

## How much money would need Spanish professional football to avoid financial risk?

**Authors:** Luis Felipe Vázquez  
**Institution:** Universidad de Vigo  
**E-mail:** abarajas@uvigo.es

**Keywords:** financial crisis, professional football, administration, Z-score.

### Objective

In the present paper, finances of Spanish professional football clubs are analyzed. Altman's models for predicting bankruptcy (Altman, 2000) are employed to classify their financial situation and to study the evolution experienced. Using Altman's model, a programming problem is proposed in order to find the equity required for each club to reach a balanced financial position.

### Background

Financial distress in business has become an issue for EU. Any measure to prevent bankruptcy and act in early stages of financial crisis will be welcome. UEFA has developed the Financial Fair Play Regulations in order to assure the sustainability of football. Spanish Football industry is passing through serious financial problems. Boscá et al. (2008) in line with García & Rodríguez (2003) assert that 'the economic situation of Spanish football clubs presents an important fragility'. That statement is proved by Barajas & Rodríguez (2010). According with Szymanski (2010), in Spain only Real Madrid and Barcelona have a real financial muscle, the rest of the clubs struggle to compete, and most clubs have significant debt exposure.

### Methodology

We have worked with a database that includes the main financial ratios for an average of 35 clubs of 1st and 2nd Division during the last 5 seasons (2007-2011). The most appropriate Altman's Z-score for football is the  $Z_1$  because no Spanish club is listed (Z model) and football clubs are not manufacturing companies (Z).  $Z_1$  of each team is estimated for every year in order to obtain a ranking of financial risk for clubs in Professional Football. For every team below the security zone ( $Z < 2,9$ ), its needs of equity to reach an scenario without risk for the last season (2011) are estimated through a programming problem. The specifications of the problem are the following:

- Objective Function:  $Z_1 = 6.56 (X_1) + 3.26 (X_2) + 6.72 (X_3) + 1.05 (X_4)$ , where  $Z_1^* = 2,9$ .
- Under the restrictions:
  - Net Profit, Profit before Tax, Long term debt, Current Liabilities and Equity  $\geq 0$ .

Where:

$X_1$  = Working Capital / Total Assets; (Working Capital is function of Current Liabilities).

$X_2$  = (Net Profit – Dividends) / Total Assets, where Dividends in football has been null.

$X_3$  = Profit before Tax / Total Assets.

$X_4$  = Equity / (Long term debt + Current Liabilities).

The needs of equity result from the difference between the estimated equity and the current equity.

### Results

Comparing the financial and sporting rankings, we have found a small negative correlation (-0.12). The biggest difference corresponds to UD Almeria. It finished in the last position at the end of the season being the 4<sup>th</sup> in the financial ranking.

Comparing the financial situation with previous season (2010),  $Z_1$  got better for 18 clubs and worse for 17. Only 8.6% of professional clubs in Spain have a z-score over 2.90. Among the clubs that went under administration during 2009 and 2010 only one could not improve its financial situation measured by the  $Z_1$ .

The average need of equity for those clubs that need to recover the financial stability is almost of €16 million. It is worthy to remark that the model could not reach the security parameter for  $Z_1$  in the case of FC Barcelona, Atlético de Madrid and UD Salamanca.

### Conclusions

Financial situation of professional football in Spain –on average and in general terms– get worse season after season.

The financial ranking for clubs under administration seems to be right. Those clubs are placed in the lower part of the ranking in the 2 years before going under administration.

The need of capitalization for clubs in First Division is over €320 millions. From that figure onwards we could let start to talk about balancing the finances of Football. Nevertheless, just the issue of new shares only would cover the past losses. Further measures addressed to avoid the structural and permanent deficit appear as absolutely essential.

### References

- Altman, E. (2000). Predicting Financial Distress Of Companies: Revisiting The Z-Score And Zeta® Models. Working Paper Stern University.
- Barajas, A. & Rodríguez, P. (2010). Spanish football clubs finances: crisis and player salaries. *International Journal of Sport Finance*, vol. 5, n.1, pp. 52-66.
- Boscá, J.E., Liern, V., Martínez, A. & Sala, R. (2008). The Spanish football crisis, *European Sport Management Quarterly*, vol. 8, n. 2, pp. 165-177.
- García, J. & Rodríguez, P. (2003). From Sports clubs to stock companies: the financial structure of football in Spain 1992-2001, *European Sport Management Quarterly*, vol. 3, n.4, pp. 235-269.
- Szymanski (2010). The Financial Crisis and English Football: The Dog That Will Not Bark. *International Journal of Sport Finance*, vol. 5, n.1, pp. 28- 40.