Investing in European Football Stocks: An Empirical Investigation from an Institutional Investor's Point of View

Prigge, Stefan[1,2] and Tegtmeier, Lars[3]
1: HSBA Hamburg School of Business Administration, Germany; 2: Institute for Mittelstand and Family Firms, Hamburg, Germany; 3: Hochschule Merseburg University of Applied Sciences, Germany
stefan.prigge@hsba.de

Aim

Particularly institutional investors are continuously searching for assets that enable investors to attain more favorable risk-return combinations, i.e., a higher return for a given risk or a lower risk at a given return. This aspiration explains the popularity of so-called alternative investments like real estate or even art, i.e., investments which are only loosely correlated with standard investment instruments like blue chip stocks and bonds. The football business is assumed to follow its own business cycle. In line with that view, studies closest to ours find low correlations of football stocks with the general stock market (Aglietta, Andreff & Drutt, 2010; Gómez-Martínez, Prado-Román, & Moreno, 2017). Low correlation is a good prerequisite, but not a guarantee, that adding football stocks to a portfolio indeed improves its risk-return profile. This issue is addressed by this paper.

Theoretical Background

Empirical and theoretical research has found some reasons that, and why, the football business follows its own business cycle. For the European top leagues, revenue streams in the last decade have more or less decoupled from the general business cycle. Studies found only a weak link between the return of football stocks and the general market development. A highly likely reason for that is that football stocks attract certain types of investors whose bidding behavior is only weakly determined by factors the typical investor considers, like forecasted cash flows or risk. Instead, fan investors, patron investors (sugar daddies), and strategic investors derive special benefits from holding football stocks, making their bidding behavior rather insensitive to the general market development. These influencing factors make the football industry special and might yield a genuine risk-return profile of football stocks.

Research Design and Data Analysis

The study adapts the approach established by Grelck, Prigge, Tegtmeier, and Topalov (2009, 2017) for shipping stocks and family firm stocks, resp. Applying four different portfolio composition rules, we compare for each of the four cases pairwise a base portfolio, consisting only of standard stocks and standard bonds, with an enhanced portfolio, consisting of football stocks as an additional third component. Standard stocks and standard bonds are represented by the EURO STOXX 50 Index and the JPMorgan EMU Government Bond Index, respectively. The STOXX Europe Football Index is the representative of the football stocks. As of January2018, it included 22 football clubs. For these four pairs of base and enhanced portfolios, a wide range of indicators is compared. The most important indicator is the Sharpe ratio (Sharpe, 1966):

$$SR_P = (r_P - r_f) / \sigma_P$$

The Sharpe ratio allows to evaluate the risk-return features of a portfolio in a single number. It relates the excess return of the portfolio of interest over the risk-free rate to the portfolio's standard deviation. A higher Sharpe ratio indicates a superior risk-return combination. We test whether the difference between the Sharpe ratios of the base portfolio and the related enhanced portfolio is statistically significant (Gibbons, Ross, & Shanken, 1989). Our observation period ranges from January 1995 to December 2017. Apart from the complete sample period, we also explore up market and down market subperiods.

Results and Discussion

As previous research, we find low correlations of football stocks with blue chips. However, despite that low correlation, adding football stocks to base portfolios does not make the enhanced portfolios superior to their respective base portfolios in terms of the Sharpe ratio. For almost all time periods and for almost all portfolio composition rules, the Sharpe ratio of the base portfolio is higher than that of its corresponding enhanced portfolio. The differences may not be statistically significant, but they are economically relevant. The advantage of low correlation is more than compensated by weak returns of football stocks. The Sharpe ratio of the STOXX Europe Football Index typically is, most often markedly, lower than that of the EURO STOXX 50 Index.

Conclusion and Implications

As the football business seems to follow a business cycle only loosely connected to the general business cycle, institutional investors might consider investing in football stocks to attain more favorable risk-return combinations. The study at hand finds indeed empirical evidence for a low correlation of the football sector with the general economy. However, due to inferior returns of football stocks over a period of more than 20 years, low correlation is not sufficient that the addition of football stocks leads to improvements in terms of risk and return. To the best of the authors' knowledge, this is the first study that explores the diversification properties of football stocks in a broader portfolio context. The implications for institutional investors are self-explanatory. Accordingly, for football clubs looking for new equity funding it is recommended that they put priority to addressing other investors than institutional investors.

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