

PROFITABILITY AND FINANCIAL STRUCTURE OF SOCCER CLUBS: AN INTERNATIONAL COMPARISON²

Guido MIGLIACCIO, Ph.D., Associate Professor of Business Administration and Accounting, University of Sannio, Department of Law, Economics, Management and Quantitative Methods, Benevento, Italy,
<https://orcid.org/0000-0002-8882-7648>, guido.migliaccio@unisannio.it

Giuseppe ORSILLO, Doctor in Business Administration, Independent researcher, University of Sannio, Department of Law, Economics, Management and Quantitative Methods, Benevento, Italy,

DOI: <https://doi.org/10.36004/nier.cecg.I.2022.16.2>

Summary

Topicality - The pandemic has greatly affected the economies of all nations. Sport, too, has suffered the consequences of the measures necessary to contain the infection, with obvious consequences on clubs' budgets.

Proposal - The study analyses the financial performance of a sample of soccer teams in the leagues of three European nations: Italy Spain and Germany. It highlights the ten-year trend of profitability and financial structure. This is also to verify the impact of the pandemic on the balance sheets of the major soccer clubs.

Methodology - From the Orbis Europe full database of the Bureau van Dick database, the balance sheet data for 10 consecutive years of the decade 2012-2021 of the 10 most representative teams of the Italian, Spanish and German leagues were taken. Subsequently, the development of Roe and Leverage was analysed. The data were also subjected to various statistical elaborations mainly to verify whether the differences between the three nations are significant.

Results - In recent years, there has been a much smaller decline in profitability in Spain and Germany, rather than in Italy, where the results have been truly disastrous. On the contrary, a progressive improvement in the financial structure can be noted, especially in the Italian clubs, which have recorded worrying values over time. The Italian clubs, however, although very renowned, have too often had worse outcomes over the decade than the teams of the other two nations.

Implications - This study implements the literature on the effects of the pandemic on the economy, especially in sports. It encourages comparisons in time and space of budgets. It will be necessary to implement the research by analysing the trend of other indices as well to have more detailed information. However, the results are useful for the governance of European soccer clubs and also for public authorities that often support sports activities that are considered socially relevant.

² This paper is the result of collaboration between the two authors. It is however possible to attribute to Giuseppe Orsillo the paragraphs "Research methodology" and "Main results", with relative sub-paragraphs. The other paragraphs are by Guido Migliaccio.

This is also at a time when refreshments were needed to cope with the damage resulting from the pandemic.

Keywords: *Performance, Roe, Leverage, Anova, Tukey Kramer test.*

JEL: *M10, M19, M40.*

UDC: *796.332:568.155(450)*

Introduction. Sport has changed its significance in the individual and social spheres (Scarлата, 2015), and also deserves an educational role (Pollo et al., 2011).

Soccer has mainly established itself in Europe, Italy in particular, and South America.

The advent of mass media (Martin et al., 2015;) developed its social value.

Consequently, teams had to take on a legal form more in keeping with the changed situation. The economic-financial dynamics have also changed significantly due to increasing revenues from season tickets, tickets, television rights, and sponsorships. In Europe, financial fair play was introduced to optimise the economic-financial management of clubs (Bernoldi & Sottoriva, 2011; Ghio et al., 2019).

The pandemic also had negative effects on the Italian soccer sector, due to the interruption of championships and restrictions that then prevented the sale of tickets and season tickets.

To cope with the crisis, clubs had to take drastic measures to remedy the decrease in revenues. Some clubs had to sell their most valuable players and downsize their sporting projects, while others had to resort to loans or reduce salaries.

This research analyses the economic and financial dynamics of Italian, Spanish, and German soccer clubs in the decade 2012-2021, also to verify the effects of Covid 19. The analysis is conducted by analysing and comparing the trend of two balance sheet indices.

The fundamental research question is, therefore:

RQ: Has the pandemic crisis affected the profitability and balance sheet of European soccer clubs?

Everything refers to the Italian context, which may be a useful reference for other countries. After the main bibliographic references, the methodology used to elaborate the values of the financial statement is outlined. Then, the main results, implications, limitations of the research, and possible developments of the study with critical considerations and conclusions.

Literature Review and Hypothesis Development. This study is part of the reflections on leisure time and the consequent demand for 'entertainment' (Wolf, 2010; Resciniti, 2002), which is often satisfied with sports activities, whether practised or followed by mere spectators.

Sport has its particular economy that has become established (Walzel & Roemisch, 2020) with its diffusion, the transition from amateurism to professionalism, etc. (Walzel & Roemisch, 2002).

While there is a vast bibliography on the social, psychological, and educational aspects of sport and soccer, international studies on economic dynamics are relatively more recent.

At the end of the last century and in the first decade of the new millennium, reflection on the economic arrangements of competitive sports (Szymanski, 2003) and thus on the players' market (Duff & Panja, 2018), accentuated by the famous 'Bosman ruling' of 1995 that abrogated the sporting constraint (Antonioni & Cubbin, 2000; Bastianon, 2015), became more prominent.

International comparisons have since spread as well (Lago-Peñas & Sampaio, 2015).

More recent writings also consider current legislation, and its effects on economic and sporting outcomes (Mourão & Gomes, 2017).

In many of the publications, the valuation of intangible fixed assets (Shareef & Davey, 2005) and, among these, especially that of players' multi-year rights (Migliaccio et al., 2022), is of fundamental importance.

The income results of the last few years have been strongly influenced by the pandemic that stopped competition to reduce contagions. This should lead to the verification of the following hypotheses:

- (H1) A general decline in profitability and*
- (H2) A worsening of the financial structure.*

However, it must be considered that the anti-counterfeiting measures were different in different countries. This should also have resulted in divergent budgetary outcomes to be verified by testing the third research hypothesis:

- (H3) The effects of the pandemic on the economic-financial equilibrium of companies were different in different countries.*

The purpose of this study is therefore to outline an initial analysis of the economic and financial situation of companies of three different European nations, also comparing them with other countries, in the period 2012-2021, using the study of the temporal evolution of two indices (Roe and Leverage) obtained from the analysis of their financial statements.

Research Methodology. From the Orbis Europe full database of the Bureau van Dijk database, the balance sheet data of 10 consecutive years from the decade 2012-2021 of the 10 most representative teams of the Italian, Spanish and German leagues were taken (Table 1).

Table 1. Sample teams

<i>Italy</i>	<i>Spain</i>	<i>Germany</i>
Inter	Barcellona	Bayern Munich
Milan	Real Madrid	Borussia Dortmund
Juventus	Celta vigo	Leipzig
Lazio	Getafe	Schalke 04
Roma	Real Sociedad	Borussia Monchengladbach
Fiorentina	Atletico Bilbao	Augsburg
Atalanta	Villareal	Cologne
Udinese	Real Betis	Hoffenheim
Napoli	Valencia	Bielefeld
Genoa	Sivilla	Werder Bremen

Subsequently, the development of the Roe, economic ratio, and financial leverage, financial ratio, were analysed. The data were also subjected to various statistical elaborations.

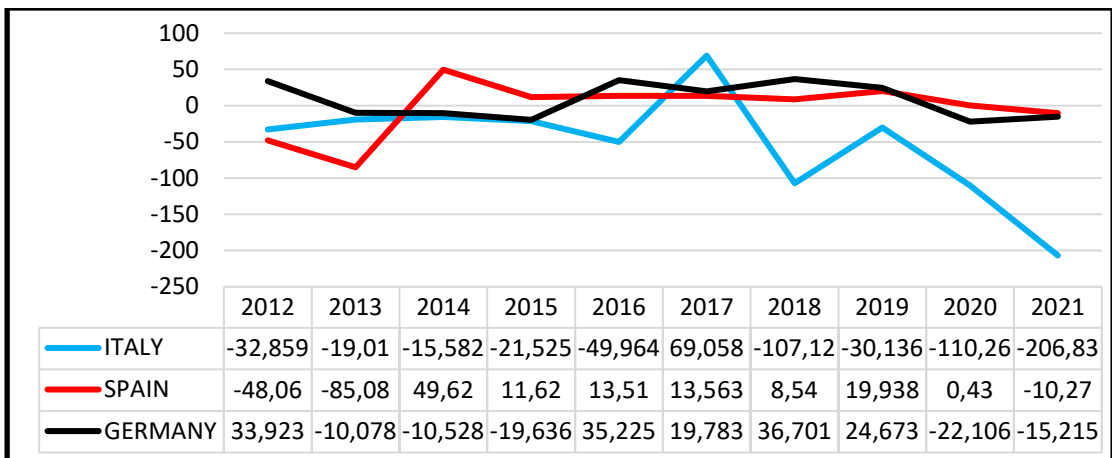
ANOVA methods (with a 0.05 level of significance) and, if necessary, Tukey-Kramer were used for the comparison between countries. Each outcome is illustrated and commented on.

Main results

ROE

The Return On Equity (ROE) is one of the best-known financial statement indicators. The ratio measures the percentage net profitability of a company and thus allows its overall profitability to be measured. It is calculated by dividing net profit by equity and multiplying by one hundred. The highest possible value is desired. Table 2 shows the development of the average Roe of the 10 selected teams for each of the three countries, for each year.

Table 2. Roe confrontation



Source: Our elaboration on data from Orbis Europe full.

In Italy, there are low Roe values with even very negative periods. The collapse of profitability in the pandemic period is evident, reaching record levels. Comparing the Italian situation with other countries, one can see relatively similar values at the beginning of the period considered, which instead diverge considerably in recent years. More precisely, it is Italy that measures extremely low values, while Spain and Germany manage to contain the negative effects of the pandemic. To assess whether the differences shown in the graph are statistically significant, the data are subjected to the Anova test (Table 3).

Table 3. Anova Roe For Countries

SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
Italy	10	-524,232	-52,4232	5472,215		
Spain	10	-27,2912	-2,72912	1448,768		
Germany	10	72,74282	7,274282	614,2141		
ANALYSIS OF VARIANCE						
<i>Origin of Variation</i>	<i>SQ</i>	<i>dof</i>	<i>MQ</i>	<i>F</i>	<i>Significanc e value</i>	<i>F critic</i>
Between groups	20444,52	2	10222,26	4,069805	0,02852	3,354131
In the groups	67816,77	27	2511,73			
Total	88261,29	29				

Source: Our elaboration.

The above test shows that the value of F (4.07) is higher than F critic (3.354): there is a difference between the different groups.

It is, therefore, necessary to proceed to the post-Anova test to understand between which groups there is the previously reported difference (Table 4).

Table 4. Tuckey Kramer ROE

Average Italy group	-52,4232
Group size Italy	10
Average Spain group	-2,72912
Group size Spain	10
Average Germany group	7,274282
Group size Germany	10
Mq	2511,732
q static	3,51
<i>Comparison between Italy and Spain</i>	
Absolute difference	49,69407
Standard error	15,84845
Critical value	55,62804
Average between Italy and Spain	Difference NOT significant
<i>Comparison between Italy and Germany</i>	
Absolute difference	59,69747
Standard error	15,84845
Critical value	55,62804
Average between Italy and Germany	Significant difference

<i>Comparison between Spain and Germany</i>	
Absolute difference	10,0034
Standard error	15,84845
Critical value	55,62804
Average between Spain and Germany	Difference NOT significant

Source: Our elaboration.

The main differences are therefore mainly attributable to the comparison between Germany and Italy, as German clubs recorded better values than Italian clubs in the reference period.

There are, however, no statistically significant differences between Italy and Spain, and between Spain and Germany

Financial leverage. The debt or leverage ratio expresses a company's rate of indebtedness and is measured by comparing total available resources to equity capital.

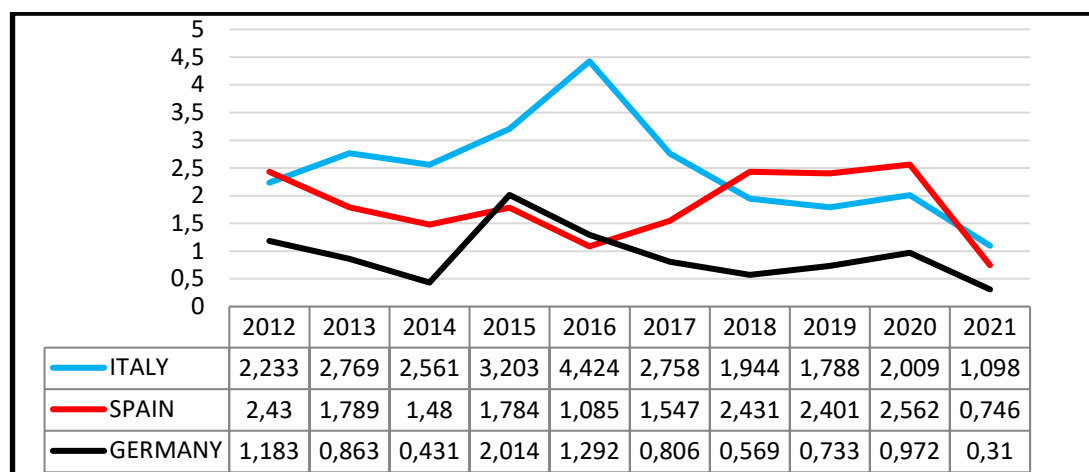
If the value obtained is 1, the company has no debt, the only source being equity.

If the value is between 1 and 2, there is relatively physiological debt.

If, on the other hand, it is greater than 2, debts are high and therefore the financial situation is worrying.

The trend of the ratio of the three countries is in Table 5.

Table 5. Leverage Confrontation



Source: Our elaboration on data from Orbis Europe full.

Widespread high values testify to high indebtedness, especially of the Italian clubs, reaching the highest value in 2016. During the pandemic period, the ratio falls and approaches optimal values.

The Italian situation is on average the worst, although it improves with time. The salient feature of the three countries is similar: during the Covid period, the use of debt capital decreased.

To assess whether the differences shown in the graph are significant, the data are subjected to the post-Anova test (Table 6).

Table 6. Anova Leverage For Countries

SUMMARY						
Groups	Count	Sum	Average	Variance		
Italy	10	2479,041	247,9041	8254,576		
Spain	10	1825,941	182,5941	3911,688		
Germany	10	917,7807	91,77807	2435,87		
ANALISI VARIANZA						
Origin of Variation	SQ	dof	MQ	F	Significance value	F critic
Between groups	122960,9	2	61480,47	12,63113	0,000134	3,354131
In the groups	131419,2	27	4867,378			
Total	254380,1	29				

Source: Our elaboration.

The outcome of the Anova test also forces the Tukey-Kramer (Table 7) to identify differences.

Table 7. Tuckey Kramer Leverage

Average Italy group	247,9041
Group size Italy	10
Average Spain group	182,5940714
Group size Spain	10
Average Germany group	91,77807369
Group size Germany	10
Mq	4867,377997
q static	3,51
Comparison between Italy and Spain	
Absolute difference	65,31002857
Standard error	22,06213498
Critical value	77,43809376
Average between Italy and Spain	NOT significant difference
Comparison between Italy and Germany	
Absolute difference	156,1260263
Standard error	22,06213498
Critical value	77,43809376
Average between Italy and Germany	Significant difference
Comparison between Spain and Germany	
Absolute difference	90,81599774
Standard error	22,06213498
Critical value	77,43809376
Average between Spain and Germany	Significant difference

Source: Our elaboration.

The main differences are between Italy and Germany and between Spain and Germany.

Conclusions. The study analysed the financial performance of a sample of soccer clubs from the leagues of three European nations. It highlighted, therefore, the trend of profitability and a debt ratio.

This was also to verify the impact of the pandemic on the balance sheets of the leading soccer clubs in Italy, Spain, and Germany.

The first research hypothesis (H1) is confirmed: there was a much smaller decline in profitability in Spain and Germany, rather than in Italy, where the outcomes were truly disastrous.

The more drastic measures aimed at addressing an extremely problematic situation had a greater effect on Roe.

On the contrary, the second research hypothesis (H2) was not confirmed. On the contrary, there was a progressive improvement in the financial structure, especially of the Italian teams, which recorded much more worrying results over time.

Wanting to better compare the results between the three nations, it is evident that the Italian clubs, although very renowned in the sporting sphere, have had worse results over the decade than the teams of the other two nations. The difference was accentuated in the income aspect due to the virus, while paradoxically it had a beneficial effect on debt.

Italy has always had extremely fluctuating values and often considerably worse than those of the other nations.

This first study will necessarily have to be implemented by analysing the trend of other ratios as well, which will certainly allow a more specific analysis. It will also be necessary to correlate the results with other sociometric ratios that measure the trend of the pandemic in the three nations, to identify possible relationships.

In addition to the purely quantitative analyses, it will also be necessary to add considerations arising from the different regulations and the different roles played by soccer in the nations where it is very popular.

It is also necessary to consider the reliefs that the state provided to cope with the pandemic and that might have conditioned the budgetary results in some way.

Investigations of this kind have only been possible thanks to the valuable databases that collect balance sheets for a decade, facilitating their comparison.

This study is of interest to the management of teams, which can thus have useful references to compare the results of their management with the average performance of the sample considered.

Public authorities can also benefit from studies of this kind, considering the state intervention that was necessary to deal with the pandemic.

The economic and financial aspects that have prevailed in this research should, in its subsequent developments, also consider the social value of soccer, which, in some nations, represents a very important phenomenon, especially for certain classes of the population that attribute a considerable, almost existential value to it...

REFERENCES

- Antonioni, P. & Cubbin, J. (2000). The Bosman ruling and the emergence of a single market in soccer talent. *European Journal of Law and Economics*, 9(2), 157-173.
- Bastianon, S. (2015). *La sentenza Bosman vent'anni dopo. Aspetti giuridico-economici della sentenza che ha cambiato il calcio professionistico europeo*. Giappichelli, Torino, Italy.
- Bernoldi, A. & Sottoriva, C., (2011). La disciplina della redazione del bilancio di esercizio delle società di calcio. Confronto con l'esperienza internazionale e impatto del cd. «Financial fair play». *Rivista di diritto ed economia dello sport*, VII(1), 147-191.
- Duff, A. & Panja, T. (2018). *Segreti e bugie del calciomercato*. Egea, Milano, Italy.
- Ghio, A., Ruberti, M. & Verona, R. (2019). Financial constraints on sport organizations' cost efficiency: the impact of financial fair play on Italian soccer clubs. *Applied Economics*, 51(24), 2623-2638.
- Lago-Peñas, C. & Sampaio, J. (2015). Just how important is a good season start? Overall team performance and financial budget of elite soccer clubs. *Journal of Sports Sciences*, 33(12), 1214-1218.
- Martin, H.J. & Rennhoff, A.D. (2015). Spanish TV Regulations and Audiences for Soccer Matches, Factors Influencing Utility from Watching TV, and How Media Coverage Influences Financial Returns for Australian Companies. *Journal of Media Economics*, 28(1), 1-3.
- Migliaccio, G., Lucadamo, A., Napoli, G. & Gallo, M. (2022). Economic and Sporting Performance and Player Registration Rights in Italian Soccer: Connections?. *International Journal of Management and Enterprise Development*, 21(4), 392-415.
- Mourão, P. & Gomes, J. (2017). Designing inquiries into the financial sustainability of local associations: The case of portuguese amateur soccer teams. In Peris-Ortiz, M., Álvarez-García, J. & de la Cruz Del Río-Rama, M., *Sports Management as an Emerging Economic Activity: Trends and Best Practices*, Springer, New York, USA, 139-153.
- Pollo, M., Floris, F., Grasso, L., Caio, G. & Gallo, G. (Eds.) (2011). Quale sport per quale educazione?. *Animazione sociale*, 41(250), 38-78.
- Resciniti, R. (2002). *Economia e marketing del tempo libero. Profili e prospettive di un'industria emergente*. Franco Angeli, Milano, Italy.
- Shareef, F. & Davey, H. (2005). Accounting for intellectual capital: Evidence from listed English football clubs. *Journal of Applied Accounting Research*, 7(3), 78-116.
- Szymanski, S. (2003). The economic design of sporting contests. *Journal of Economic Literature*, 41(4), 1137-1187.
- Walzel, S. & Roemisch, V. (Eds.) (2020). *Managing Sports Teams: Economics, Strategy and Practice*. Springer, New York, USA.
- Wolf, M. (2010). *Entertainment Economy*. The Crown Publishing Group, New York, USA.