

Sport sentiments and stock returns

[Sport & Tourism](#), [Football](#)



Introduction

“ Without football, my life is worth nothing”, is a quote by the world’s best football player – Cristiano Ronaldo. For many people, football is a matter of life and death. International football matches have an effect on our emotions: they are sources of joy and frustration, anger and pride, depression and enthusiasm. For instance, the Iceland soccer national team’s surprising success at the 2016 soccer European Cup led to greater national pride and overall joy among the nation. This phenomenon has been referred to as the “ feel-good effect at mega sports events“ (Maennig and Porsche, 2008).

Motivated by psychological evidence of strong link between soccer outcomes and mood, Edmans, García and Norli investigated stock market reaction to sudden changes in investor mood. Using international soccer results as their primary mood variable, they were able to find that, during 1973-2004 losses in international soccer matches led to a significant market declines. For example, a loss in the World Cup elimination stage leads to a next-day abnormal stock return of -49 basis points. (Edmans, García & Norli, 2008) In this study, I investigate the European international football match results effect on foreign stock exchange returns. I try to answer the question whether losses and wins on football matches leads to negative or positive reaction in the stock market. I research the time period from 2008 to 2018. The time period is not studied before and therefore there is not existing information whether the findings exist anymore. The findings gives more

information about these two reactions in the stock market and their differences. Based on my research...

Literature Review

Market efficiency

Before the birth of behavioural finance, people held on to the traditional finance theory. In traditional finance, an agent active in financial markets is called a Homo Economicus (Mill, 1848). This means people are rational, since they listen to their preferences as described by the expected utility theory when making decisions. Agents look at maximizing their own satisfaction when buying goods or services (Bernoulli, 1954). They apply Bayes' Theorem, which describes the chance that an event will happen, based on conditions that are possibly related to the occurrence of the event (Stigler, 1986).

Mood and stock returns

Psychologists study people's behavior and their minds. This includes research on how mood affects behavior. The robust effect found in many studies is that people in good moods are more optimistic when making choices. When people feel good they tend to think of positive cognitions and events (Isen, Shalke, Clark & Karp, 1978). A number of recent papers document a link between mood and stock returns. Concerns arise that such results are a product of data mining call for investigating new mood variable, or testing an existing mood variable on independent sample to confirm results of previous studies. For instance, Saunders (1993) and Hirshleifer and Shumway (2003) performed seminal studies to whether weather effects on stock returns, and found that there exists statistically significant effect. On

the other hand, while replicating Saunders' (1993) study with German data set, Krämer and Runde (1997) reported that statistical significance of the weather effect depends largely on how the null hypothesis is phrased. With the above in mind, (Edmans, García & Norli, 2008) argue that a mood variable must satisfy three key characteristics to rationalize studying its link with stock returns. First, the given variable must drive mood in a substantial and unambiguous way, so that its effect is powerful enough to show up in asset prices. Second, the variable must impact the mood of a large proportion of the population, so that it is likely to affect enough investors. Third, the effect must be correlated across the majority of individuals within a country.

Football as a mood variable I believe that international football results satisfy these three characteristics. In psychology it has been recognized that the football match results in general have a significant effect on people's mood. For instance, psychological distress among English Premier League soccer fans rose considerably after their favorite team had been relegated (Banyard and Shevlin, 2001). Such distress may even evoke severe impairments, including circulatory diseases, such as acute myocardial infarction and stroke when the supported team experiences a loss (Kirkup and Merrick, 2003). Furthermore, stressful soccer matches have been found to double the risk of an acute cardiovascular event (Wilbert-Lampen et al. , 2008). Analogously, sporting teams' wins in important matches were related to significant declines in suicide rates (Fernquist, 2000).

Data and Variables

The Initial Data

In the thesis, I have two initial data sets. The first contains total return indices for all European countries with available financial data in Reuters Datastream. I use total return indices with Datastream mnemonic that starts with “TOTMK.” Index returns are measured in the local currency. The data set contains observations from January 2008 to October 2018. Countries with missing TOTMK indices are excluded from the data.

Football Result Sample

I collect international soccer result from January 2008 through October 2018 from the website www.kaggle.com. The data include games from the World Cup, European Championship and all qualifying matches to those tournaments. With respect to the World Cup, as of, 2008 national teams in Europe play against each other to qualify for the Cup. These games are referred as “qualifying matches”. The teams are divided into groups of four. I refer these matches as “group matches”. Teams in each group play against each other with the top two advancing to the “elimination stage.” In this stage, which starts with 16 teams, no ties are allowed. Thus, at each of the following stages, half of the remaining teams are eliminated. The team that survives all elimination matches wins the World Cup. The European Championship, follow a similar format to determine the winner but has less amount of teams, 16 in 2008 and 2012, 24 in 2016. The European soccer sample comprises matches played by 31 different countries (See the Appendix for country selection). I classify a total of XXXXX soccer matches and, XXX wins and XXX losses. This set of mood events includes all

elimination and group games in the World Cup and European Championship, where my sample countries took part. There is usually lot of matches, where there exist large difference between teams' skills and ability to win certain match. To select relevant matches, where the odds of the match being important is relatively close I Elo ratings.

A qualifying game is defined as close if the Elo rating of the two opponents is within 125 points (after adding 100 points to the team with the home advantage) or if the game is played as part of the knock-out stage between the qualifying rounds and the group stage. As of October 31, 2005, the difference in Elo ratings between the top-ranked country (Brazil) and the 10th country (Portugal) is 122 points. There could be situations, where the underdog surprise and wins the match. To be able to identify possible positive "surprise-effect", I manually look through all sample matches and identify every match, where the underdog was able to win betting-market favorite.