net loss of 395 million euros (equivalent to a decrease of 83.9% compared with the previous year) and, analysing the entire period, it is clear that the sector is reporting constantly negative results.

These negative net results, coupled with the steady growth in debt faced by clubs each year, are part of the key elements needed to understand why a not insignificant amount of football clubs fail given that: "the professional soccer leagues in the last 15 years have counted over 150 companies disappear into thin air" (Politanò, 2018).

<sup>5</sup> Report Calcio 2020, Arel & Pwc.



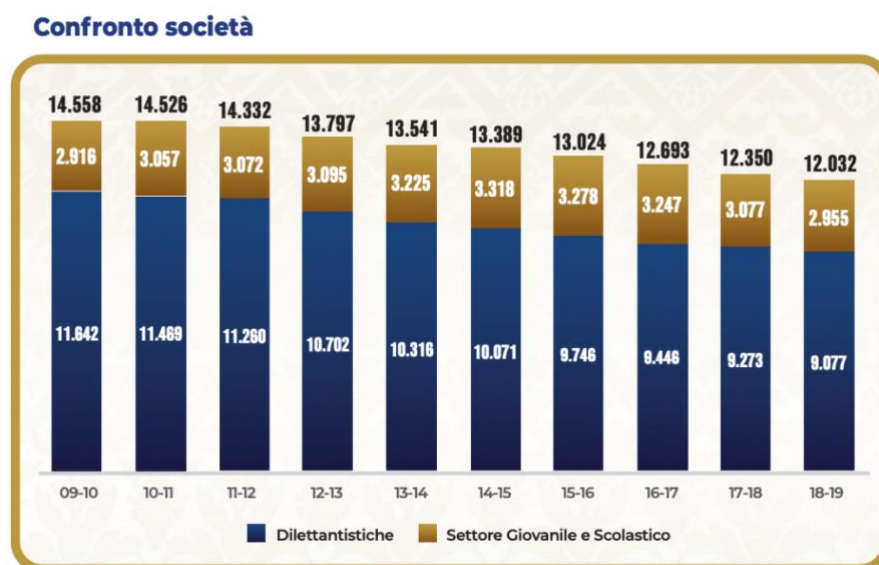
## CHAPTER 2: EMPIRICAL ANALYSIS - WHY DO MANY FOOTBALL CLUBS FAIL?

### 2.1. Introduction to the research

Once all the main characteristics of the industry were then highlighted, an empirical study was conducted with the aim of analyzing a sample of teams that participated in at least one professional/amateur league during the period 2008 – 2018.

The reason for considering this period is based on avoiding analyzing data affected by the Covid-19 pandemic that caused a spread of the virus in late 2019.

As mentioned at the end of the previous chapter, this study is grounded in the constant number of bankruptcies found within the football industry. In fact, as we can see from the graph, over the decade under consideration, the total number of active teams gradually decreased over the period.



*2020 Report Calcio 10 anni: Il calcio dilettantistico e giovanile<sup>6</sup>*

Over the course of 10 years, excluding professional clubs for the moment, a massive decline in numbers can be seen as we go from 14,558 in 2009-2010 to 12,032 in 2018-2019.

<sup>6</sup> FIGC, Report Calcio – Edizione Speciale 10 anni.

Thus, over this period there has been a decrease in the number of teams equal to 18 percent.

This phenomenon also reveals that the most significant decreases are found in the southern area/islands of Italy.

Taking into consideration the same source of data, however, it is possible to say that a decline was also found in professional clubs over the decade.

In fact, as we can see from the image below, a decrease in the number of professional clubs equal to 28% was found and, therefore, it cannot be unnoticed that of the 3 categories it is by far the one most in crisis.

	2009-2010	2018-2019	VARIAZIONE %
<b>SOCIETÀ</b>	<b>14.690</b>	<b>12.127</b>	<b>-17,4%</b>
Professionistiche	132	95	-28,0%
Dilettantistiche	11.642	9.077	-22,0%
Settore Giovanile e Scolastico	2.916	2.955	+1,3%

*2020 Report Calcio 10 anni: Il censimento del calcio italiano<sup>7</sup>*

With all this data taken into account it is therefore inevitable to ask what are the reasons why these companies fail and whether there are common elements behind.

For this aim, it was decided to select a sample of teams that could represent the sector as much as possible to understand its economic-financial dynamics.

## 2.2. The reclassification method

Before analysing the extrapolated sample, it is necessary to dwell on the method adopted in the reclassification of financial statements by the companies considered.

In fact, in this sense especially with regard to the balance sheet it was decided to start from the original data divided into Current Assets and Current Liabilities and then arrive at a scheme whereby the items are divided according to their operational or financial nature.

This reformulation was essential in order to be able to identify, on the one hand, the company's short- and long-term operational management (Net Working Capital and Net Fixed Assets) and, on the other hand, everything related to short- and long-term financial management (Net Financial Position Long/Short Term and Shareholders' Equity).

<sup>7</sup> FIGC, Report Calcio – Edizione Speciale 10 anni.

Since all teams were characterized by the exact same items, it was therefore possible to apply a reformulation that was the same for all teams considered.

For instance, the simplified reclassification scheme of the balance sheet is shown in the following representation.

Simplified reclassification scheme			
NET WORKING CAPITAL		NET FINANCIAL POSITION SHORT-TERM	
Total Receivables due from shareholders	NWC	Total Financial Fixed (Short Term portion)	NFO(SI)
Total Inventories (Raw Materials, Finished products, Advances etc.)	NWC	Total Financial Receivables within 12 months	NFO(SI)
Receivables Due within 12 months	NWC	Total Liquid Funds	NFO(SI)
Total Accrued Income and Prepaid Expenses	NWC	Due to Banks, Shareholders, Bonds, Convertible Bonds (Short Term)	NFO(SI)
Provision for risk and Charges	NWC	Other lenders, Negotiable Instruments, Parent companies (Short Term)	NFO(SI)
Severance Indemnity Reserve	NWC		
Total Payables during Period	NWC		
NET FIXED ASSETS		NET FINANCIAL POSITION LONG-TERM	
Total Intangible Fixed Assets	NEA	Total Financial Fixed	NFO(LI)
Total Tangible Fixed Assets	NEA	Total Financial Receivables after 12 months	NFO(LI)
Receivables Due beyond 12 months	NEA	Due to Banks, Shareholders, Bonds, Convertible Bonds (Long Term)	NFO(LI)
Total Payables after period	NEA	Other lenders, Negotiable Instruments, Parent companies, Subsidiary (Long Term)	NFO(LI)
		EQUITY	
		Total Equity Investments	Equity
		Investments in Parent, Subsidiary, Others	Equity
		Own share, Other Securities	Equity
		Total Shareholders Funds (Capital Stock, Other Reserves, Retained Earnings, P&L of the year)	Equity

*Balance sheet reclassification scheme*

The reason why it was decided to use this type of differentiation between the items lies in the fact that it is the most functional for calculating the most important ratios.

In fact, in order to get to the bottom of why some companies are in crisis while others are not, it is necessary to calculate certain indexes that give us information related to, for example, the state of indebtedness, the ability to finance itself in the short and long term but not only.

Obviously, the discussion made for the balance sheet can be applied to the income statement. In fact, even in this sense it has proved necessary to have to apply a more simplified reclassification scheme so that we could extrapolate data for research that is more functional to us.

Simplified reclassification scheme
Revenues from sales and services
Changes in inventories
Changes in contract work in progress
Additions to fixed assets
Other revenue
<b>Revenues (A)</b>
Raw, consum. mat. and goods for resale
Services
Use of third parties assets
<b>COGS (B)</b>
<b>GROSS PROFIT (A - B)</b>
Wages and salaries
Social security charges
Severance indemnities
Pensions and similar obligations
Other costs
<b>SG&amp;A (C)</b>
Change in inventory of raw and consumable materials
Provisions for risks and charges
Other provisions
Other operating expenses
<b>Total Other Operating (D)</b>
<b>EBITDA (GROSS PROFIT - C - D)</b>
<b>EBITDA Margin (EBITDA/A)</b>
Amort. of intangible fixed assets
Depr. of tangible fixed assets
Writedown of fixed assets
Writedown of receivables
Total Amortizations
<b>TOTAL EXTRAORDINARY REVENUES AND CHARGES</b>
<b>Amortizations and Depreciations (E)</b>
<b>EBIT (EBITDA - E)</b>
<b>TOTAL FINANCIAL INCOME AND CHARGES</b>
<b>TOTAL FINANCIAL ASSETS ADJUSTMENTS</b>
<b>Total Interest Expenses (F)</b>
<b>EBT (EBIT - F)</b>
<b>Total current, deferred and prepaid income taxes (G)</b>
<b>Profit/Loss (EBT - G)</b>

*Income Statement reclassification scheme*

### 2.3. The sample of teams considered

In defining the sample, it was decided to identify two groups of teams, one containing failed teams and one containing non-failed (active) teams.

Obviously, as explained earlier all the data that were considered fall within the period that goes from 2008 to 2018 and regards 84 Italian teams equally distributed between the two groups. For a proper and clear explanation of the research approach used, it is necessary to

dwell on one group at a time and then go on to point out any similarities and differences that may result from the study.

### 2.3.1. The Failed teams

In the process of selecting failed teams, it was possible to take a top-down approach by starting with a very large sample of failed teams, and then, constantly skimming.

Product name	Aida			
Update number	302			
Software version	104.00			
Data update	20/04/2022 (n° 30204)			
Username	Giords99			
Export date	27/04/2022			
Cut off date	31/03			
			Step result	Search result
1. Legal status: Inactive companies			806.966	806.966
2. Region, province, commune: 01 - Piemonte, 02 - Valle d'Aosta/Vallée d'Aoste, 03 - Lombardia, 04 - Trentino-Alto Adige/Südtirol, 05 - Veneto, 06 - Friuli-Venezia Giulia, 07 - Liguria, 08 - Emilia-Romagna, 09 - Toscana, 10 - Umbria, 11 - Marche, 12 - Lazio, 13 - Abruzzo, 14 - Molise, 15 - Campania, 16 - Puglia, 17 - Basilicata, 18 - Calabria, 19 - Sicilia, 20 - Sardegna			2.297.264	805.132
3. NACE Rev. 2: 931 - Sports activities, 9312 - Activities of sport clubs			19.841	6.104
Boolean search : 1 And 2 And 3				
			TOTAL	6.104

*The search strategy – Failed companies<sup>8</sup>*

In fact, as also reported in the image, an initial selection took place through the introduction of several recruitments related to teams, including:

- inactive company status;
- membership in one of the 20 regions that constitute the Italian state;
- the corporate purpose characterized, in the first instance, by any sporting activity.

Considering bankrupt teams, it was necessary to go to the latest balance sheet data of those clubs for which bankruptcy had occurred within a maximum of two years.

It is important to reiterate that even though all of these teams went bankrupt within a short period of time, some of them were still able to register for subsequent championships because, although on the limit, they still possessed the economic-financial requirements to be

<sup>8</sup> Aida, Search strategy.

able to participate in their league. This does not detract from the fact that during their last championship they were able to worsen a situation that was already extremely borderline.

The combination of the above-mentioned criteria was necessary to make an initial skimming of teams by reducing a sample consisting initially of 1.1 million activities to one consisting of 6.104 teams.

Once this initial selection was made, it was then necessary to identify the period of interest by going to extrapolate only those activities that ceased in the 10 years before covid, i.e., falling within the period 2008 – 2018.

Once the time frame was also considered, all those activities that fell within the soccer sector were hand-selected, and as a result, a sample, shown below, consisting of 42 professional and amateur football clubs, came out.

Company name		
TREVISO FOOTBALL CLUB 1993 S.R.L. - IN SIGLA F.B.C. IN LIQUIDAZIONE	A.S. MARTINA FRANCA 1947 S.R.L. IN LIQUIDAZIONE	MANTOVA FOOTBALL CLUB S.R.L.
PARMA FOOTBALL CLUB SPA OPPURE IN FORMA ABBREVIATA	UNIONE SPORTIVA AVELLINO S.P.A., IN LIQUIDAZIONE	S.S. CAVESE 1919 - S.R.L.
CALCIO CATANIA SERVIZI S.R.L. IN LIQUIDAZIONE	ASSOCIAZIONE SPORTIVA BARI S.P.A.	UNIONE SPORTIVA AREZZO S.R.L.
PISA CALCIO S.R.L. - IN LIQUIDAZIONE	MODENA FOOTBALL CLUB - S.R.L.	RAVENNA CALCIO S.R.L.
FOOTBALL CLUB BARI 1908 S.P.A. IN LIQUIDAZIONE	UNIONE SPORTIVA TRIESTINA CALCIO S.P.A.	ASSOCIAZIONE CALCIO RIUNITE MESSINA S.R.L. IN LIQUIDAZIONE
A.S. LUCCHESI LIBERTAS 1905 S.R.L.	A.C.SIENA - SOCIETA' A RESPONSABILITA' LIMITATA	SANSEPOLCRO CALCIO SRL - SOCIETA' SPORTIVA
A.C. DILETTANTISTICA PISTOIESE S.R.L. IN	ASSOCIAZIONE CALCIO REGGIANA 1919 S.P.A. IN SIGLA	PIACENZA FOOT-BALL CLUB S.P.A.
UNIONE SPORTIVA PERGOCREMA 1932 - S.R.L.	U.S. LATINA CALCIO S.R.L.	A.S. LUCCHESI LIBERTAS 1905 S.R.L.
A.C. CESENA S.P.A.	A.C. SANGIUSTESE SRL	S.S. MACERATESE S.R.L.
A.C. MONTICHIARI S.P.A.	ASCOLI CALCIO 1898 - S.P.A.	ASSOCIAZIONE CALCIO PAVIA S.R.L. O ANCHE SOLO A.C. PAVIA
UNIONE SPORTIVA FOGGIA S.P.A.	REGGINA CALCIO - S.P.A. -	SPAL 1907 S.P.A. IN LIQUIDAZIONE
SALERNITANA CALCIO 1919 - S.P.A.	COSENZA CALCIO 1914 S.R.L.	ASSOCIAZIONE SPORTIVA VARESE 1910 S.P.A.
ASSOCIAZIONE SPORTIVA TARANTO CALCIO S.R.L. - IN LIQUIDAZIONE	MATERA CALCIO S.R.L.	S.S. BARLETTA CALCIO S.R.L. (SOCIETA' SPORTIVA BARLETTA CALCIO .R.L.)
FOLIGNO CALCIO A.S.D. S.R.L. OVVERO FOLIGNO CALCIO ASSOCIAZIONE SPORTIVA	F.C. CATANZARO S.P.A.	ASSOCIAZIONE SPORTIVA CASALE CALCIO S.R.L.

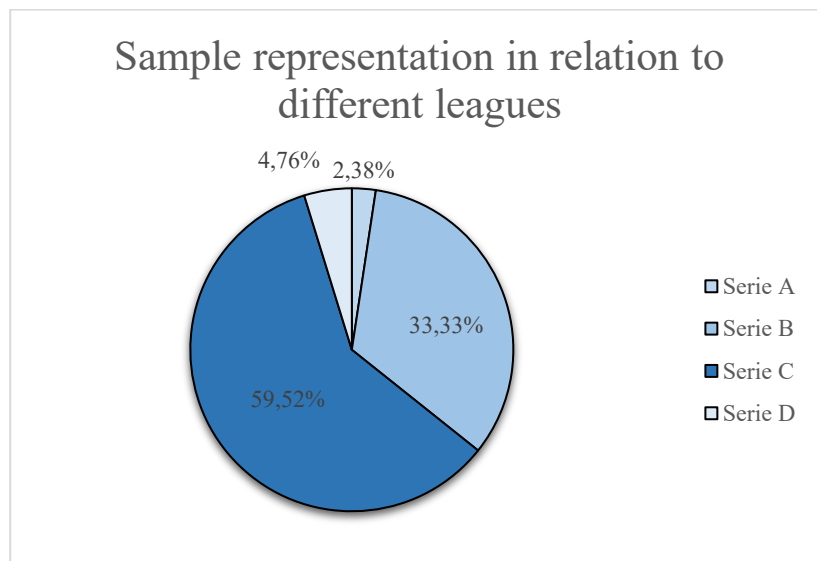
#### *The failed teams*

Once the sample of failed teams has been selected it is important to highlight a number of elements that characterize it.

In particular, it is possible to note that the majority of those selected teams come from the B and C leagues.

This is a direct consequence of the fact that the analysis carried out wants to focus on those realities that most represent the football sector in Italy. In fact, the goal is precisely to avoid focusing on the big clubs that are undoubtedly more famous but do not reflect the real performance of the sector.

For this reason, as we can see from the graph below almost all of the sample (92,85%) are from teams that participated in B and C leagues in the year prior to their bankruptcy.



*Distribution chart of football failed teams in their respective leagues*

Of course, it is necessary to mention the fact that, although in a small percentage, a part of the failed teams came from both the top professional league (Serie A) and from inferior leagues like Serie B, C, D or amateur leagues.

It is important to emphasize that for the latter, the sample was also conditioned by the lack of information about the clubs.

Another distinguishing element concerns the geographical distribution of the sample. In fact, what emerges from the sampling is that most of the failed teams come from Northern and Southern Italy, where there are 30 equally divided between the two. By contrast, central Italy is less affected with 12 failed teams in the 10 years before Covid-19.

As it has already been repeated many times, the analysis in question, wanting to focus on what are the principal reasons why soccer clubs find themselves in situations of economic distress, requires first of all the analysis of the official indicators that are imposed by the F.I.G.C.

These have already been analyzed in the previous chapter and, thanks to the research carried out, it will be possible to see their application in terms of the results obtained.

The financial evaluation of the companies was based first on the calculation of the ratios that the teams themselves must report in the official documents because they are required by the legislative bodies and explicitly provided for within the N.O.I.F.

These ratios have already been analyzed from a structural point of view with the list of items that make them up as reported within the regulations, however, it is now necessary to understand why these ratios are used.

### **2.3.1.1. The Liquidity Ratio**

The first indicator calculated is the liquidity ratio, which, as explained earlier, is calculated by dividing the amount of current assets by current liabilities (CA/CL).

In essence, then, it is an index that shows when a club is able to meet its short-term financial commitments (Spaziante, 2021).

It is considered to be one of the most important indexes since, in case the threshold for the reference year is not met, "the Co.Vi.So.C. orders the non-admission to operations for the acquisition of the right to the performance of players for the summer session and the winter session, respectively" (Spaziante, 2021).

However, this measure may not prove to be definitive because there is the possibility for shareholders to intervene, putting their hands in their wallets, so as to restore the indicator to the consistent value.

In this sense, the 42 teams considered within the sample are characterized by an average liquidity ratio (CA/CL) of 66,73%.

This indicator makes us realize, however, that the so-called inactive or bankrupt teams had a limited ability to finance themselves in the short term. Among the main components of this indicator, as far as the numerator is concerned, we can consider the "Receivable due within 12 months", which on average characterizes 90,62% of the current assets of all clubs. Looking more specifically at this aggregate, it is possible to see that the main items are "due from others" and "trade accounts" since, on average, they constitute respectively 39% and 54% of the total invoice "Receivables within 12 months".

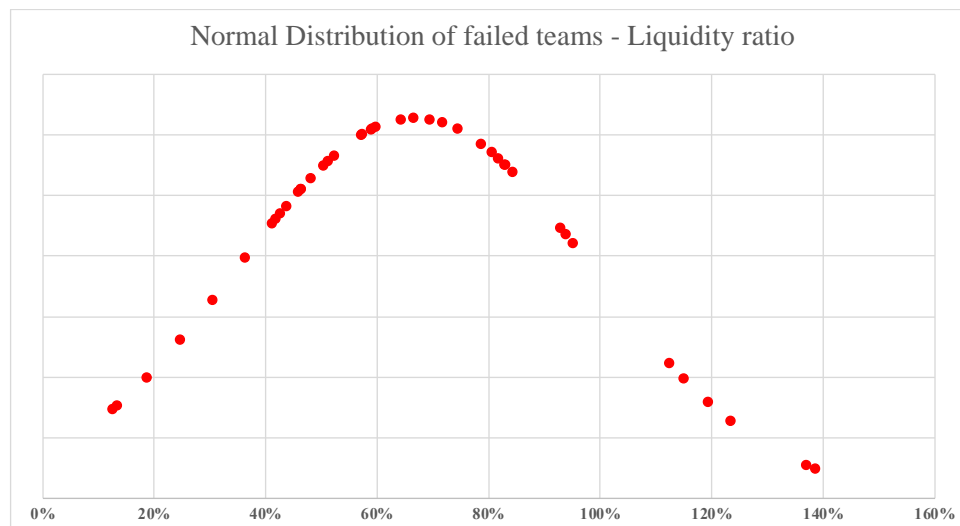
Obviously, such receivables and (and as a consequence, also payables) arise mainly from the transfer of players' rights to other domestic and foreign football clubs, or, from receipts



related to matches played away from home, which mainly concern ticket sales and television rights, if any.

As far as liabilities are concerned, the composition is similar, since the main item concerns liabilities payable within 12 months, which constitute on average about 96% of total current liabilities. The difference can be found in the composition of the latter since, in addition to the items related to players' services and expenses of the hosted teams, there are tax payables, other payables, due to suppliers and due to banks, which are respectively 18%, 24%, 26% and 8% of the total payables within 12 months.

What can be deduced from the above analysis is therefore that the gap between current assets and current liabilities is mainly explained by tax debts, trade payables and to a lesser extent by loans to banks. It is therefore possible to state that among the main elements that lead to a lower liquidity ratio of bankrupt teams, we can find tax debts, debts to suppliers and loans to banks.



*Normal distribution graph of liquidity ratio*

Liquidity Ratio	< 60%	60% - 70%	> 70%
N° Teams	22	4	16

*Normal distribution table of liquidity ratio (Table 1)*

It is fair to note, however, that since the entire analysis is based on an extrapolated sample, the distribution of the sample itself is not perfectly skewed from the mean.

For this reason, it is necessary to point out that more than half of the analyzed teams (22) have a liquidity ratio lower than 60%.

This stands to signify that in reality, the ability of the teams to self-finance in the short term is lower than that described by the average.

### **2.3.1.2. The Debt Ratio**

This is undoubtedly one of the most important indices to refer to for the analysis in question.

As already mentioned in the previous chapter, this ratio is nothing more than a representation of the company's debt situation in relation to its income.

In this case, the difference between the level of current liabilities and current assets in the balance sheets is even more striking.

In fact, in order to obtain the numerator of the ratio, it was necessary to subtract the amount of short- and long-term liabilities (Bonds, Banks, shareholders, subsidiaries, parent, associates' companies and others) from the current assets (consisting mainly of trade accounts and due from others).

With regard to these two components, averaging them, it turns out that the teams have liabilities of 19.690.000€ against current assets of only 7.302.000€.

It is fair to mention that within the liabilities are included the short- and long-term items but, at the same time, the amount of the latter is only 2.943.000€ (less than 20% of the total Debts).

Turning our attention to the denominator, we derive that the average turnover of failed teams is approximately 8.572.000€. This amount can be justified by revenues from sales and services (home match tickets, season tickets and shop) and other revenues (where TV rights and sponsoring mainly flow in).

It is precisely the latter that make up the bulk of the turnover, since on average, bankrupt teams have other revenues of 7.077.000€. If we now consider the two elements of the debt ratio (Debts/Revenues), we obtain an average value of 80% for bankrupt teams.

From this, it can therefore be deduced that on average, all the teams considered have a very high level of debt, which can be explained mainly by two key elements, which are:

- The amount of liabilities, especially short-term liabilities
- The low turnover

With regard to the first point, it is evident that excessive liabilities cause the numerator to increase significantly, thereby raising the index itself.

Going into more detail and repeating what we have also said for the liquidity ratio, the items that mainly negatively impact the numerator are tax payables, other payables, due to suppliers and due to banks.

Identifying them on a practical level, we can generally relate the suppliers to all expenses for materials, equipment and shops. As far as other payables are concerned, they can be traced back to, for example, debts to the F.I.G.C. or players' medical expenses.

What emerges, however, is that this business requires multiple types of expenses, starting with everything concerning the players (purchases, salaries, transfers, technical equipment) and ending with tax expenses and financing required from banks.

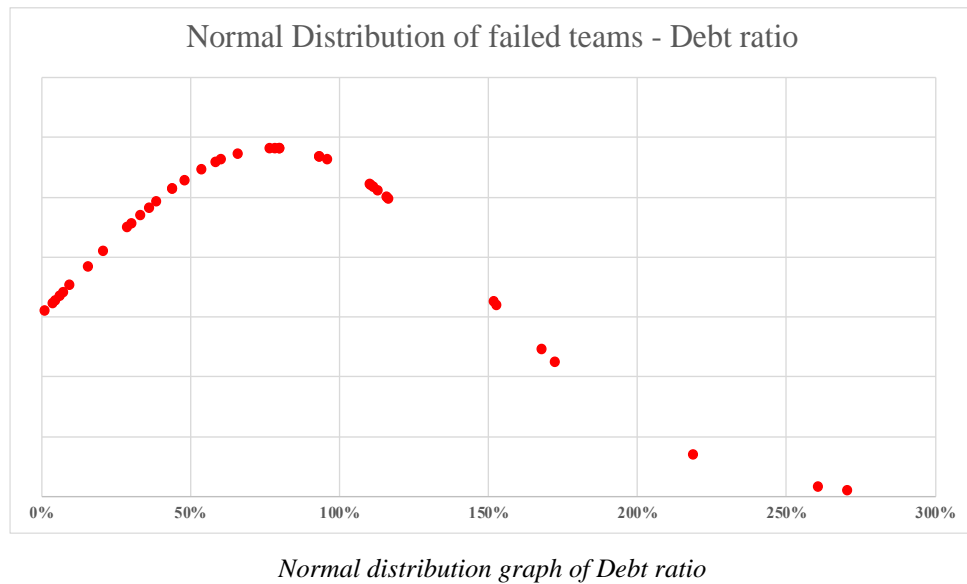
The common feature of all of them, however, is that they are all expenses with a realization period of less than 12 months, requiring a significant self-financing capacity in the short term, which does not seem to be there.

Regarding the second point, on the other hand, it is important to focus on the fact that the teams' turnover is mainly characterized by sponsorships and television rights, which make up 80% of it, and 12% attributable to stadium revenues and merchandising.

We have to consider that within the sample we mainly consider B and C series teams, so it is true that, especially for the former, the majority of revenues must come from television rights, but at the same time, it is also true that this difference is not entirely normal.

On average, the turnovers of the teams in the sample are too low to cover all the costs listed above and this is also attributable to excessively low point-of-sale revenues (such as stadium, stores, etc.).

However, this deficiency can be traced back to national-level issues since on several occasions, major figures in the football industry and beyond have reiterated the backwardness of Italian football. In this regard, precisely the former president of F.I.G.C. specified in an excerpt how: "the average age of stadiums in professional soccer is about 60 years, and in the 2013-14 season the average filling of facilities ranged from 58 percent in Serie A (which corresponds to lost revenues of more than 200 million euros) to about 20 percent in Lega Pro" (Tavecchio, 2014).



Focusing instead on the graph of the normal distribution of the Debt Ratio, most companies have a level of debt that falls within the range that goes from 40% to 110%.

It is therefore possible to state how this distribution does not deviate much from the representation of the sample mean that has been calculated.

However, it is interesting to note that the items that do not fall within the above range, especially those on the right side of the graph, deviate greatly from the sample average. This indicates that for that part of the sample the situation in terms of debt is excessively compromised.

### 2.3.1.3. The Expanded Labor Cost Ratio

The Expanded Labor Cost Ratio is the index that basically aims to show how significant the cost of players, and more generally of all personnel, is in relation to the company's revenues.

The study carried out in relation to the above-mentioned index shows that on average, that the teams belonging to this group have an indicator of 77,06%.

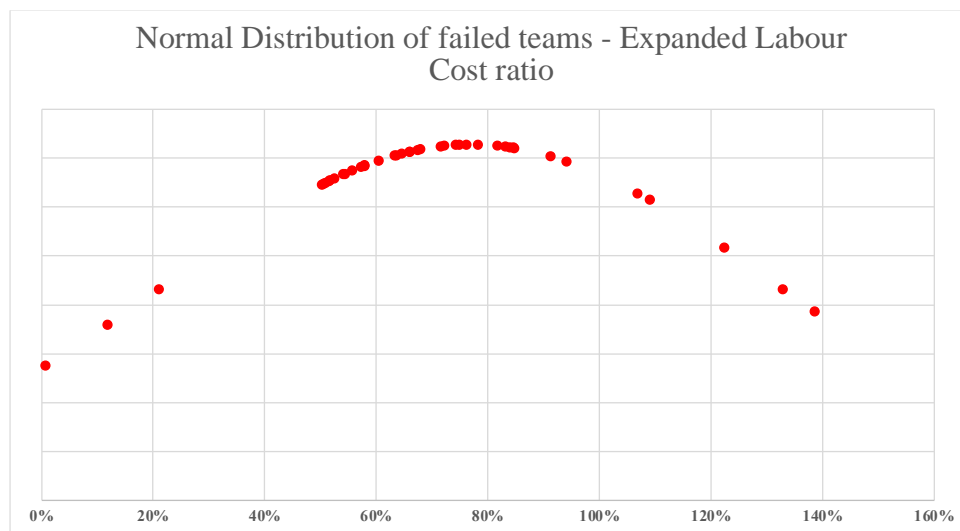
The latter actually makes us realize how the personnel costs added to depreciation, in this type of industry, need special attention. In fact, it is possible to state that the average extrapolated from the sample of failed teams is very high.

Suffice to say, the maximum permissible limit according to the 2019/2020 national licensing manual for the B and C leagues stipulated that this ratio could not exceed 0,8.

Of course, it has to be considered that this threshold is annual while, on the other hand, the research conducted is based on budgets spread over a ten-year period. However, it is

possible to state that, taking the 80% threshold as a reference and considering that the 77,06% calculated is simply an average of the results obtained, 12 teams within the sample would not have met this threshold.

This result makes us understand one of the possible first reasons for which the failed teams went bankrupt within a short period of time from these balance sheet data.



*Normal distribution graph of Expanded Labour Cost Ratio*

Again, the graph seems to distribute evenly around the average of 77,06 %. From this observation, it can thus be inferred that the vast majority of the teams in the sample possess an excessively high expanded labor cost index since, in fact, about 80% of annual revenue is spent on salaries and related depreciation alone.

Also in this graph, similar to the previous one, companies that have an Expanded Labor Cost Ratio that is not in line with the sample average seem to deviate from it by a wide margin.

In fact, it is intriguing to highlight how a smaller part of the sample is characterized by an excessively impaired situation, finding percentage levels as high as 140 %.

### **2.3.2. The Active Teams**

Even in the process of selecting active teams, it was possible to take a top-down approach by starting with a very large sample of active teams, and then, constantly skimming.

Product name	Aida		
Update number	303		
Software version	104.00		
Data update	06/05/2022 (n° 30300)		
Username	Giords99		
Export date	10/05/2022		
Cut off date	31/03		
		Step result	Search result
1. Legal status: Active companies		1.489.760	1.489.760
2.		2.286.480	1.480.452
Region, province, commune: 01 - Piemonte, 02 - Valle d'Aosta/Vallée d'Aoste, 03 - Lombardia, 04 - Trentino-Alto Adige/Südtirol, 05 - Veneto, ...			
3.		19.763	13.625
NACE Rev. 2: 931 - Sports activities, 9312 - Activities of sport clubs			
Boolean search : 1 And 2 And 3			
		TOTAL	13.625

*The search strategy – Active companies<sup>9</sup>*

In fact, as indicated also in the image above, an initial selection was made by introducing a few team-related recruitments, including:

- Active company status;
- Membership in one of the 20 regions that constitute the Italian state;
- The corporate purpose characterized, in the first instance, by any sporting activity.

Taking into account the active teams, it was necessary to take balance sheet data of those clubs that have never gone bankrupt or have gone bankrupt no earlier than 4 years from the date of the financial statements considered.

A combination of the above-mentioned criteria was required to do an initial skimming of teams by lowering the sample to 13.625 teams.

Following this first selection, it was required to determine the time period of interest by extrapolating just those balance sheets encompassed in the ten years prior to covid, i.e., between 2008 and 2018.

After taking into account the time range, all activities that fell under the football sector were hand-selected, considering a sample of 42 clubs that was distributed over the 10 years as evenly as possible.

In the chart below you can identify the teams chosen:

<sup>9</sup> Aida, Search strategy.

Company name		
PARMA FOOTBALL CLUB SPA OPPURE IN FORMA ABBREVIATA PARMA F.C. S.P.A. IN FALLIMENTO	A.S. CITTADELLA S.R.L.	RENDE CALCIO 1968 SOCIETA' SPORTIVA DILETTANTISTICA A RL
MODENA FOOTBALL CLUB - S.R.L.	CALCIO CATANIA S.P.A.	UNIONE SPORTIVA TRIESTINA CALCIO 1918 S.R.L.
REGGINA CALCIO - S.P.A. -	S.S. JUVE STABIA S.R.L.	ARMANDO PICCHI CALCIO SRL
ATALANTA BERGAMASCA CALCIO S.P.A.	CALCIO AVELLINO 1912 S.R.L.	F.C. PRO VERCELLI 1892 S.R.L.
UNIONE SPORTIVA SASSUOLO CALCIO S.R.L. ABBREVIABILE IN: U.S. SASSUOLO CALCIO S.R.L.	UNIONE SPORTIVA PISTOIESE 1921 SRL	F.C. FORLI' S.R.L.
TRAPANI CALCIO S.R.L.	AURORA PRO PATRIA 1919 S.R.L.	PORDENONE CALCIO S.R.L.
CALCIO LECCO 1912 S.R.L.	ASSOCIAZIONE CALCISTICA PERUGIA CALCIO S.R.L.	ALMA JUVENTUS FANO 1906 S.R.L.
TERNANA CALCIO S.P.A.	BENEVENTO CALCIO S.R.L.	U.S. ALESSANDRIA CALCIO 1912 S.R.L.
ASSOCIAZIONE SPORTIVA LIVORNO CALCIO S.R.L. IN LIQUIDAZIONE	PISA SPORTING CLUB SOCIETA' A RESPONSABILITA' LIMITATA	UNIONE SPORTIVA 1913 SEREGNO CALCIO S.R.L. IN FORMA ABBREVIATA U. S. 1913 SEREGNO SRL
DELFINO PESCARA 1936 S.P.A.	U.C. ALBINOLEFFE S.R.L.	FERAL PISALO' S.R.L.
F.C. CROTONA S.R.L.	ASSOCIAZIONE CALCIO PRATO SOCIETA' SPORTIVA DILETTANTISTICA A	A.C. CREMA 1908 SOCIETA' SPORTIVA DILETTANTISTICA A RESPONSABILITA' LIMITATA
NOVARA CALCIO SOCIETA' A RESPONSABILITA' LIMITATA	S.S. TERAMO CALCIO S.R.L.	OSTIA MARE LIDO-CALCIO S.R.L. SOCIETA' SPORTIVA DILETTANTISTICA A RESPONSABILITA' LIMITATA
HELLAS VERONA FOOTBALL CLUB S.P.A.	CALCIO PADOVA S.P.A.	ASSOCIAZIONE CALCIO MONZA S.P.A. IN FORMA ABBREVIATA A.C. MONZA S.P.A.
BRESCIA CALCIO S.P.A.	PIACENZA CALCIO 1919 - SOCIETA' A RESPONSABILITA' LIMITATA	COSENZA CALCIO S.R.L.

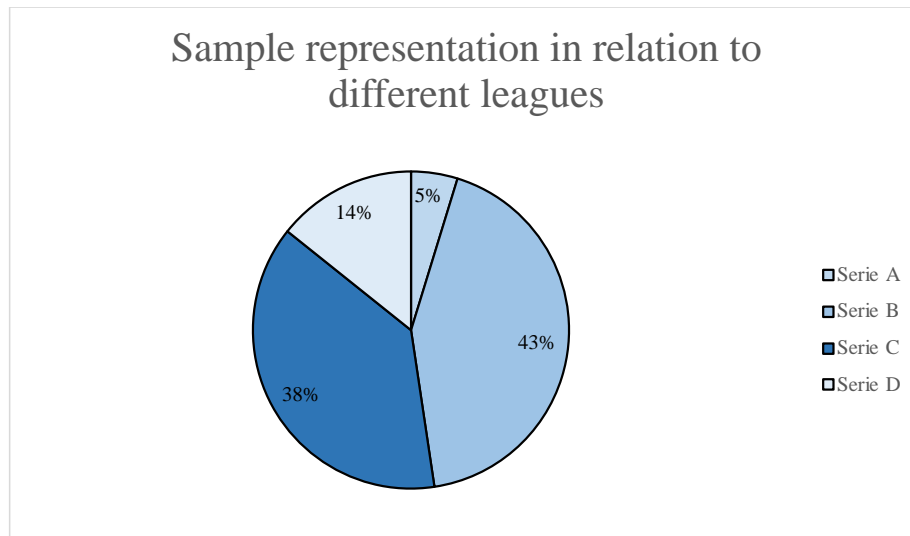
*The active teams*

Also in this case, it is possible to note that the majority of those selected teams come from the B and C leagues.

This is in line with the fact that this sample is taken in order to make a comparison with the sample of failed teams that which was explained earlier.

In fact, the goal was to find non-bankrupt teams with revenues similar to those of the bankrupt clubs, and that, in addition to coming mainly from B and C championships, had similar average employees.

This made it possible to find a sample consisting of active teams that were comparable in terms of size to the group previously analyzed.



*Distribution chart of football active teams in their respective leagues*

### **2.3.2.1. The Liquidity Ratio**

Obviously, the considerations made earlier with bankrupt companies in terms of index composition also apply to non-bankrupt companies because the ratio is the same.

However, it is still necessary to go into detail to see if there are any differences in terms of values in relation to individual items.

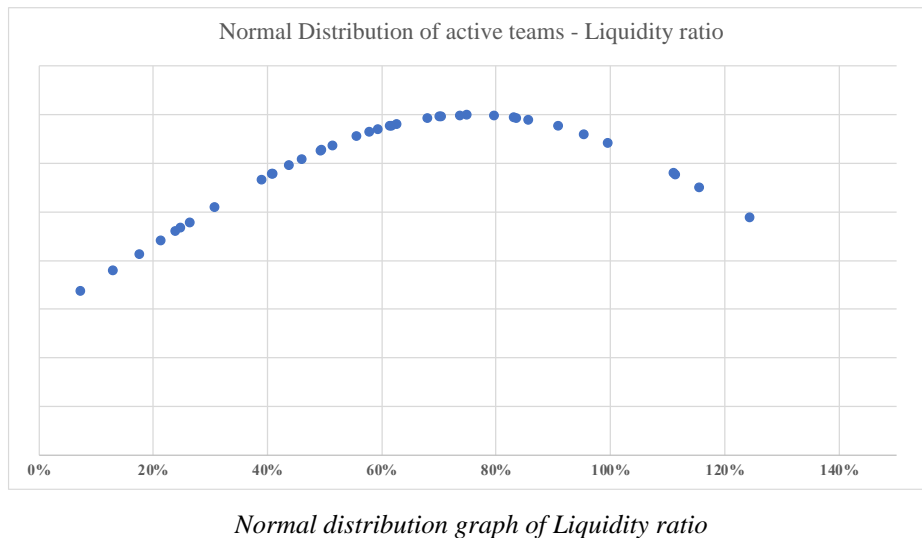
Going to look at the sample average results in a liquidity ratio of 76%.

In this case, analysing the numerator we can see that 85% of current assets are the receivables item due within 12 months. Within the latter we find as main items trade accounts, receipts due to others, and (although to a lesser extent) receivables due from parent companies which respectively constitute 37%, 44% and 8% of the macro item.

The second macro-item we encounter are Total Liquid Funds, which make up 11.41% of the numerator and are in turn made up mainly of bank deposits (which characterized 93% of the macro-item).

On the other hand, as far as the denominator is concerned, the main macro-item constituting it is payables within 12 months. The latter, similarly to what happened with the bankrupt companies, consists mainly of the items: due to banks (for a 12%), due to suppliers (for a 25%), tax payable (for a 14%) and other payables (for a 34%).





Looking instead at the distribution of the sample, it can be seen from the graph that the companies are evenly distributed around the mean although with a slightly larger presence on the left side of the graph.

#### 2.3.2.2. The Debt Ratio

The average debt ratio extrapolated from the failed teams shows a percentage level of 61.7%. As we have seen before in the numerator, we need to analyze total liabilities and current assets.

In this sense we can see that on average total liabilities present a value of 9.810.000€.

The main elements that go to form this value can in fact be traced back to those already mentioned within the liquidity ratio, with the difference that long-term elements are also taken into account.

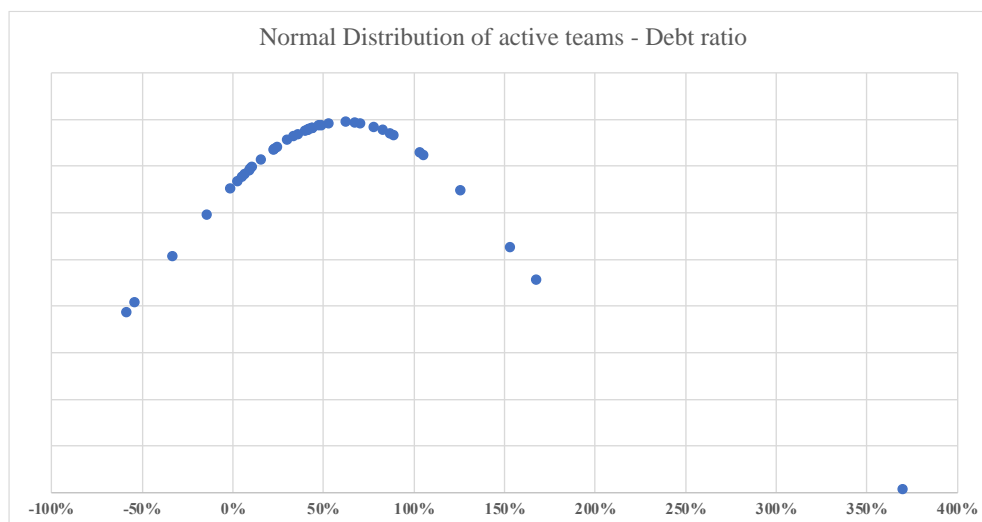
For this reason, we can identify due to banks (19% of total debt), due to suppliers (20% of total debt), tax payable (13% of total debt) and other payables (32% of total debt).

The amount of nonconcurrent debt constitutes 23% of total debt, and even in this sense while considering the group of active companies we can understand how the bulk of the costs of football clubs arise in the short term.

Obviously for current assets the remarks made for the liquidity ratio apply, for which we reiterate an amount of €4.849.000.

Earnings from sales and services (home match tickets, season tickets, and shop) as well as other revenues (where TV rights and sponsoring mainly flow in) can justify the turnover of 8.854.000€. In fact, the latter constitutes the 86% of the total turnover while the former

characterize the 10%. These are the principal elements that constitutes the average debt ratio, previously mentioned, equal to 61.7%.



*Normal distribution graph of Debt ratio*

Debt Ratio	< 50%	50% - 70%	> 70%
N° Teams	27	3	12

*Normal distribution table of Debt ratio (Table 2)*

In addition, as can be seen from the distribution graph, and explained in the table below, it is interesting to note that most of the elements in the sample (27) have debt indicators at a level that is lower even than 50%.

This indicates that the average in this case is greatly influenced by a few elements characterized by very high percentages of indebtedness.

This analysis is necessary to understand that, even though the sample average is 60%, most of the teams have a level of indebtedness of no more than 50%. Therefore, this situation is absolutely in line with the fact that these teams, not having economic problems, are also characterized by tendentially low/medium debt levels.

### 2.3.2.3. The Expanded Labor Cost Ratio

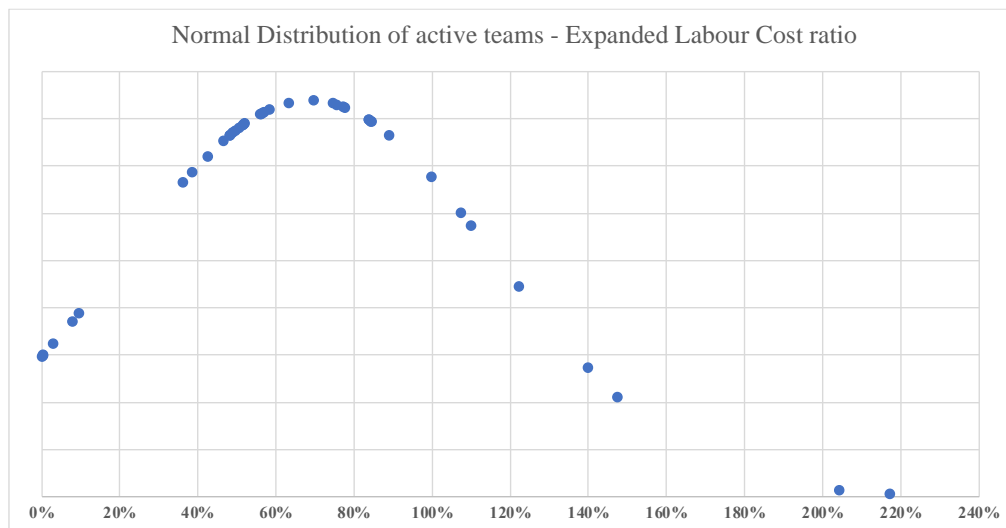
According to the research conducted in regard to the above-mentioned index, the teams in this group have an average indication of 68,6%.

In this case, the level of this indicator is obviously given by a numerator in which there are salaries and depreciation which amount to 4.665.000€ and 1.501.000€ correspondingly.

With regard to the turnover, the description made in the previous paragraph continue to be valid as the main components always remain other revenues (TV rights and sponsoring) and earning from sales and services (home match tickets, season tickets, and shop).

Looking at the sample average of 68,6 percent, it is immediately apparent that the expanded labor cost index is actually very difficult to keep low. In fact, while it is not at the levels of the sample relating to failed teams, it still appears to be at a consistent level.

This is because regardless of the type of team being analyzed, items such as those related to salaries or depreciation are present in every team and are mostly attributable to players.



*Normal distribution graph of Expanded Labour Cost ratio*

Focusing instead on the distribution of the sample, most of the sample is distributed in the range from 40% to 90% although there tended to be more teams possessing an index above 90% than those possessing a lower index. Thus, there seems to be a slight skew toward the higher percentages in the index arrangement.

### **2.3.3. Similarities and Differences between the two samples**

Once this group of Ratios has been analyzed, and the groundwork has been laid so that a comparison can be made between the two groups, it is necessary to understand what are the key elements that need to be controlled. However, it must be made clear that at the moment the

analysis is based solely on the control indices used by the legislative bodies and contained within the N.O.I.F.

For this reason, it will also be necessary to understand whether these control methods used are effective or whether they should somehow be supplemented by further analysis. The following table shows all the key results obtained from the analysis.

<i>Teams/Ratio</i>	<b>Liquidity</b>	<b>Debt</b>	<b>Expanded Labor Cost</b>
<b>Active</b>	76%	61,7%	68,6%
<b>Failed</b>	66,73%	80%	77,06%
<b>Delta (<i>absolute value</i>)</b>	9,27%	18,3%	8,46%

*Summary of the main index calculated (Table 3)*

- a. The first of the three indicators considered is the Liquidity ratio, which, as can be seen from the image, shows a difference of 9.27% between the two groups. This difference is consistent with the fact that on average active teams have a better ratio since they are better able to use current income to meet current expenditures. Going into the details of this difference, however, we need to focus on what elements make the liquidity index of failed teams lower. Regarding the numerator, recalling that the main element that constituted current assets were receivables two within 12 months, we encounter a paradoxical difference between the two groups since bankrupt teams on average possess receipts of 6.863.000€ while active teams possess 4.169.000€. However, the real difference is found in current liabilities and more specifically in payables within 12 months where active teams have an average value equal to 7.612.000€ while bankrupt teams 13.246.000€ (slightly less than double). The reason why current liabilities are so high lies mainly in the following items:
  1. **Due to suppliers:** amounting to 3.426.000€ for bankrupt clubs versus 1.897.000€ for non-bankrupt clubs presenting a difference of 1.529.000€;
  2. **Tax payables:** amounting to 2.392.000€ for bankrupt clubs versus 1.033.000€ for non-bankrupt clubs presenting a difference of 1.359.000€;
  3. **Due to other lenders & Due to Banks:** amounting together to 2.436.000€ for bankrupt clubs versus 1.354.000€ for non-bankrupt clubs presenting a difference of 1.082.000€;

4. **Other payables:** amounting to 3.123.000€ for bankrupt clubs versus 2.581.000€ for non-bankrupt clubs presenting a difference of 542.000€.

What can be deduced from this analysis is that bankrupt companies actually incur higher costs in several areas. With regard to expenses to suppliers and other payable, it is possible to deduce that active companies manage to better optimize costs so much that on average they manage to have lower costs of 2.071.000€. Another important element is the use of bank and non-bank loans; in fact, it is evident that bankrupt companies are more likely to resort to borrowing from other lenders or banks, raising their indebtedness, already high due to the type of business, to a level that then becomes unsustainable. That is why the difference of 1.082.000€ present between the two groups is of great significance to the analysis. There is also a big difference in tax debts, which obviously affects all corporate taxes (IVA, Ires, Irap, Irpef withholdings, etc.).

- b. The Debt ratio is another very important indicator that is obviously used to understand how well a company is able to meet its liabilities in relation to its turnover. In this sense, it can be seen immediately that there is a clear difference in indebtedness between the two groups in the sample; in fact, on average, failed teams are 18.3% more indebted than active teams. Obviously, for this indicator and specifically for what concerns current assets and current liabilities, all the considerations already made for the previous ratio apply since, as repeatedly stated, the numerator is calculated as Total Liabilities - Current Assets. The only difference to be analyzed is found in the part of total liabilities composed of long-term items. In fact, what we can immediately verify is how again the average of the payables two beyond 12 months is higher for the bankrupt group of companies. In this regard, it is possible to find an average amount of 2.198.000€ for the active teams versus 2.943.000€ for the bankrupt companies. This difference is explained almost exclusively by tax payables beyond 12 months, which for the group of active teams amounts to 234.000€ versus 1.451.000€ of the bankrupt companies. Obviously, it is not surprising that failed companies compared to active ones have to pay more in taxes in the long run. In fact, such a situation would find justification in the fact that these clubs have been unable to meet their tax obligations in the last few years of operation and, as such, have found themselves having to account for an increasingly high level of tax payables beyond 12 months. The third element that remains to be analyzed is the denominator, i.e., that which concerns turnover. Having taken two groups of comparable teams it turns out that the turnover of both champions is almost similar even if analysis however confirms that active companies possess a

slightly higher one. In fact, we are talking about an average value of 8.854.000€ euros for the active companies versus 8.572.000€ for the bankrupt companies. This then makes us understand how in reality the difference in indebtedness of the companies considered lies mainly in the management of expenses and not in the management of earnings.

- c. This third balance sheet indicator is also very important for the purpose of analysis since it gives a dimension of the amount of important operating costs relative to turnover. In fact, at the numerator it is possible to identify Wages and Salaries + Depreciation. Here the 8.46% difference lies mainly in depreciation and turnover. In fact, Regarding the bankrupt teams, it is possible to verify the presence of higher depreciation by 110.000€ and a turnover, as seen earlier, lower by 282.000€. These numbers can be explained mainly by the fact that bankrupt clubs tend to spend more on player purchases and have lower revenues (especially in relation to TV rights and sponsoring that are 7.077.000€ against 7.660.000€ of the active teams).

#### **2.3.4. T-test**

Up to this point the indicators that have been analyzed, as we already know, are required by the F.I.G.C. in order to be able to make evaluations regarding the possibility of registering for subsequent championships.

In fact, the latter, in order to be admitted to the next championships, must deposit at the Co.Vi.So.C., also by fax or certified e-mail, the prospectus containing the Liquidity indicator, determined on the basis of the results of the interim balance sheet [...], the Indebtedness indicator and the Enlarged Labor Cost indicator, calculated in accordance with the provisions of Article 85, letter A), paragraph VIII, of the NOIF and signed by the legal representative of the company and the person responsible for the accounting control or the chairman of the board of auditors or the supervisory board or the sole auditor (F.I.G.C., 2022).

In this sense, there is no doubt that between the two groups analyzed some difference exists.

In fact, it can be seen that generally the group of active clubs tends to have values that are more in the thresholds range, which makes us think that these clubs are actually economically healthier than those in the other group.

However, the question that actually needs to be asked is whether indeed, these are the right indicators to consider when recognizing a crisis situation within a football club.

In order to answer this question, it is possible to refer to an important benchmarking tool, namely, the T-test.

This tool is normally applied to two normally distributed data sets and aims to understand how statistically significant is the difference in the data belonging to the two samples.

The end result of such tests is a probability (P) that the ‘null hypothesis’ (which always states that there is no difference between the sets of data) is true (Millar, 2001). This should then be compared with the so-called "critical value" that gives us an indication of how statistically significant the difference between the two sets of data is.

This T-test was applied to the ratios that were just described and calculated, i.e., those imposed by the F.I.G.C., through the excel function assuming that the two samples were independent and characterized by different variances.

A summary of the results obtained can be identified in the following table:

<i>Ratios</i>	<b>Liquidity</b>	<b>Debt</b>	<b>Expanded Labor Cost</b>
<b>T-test</b>	18,003%	19,345%	22,667%

*Summary of the T-tests calculated (Table 4)*

It tends to be up to each investigator to decide the level of significance ( $\alpha$ ) to set as a reference and a probability level of 0.05 (5%) is usually chosen (Bottarelli, 2020) although, however, it is not unusual to find an  $\alpha$  equal to 10%.

In our case, it is easily noticeable how the probability (P) calculated through the t-test is significantly higher than the imposed critical value  $\alpha$ .

This simply means that the observed difference between the averages of the two groups (which are shown in Table 3), for each calculated indicator, is not statistically significant implying, consequently, that these indicators fail to capture crisis situations.

Thus, from the comparative statistics analysis conducted, it would appear that with high probability (18.003%, 19.345%, 22.667%) the considered index pairs are formed from data sets that are not really different from each other.

### **2.3.5. Additional indicators**

Given the fact that it has been statistically proven that indices imposed by legislative bodies, are unable to capture crisis situations, it is necessary to try to understand if and what other indicators are more functional for such analysis.

In fact, other useful elements were considered in the study conducted to better understand why certain companies find themselves in situations of financial stress and, subsequently, bankruptcy.

Since the football sector is very particular and, as already demonstrated, in crisis, it is useful to step outside the legislative framework and customize the analysis in order to obtain more accurate and detailed results.

For this reason, additional indicators, were considered, taking into account the probability value (P) associated with the T-test.

In this way, it was possible to consider values that, in addition to providing indications in relation to certain balance sheet items, are capable of capturing crisis situations unlike those previously considered.

Below, it is possible to see a summary of the main results of the research:

<i>Teams/Ratio</i>	<b>NWC</b>	<b>NFA</b>	<b>NOA</b>	<b>NFO(St)</b>	<b>NFO(Lt)</b>	<b>NFP</b>	<b>Equity</b>	<b>EC</b>
<b>Active</b>	-2.676	7.026	4.350	1.143	1.100	2.243	2.108	4.350
<b>Failed</b>	-3016	5957	2942	3568	1212	4780	-1838	2942
<b>Delta (<i>absolute value</i>)</b>	339	1.069	1.408	2.425	112	2.537	3.945	1.408

*Summary of the average of the main items calculated (Table 5)*

<i>Indicators</i>	<b>NWC Financing (St)</b>	<b>COGS/Revenues</b>	<b>Net Income</b>
<b>T-test</b>	1%	8,8%	3,5%

*Summary of the T-test of the main indicators calculated (Table 6)*

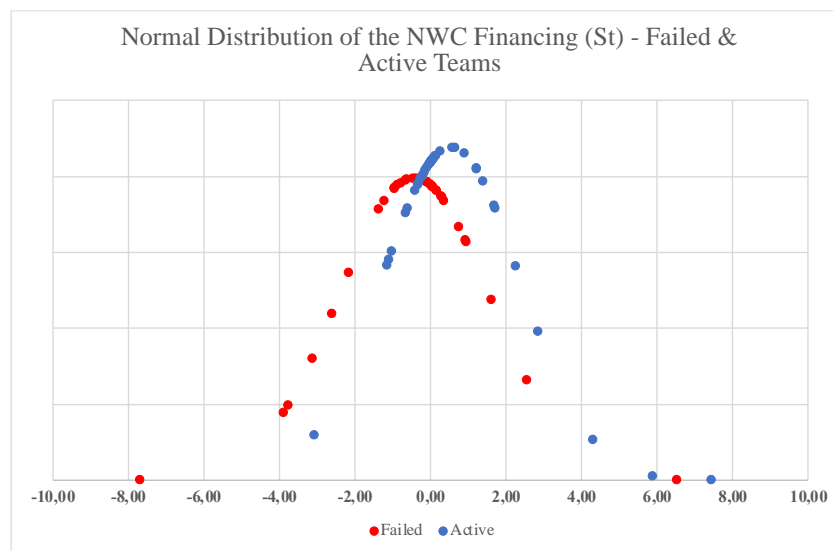
### **2.3.5.1. NWC Financing (St)**

Net Working Capital Financing (St) is nothing more than the ratio of the Net Short-term Financial position (NFO(St)) to Net Working Capital (NWC).



What emerges from the analysis of the results of the two groups is that in one case, for the bankrupt teams, this ratio is negative (-0,43) while for the active teams it is positive and amounts to 0,55.

The reason for this difference in sign is explained by the fact that bankrupt teams tend to have a lower ability to self-finance in the short term.



*Normal distribution graph of NWC Financing (St) ratio*

As can also be seen from the graph, on average, non-bankrupt companies tend to have a positive ratio, and even for the portion of active companies with a negative ratio, this index is still always higher than the average of bankrupt companies. In fact, out of 42 active companies, only 6 are found to have NWC Financing lower than that characterizing the failed teams.

This obviously indicates a clear division between the two sample groups which is, moreover, confirmed by the presence of a very low T-test of 1.045%.

In this sense we can therefore effectively state how the difference presented by the two indices is statistically very significant and that, for this reason, Net Working Capital Financing (St) is a very important indicator in the identification of crisis situations.

### **2.3.5.2. COGS/Revenues**

Another very important income statement index is the one that relates Cost of Goods sold and Revenues.

Specifically, for what concerns COGS, as already shown in the reclassification done, it includes Raw, consum. mat. and goods for resale, Services and Use of third parties' assets.

In particular, the items just mentioned at a practical level can be identified in Cost of Sales, Matchday Expenses, Sponsorship and Advertising expenses, Property Expenses, Other operating expenses.

What emerges from the analysis of these two items is that, given very similar revenues, the Cost of Goods Sold as far as active teams are concerned is on average 2.662.000€ against 2.239.000€ of non-bankrupt teams indicating that, in reality, active clubs are the ones characterized by a higher cost of sales.

These numbers just described are obviously the basis from which we started in order to arrive at the calculation of the index in question providing us with an indication of how, with regard to active teams, the average COGS/Revenue is 49% while, for what concerns the failed clubs, it is therefore lower at a level of 40%.

This difference indicates how not necessarily, failed clubs always have higher costs than active clubs but, rather, the opposite can happen. In fact, it is evident how active clubs tend to spend more on sponsorship, advertising, infrastructure but not only that. It therefore stands to reason that what conditions the health of football clubs is not only the level of costs in which they incur, but also the way in which those costs are allocated.

In support of this, the T-test between the two sets of indices was also calculated to be 8.8%.

In this sense, this probability, compared with a critical alpha value of 10% still allows us to state how this is an indicator that provides us with statistically significant data and succeeds in collecting real differences between the two samples analyzed.

### **2.3.5.3. Net Income**

Another indicator that is as simple as it is important is net income.

It is evident how this is an area where soccer clubs constantly find themselves in a loss-making situation, so it is necessary to understand how important this is for teams.

In this regard, it is easy to see that on average both samples are loss-making but, nevertheless, the active teams present an average loss of 1.442.000€ in contrast to the bankrupt ones that present an equal one of 3.652.000€.

Thus, failed teams have an operating loss that on average is 40 percent higher than that of active teams.

That said, further evidence of how statistically significant is this difference, comes from the T-test calculation due to a probability of 3.5%.

Obviously, it is important to understand how this difference arose, and for this reason it is necessary to analyze what are the main elements of the income statements of the samples. In this sense the analysis started focused on the EBITDA margin (EBITDA/Revenue) and EBIT margin (EBIT/Revenue) were analyzed.

The table below summaries the results reached:

<i>Teams/Ratio</i>	<b>EBITDA Margin</b>	<b>EBIT Margin</b>
<b>Active</b>	-38,1%	-49,4%
<b>Failed</b>	-42,8%	-58,4%
<b>Delta (<i>absolute value</i>)</b>	4,76%	9,04%

*Summary of the main Items calculated – EBITDA and EBIT Margin (Table 7)*

As it can be seen from the summary table, both groups of teams show largely negative values. This first piece of information immediately allows us to understand that regardless of the group to which they belong, football clubs consistently show losses.

Therefore, having a positive rather than negative EBITDA or EBIT does not seem to be a discriminating element to justify why some football clubs then fail.

However, it is interesting to analyze any difference there may be between the sample of failed teams and the sample of active teams.

Going into the numbers, however, we can see that already the EBITDA margin of the sample of failed teams is 4.76 percentage points smaller. This does not therefore seem to be an excessively high difference, although with the switch from EBITDA to EBIT margin this difference more than doubles, arriving to approximately 10 percentage points.

This difference is, of course, caused by the total amortization and, in fact, averaging for each of the two samples it is possible to reach a result that for the group of bankrupt teams amounts to 2.582.000€ while for the non-bankrupt teams is 1.703.000€.

This difference of 800.000€ is therefore the reason why the EBIT margin of the bankrupt teams comes to be about 10 percentage points lower than that of the active teams.

As has already been mentioned within the first chapter, depreciation is a very important part of the balance sheets of football clubs. This is because in general the main assets of football

clubs are the players who, once purchased, see their book value depreciated over the duration of their contract.

In this sense, the presence of higher amortizations, within the group of failed teams, may indicate that on average the players acquired by these teams were paid more.

Further contribution to the average difference that we find in the two net profits of the studied samples comes from the financial interests.

Indeed, in this regard we can see that for the bankrupt teams the financial interests, on average, amount to 407.000€ while for the non-bankrupt teams they amount to about 22.000€. This is also in line with what was shown earlier at the balance sheet level regarding the amount of borrowing to which companies tend to resort.

It is therefore reasonable to believe that, in any case, among the reasons why football clubs find themselves in situations of financial distress there are wasteful investment policies that are not sustainable by those applying them.

For instance, it is now easier to understand why we end up with such an important difference at in the average net profits of the two samples (1.442.000€ against 3.652.000€.).

### **2.3.6. Considerations on the analysis conducted**

The analysis conducted thus reveals some very important information on which it is essential to dwell.

The first of these is based on the fact that the indicators imposed by the F.I.G.C. do not seem to be able to identify crisis situations thanks to the T-test analysis that was implemented.

However, were found other indicators that, unlike the previous ones, identify statistically significant differences between the results found. In this regard, three were identified:

- NWC Financing (St)
- COGS/Revenues
- Net Income

Thanks to these 3 indicators, it is possible to state that sports clubs that are in difficulty tend, first and foremost, to have little ability to self-finance their Net Working Capital in the short term.

Obviously, it should be emphasized that the sector in question hardly allows sports clubs to have a positive Net Working Capital but, however, it has been shown that there is a statistically significant difference between bankrupt and non-bankrupt football clubs.

Secondly, it was found that, in reality, bankrupt teams invest less at the operational level (about 400.000 euros less on average) in terms of infrastructure, merchandising, sponsoring, equipment, etc.

This index is of considerable importance not only because of a difference shown to be statistically significant by the T-test analysis conducted, but also because it makes us realize that it is not necessarily true that bankrupt teams tend to be the ones that spend more, but rather, in this case they tend to spend less.

This finding makes us realize that the allocation of investments is just as important as the number of investments that are made.

Thirdly, Net Income also proved to be a very indicative measure.

This happens because, in a sector where companies are constantly making losses, there is a clear difference in the average Income between the two groups of teams analyzed.

In fact, bankrupt teams tend to have losses, on average, 40% higher than their non-bankrupt counterparts.

Obviously, this is an excessively large difference which is mainly due to higher depreciation and financial costs.

In the latter case, contrary to what happened with the COGS, the problem lies in excessively high costs that are supported by investment policies that are unsustainable for the clubs that implement them.

It is important to reiterate that each of the indices considered is not affected by any kind of sampling error and that the differences reported are all to be considered reliable as the probabilities of these indicators deviating from hypothetical true values are very low.

## **2.4. What to do to reverse this trend?**

Once we have understood the main reasons for which football clubs find themselves in bankruptcy situations, it is equally important to understand what actions can be implemented to solve a situation that worsens year by year.

First, it is important to consider that within the sector we are analyzing, several variables come into play that are not quantitative but rather qualitative.

So, very often companies perform better simply because the people who run them are more competent. In other words, we are talking about a world in which often the choices that are made do not have an economic or rational basis but are dictated mainly by instinct (especially when it comes to buying and selling players).

However, the importance of club management in terms of infrastructure, sponsors, equipment, etc. is also undeniable.

In this sense, Italian clubs are called upon to intervene on a number of strategic levers (e.g. the optimization of match-day revenues, the development of adequate commercial models, the capitalization of technological innovations, the investment in owned and state-of-the-art stadiums, ...), among which the organizational component and the planning capacity are the enabling factors to guarantee them sustainable economic management and sports continuity (Onorato, 2018).

In support of what has just been said also the CEO of the A.C. Milan, Ivan Gadzidis, has exposed himself pointing out how: “New sustainable infrastructure is the foundation for building the future of football. And in Italy this is a step that has to be taken. Football in Italy was at the top of the world 20, 30 years ago, but failed to build a foundation for the future. It must do so if it wants to have a sustainable, solid and exciting tomorrow. Italian football can do this, the potential it can unlock is incredible” (Gadzidis, 2022).

These strategic levers relate precisely to what was highlighted previously in relation to the lower amount of investment made by failed teams in the elements within the COGS.

Increased investment in this respect is essential to increase the level of revenue, diversifying sources of income and, consequently, limit losses, which are one of the main problems in this sector.

## CONCLUSION

In light of what has been analyzed, it is easy to understand how the economic performance of the Italian soccer sector is anything but positive.

In this sense, it has been shown how there are indeed significant differences between the two samples of teams analyzed, given the "better" performance of non-bankrupt clubs in relation to the ratios imposed by the F.I.G.C.

However, it was also analyzed how, although better, the indicators of the active teams were not at a level that would demonstrate a situation of well-being and economic self-sufficiency.

This is because, for example, only a fraction of the 82 teams analyzed (i.e., 10) closed the considered fiscal year in profit. In addition, it should also be pointed out that most of them, even if not loss-making, had almost negligible net revenues.

However, it was also shown through the T-test how in reality the indicators used by the F.I.G.C. were unable to capture differences between the results of the two samples as they were not statistically significant.

This allowed us to understand how one of the reasons why the sector is constantly in crisis is based on the fact that the companies operating within it are poorly monitored.

In fact, according to the analysis conducted, the parameters that should be used to monitor the economic performance of football clubs are not those imposed today by the F.I.G.C. but rather those that, when subjected to the T-test analysis, report percentages lower than at least 10%.

In this regard, other 3 indicators were reported within the concluding paragraphs (NWC Financing St, COGS/Revenues, Net Income) that offered different insights to reason about in relation to the economic performance of clubs.

As already seen throughout the paper, among the most interesting findings, we must undoubtedly mention the importance of the fact that the industry is not necessarily in crisis because teams are spending too much money but, as seen for COGS/Revenues, in some cases it is very important that investments are made in certain areas such as infrastructure.

It is no coincidence that it appears from the T-test analysis that cost of sales is of great importance since, the issue related to investments in more state-of-the-art infrastructures, is becoming more and more central for teams, but also for football in general.

It is necessary to invest more especially in stadiums, this because they constitute one of the largest sources of revenue for all the teams that own them (in particular with reference to other European leagues).

These would undoubtedly go a long way toward improving the net revenues of clubs by restoring partially a situation that seems to be compromised.

In light of what has been said, it is therefore reasonable to state how the statistical analysis applied to the case study has returned results that are rather in line with what the needs of the football sector.

For instance, football clubs are regulated and monitored by regulations that are evidently inadequate and, on the other hand, they are unable to keep up with the times because of the enormous difficulty they encounter in making investments that could increase revenues in a substantial way.



# ANNEXES

## Annex 1a: Balance sheet reformulation: non-bankrupt teams

	Company name	NWC	NFA	NOA	NFO(st)	NFO(lt)	Equity	EC	CHECK
24	PARMA FOOTBALL CLUB SPA OPPURE IN FORMA ABBREVIATA PARMA F.C. S.P.A. IN FALLIMENTO	-21.666	45.102	23.435	-330	-1.367	25.133	23.435	0
25	MODENA FOOTBALL CLUB - S.R.L.	5.622	1.975	7.597	3.220	5.039	-662	7.597	0
26	REGGINA CALCIO - S.P.A. -	-15.182	26.774	11.592	2.653	0	8.939	11.592	0
1	ATALANTA BERGAMASCA CALCIO S.P.A.	-27.968	40.145	12.178	1.216	6.156	4.806	12.178	0
6	UNIONE SPORTIVA SASSUOLO CALCIO S.R.L. ABBREVIABILE IN: U.S. SASSUOLO CALCIO S.R.L.	606	3.538	4.144	3.567	0	577	4.144	0
27	TRAPANI CALCIO S.R.L.	638	336	974	-88	719	343	974	0
28	CALCIO LECCO 1912 S.R.L.	-137	1.322	1.184	424	439	322	1.184	0
22	TERNANA CALCIO S.P.A.	-1.801	6.180	4.379	-138	-24	4.541	4.379	0
29	ASSOCIAZIONE SPORTIVA LIVORNO CALCIO S.R.L. IN LIQUIDAZIONE	-2.666	5.729	3.063	2.733	0	330	3.063	0
30	DELFINO PESCARA 1936 S.P.A.	-3.546	10.355	6.809	4.095	947	1.767	6.809	0
10	F.C.CROTONE S.R.L.	-4.444	4.546	102	1.165	-2.071	1.007	102	0
17	NOVARA CALCIO SOCIETA' A RESPONSABILITA' LIMITATA	-11.698	17.745	6.047	7.085	0	-1.038	6.047	0
31	HELLAS VERONA FOOTBALL CLUB S.P.A.	-4.168	6.901	2.732	888	-132	1.976	2.732	0
32	BRESCIA CALCIO S.P.A.	9.702	19.028	28.730	13.550	9.507	5.672	28.730	0
14	A.S. CITTADELLA S.R.L.	-356	3.800	3.444	-2.643	-9	6.096	3.444	0
33	CALCIO CATANIA S.P.A.	-18.697	76.224	57.527	6.314	24.264	26.949	57.527	0
34	S.S. JUVE STABIA S.R.L.	255	1.057	1.312	1.091	0	220	1.312	0
16	CALCIO AVELLINO 1912 S.R.L.	-2.572	3.322	750	835	0	-84	750	0
35	UNIONE SPORTIVA PISTOIESE 1921 SRL	90	161	251	204	0	48	251	0
36	AURORA PRO PATRIA 1919 S.R.L.	-944	364	-580	-123	-2	-454	-580	0
5	ASSOCIAZIONE CALCISTICA PERUGIA CALCIO S.R.L.	-5.067	5.562	495	-11	0	506	495	0
9	BENEVENTO CALCIO S.R.L.	-2.588	536	-2.052	53	0	-2.105	-2.052	0
37	PISA SPORTING CLUB SOCIETA' A RESPONSABILITA' LIMITATA	-2.697	1.664	-1.034	1.113	0	-2.146	-1.034	0
38	U.C. ALBINOLEFFE S.R.L.	2.514	6.492	9.006	3.055	2.085	3.867	9.006	0
39	ASSOCIAZIONE CALCIO PRATO SOCIETA' SPORTIVA DILETTANTISTICA A RESPONSABILITA' LIMITATA IN FORMA ABBREVIATA ASSOCIAZIONE CALCIO PRATO S.S.D. A R.L.	479	47	526	-44	0	570	526	0
40	S.S. TERAMO CALCIO S.R.L.	605	168	773	394	573	-194	773	0
19	CALCIO PADOVA S.P.A.	-829	1.276	447	545	129	-227	447	0
12	PIACENZA CALCIO 1919 - SOCIETA' A RESPONSABILITA' LIMITATA ENUNCIABILE ANCHE PIACENZA CALCIO 1919 - S.R.L.	-61	-31	-92	-73	0	-18	-92	0
15	RENDE CALCIO 1968 SOCIETA' SPORTIVA DILETTANTISTICA A RL	-350	875	525	386	0	139	525	0
44	UNIONE SPORTIVA TRIESTINA CALCIO 1918 S.R.L.	221	179	399	-51	-56	506	399	0
7	ARMANDO PICCHI CALCIO SRL	-888	1.000	112	-37	0	149	112	0
20	F.C. PRO VERCELLI 1892 S.R.L.	-587	386	-201	-523	0	322	-201	0
21	F.C. FORLI' S.R.L.	12	32	44	0	-1	45	44	0
41	PORDENONE CALCIO S.R.L.	-272	331	59	-8	0	67	59	0
42	ALMA JUVENTUS FANO 1906 S.R.L.	-286	28	-259	-37	-4	-217	-259	0
8	U.S. ALESSANDRIA CALCIO 1912 S.R.L.	-683	-37	-720	-1.949	0	1.230	-720	0
43	UNIONE SPORTIVA 1913 SEREGNO CALCIO S.R.L. IN FORMA ABBREVIATA U. S. 1913 SEREGNO SRL	-9	-165	-174	-15	0	-159	-174	0
2	FERALPISALO' S.R.L.	-410	533	124	-14	-6	144	124	0
3	A.C. CREMA 1908 SOCIETA' SPORTIVA DILETTANTISTICA A RESPONSABILITA' LIMITATA	-72	97	25	-10	0	34	25	0
4	OSTIA MARE LIDO-CALCIO S.R.L. SOCIETA' SPORTIVA DILETTANTISTICA A RESPONSABILITA' LIMITATA	-35	-4	-39	-59	-2	22	-39	0
13	ASSOCIAZIONE CALCIO MONZA S.P.A. IN FORMA ABBREVIATA A.C. MONZA S.P.A.	-1.373	971	-402	-347	0	-55	-402	0
11	COSENZA CALCIO S.R.L.	-1.092	559	-532	-81	0	-451	-532	0

### Annex 1b: Income Statement reformulation: non-bankrupt teams (1/3)

	Company name	Revenues from sales and services th EUR	Total changes th EUR Last avail. yr	Changes in contract work in progress	Additions to fixed assets th EUR Last avail.	Other revenue th EUR Last avail. yr	Revenues	Raw, consum. mat. and goods for resale	Services th EUR Last avail. yr	Use of third parties assets th EUR	COGS	GROSS PROFIT
24	PARMA FOOTBALL CLUB SPA OPPURE IN FORMA ABBREVIATA PARMA F.C. S.P.A. IN FALLIMENTO	5.917	0	0	0	39.508	45.425	980	8.536	3.438	12.954	32.472
25	MODENA FOOTBALL CLUB - S.R.L.	1.629	0	0	0	7.048	8.677	493	3.031	2.380	5.905	2.772
26	REGGINA CALCIO - S.P.A. -	1.088	0	0	1.443	19.988	22.519	469	6.398	58	6.925	15.594
1	ATALANTA BERGAMASCA CALCIO S.P.A.	2.758	0	0	2.861	29.533	35.152	1.363	7.673	900	9.936	25.216
6	UNIONE SPORTIVA SASSUOLO CALCIO S.R.L. ABBREVIABILE IN: U.S. SASSUOLO CALCIO S.R.L.	257	0	0	0	20.034	20.291	497	2.755	681	3.934	16.357
27	TRAPANI CALCIO S.R.L.	443	0	0	148	3.226	3.817	121	700	84	905	2.913
28	CALCIO LECCO 1912 S.R.L.	93	0	0	218	1.050	1.361	134	507	176	817	544
22	TERNANA CALCIO S.P.A.	923	0	0	0	1.074	1.997	305	1.405	513	2.222	-224
29	ASSOCIAZIONE SPORTIVA LIVORNO CALCIO S.R.L. IN LIQUIDAZIONE	860	0	0	742	7.228	8.830	366	2.255	256	2.877	5.953
30	DELFINO PESCARA 1936 S.P.A.	2.465	0	0	868	12.303	15.636	502	2.038	296	2.836	12.800
10	F.C.CROTON S.R.L.	460	0	0	414	8.716	9.590	336	1.411	65	1.812	7.778
17	NOVARA CALCIO SOCIETA' A RESPONSABILITA' LIMITATA	801	0	0	0	20.273	21.074	527	2.408	501	3.436	17.638
31	HELLAS VERONA FOOTBALL CLUB S.P.A.	3.214	0	0	0	10.907	14.121	712	3.709	924	5.345	8.776
32	BRESCIA CALCIO S.P.A.	519	0	0	1.365	23.791	25.675	761	4.001	3.156	7.918	17.757
14	A.S. CITTADELLA S.R.L.	202	0	0	0	6.504	6.707	506	1.333	116	1.955	4.752
33	CALCIO CATANIA S.P.A.	3.049	0	0	801	50.631	54.481	1.306	8.514	2.449	12.268	42.212
34	S.S. JUVE STABIA S.R.L.	521	0	0	0	8.889	9.410	181	1.223	201	1.605	7.805
16	CALCIO AVELLINO 1912 S.R.L.	1.220	0	0	0	9.868	11.087	561	1.698	175	2.434	8.653
35	UNIONE SPORTIVA PISTOIESE 1921 SRL	263	0	0	125	2.088	2.477	130	325	38	493	1.985
36	AURORA PRO PATRIA 1919 S.R.L.	91	0	0	87	1.778	1.956	57	459	65	581	1.374
5	ASSOCIAZIONE CALCISTICA PERUGIA CALCIO S.R.L.	1.370	0	0	0	9.282	10.651	379	2.820	169	3.368	7.284
9	BENEVENTO CALCIO S.R.L.	666	0	0	0	1.006	1.672	195	1.091	128	1.414	259
37	PISA SPORTING CLUB SOCIETA' A RESPONSABILITA' LIMITATA	1.162	0	0	0	2.140	3.302	128	2.004	126	2.258	1.044
38	U.C. ALBINOLEFFE S.R.L.	77	0	0	108	329	513	93	626	120	840	-327
39	ASSOCIAZIONE CALCIO PRATO SOCIETA' SPORTIVA DILETTANTISTICA A RESPONSABILITA' LIMITATA IN FORMA ABBREVIATA ASSOCIAZIONE CALCIO PRATO S.S.D. A R.L.	93	0	0	0	1.631	1.724	135	457	58	649	1.075
40	S.S. TERAMO CALCIO S.R.L.	243	0	0	249	2.652	3.144	101	576	258	935	2.209
19	CALCIO PADOVA S.P.A.	2.625	0	0	613	403	3.641	363	1.922	53	2.338	1.303
12	PIACENZA CALCIO 1919 - SOCIETA' A RESPONSABILITA' LIMITATA ENUNCIABILE ANCHE PIACENZA CALCIO 1919 - S.R.L.	236	0	0	0	2.685	2.921	212	783	63	1.058	1.863
15	RENDE CALCIO 1968 SOCIETA' SPORTIVA DILETTANTISTICA A RL	147	0	0	0	1.486	1.632	45	324	19	388	1.244
44	UNIONE SPORTIVA TRIESTINA CALCIO 1918 S.R.L.	551	-14	0	150	1.133	1.820	179	824	132	1.135	685
7	ARMANDO PICCHI CALCIO SRL	525	0	0	0	1	525	33	332	1	367	159
20	F.C. PRO VERCELLI 1892 S.R.L.	231	-4	0	87	2.922	3.236	94	804	30	928	2.308
21	F.C. FORLI' S.R.L.	677	0	0	0	64	741	25	651	22	698	42
41	PORDENONE CALCIO S.R.L.	33	0	0	148	1.328	1.509	189	1.090	6	1.284	225
42	ALMA JUVENTUS FANO 1906 S.R.L.	289	0	0	0	110	399	32	150	7	189	210
8	U.S. ALESSANDRIA CALCIO 1912 S.R.L.	466	14	0	0	1.189	1.669	193	1.117	271	1.581	87
43	UNIONE SPORTIVA 1913 SEREGNO CALCIO S.R.L. IN FORMA ABBREVIATA U. S. 1913 SEREGNO SRL	279	0	0	0	68	347	45	88	11	145	202
2	FERALPISALO' S.R.L.	66	0	0	286	3.002	3.354	104	1.083	149	1.335	2.019
3	A.C. CREMA 1908 SOCIETA' SPORTIVA DILETTANTISTICA A RESPONSABILITA' LIMITATA	480	0	0	48	7	536	36	527	50	613	-78
4	OSTIA MARE LIDO-CALCIO S.R.L. SOCIETA' SPORTIVA DILETTANTISTICA A RESPONSABILITA' LIMITATA	769	0	0	0	40	809	74	639	14	727	82
13	ASSOCIAZIONE CALCIO MONZA S.P.A. IN FORMA ABBREVIATA A.C. MONZA S.P.A.	136	0	0	0	1.243	1.380	152	617	76	846	534
11	COSENZA CALCIO S.R.L.	1.075	0	0	425	4.566	6.065	342	1.163	78	1.584	4.482

**Annex 1b: Income Statement reformulation: non-bankrupt teams (2/3)**

Wages and salaries th EUR Last avail.	Social security charges th EUR Last avail.	Severance indemnities th EUR Last avail.	Pensions and similar obligations	Other costs th EUR Last avail. yr	SG&A	Change in inventory of raw and consumable	Provisions for risks and charges th EUR	Other provisions th EUR Last avail. yr	Other operating expenses th EUR Last avail.	Other Operating expenses	EBITDA	EBITDA Margin
20.026	1.299	75	0	196	21.596	-86	94	0	4.729	4.737	6.139	14%
8.185	932	194	0	0	9.311	0	90	0	484	574	-7.113	-82%
11.980	951	193	0	0	13.125	0	0	0	2.012	2.012	458	2%
23.143	1.785	347	0	661	25.936	0	7	0	4.850	4.857	-5.577	-16%
10.525	1.361	61	0	0	11.948	0	0	660	1.232	1.892	2.517	12%
1.717	564	101	0	0	2.382	-10	0	0	239	229	301	8%
786	236	39	0	0	1.061	0	0	0	296	296	-813	-60%
2.494	604	22	0	90	3.211	0	0	0	715	715	-4.150	-208%
6.551	906	210	0	0	7.668	0	0	0	914	914	-2.628	-30%
10.994	1.289	207	0	0	12.490	102	0	0	2.145	2.247	-1.937	-12%
3.506	844	137	0	0	4.487	82	0	0	946	1.029	2.262	24%
10.335	1.246	246	0	9	11.836	0	0	0	1.760	1.760	4.042	19%
11.164	1.246	266	0	0	12.676	0	269	0	1.766	2.035	-5.936	-42%
8.302	1.193	47	170	0	9.712	0	0	0	799	799	7.245	28%
3.387	1.116	219	0	6	4.727	-5	0	0	551	546	-521	-8%
21.893	1.614	288	0	1	23.796	75	0	0	7.756	7.831	10.586	19%
3.810	677	13	0	0	4.501	0	0	0	1.214	1.214	2.090	22%
5.179	931	25	0	679	6.813	-100	0	0	927	827	1.013	9%
1.120	241	51	0	0	1.411	0	0	0	388	388	185	7%
932	276	3	49	0	1.259	12	4	0	248	264	-148	-8%
4.094	837	154	0	0	5.085	14	0	0	1.106	1.121	1.078	10%
3.207	778	7	0	93	4.085	42	0	0	298	340	-4.167	-249%
2.402	580	113	0	404	3.498	0	0	0	439	439	-2.894	-88%
543	150	34	0	145	871	-9	0	0	362	353	-1.551	-302%
623	172	32	0	0	827	0	13	0	198	211	37	2%
2.074	481	96	0	16	2.667	0	0	0	228	228	-686	-22%
2.627	762	20	0	0	3.409	0	0	0	398	398	-2.504	-69%
1.345	369	68	0	9	1.791	-50	0	0	294	244	-172	-6%
632	159	2	32	0	826	0	0	0	289	289	129	8%
2.187	625	24	0	0	2.836	1	0	0	621	622	-2.773	-152%
0	0	0	0	0	0	3	0	0	20	22	136	26%
1.118	336	63	0	0	1.517	0	0	0	337	337	454	14%
0	0	0	0	0	0	0	0	0	26	26	16	2%
0	0	0	0	0	0	3	0	0	69	72	153	10%
301	9	0	0	0	310	0	0	0	54	54	-154	-39%
3.325	781	36	121	0	4.263	0	10	0	184	194	-4.369	-262%
0	0	0	0	343	343	0	0	0	73	73	-214	-62%
1.161	328	65	0	0	1.555	26	0	0	125	151	313	9%
0	0	0	0	0	0	0	0	0	2	2	-80	-15%
0	0	0	0	0	0	0	0	0	36	36	46	6%
1.138	324	9	0	218	1.689	0	0	0	175	175	-1.331	-96%
3.131	703	0	0	506	4.340	7	0	0	1.641	1.648	-1.507	-25%

### Annex 1b: Income Statement reformulation: non-bankrupt teams (3/3)

Amort. of intangible fixed assets th EUR	Depr. of tangible fixed assets th EUR	Writedow n of fixed assets th EUR Last avail.	Writedow n of receivable s th EUR	Total Amortizat ions	TOTAL EXTRAOR DINARY REVENUE	EBIT	EBIT Margin	TOTAL FINANCIAL INCOME AND	TOTAL FINANCIAL ASSETS ADJUST	EBT	Total current, deferred and prepaid	Profit/Los s	PROFIT (LOSS) THIRD PARTIES th EUR	Profit/Los s Group	AIDA Profit Loss	Check
8.774	147	77	112	9.110	266	-2.705	-6%	3.130	0	425	813	-388	0	-388	-388	0
1.133	79	0	0	1.212	1.520	-6.804	-78%	-997	0	-7.801	120	-7.921	0	-7.921	-7.921	0
6.899	429	133	678	8.139	1.789	-5.892	-26%	1.524	46	-4.323	-1.321	-3.002	0	-3.002	-3.002	0
11.928	363	141	29	12.461	2.845	-15.192	-43%	515	0	-14.678	-3.759	-10.918	0	-10.918	-10.918	0
1.305	66	0	12	1.383	0	1.134	6%	-54	0	1.080	1.011	69	0	69	69	0
150	7	0	4	160	-3	137	4%	-2	0	136	134	2	0	2	2	0
271	15	0	10	296	-158	-1.267	-93%	-50	0	-1.317	418	-1.735	0	-1.735	-1.735	0
453	37	0	121	611	847	-3.914	-196%	-38	0	-3.952	0	-3.952	0	-3.952	-3.952	0
3.169	72	0	0	3.241	3.775	-2.095	-24%	713	0	-1.382	-754	-628	0	-628	-628	0
2.219	23	0	0	2.242	0	-4.179	-27%	-545	0	-4.723	-4.725	2	0	2	2	0
1.467	30	0	101	1.598	111	775	8%	-742	0	32	270	-237	0	-237	-237	0
5.403	47	169	60	5.679	171	-1.466	-7%	-394	0	-1.860	17	-1.878	0	-1.878	-1.878	0
743	32	6	48	830	-300	-7.066	-50%	-115	0	-7.181	-1.834	-5.348	0	-5.348	-5.348	0
4.902	8	0	650	5.560	141	1.826	7%	-1.316	0	510	0	510	0	510	510	0
368	112	0	0	480	1.168	167	2%	-325	0	-159	148	-306	0	-306	-306	0
8.682	3.108	0	60	11.850	2.797	1.532	3%	-602	0	930	940	-10	0	-10	-10	0
864	6	0	0	870	825	2.046	22%	-94	0	1.951	184	1.767	0	1.767	1.767	0
586	23	0	0	609	-160	244	2%	-527	0	-283	82	-365	0	-365	-365	0
72	6	0	0	78	0	107	4%	-8	0	99	62	37	0	37	37	0
182	26	390	0	598	0	-746	-38%	-9	0	-755	42	-797	0	-797	-797	0
872	44	0	31	946	-17	115	1%	-8	0	107	224	-117	0	-117	-117	0
426	90	0	0	516	-7	-4.690	-280%	-67	0	-4.757	0	-4.757	0	-4.757	-4.757	0
97	14	0	0	111	153	-2.852	-86%	-96	0	-2.947	36	-2.983	0	-2.983	-2.983	0
175	94	0	0	268	0	-1.819	-355%	-52	0	-1.871	0	-1.871	0	-1.871	-1.871	0
2	14	0	0	16	0	21	1%	-4	0	17	-6	23	0	23	23	0
119	47	0	0	166	168	-683	-22%	-92	0	-775	4	-779	0	-779	-779	0
426	2	0	0	428	0	-2.932	-81%	-44	0	-2.976	16	-2.991	0	-2.991	-2.991	0
60	8	0	0	68	0	-240	-8%	-1	0	-241	59	-300	0	-300	-300	0
192	8	0	0	201	0	-71	-4%	-10	0	-81	36	-118	0	-118	-118	0
38	12	56	7	114	0	-2.887	-159%	-12	0	-2.898	0	-2.898	0	-2.898	-2.898	0
1	66	0	0	67	0	69	13%	-55	0	15	14	1	0	1	1	0
133	23	0	0	156	0	298	9%	-477	0	-180	16	-195	0	-195	-195	0
3	2	0	0	5	-5	7	1%	-4	0	2	2	0	0	0	0	0
146	21	0	0	167	0	-14	-1%	-18	0	-32	0	-32	0	-32	-32	0
7	6	0	55	68	0	-223	-56%	-7	0	-230	0	-230	0	-230	-230	0
84	34	0	11	129	0	-4.498	-270%	0	0	-4.498	0	-4.498	0	-4.498	-4.498	0
11	6	0	0	17	-1	-231	-66%	0	0	-231	4	-235	0	-235	-235	0
262	56	0	0	318	-10	-15	0%	0	0	-15	105	-120	0	-120	-120	0
42	5	0	0	48	0	-127	-24%	-1	0	-128	0	-128	0	-128	-128	0
4	107	0	0	111	0	-65	-8%	0	0	-65	-17	-48	0	-48	-48	0
89	10	212	0	312	0	-1.642	-119%	-4	0	-1.646	13	-1.659	0	-1.659	-1.659	0
292	17	0	0	309	0	-1.815	-30%	-25	0	-1.840	-269	-1.571	0	-1.571	-1.571	0

## Annex 1c: Ratio Analysis: non-bankrupt teams

	Company name	Liquidity Ratio	Debt Ratio	Expanded Labor Cost Ratio	Financial Leverage 1	Financial Leverage 2	Financial Leverage 3	NWC Financing (St)	NWC Financing (Lt)	ROE	ROIC	EBITDA Margin	EBIT Margin	Financial Cost Ratio	ROA	COGS/Revenues
24	PARMA FOOTBALL CLUB SPA OPPURE IN FORMA ABBREVIATA PARMA F.C. S.P.A. IN FALLIMENTO	49,5%	47,54%	63,40%	-7%	-7%	93%	0,02	-1,10	-2%	-12%	14%	-6%	-16%	-1%	29%
25	MODENA FOOTBALL CLUB - S.R.L.	55,5%	77,94%	107,39%	-1248%	109%	-1148%	0,57	0,78	1197%	-90%	-82%	-78%	115%	-53%	68%
26	REGGINA CALCIO - S.P.A. -	61,7%	43,97%	83,84%	30%	23%	130%	-0,17	-0,59	-34%	-51%	2%	-26%	73%	-7%	31%
1	ATALANTA BERGAMASCA CALCIO S.P.A.	39,0%	105,16%	99,77%	153%	61%	253%	-0,04	-0,39	-227%	-125%	-16%	-43%	97%	-16%	28%
6	UNIONE SPORTIVA SASSUOLO CALCIO S.R.L. ABBREVIABILE IN: U.S. SASSUOLO CALCIO S.R.L.	73,7%	9,48%	58,30%	618%	86%	718%	5,88	0,95	12%	27%	12%	6%	95%	1%	19%
27	TRAPANI CALCIO S.R.L.	176,8%	-1,56%	48,92%	184%	65%	284%	-0,14	1,66	1%	14%	8%	4%	99%	0%	24%
28	CALCIO LECCO 1912 S.R.L.	43,7%	86,55%	77,70%	268%	73%	368%	-3,08	-5,53	-539%	-107%	-60%	-93%	104%	-78%	60%
22	TERNANA CALCIO S.P.A.	24,8%	125,65%	147,55%	-4%	-4%	96%	0,08	-2,51	-87%	-89%	-208%	-196%	101%	-51%	111%
29	ASSOCIAZIONE SPORTIVA LIVORNO CALCIO S.R.L. IN LIQUIDAZIONE	17,5%	103,31%	110,08%	828%	89%	928%	-1,03	-0,12	-190%	-68%	-30%	-24%	66%	-5%	33%
30	DELFINO PESCARA 1936 S.P.A.	74,8%	35,67%	84,50%	285%	74%	385%	-1,15	-0,77	0%	-61%	-12%	-27%	113%	0%	18%
10	F.C. CROTONE S.R.L.	62,5%	88,83%	51,85%	-90%	-887%	10%	-0,26	0,24	-24%	759%	24%	8%	4%	-1%	19%
17	NOVARA CALCIO SOCIETA' A RESPONSABILITA' LIMITATA	49,3%	67,06%	74,68%	-683%	117%	-583%	-0,61	0,09	181%	-24%	19%	-7%	127%	-5%	16%
31	HELLAS VERONA FOOTBALL CLUB S.P.A.	70,4%	39,99%	84,32%	38%	28%	138%	-0,21	-0,44	-271%	-259%	-42%	-50%	102%	-28%	38%
32	BRESCIA CALCIO S.P.A.	90,8%	70,30%	51,43%	407%	80%	507%	1,40	1,56	9%	6%	28%	7%	28%	1%	31%
14	A.S. CITTADELLA S.R.L.	171,9%	-58,94%	55,99%	-44%	-77%	56%	7,43	-17,10	-5%	5%	-8%	2%	-95%	-3%	29%
33	CALCIO CATANIA S.P.A.	46,0%	82,68%	56,12%	113%	53%	213%	-0,34	-2,74	0%	3%	19%	3%	61%	0%	23%
34	S.S. JUVE STABIA S.R.L.	79,6%	29,94%	49,68%	495%	83%	595%	4,29	0,87	802%	156%	22%	22%	95%	28%	17%
16	CALCIO AVELLINO 1912 S.R.L.	40,8%	33,46%	51,99%	-993%	111%	-893%	-0,32	0,03	435%	33%	9%	2%	-116%	-5%	22%
35	UNIONE SPORTIVA PISTOIESE 1921 SRL	85,6%	8,81%	48,13%	427%	81%	527%	2,26	0,53	77%	43%	7%	4%	93%	3%	20%
36	AURORA PRO PATRIA 1919 S.R.L.	21,3%	41,20%	56,93%	28%	22%	128%	0,13	0,48	175%	129%	-8%	-38%	101%	-131%	30%
5	ASSOCIAZIONE CALCISTICA PERUGIA CALCIO S.R.L.	30,8%	15,20%	46,62%	-2%	-2%	98%	0,00	-0,10	-23%	23%	10%	1%	93%	-2%	32%
9	BENEVENTO CALCIO S.R.L.	12,9%	152,82%	217,21%	-3%	-3%	97%	-0,02	0,81	226%	229%	-249%	-280%	101%	-430%	85%
37	PISA SPORTING CLUB SOCIETA' A RESPONSABILITA' LIMITATA	70,1%	53,03%	75,68%	-52%	-108%	48%	-0,41	0,80	139%	276%	-88%	-86%	103%	-53%	68%
38	U.C. ALBINOLEFFE S.R.L.	83,1%	521,85%	139,91%	133%	57%	233%	1,22	2,37	-48%	-20%	-302%	-355%	103%	-18%	164%
39	ASSOCIAZIONE CALCIO PRATO SOCIETA' SPORTIVA DILETTANTISTICA A RESPONSABILITA' LIMITATA IN FORMA ABBREVIATA ASSOCIAZIONE CALCIO PRATO S.S.D. A R.L.	298,6%	-33,68%	36,23%	-8%	-8%	92%	-0,09	1,19	4%	4%	2%	1%	79%	2%	38%
40	S.S. TERAMO CALCIO S.R.L.	111,3%	43,96%	69,74%	-499%	125%	-399%	0,65	0,63	402%	-88%	-22%	-22%	113%	-22%	30%
19	CALCIO PADOVA S.P.A.	23,9%	41,52%	83,85%	-297%	151%	-197%	-0,66	0,12	1320%	-655%	-69%	-81%	102%	-168%	64%
12	PIACENZA CALCIO 1919 - SOCIETA' A RESPONSABILITA' LIMITATA ENUNCIABILE ANCHE PIACENZA CALCIO 1919 - S.R.L.	99,5%	2,41%	48,11%	405%	80%	505%	1,21	0,30	1656%	262%	-6%	-8%	101%	-28%	36%
15	RENDE CALCIO 1968 SOCIETA' SPORTIVA DILETTANTISTICA A RL	26,4%	48,78%	50,54%	279%	74%	379%	-1,10	-0,40	-85%	-14%	8%	-4%	114%	-10%	24%
44	UNIONE SPORTIVA TRIESTINA CALCIO 1918 S.R.L.	124,3%	-14,46%	122,21%	-21%	-27%	79%	-0,23	2,04	-573%	-723%	-152%	-159%	100%	-183%	62%
7	ARMANDO PICCHI CALCIO SRL	7,2%	370,03%	0,18%	-25%	-33%	75%	0,04	-0,17	1%	62%	26%	13%	21%	0%	70%
20	F.C. PRO VERCELLI 1892 S.R.L.	95,3%	10,59%	38,64%	-162%	260%	-62%	0,89	-0,55	-61%	-148%	14%	9%	-60%	-10%	29%
21	F.C. FORLI' S.R.L.	83,5%	4,75%	0,39%	-1%	-1%	99%	-0,01	3,70	1%	15%	2%	1%	33%	0%	94%
41	PORDENONE CALCIO S.R.L.	40,8%	22,22%	9,66%	-12%	-14%	88%	0,03	-0,25	-47%	-24%	10%	-1%	227%	-6%	85%
42	ALMA JUVENTUS FANO 1906 S.R.L.	68,0%	41,97%	77,32%	19%	16%	119%	0,13	0,77	106%	86%	-39%	-56%	103%	-45%	47%
8	U.S. ALESSANDRIA CALCIO 1912 S.R.L.	225,3%	-54,30%	204,31%	-159%	271%	-59%	2,85	-1,80	-366%	625%	-262%	-270%	100%	-158%	95%
43	UNIONE SPORTIVA 1913 SEREGNO CALCIO S.R.L. IN FORMA ABBREVIATA U. S. 1913 SEREGNO SRL	111,0%	62,49%	3,03%	10%	9%	110%	1,71	17,97	148%	133%	-62%	-66%	100%	-193%	42%
2	FERAPISALO' S.R.L.	59,2%	22,92%	42,44%	-14%	-16%	86%	0,03	-0,34	-83%	-12%	9%	0%	97%	-8%	40%
3	A.C. CREMA 1908 SOCIETA' SPORTIVA DILETTANTISTICA A RESPONSABILITA' LIMITATA	51,3%	6,56%	7,91%	-28%	-38%	72%	0,13	-0,48	-372%	-511%	-15%	-24%	101%	-39%	115%
4	OSTIA MARE LIDO-CALCIO S.R.L. SOCIETA' SPORTIVA DILETTANTISTICA A RESPONSABILITA' LIMITATA	115,6%	167,21%	0,46%	-277%	157%	-177%	1,67	-0,57	-217%	165%	6%	-8%	101%	-3%	90%
13	ASSOCIAZIONE CALCIO MONZA S.P.A. IN FORMA ABBREVIATA A.C. MONZA S.P.A.	57,8%	43,17%	88,97%	628%	86%	728%	0,25	0,04	3005%	409%	-96%	-119%	100%	-66%	61%
11	COSENZA CALCIO S.R.L.	61,4%	24,17%	56,43%	18%	15%	118%	0,07	0,41	348%	341%	-25%	-30%	101%	-48%	26%
	Average	76,0%	61,7%	68,6%	18%	29%	118%	0,55	0,06	166%	17%	-38,1%	-49,4%	78,1%	-43,8%	49,1%

## Annex 2a: Balance sheet reformulation: bankrupt teams

		NWC	NFA	NOA	NFO(st)	NFO(It)	Equity	EC	CHECK
	Company name								
20	TREVISO FOOTBALL CLUB 1993 S.R.L. - IN SIGLA F.B.C. IN LIQUIDAZIONE	-6.095	11.424	5.330	5.806	0	-476	5.330	0
40	PARMA FOOTBALL CLUB SPA OPPURE IN FORMA ABBREVIATA PARMA F.C. S.P.A. IN FALLIMENTO	-12.533	108.719	96.186	96.350	-502	338	96.186	0
55	CALCIO CATANIA SERVIZI S.R.L. IN LIQUIDAZIONE	-260	77	-182	168	0	-350	-182	0
78	PISA CALCIO S.R.L. - IN LIQUIDAZIONE	-775	12.825	12.050	3.027	11.739	-2.716	12.050	0
83	FOOTBALL CLUB BARI 1908 S.P.A. IN LIQUIDAZIONE	-9.446	8.540	-907	820	-17	-1.709	-907	0
146	A.S. LUCCHESI LIBERTAS 1905 S.R.L.	-397	170	-227	-7	0	-221	-227	0
148	A.C. DILETTANTISTICA PISTOIESE S.R.L. IN LIQUIDAZIONE	-134	374	240	185	-96	151	240	0
155	UNIONE SPORTIVA PERGOCREMA 1932 - S.R.L.	-783	609	-175	204	0	-378	-175	0
161	A.C. CESENA S.P.A.	-5.150	26.565	21.415	11.184	7.914	2.318	21.415	0
190	A.C. MONTICHIARI S.P.A.	-758	3.365	2.607	668	876	1.063	2.607	0
192	UNIONE SPORTIVA FOGGIA S.P.A.	-518	349	-169	-32	0	-137	-169	0
195	SALERNTANA CALCIO 1919 - S.P.A.	1.066	436	1.502	1.009	0	493	1.502	0
203	ASSOCIAZIONE SPORTIVA TARANTO CALCIO S.R.L. - IN LIQUIDAZIONE	-5.022	1.396	-3.626	419	0	-4.045	-3.626	0
208	FOLIGNO CALCIO A.S.D. S.R.L. OVVERO FOLIGNO CALCIO ASSOCIAZIONE SPORTIVA DILETTANTISTICA S.R.L. IN FALLIMENTO	386	-289	97	290	0	-193	97	0
255	A.S. MARTINA FRANCA 1947 S.R.L. IN LIQUIDAZIONE	89	-214	-125	32	0	-157	-125	0
267	UNIONE SPORTIVA AVELLINO S.P.A. IN LIQUIDAZIONE	-836	-2.231	-3.067	2.189	0	-5.256	-3.067	0
276	ASSOCIAZIONE SPORTIVA BARI S.P.A.	-11.145	12.038	893	8.881	5.131	-13.119	893	0
288	MODENA FOOTBALL CLUB - S.R.L.	-727	5.642	4.916	2.748	3.766	-1.599	4.916	0
305	UNIONE SPORTIVA TRIESTINA CALCIO S.P.A.	-4.300	6.642	2.342	1.697	240	405	2.342	0
340	A.C.SIENA - SOCIETA' A RESPONSABILITA' LIMITATA	-39.086	6.870	-32.215	3.628	4.547	-40.391	-32.215	0
346	ASSOCIAZIONE CALCIO REGGIANA 1919 S.P.A. IN SIGLA A.C. REGGIANA S.P.A. IN LIQUIDAZIONE	-2.047	1.294	-753	-572	509	-691	-753	0
387	U.S. LATINA CALCIO S.R.L.	-2.807	522	-2.286	1.313	0	-3.598	-2.286	0
388	A.C. SANGHETTESE SRL	58	155	212	375	0	-163	212	0
429	ASCOLI CALCIO 1898 - S.P.A.	-9.168	21.346	12.178	2.702	8.975	501	12.178	0
461	REGGINA CALCIO - S.P.A. -	-1.579	7.720	6.141	1.933	2.879	1.329	6.141	0
499	COSENZA CALCIO 1914 S.R.L.	549	372	922	-110	456	576	922	0
510	MATERA CALCIO S.R.L.	1.052	-853	199	304	0	-105	199	0
624	F.C. CATANZARO S.P.A.	-1.420	674	-747	131	0	-878	-747	0
625	MANTOVA FOOTBALL CLUB S.R.L.	-814	136	-679	-47	0	-631	-679	0
644	S.S. CAVESE 1919 - S.R.L.	-538	73	-466	-7	18	-477	-466	0
658	UNIONE SPORTIVA AREZZO S.R.L.	-621	-276	-897	-40	249	-1.106	-897	0
659	RAVENNA CALCIO S.R.L.	844	1.400	2.244	2.139	0	105	2.244	0
669	ASSOCIAZIONE CALCIO RIUNITE MESSINA S.R.L. IN LIQUIDAZIONE	-218	270	52	-32	0	84	52	0
742	SANSEPOLCRO CALCIO SRL - SOCIETA' SPORTIVA DILETTANTISTICA A RESPONSABILITA' LIMITATA	-327	826	500	5	388	107	500	0
745	PIACENZA FOOT-BALL CLUB S.P.A.	-2.583	5.358	2.775	2.501	0	274	2.775	0
807	A.S. LUCCHESI LIBERTAS 1905 S.R.L.	-281	3.166	2.884	882	522	1.480	2.884	0
813	S.S. MACERATESE S.R.L.	-289	1.453	1.164	192	888	84	1.164	0
856	ASSOCIAZIONE CALCIO PAVIA S.R.L. O ANCHE SOLO A.C. PAVIA S.R.L.	-2.293	397	-1.896	-71	500	-2.325	-1.896	0
917	SPAL 1907 S.P.A. IN LIQUIDAZIONE	-3.142	0	-3.142	-474	0	-2.667	-3.142	0
939	ASSOCIAZIONE SPORTIVA VARESE 1910 S.P.A.	-3.855	2.482	-1.372	744	1.234	-3.351	-1.372	0
1398	S.S. BARLETTA CALCIO S.R.L. (SOCIETA' SPORTIVA BARLETTA CALCIO R.L.)	140	211	351	130	0	221	351	0
1885	ASSOCIAZIONE SPORTIVA CASALE CALCIO S.R.L.	-889	178	-712	-1.424	690	23	-712	0

## Annex 2b: Income Statement reformulation: bankrupt teams (1/3)

	Company name	Revenues from sales and services th EUR	Changes in inventories th EUR	Changes in contract work in progress	Additions to fixed assets th EUR Last avail.	Other revenue th EUR Last avail. yr	Revenues	Raw, consum. mat. and goods for resale	Services th EUR Last avail. yr	Use of third parties assets th EUR	COGS	GROSS PROFIT
20	TREVISO FOOTBALL CLUB 1993 S.R.L. - IN SIGLA F.B.C. IN LIQUIDAZIONE	6.271	0	0	1.239	10.651	18.161	569	5.953	227	6.749	11.412
40	PARMA FOOTBALL CLUB SPA OPPURE IN FORMA ABBREVIATA PARMA F.C. S.P.A. IN FALLIMENTO	4.098	0	0	4.415	94.549	103.061	944	14.674	1.794	17.411	85.650
55	CALCIO CATANIA SERVIZI S.R.L. IN LIQUIDAZIONE	3.270	0	0	0	448	3.718	565	2.029	823	3.417	301
78	PISA CALCIO S.R.L. - IN LIQUIDAZIONE	2.483	-86	0	279	6.987	9.663	636	2.568	140	3.344	6.320
83	FOOTBALL CLUB BARI 1908 S.P.A. IN LIQUIDAZIONE	2.431	0	0	605	12.687	15.723	502	2.670	335	3.507	12.216
146	A.S. LUCCHESI LIBERTAS 1905 S.R.L.	1.494	0	0	156	750	2.400	176	874	95	1.145	1.255
148	A.C. DILETTANTISTICA PISTOIESE S.R.L. IN LIQUIDAZIONE	1.478	0	0	0	128	1.606	43	285	86	415	1.192
155	UNIONE SPORTIVA PERGOCREMA 1932 - S.R.L.	1.428	0	0	0	1.078	2.506	101	741	133	975	1.531
161	A.C. CESENA S.P.A.	1.385	0	0	2.400	31.496	35.281	341	2.768	1.045	4.154	31.127
190	A.C. MONTICHIARI S.P.A.	1.220	0	0	0	811	2.031	190	162	36	388	1.643
192	UNIONE SPORTIVA FOGGIA S.P.A.	1.218	0	0	0	1.882	3.101	199	691	29	920	2.181
195	SALERNTANA CALCIO 1919 - S.P.A.	1.202	0	0	0	5.988	7.190	671	1.429	57	2.157	5.033
203	ASSOCIAZIONE SPORTIVA TARANTO CALCIO S.R.L. - IN LIQUIDAZIONE	1.175	0	0	460	1.498	3.133	116	675	109	900	2.234
208	FOLIGNO CALCIO A.S.D. S.R.L. OVVERO FOLIGNO CALCIO ASSOCIAZIONE SPORTIVA DILETTANTISTICA S.R.L. IN FALLIMENTO	1.165	0	0	380	1.060	2.605	50	514	64	628	1.977
255	A.S. MARTINA FRANCA 1947 S.R.L. IN LIQUIDAZIONE	991	0	0	0	135	1.126	36	276	23	334	791
267	UNIONE SPORTIVA AVELLINO S.P.A. IN LIQUIDAZIONE	952	0	0	521	7.743	9.216	36	2.177	328	2.541	6.675
276	ASSOCIAZIONE SPORTIVA BARI S.P.A.	919	0	0	1.192	12.985	15.097	296	2.714	334	3.343	11.754
288	MODENA FOOTBALL CLUB - S.R.L.	891	0	0	442	6.600	7.933	325	1.889	361	2.574	5.358
305	UNIONE SPORTIVA TRIESTINA CALCIO S.P.A.	859	0	0	1.493	9.784	12.135	459	2.886	464	3.809	8.327
340	A.C. SIENA - SOCIETA' A RESPONSABILITA' LIMITATA	760	0	0	1.033	16.956	18.749	542	3.689	1.496	5.727	13.022
346	ASSOCIAZIONE CALCIO REGGIANA 1919 S.P.A. IN SIGLA A.C. REGGIANA S.P.A. IN LIQUIDAZIONE	755	0	0	0	2.962	3.717	379	1.873	463	2.715	1.002
387	U.S. LATINA CALCIO S.R.L.	682	0	0	238	8.945	9.865	356	2.112	259	2.728	7.138
388	A.C. SANGIUSTESE SRL	682	0	0	0	41	722	71	152	6	228	494
429	ASCOLI CALCIO 1898 - S.P.A.	620	0	0	673	12.526	13.819	465	1.586	317	2.367	11.451
461	REGGINA CALCIO - S.P.A. -	576	0	0	766	12.534	13.876	287	2.455	17	2.759	11.117
499	COSENZA CALCIO 1914 S.R.L.	529	0	0	0	1.730	2.259	136	1.053	299	1.488	771
510	MATERA CALCIO S.R.L.	516	0	0	0	2.433	2.950	1	338	57	397	2.553
624	F.C. CATANZARO S.P.A.	421	0	0	102	934	1.456	40	643	93	776	681
625	MANTOVA FOOTBALL CLUB S.R.L.	420	-7	0	182	2.991	3.586	164	886	58	1.108	2.478
644	S.S. CAVESE 1919 - S.R.L.	404	0	0	0	1.089	1.492	216	536	33	785	708
658	UNIONE SPORTIVA AREZZO S.R.L.	396	0	0	0	1.286	1.682	121	632	88	841	842
659	RAVENNA CALCIO S.R.L.	395	0	0	150	3.735	4.281	213	1.106	91	1.409	2.871
669	ASSOCIAZIONE CALCIO RIUNITE MESSINA S.R.L. IN LIQUIDAZIONE	385	0	0	0	1.319	1.703	144	557	4	705	998
742	SANSEPOLCRO CALCIO SRL - SOCIETA' SPORTIVA DILETTANTISTICA A RESPONSABILITA' LIMITATA	341	0	0	0	64	405	8	246	18	273	132
745	PIACENZA FOOT-BALL CLUB S.P.A.	340	0	0	462	6.729	7.532	415	2.166	52	2.633	4.899
807	A.S. LUCCHESI LIBERTAS 1905 S.R.L.	312	0	0	310	878	1.501	195	864	30	1.089	412
813	S.S. MACERATESE S.R.L.	309	0	0	83	1.373	1.766	30	480	106	616	1.150
856	ASSOCIAZIONE CALCIO PAVIA S.R.L. O ANCHE SOLO A.C. PAVIA S.R.L.	287	0	0	0	778	1.065	184	1.262	28	1.474	-409
917	SPAL 1907 S.P.A. IN LIQUIDAZIONE	267	0	0	0	2.178	2.445	100	1.779	186	2.065	379
939	ASSOCIAZIONE SPORTIVA VARESE 1910 S.P.A.	258	0	0	280	5.272	5.810	199	1.022	158	1.379	4.431
1398	S.S. BARLETTA CALCIO S.R.L. (SOCIETA' SPORTIVA BARLETTA CALCIO .R.L.)	146	0	0	128	1.673	1.947	127	805	145	1.076	871
1885	ASSOCIAZIONE SPORTIVA CASALE CALCIO S.R.L.	78	9	0	62	1.565	1.714	73	625	29	727	987

## Annex 2b: Income Statement reformulation: bankrupt teams (2/3)

Wages and salaries th EUR Last avail.	Social security charges th EUR Last avail.	Severance indemnities th EUR Last avail.	Pensions and similar obligations s	Other costs th EUR Last avail. yr	SG & A	Change in inventory of raw and consumable	Provisions for risks and charges th EUR	Other provisions th EUR Last avail. yr	Other operating expenses th EUR Last avail.	Other Operating expenses	EBITDA	EBITDA Margin
7.756	895	23	158	139	8.970	-141	0	0	1.773	1.632	809	4%
40.669	2.054	387	0	8.845	51.955	18	0	0	14.683	14.701	18.994	18%
435	121	30	0	0	586	-190	0	0	44	-147	-138	-4%
5.998	837	182	185	1.091	8.293	0	21	60	2.170	2.251	-4.224	-44%
11.357	1.354	295	0	52	13.058	-158	0	0	945	787	-1.629	-10%
1.175	381	6	0	0	1.563	0	16	0	145	161	-469	-20%
878	319	68	0	0	1.265	0	0	0	144	144	-217	-14%
963	284	58	0	0	1.305	-24	0	0	371	347	-121	-5%
9.280	1.412	303	3	30	11.028	0	0	0	2.948	2.948	17.151	49%
650	138	32	1	0	821	350	0	0	498	848	-26	-1%
1.732	406	102	0	0	2.240	-31	0	0	697	665	-724	-23%
4.650	726	5	0	732	6.113	0	0	0	1.984	1.984	-3.063	-43%
3.329	837	145	0	0	4.312	0	0	0	778	778	-2.856	-91%
1.283	493	1	0	0	1.776	0	0	0	352	352	-151	-6%
579	209	2	33	47	870	0	0	0	247	247	-326	-29%
6.101	933	0	0	146	7.180	0	41	176	3.106	3.323	-3.827	-42%
9.153	1.401	74	0	46	10.675	0	30	0	4.028	4.058	-2.979	-20%
5.269	1.035	221	0	6	6.531	5	0	0	867	872	-2.044	-26%
3.863	714	151	0	399	5.126	22	94	0	1.817	1.933	1.267	10%
15.582	1.539	333	0	0	17.454	40	0	2.307	2.054	4.400	-8.832	-47%
4.283	980	157	0	0	5.420	91	200	0	477	768	-5.186	-140%
8.765	709	171	0	10	9.655	-2	0	0	1.770	1.767	-4.284	-43%
382	142	0	0	0	525	0	0	0	37	37	-68	-9%
4.277	719	139	0	0	5.135	88	0	0	1.740	1.828	4.488	32%
4.732	724	185	0	0	5.641	0	0	296	783	1.079	4.397	32%
1.623	432	9	0	78	2.142	0	0	0	13	13	-1.384	-61%
1.989	407	0	0	0	2.396	0	0	0	347	347	-190	-6%
1.785	486	5	0	0	2.276	0	0	0	83	83	-1.678	-115%
2.242	608	109	0	0	2.959	0	0	0	372	372	-853	-24%
693	210	4	0	37	945	0	0	0	164	164	-401	-27%
1.696	361	78	0	184	2.318	8	0	0	196	204	-1.680	-100%
2.923	576	135	0	0	3.634	0	0	0	621	621	-1.383	-32%
867	181	20	0	8	1.076	0	0	0	132	132	-211	-12%
0	0	0	0	0	0	0	0	0	33	33	100	25%
5.480	844	193	0	288	6.805	0	0	0	1.687	1.687	-3.593	-48%
176	8	2	0	1.265	1.450	-66	0	0	207	141	-1.179	-79%
925	224	11	0	0	1.160	-11	0	0	86	75	-85	-5%
3.775	858	169	0	0	4.802	0	335	0	533	868	-6.079	-571%
2.335	613	124	0	0	3.072	0	0	0	607	607	-3.299	-135%
3.705	772	4	106	183	4.771	0	101	0	1.050	1.151	-1.491	-26%
1.156	355	64	0	0	1.575	6	0	0	207	213	-916	-47%
1.360	359	61	0	0	1.780	0	30	0	309	339	-1.131	-66%



## Annex 2b: Income Statement reformulation: bankrupt teams (3/3)

Amort. of intangible fixed assets th EUR	Depr. of tangible fixed assets th EUR	Writedow n of fixed assets th EUR Last avail.	Writedow n of receivable s th EUR	Total Amortizati ons	TOTAL EXTRAORDINAR Y REVENUE	EBIT	EBIT Margin	TOTAL FINANCIAL INCOME AND	TOTAL FINANCIAL ASSETS ADJUST	EBT	Total current, deferred and prepaid	Profit/Los s	PROFIT (LOSS) THIRD PARTIES th EUR	Profit/Los s Group	AIDA Profit Loss	Check
2.753	64	0	0	2.816	0	-2.007	-11%	1.016	0	-991	331	-1.322	0	-1.322	-1.322	0
27.381	216	0	0	27.597	-2.160	-10.762	-10%	-1.176	0	-11.939	1.757	-13.695	0	-13.695	-13.695	0
5	14	0	0	19	0	-157	-4%	-8	0	-165	0	-165	0	-165	-165	0
981	58	0	0	1.039	-99	-5.362	-55%	130	0	-5.232	102	-5.334	0	-5.334	-5.334	0
1.943	36	0	1.193	3.172	0	-4.801	-31%	-103	0	-4.904	403	-5.307	0	-5.307	-5.307	0
161	6	0	60	227	0	-696	-29%	-10	0	-706	33	-739	0	-739	-739	0
160	6	0	0	166	2	-381	-24%	-60	0	-441	18	-459	0	-459	-459	0
331	15	0	0	346	218	-249	-10%	-23	0	-271	44	-316	0	-316	-316	0
13.149	167	0	0	13.316	-2.168	1.667	5%	-2.114	0	-447	1.564	-2.011	0	-2.011	-2.011	0
804	36	0	0	840	0	-866	-43%	-33	0	-899	0	-899	0	-899	-899	0
143	10	399	0	552	1.025	-252	-8%	-72	0	-324	87	-411	0	-411	-411	0
101	21	0	0	121	1.029	-2.156	-30%	-52	0	-2.208	41	-2.248	0	-2.248	-2.248	0
507	17	0	0	524	-1.306	-4.685	-150%	-65	0	-4.750	0	-4.750	0	-4.750	-4.750	0
211	12	0	0	223	204	-170	-7%	-54	0	-225	52	-277	0	-277	-277	0
4	14	0	129	146	165	-307	-27%	-13	0	-320	25	-345	0	-345	-345	0
798	35	0	99	932	-70	-4.828	-52%	-176	0	-5.004	-1.046	-3.958	0	-3.958	-3.958	0
3.517	30	183	51	3.781	478	-6.282	-42%	-5.365	0	-11.647	350	-11.997	0	-11.997	-11.997	0
1.325	40	0	62	1.427	-121	-3.592	-45%	-274	0	-3.866	110	-3.975	0	-3.975	-3.975	0
2.241	151	0	0	2.392	-408	-1.532	-13%	-989	0	-2.521	137	-2.658	0	-2.658	-2.658	0
303	51	35.972	0	36.326	3.004	-42.154	-225%	-752	0	-42.906	519	-43.425	0	-43.425	-43.425	0
660	35	0	50	745	0	-5.932	-160%	-69	0	-6.000	0	-6.000	0	-6.000	-6.000	0
523	27	0	0	550	-1.157	-5.991	-61%	-168	-8	-6.167	83	-6.250	0	-6.250	-6.250	0
36	13	0	0	49	-31	-149	-21%	-12	0	-160	12	-173	0	-173	-173	0
3.200	23	0	0	3.222	90	1.355	10%	-1.421	0	-66	82	-148	0	-148	-148	0
2.323	468	0	0	2.791	-1.000	606	4%	-545	0	60	47	13	0	13	13	0
55	23	0	0	79	632	-831	-37%	-61	0	-891	12	-903	0	-903	-903	0
0	2	0	0	2	0	-192	-6%	0	0	-192	39	-231	0	-231	-231	0
235	19	0	0	254	149	-1.783	-122%	-14	0	-1.797	10	-1.808	0	-1.808	-1.808	0
192	38	0	0	230	0	-1.082	-30%	-18	0	-1.100	20	-1.120	0	-1.120	-1.120	0
62	20	0	0	82	-8	-491	-33%	-15	0	-507	23	-530	0	-530	-530	0
100	20	0	0	121	0	-1.801	-107%	-11	0	-1.813	18	-1.831	0	-1.831	-1.831	0
428	25	0	125	578	11	-1.950	-46%	-817	0	-2.767	-607	-2.160	0	-2.160	-2.160	0
29	4	0	182	214	464	39	2%	-3	0	36	30	6	0	6	6	0
3	3	0	0	6	0	94	23%	-29	0	65	0	65	0	65	65	0
1.391	46	0	100	1.537	61	-5.069	-67%	-1.796	0	-6.865	0	-6.865	0	-6.865	-6.865	0
142	13	0	0	154	0	-1.334	-89%	-21	-1.006	-2.361	0	-2.361	0	-2.361	-2.361	0
35	22	0	0	57	12	-130	-7%	-54	0	-183	22	-206	0	-206	-206	0
248	11	0	110	369	40	-6.408	-602%	-812	-5	-7.225	0	-7.225	0	-7.225	-7.225	0
330	265	0	0	595	627	-3.267	-134%	-30	0	-3.297	16	-3.313	0	-3.313	-3.313	0
724	9	0	0	733	2	-2.222	-38%	149	0	-2.073	-230	-1.843	0	-1.843	-1.843	0
76	13	0	0	90	-55	-1.061	-54%	-13	0	-1.074	22	-1.095	0	-1.095	-1.095	0
43	2	0	0	45	-4	-1.180	-69%	-127	0	-1.308	43	-1.350	0	-1.350	-1.350	0

## Annex 2c: Ratio Analysis: bankrupt teams

	Company name	Liquidity Ratio	Debt Ratio	Expanded Labor Cost Ratio	Financial Leverage 1	Financial Leverage 2	Financial Leverage 3	NWC Financing (\$t)	NWC Financing (Lt)	ROE	ROIC	EBITDA Margin	EBIT Margin	Financial Cost Ratio	ROA	COGS/Revenues
24	PARMA FOOTBALL CLUB SPA OPPURE IN FORMA ABBREVIATA PARMA F.C. S.P.A. IN FALLIMENTO	52,2%	79,75%	57,86%	-1219%	109%	-1119%	-0,95	0,08	277%	-38%	4%	-11%	49%	-4%	37%
25	MODENA FOOTBALL CLUB - S.R.L.	48,1%	93,26%	66,03%	28338%	100%	28438%	-7,69	0,01	-4049%	-11%	18%	-10%	111%	-6%	17%
26	REGGINA CALCIO - S.P.A. -	82,9%	9,47%	11,84%	-48%	-92%	52%	-0,65	1,35	47%	86%	-4%	-4%	105%	-9%	92%
1	ATALANTA BERGAMASCA CALCIO S.P.A.	50,3%	167,71%	72,22%	-544%	123%	-444%	-3,91	-11,65	196%	-44%	-44%	-55%	98%	-28%	35%
6	UNIONE SPORTIVA SASSUOLO CALCIO S.R.L. - ABBREVIABILE IN: U.S. SASSUOLO CALCIO S.R.L.	36,3%	60,31%	84,59%	-47%	-89%	53%	-0,09	0,18	311%	530%	-10%	-31%	102%	-37%	22%
27	TRAPANI CALCIO S.R.L.	42,6%	53,60%	55,66%	3%	3%	103%	0,02	0,56	335%	306%	-20%	-29%	102%	-41%	48%
28	CALCIO LECCO 1912 S.R.L.	59,1%	28,73%	64,62%	59%	37%	159%	-1,38	-0,41	-304%	-159%	-14%	-24%	116%	-33%	26%
22	TERNANA CALCIO S.P.A.	41,8%	38,57%	51,63%	-54%	-117%	46%	-0,26	0,48	83%	142%	-5%	-10%	109%	-20%	39%
29	ASSOCIAZIONE SPORTIVA LIVORNO CALCIO S.R.L. IN LIQUIDAZIONE	81,7%	111,40%	63,57%	824%	89%	924%	-2,17	-1,99	-87%	8%	49%	5%	-27%	-2%	12%
30	DELFINO PESCARA 1936 S.P.A.	51,1%	110,45%	71,60%	145%	59%	245%	-0,88	-2,56	-85%	-33%	-1%	-43%	104%	-19%	19%
10	F.C.CROTONE S.R.L.	83,0%	15,52%	60,46%	23%	19%	123%	0,06	0,27	299%	149%	-23%	-8%	129%	-15%	30%
17	NOVARA CALCIO SOCIETA' A RESPONSABILITA' LIMITATA	138,6%	1,19%	66,07%	205%	67%	305%	0,95	0,46	-456%	-144%	-43%	-30%	102%	-42%	30%
31	HELLAS VERONA FOOTBALL CLUB S.P.A.	18,7%	172,36%	122,45%	-10%	-12%	90%	-0,08	0,81	117%	129%	-91%	-150%	101%	-179%	29%
32	BRESCIA CALCIO S.P.A.	92,9%	43,92%	57,32%	-150%	299%	-50%	0,75	-0,50	143%	-176%	-6%	-7%	132%	-9%	24%
14	A.S. CITTADELLA S.R.L.	112,4%	20,79%	51,78%	-21%	-26%	79%	0,36	-1,76	220%	246%	-29%	-27%	104%	-52%	30%
33	CALCIO CATANIA S.P.A.	80,5%	79,94%	74,85%	-42%	-71%	58%	-2,62	6,29	75%	157%	-42%	-52%	104%	-21%	28%
34	S.S. JUVE STABIA S.R.L.	30,5%	270,30%	83,93%	-107%	1569%	-7%	-0,80	0,72	91%	-703%	-20%	-42%	185%	-28%	22%
16	CALCIO AVELLINO 1912 S.R.L.	24,7%	115,71%	83,12%	-407%	133%	-307%	-3,78	-2,98	249%	-73%	-26%	-45%	108%	-38%	32%
35	UNIONE SPORTIVA PISTOIESE 1921 SRL	64,2%	33,05%	50,30%	478%	83%	578%	-0,39	-0,15	-656%	-65%	10%	-13%	165%	-21%	31%
36	AURORA PRO PATRIA 1919 S.R.L.	46,3%	218,65%	84,72%	-20%	-25%	80%	-0,09	0,92	108%	131%	-47%	-225%	102%	-123%	31%
5	ASSOCIAZIONE CALCISTICA PERUGIA CALCIO S.R.L.	66,5%	47,88%	132,98%	9%	8%	109%	0,28	0,09	869%	788%	-140%	-160%	101%	-155%	73%
9	BENEVENTO CALCIO S.R.L.	45,9%	76,56%	94,14%	-36%	-57%	64%	-0,47	1,28	174%	262%	-43%	-61%	103%	-73%	28%
37	PISA SPORTING CLUB SOCIETA' A RESPONSABILITA' LIMITATA	57,2%	43,88%	57,95%	-230%	177%	-130%	6,52	-2,83	106%	-70%	-9%	-21%	108%	-30%	32%
38	U.C. ALBINOLEFFE S.R.L.	74,4%	151,71%	54,11%	2331%	96%	2431%	-0,29	-1,03	-30%	11%	32%	10%	-5%	0%	17%
39	ASSOCIAZIONE CALCIO PRATO SOCIETA' SPORTIVA DILETTANTISTICA A RESPONSABILITA' LIMITATA IN FORMA ABBREVIATA ASSOCIAZIONE CALCIO PRATO S.S.D. A R.L.	69,4%	95,85%	50,85%	362%	78%	462%	-1,22	-2,67	1%	10%	32%	4%	10%	0%	20%
40	S.S. TERAMO CALCIO S.R.L.	119,4%	6,03%	74,29%	60%	38%	160%	-0,20	1,88	-157%	-90%	-61%	-37%	107%	-32%	66%
19	CALCIO PADOVA S.P.A.	136,9%	3,65%	67,43%	-289%	153%	-189%	0,29	-0,10	220%	-96%	-6%	-6%	100%	-8%	13%
12	PIACENZA CALCIO 1919 - SOCIETA' A RESPONSABILITA' LIMITATA ENUNCIABILE ANCHE PIACENZA CALCIO 1919 - S.R.L.	41,2%	93,36%	138,67%	-15%	-18%	85%	-0,09	0,62	206%	239%	-115%	-122%	101%	-110%	53%
15	RENDE CALCIO 1968 SOCIETA' SPORTIVA DILETTANTISTICA A RL	43,7%	30,26%	67,85%	7%	7%	107%	0,06	0,78	177%	159%	-24%	-30%	102%	-104%	31%
44	UNIONE SPORTIVA TRIESTINA CALCIO 1918 S.R.L.	46,3%	36,00%	50,62%	-2%	-2%	98%	0,01	0,85	111%	106%	-27%	-33%	103%	-102%	53%
7	ARMANDO PICCHI CALCIO SRL	57,3%	78,34%	106,79%	-19%	-23%	81%	0,06	1,38	166%	201%	-100%	-107%	101%	-174%	50%
20	F.C. PRO VERCELLI 1892 S.R.L.	93,9%	7,34%	78,28%	2047%	95%	2147%	2,54	0,12	-2067%	-87%	-32%	-46%	142%	-35%	33%
21	F.C. FORLI' S.R.L.	95,1%	-0,25%	52,57%	-38%	-61%	62%	0,15	-0,39	7%	75%	-12%	2%	93%	0%	41%
41	PORDENONE CALCIO S.R.L.	78,6%	116,28%	0,67%	368%	79%	468%	-0,02	-1,51	61%	19%	25%	23%	69%	6%	67%
42	ALMA JUVENTUS FANO 1906 S.R.L.	59,0%	65,77%	91,23%	913%	90%	1013%	-0,97	-0,11	-2507%	-183%	-48%	-67%	135%	-54%	35%
8	U.S. ALESSANDRIA CALCIO 1912 S.R.L.	13,4%	112,77%	21,13%	95%	49%	195%	-3,13	-7,12	-160%	-46%	-79%	-89%	177%	-70%	73%
43	UNIONE SPORTIVA 1913 SEREGNO CALCIO S.R.L. IN FORMA ABBREVIATA U. S. 1913 SEREGNO SRL	84,3%	58,52%	54,36%	1285%	93%	1385%	-0,66	-3,37	-245%	-11%	-5%	-7%	141%	-11%	35%
2	FERALPISALO' S.R.L.	12,6%	260,75%	377,72%	-18%	-23%	82%	0,03	0,80	311%	338%	-571%	-602%	113%	-648%	138%
3	A.C. CREMA 1908 SOCIETA' SPORTIVA DILETTANTISTICA A RESPONSABILITA' LIMITATA	59,7%	110,10%	109,01%	18%	15%	118%	0,15	0,85	124%	104%	-135%	-134%	101%	-81%	84%
4	OSTIA MARE LIDO-CALCIO S.R.L. SOCIETA' SPORTIVA DILETTANTISTICA A RESPONSABILITA' LIMITATA	71,6%	152,80%	76,23%	-59%	-144%	41%	-0,19	0,55	55%	162%	-26%	-38%	93%	-10%	24%
13	ASSOCIAZIONE CALCIO MONZA S.P.A. IN FORMA ABBREVIATA A.C. MONZA S.P.A.	115,0%	-1,10%	63,30%	59%	37%	159%	0,93	1,58	-495%	-302%	-47%	-54%	101%	-291%	55%
11	COSENZA CALCIO S.R.L.	123,3%	4,57%	81,80%	-3257%	103%	-3157%	1,60	-0,80	-5990%	166%	-66%	-69%	111%	-46%	42%
	Average	66,73%	77,99%	77,06%	738%	73%	838%	-0,43	-0,45	-289,2%	52,2%	-42,8%	-58,4%	102,5%	-65,5%	40,4%

### Annex 3a: *T-test analysis*

	Liquidity Ratio	Debt Ratio	Expanded Labor Cost Ratio	Financial Leverage 1	Financial Leverage 2	Financial Leverage 3	NWC Financing (St)	NWC Financing (Lt)	ROE	ROIC	EBITDA Margin	EBIT Margin	Financial Cost Ratio	ROA	COGS/Re venues	Profit/Loss Group
T-TEST	14,249%	18,552%	24,312%	12,362%	18,840%	12,362%	0,802%	26,380%	3,164%	23,400%	42,205%	34,507%	1,648%	15,333%	7,806%	3,48%

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## SUMMARY

### *1. Objective of the research*

The purpose of this research is to analyse the economic performance of companies in the football sector during the decade 2008 – 2018 in Italy.

In particular, the period in question was chosen in order to achieve results that were not affected by the Covid-19 epidemic that spread at the turn of the 2020 - 2021 season.

It is important to highlight how the research aims to describe the most common realities of the soccer industry, therefore, avoiding focus on the big teams in the top league (Serie A), but majorly taking into consideration those in the lower championships (Serie B, C, D) that are undoubtedly a better reflection of industry trends.

It will be analysed how the number of teams that fail each year is constantly increasing, portending how, if the situation does not change in the future, we could be faced with a crisis that is far worse than the one underway to date.

In this regard, the analysis first focused on a framing of the industry from a regulatory and accounting perspective, and then continued with experimental research focusing on two samples consisting of 42 failed and non-failed teams, respectively.

The objective of the latter was, in the first instance, to find similarities and differences between the two samples considered on the basis of the indicators imposed by federal bodies such as, the Federazione Italiana Giuoco Calcio (F.I.G.C.).

Once this step was completed, based on the results obtained, was implemented an econometric analysis to understand how suitable the indicators imposed by the aforementioned bodies were for monitoring the economic performance of football clubs.

### *2. The sector from a regulatory and accounting perspective*

For many years, up until 1995, football clubs had to contend with the obligation of the legal form of joint stock companies to which the recognition of the profit-making purpose typical of businesses did not apply. This obligation obviously limited the development of the sector in general and was inevitably reflected on the economic and financial level.

Only since 1996 (Law 18 November 1996 n. 586), with the acquisition of profit-making purposes, sports clubs have begun to think like real companies with the aim of growing in an environment made up of different players and different modes of regulation.

At this point, companies entered the view of creating value within a market, automatically triggering economic dynamics related to costs, revenues, and economic risk.

Therefore, nowadays, these clubs have become real businesses that play the role of both producers of goods offered on the market (the matches), and of employers for those very special production factors that are the players (Gravina, 2016).

One of the most important control bodies in this sector is the F.I.G.C. which has the task of exercising control through a specific set of regulations, the so called “Norme Organizzative Interne Federali” (N.O.I.F.).

Among the various sections included in this legislation, the one regarding controls on the economic and financial management of professional companies is particularly relevant. In fact, it is precisely from here that it will be possible to understand which are the requirements that companies must meet in order to be sustainable, independent and continuous in business operations.

With article 85 of the N.O.I.F., we have the possibility to go into more detail regarding both the informative obligations of soccer clubs in terms of documentation and the economic-financial monitoring indicators. In fact, this article is structured in such a way as to offer an overview of the topics just mentioned with regard to the A, B and C championships.

As far as the control of the economic-financial balance is concerned, a series of indicators have been defined, with slightly different characteristics depending on the league in question, which must be calculated and filed with the Co.Vi.So.C. and the previously mentioned documentation.

Therefore, among the indicators in question we can identify:

- The Liquidity ratio (required for all three leagues)
- The Debt ratio (required for all three leagues)
- The Expanded Labor Cost ratio (required for all three leagues)
- The Capitalization ratio (required for Series B and C championships)

Taking into consideration the first one, the **Liquidity ratio**, we can state that it is mainly used to determine a possible financial shortfall calculated through the ratio between current Assets and Liabilities (CA/CL).



The **Debt ratio** instead, as the word itself implies, has the objective of defining the level of indebtedness of the companies taken into consideration and is calculated through the division between debts (D) and revenues (R).

Successively, the **Expanded Labour Cost ratio** can be calculated as the ratio of the Expanded Labor Cost (ELC) to revenue (R). It is used to calculate the amount of costs deriving from personnel (including those relating to players) with respect to the amount of revenues.

Finally, the **Capitalization ratio**, instead, can be calculated as the ratio of Heritage to Assets.

In addition to the indices just listed, it is important to remember that the accounting rules governing this particular sector have been continuously updated. In fact, over the years, the accounting framework of the football sector's financial statements has undergone various changes, mainly due to the liberalization of transfers of professional athletes (Bosman ruling<sup>10</sup>) and the development of modern broadcasting technologies (pay-tv and pay-per-view).

Inevitably, these phenomena have had a direct impact on the accounting framework, increasing the importance of correct financial statement reporting also through the introduction of some peculiarities that must be considered.

For this reason, every extraordinary activity is treated, from an accounting point of view, both within the Profit and Loss Account and the Balance Sheet through the presence of some "typical items" that are:

- Players' registration rights;
- Capitalization of nursery costs;
- Provisions for mutual purposes.
- Revenues from the sale of television rights;
- Losses/gains from disposal of players' registration rights;
- Amortization of players' registration rights;
- Temporary disposals (Gravina, 2016).

To understand better the importance of the topic at hand, it is also necessary to frame the industry from an economic perspective.

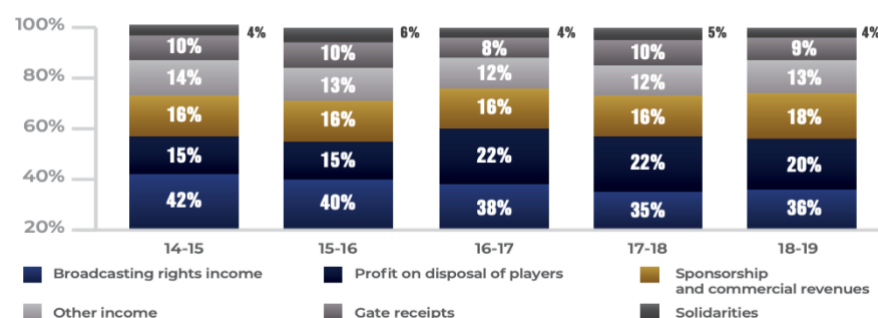
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<sup>10</sup> Judgment C-415/95 of the Court of justice of the European Union.

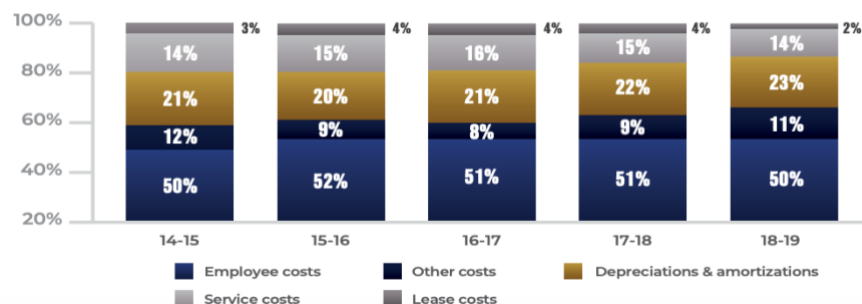
For instance, although revenues are constantly increasing thanks to the growth of individual items such as income from television rights, from the sale of players or from the exceptional performance of sponsorships, costs are moving in the same direction.

In particular, there has been a rise in the items relative to employee costs (mainly for the recruitment of players) and to amortization (above all for the costs linked to players' transfer market), increasing investments mainly because of the desire of clubs to consolidate their competitiveness (Pwc, 2019).

**Breakdown of sources of income 2014-2019**



**Breakdown of costs 2014-2019**



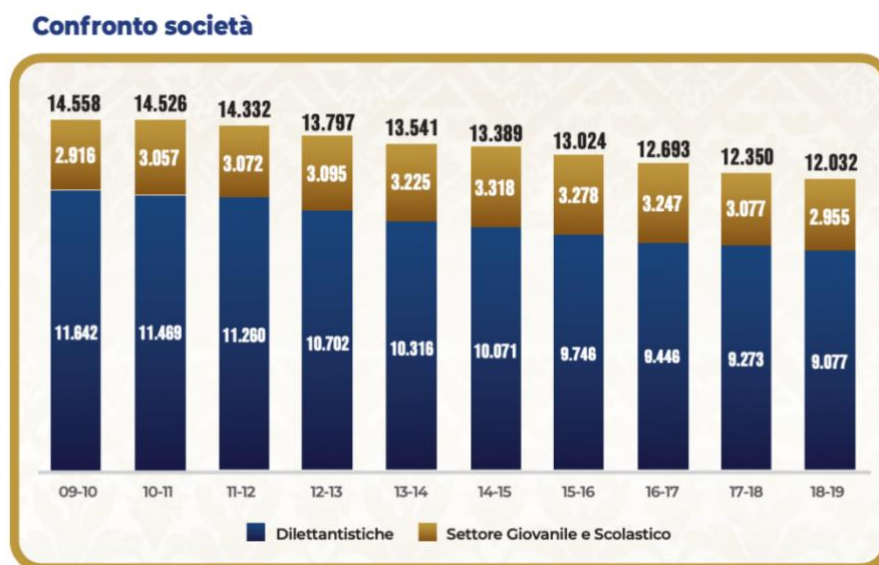
*Breakdown of sources of income/costs in the period 2014-2019.<sup>11</sup>*

These changes contributed to a net loss of 395 million euros and, analysing the entire period, it is clear that the sector is reporting constantly negative results.

These negative net results, coupled with the steady growth in debt faced by clubs each year, are part of the key elements needed to understand why a not insignificant amount of football clubs fail given that: "the professional soccer leagues in the last 15 years have counted over 150 companies disappear into thin air" (Politanò, 2018).

In fact, as we can see from the graph below, over the decade under consideration, the total number of active teams gradually decreased over the period.

<sup>11</sup> Report Calcio 2020, Arel & Pwc.



*2020 Report Calcio 10 anni: Il calcio dilettantistico e giovanile<sup>12</sup>*

Over the course of 10 years, excluding professional clubs for the moment, a massive decline in numbers can be seen as we go from 14,558 in 2009-2010 to 12,032 in 2018-2019.

Thus, over this period there has been a decrease in the number of teams equal to 18 percent.

This phenomenon also reveals that the most significant decreases are found in the southern area/islands of Italy.

Taking into consideration the same source of data, however, it is possible to say that a decline was also found in professional clubs over the decade.

In fact, as we can see from the image below, a decrease in the number of professional clubs equal to 28% was found and, therefore, it cannot be unnoticed that of the 3 categories it is by far the one most in crisis.

	2009-2010	2018-2019	VARIAZIONE %
<b>SOCIETÀ</b>	<b>14.690</b>	<b>12.127</b>	<b>-17,4%</b>
Professionalistiche	132	95	-28,0%
Dilettantistiche	11.642	9.077	-22,0%
Settore Giovanile e Scolastico	2.916	2.955	+1,3%

*2020 Report Calcio 10 anni: Il censimento del calcio italiano<sup>13</sup>*

<sup>12</sup> FIGC, Report Calcio – Edizione Speciale 10 anni.

<sup>13</sup> FIGC, Report Calcio – Edizione Speciale 10 anni.

With all this data taken into account it is therefore inevitable to ask ourselves what are the reasons for which these companies fail and whether there are common elements behind.

For this aim, it was decided to select two sample of teams that could represent the sector as much as possible.

### *3. The analytical approach*

In defining the two sample, it was decided to identify two groups of teams, one containing failed teams and one containing non-failed (active) teams.

Obviously, as explained earlier all the data that were considered fall within the period that goes from 2008 to 2018 and regards 84 Italian teams equally distributed between the two groups.

In the process of selecting the clubs, it was possible to take a top-down approach by starting with a very large sample of failed/non failed teams, and then, constantly skimming.

In fact, an initial selection took place through the introduction of several recruitments related to teams, including:

- company status;
- membership in one of the 20 regions that constitute the Italian state;
- the corporate purpose characterized, in the first instance, by any sporting activity.

Once this initial selection was made, it was then necessary to identify the period of interest by going to extrapolate only those activities that ceased in the 10 years before covid, i.e., falling within the period 2008 – 2018.

Once the time frame was also considered, all those activities that fell within the soccer sector were hand-selected, and as a result, a sample, consisting of 84 (Failed and Non-Failed) professional and amateur football clubs, came out.

In particular, it is possible to note that the majority of those selected teams come from the B and C leagues.

This is a direct consequence of the fact that the analysis carried out wants to focus on those realities that most represent the football sector in Italy. In fact, the goal is precisely to avoid focusing on the big clubs that are undoubtedly more famous but do not reflect the real performance of the sector.

The financial evaluation of the clubs was based first on the calculation of the ratios that the teams themselves must report in the official documents because they are required by the legislative bodies and explicitly provided for within the N.O.I.F. A summary of the results is highlighted in the table below.

<i>Teams/Ratio</i>	<b>Liquidity</b>	<b>Debt</b>	<b>Expanded Labor Cost</b>
<b>Active</b>	76%	61,7%	68,6%
<b>Failed</b>	66,73%	80%	77,06%
<b>Delta (<i>absolute value</i>)</b>	9,27%	18,3%	8,46%

*Summary of the main index calculated (Table 3)<sup>14</sup>*

As can be seen from the variable Delta (absolute value), there are indeed differences between the values of failed and non-failed teams. In fact, as also analysed more specifically within the research, active teams seem to have apparently better indicators justified mainly by lower liability levels.

However, the question that actually needs to be asked is whether indeed, these are the right indicators to consider when recognizing a crisis situation within a football club.

To answer this question, it is possible to refer to an important benchmarking tool, namely, the T-test.

This tool is normally applied to two normally distributed data sets and aims to understand how statistically significant is the difference in the data belonging to the two samples.

The end result of such tests is a probability (P) that the 'null hypothesis' (which always states that there is no difference between the sets of data) is true (Millar, 2001). This should then be compared with the so-called "critical value" that gives us an indication of how statistically significant the difference between the two sets of data is.

This T-test was applied to the ratios that were just described and calculated, i.e., those imposed by the F.I.G.C., through the excel function assuming that the two samples were independent and characterized by different variances.

A summary of the results obtained can be identified in the following table:

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<sup>14</sup> All the results described above are the result of an average of the values obtained by the teams within the corresponding sample.

<i>Ratios</i>	<b>Liquidity</b>	<b>Debt</b>	<b>Expanded Labor Cost</b>
<b>T-test</b>	18,003%	19,345%	22,667%

*Summary of the T-tests calculated (Table 4)*

It tends to be up to each investigator to decide the level of significance ( $\alpha$ ) to set as a reference and a probability level of 0.05 (5%) is usually chosen (Bottarelli, 2020) although, however, it is not unusual to find an  $\alpha$  equal to 10%.

In our case, it is easily noticeable how the probability (P) calculated through the t-test is significantly higher than the imposed critical value  $\alpha$ .

This simply means that the observed difference between the averages of the two groups (which are shown in Table 3), for each calculated indicator, is not statistically significant implying, consequently, that these indicators fail to capture crisis situations.

Thus, from the comparative statistics analysis conducted, it would appear that with high probability (18.003%, 19.345%, 22.667%) the considered index pairs are formed from data sets that are not really different from each other.

Given the fact that it has been statistically proven that indices imposed by legislative bodies, are unable to capture crisis situations, it is necessary to try to understand if and what other indicators are more functional for such analysis.

For this reason, additional indicators (highlighted in the table below) were considered, taking into account the probability value (P) associated with the T-test.

<i>Indicators</i>	<b>NWC Financing (St)</b>	<b>COGS/Revenues</b>	<b>Net Income</b>
<b>T-test</b>	1%	8,8%	3,5%

*Summary of the T-test of the main indicators calculated (Table 6)*

<i>Teams/Ratio</i>	<b>NWC Financing (St)</b>	<b>COGS/Revenues</b>	<b>Net Income</b>
<b>Active</b>	0,55	49,1%	-1.442
<b>Failed</b>	-0,43	40%	-3.562

*Summary of the results of the main index calculated (Table 8)<sup>15</sup>*

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<sup>15</sup> All the results described above are the result of an average of the values obtained by the teams within the corresponding sample.

Thanks to these 3 indicators, it is possible to state that sports clubs that are in difficulty tend, first and foremost, to have little ability to self-finance their Net Working Capital in the short term.

Obviously, it should be emphasized that the sector in question hardly allows sports clubs to have a positive Net Working Capital but, however, it has been shown that there is a statistically significant difference between bankrupt and non-bankrupt football clubs.

Secondly, it was found that, in reality, bankrupt teams invest less at the operational level (about 400.000 euros less on average) in terms of infrastructure, merchandising, sponsoring, equipment, etc.

This index is of considerable importance not only because of a difference shown to be statistically significant by the T-test analysis conducted, but also because it makes us realize that it is not necessarily true that bankrupt teams tend to be the ones that spend more, but rather, in this case they tend to spend less.

This finding makes us realize that the allocation of investments is just as important as the number of investments that are made.

Thirdly, Net Income also proved to be a very indicative measure.

This happens because, in a sector where companies are constantly making losses, there is a clear difference in the average Income between the two groups of teams analysed.

In fact, bankrupt teams tend to have losses, on average, 40% higher than their non-bankrupt counterparts.

Obviously, this is an excessively large difference which is mainly due to higher depreciation and financial costs.

In the latter case, contrary to what happened with the COGS, the problem lies in excessively high costs that are supported by investment policies that are unsustainable for the clubs that implement them.

It is important to reiterate that each of the indices considered is not affected by any kind of sampling error and that the differences reported are all to be considered reliable as the probabilities of these indicators deviating from hypothetical true values are very low.

#### *4. Concluding comments*

In light of what has been analysed, it is easy to understand how the economic performance of the Italian soccer sector is anything but positive.

In this sense, it has been shown how there are indeed significant differences between the two samples of teams analysed, given the "better" performance of non-bankrupt clubs in relation to the ratios imposed by the F.I.G.C.

However, it was also analysed how, although better, the indicators of the active teams were not at a level that would demonstrate a situation of well-being and economic self-sufficiency.

This is because, for example, only a fraction of the 82 teams analysed (i.e., 10) closed the considered fiscal year in profit. In addition, it should also be pointed out that most of them, even if not loss-making, had almost negligible net revenues.

However, it was also shown through the T-test how in reality the indicators used by the F.I.G.C. were unable to capture differences between the results of the two samples as they were not statistically significant.

This allowed us to understand how one of the reasons why the sector is constantly in crisis is based on the fact that the companies operating within it are poorly monitored.

In this regard, other 3 indicators were reported within the concluding paragraphs (NWC Financing (St), COGS/Revenues, Net Income) that offered different insights to reason about in relation to the economic performance of clubs.

As already seen throughout the paper, among the most interesting findings, we must undoubtedly mention the importance of the fact that the industry is not necessarily in crisis because teams are spending too much money but, as seen for COGS/Revenues, in some cases it is very important that investments are made in certain areas such as infrastructure.

It is no coincidence that it appears from the T-test analysis that cost of sales is of great importance since, the issue related to investments in more state-of-the-art infrastructures, is becoming more and more central for teams, but also for football in general.

It is necessary to invest more especially in stadiums, this because they constitute one of the largest sources of revenue for all the teams that own them (in particular with reference to other European leagues).

These would undoubtedly go a long way toward improving the net revenues of clubs by restoring partially a situation that seems to be compromised.

In light of what has been said, it is therefore reasonable to state how the statistical analysis applied to the case study has returned results that are rather in line with what the needs of the football sector.

For instance, football clubs are regulated and monitored by regulations that are evidently inadequate and, on the other hand, they are unable to keep up with the times because



of the enormous difficulty they encounter in making investments that could increase revenues in a substantial way.