STOCKHOLM SCHOOL OF ECONOMICS

Bachelor Thesis in Finance

STOCK RETURNS OF FOOTBALL CLUBS

THE EFFECT OF SURPRISES ON THE PITCH

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Abstract

This paper analyzes the impact of match results on stock returns of listed football clubs in England between the season 2000/2001 and March 2009. Based on the efficient market hypothesis and a paper published by Bernanke & Kuttner, the hypothesis is that unanticipated match results should to a larger extent affect abnormal returns than anticipated ones. In contrast to previous research, we find that match results cannot explain the abnormal returns, regardless of expectations. However, to qualify for the Champions League, be promoted or avoid relegation late in the season is important. Furthermore, news about the club and earnings surprises also have explanatory power.

Keywords: Football club valuation, Sporting results, Share price reactions.

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1 INTRODUCTION

1.1 BACKGROUND

Football is without any doubt one of the most popular sports in the world with more than 265 million active players (male and female) distributed all over the world.[1] The FIFA World Cup held in Germany 2006 had a cumulative TV audience of about 26 billion, spread over 218 countries and 376 official TV-channels.[2] The final of this competition was seen by more than 600 million viewers worldwide, four times more than number two (Super Bowl with about 150 million viewers) on the list of the most popular sport TV-events in 2006.[3]

Financially, the market value of the professional European football clubs grew by €1 billion between 2005/06 and 2006/07 to a total of €13.6 billion.[4] Among the European clubs, the clubs based in England are the most popular, both when it comes to attendances and financial strength. When looking at the 20 highest ranked European clubs in terms of revenues, seven of them are English.[5] The Premier League (the top division in England) has also attracted attention in later years because of some takeovers, especially the one made by Roman Abramovich in 2003.[6]

During the middle of 1990's it became popular for football clubs to go public. Tottenham Hotspurs has to be considered the pioneer in England as they in 1983 were the first English club to go public. The number of public clubs in England increased from 8 to 16 between 1995 and 1997 and peakedin 2002 when 19 clubs were listed. Today, in 2009, 8 English clubs are still listed on different exchanges.[7] In an European perspective, it can be useful to follow the development of the STOXX football index, which includes most of Europe's listed clubs.[8]

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1 FIFA (Fédération Internationale de Football Association) Communications Division, 2007-05-31.
2 FIFA, 2007-02-06.
3 Hilding, 2006-12-21.
4 Deloitte, May 2008.
5 Deloitte, February 2009.
6 BBC News, 2003-07-02.
7 Thomson Financial: DataStream
8 Stoxx.com, 2009-04-21.

In light of this, it is surprising how little has been said about the clubs' performance on the stock exchange. What parameters that explain stock returns of listed football clubs is actually still more or less a blank spot on the finance map.

What differentiates football clubs from other securities on the exchange are the recurrent results from the teams' performance on the pitch. Like other companies, balance sheets, profit and loss statements and other financial information is reported regularly. Some of the clubs also provide forecasts of future earnings etc., but what is particularly hard to estimate is the performance on the pitch. Since the results are directly linked to revenues in form of ticket sales, sponsorship and broadcasting deals, they should also have a direct impact on returns.[9]

In our study, we have focused on the comparison between anticipated and unanticipated match outcomes. One could argue that a reasonable focus would have been to just see whether wins affect the stock price at all or in a different way compared to losses. There are two reasons to why we did not choose this option. First, even though we per example had found a positive impact of winning, it would be hard to differentiate the impact of one win to another. Second, by using our approach, it is possible to investigate if the theory about the efficient market hypothesis holds for football clubs and their matches as anticipated results already should be included in the stock price while unanticipated ones should not, see further in section 2.

For a football club, the impact of an unexpected win/loss can be compared to the impact of a shock to the interest rate for the market as a whole. This is our hypothesis, which is why this paper will try to answer the question whether it is the number of points, or the unexpected points on the pitch, that matters and are essential for a club to perform also on the stock market. If we are not able to answer this question, at least we will know that something else but the match results is important on the stock market. Some of these alternative explanations will also be tested or discussed. However, our conclusions will at least put some light on this so far quite unexplored area.

1.2 Research Question

Do unanticipated match results of English football clubs affect their stock returns in a different way than anticipated ones?

[9] For a summary of what is included in the clubs' revenues, see Deloitte, February 2009.

1.3 Previous Research, Purpose and Contribution

In our research for similar papers we have found some that resembles to ours. The closest we have come is the paper presented by Renneboog & Vanbrabant in 2000, where they use British data for all clubs listed between 1995 and 1998. The difference between theirs and our study is besides the sample (see section 3), the fact that they look at wins, draws and losses in general without considering if the results were expected or not. However, as they find support for a positive impact of winning (higher late in the season) and a negative impact of drawing/losing, we will make some comparisons.[10] Duque & Abrantes Ferreira show similar results, but as they use Portuguese data from a different time period, their study is thus not that relevant for us.[11] Benkraiem, Louhichi & Marques find, like the other papers just mentioned, a relationship between stock returns and performance on the pitch, but also a difference between results from home and away matches.[12] A paper somewhat related to our question is the one by Edmans et al. from 2007 in which they find that market returns are negative the day after anation has been eliminated from the World Cup.[13]

Our purpose is to further investigate what explains the stock returns of listed English football clubs. This is done by starting with a similar approach as the papers just mentioned. The difference is that we will distinguish between different kinds of wins, losses and draws by including probabilities to see if the results from the earlier studies still hold. We will also include some other variables to see if they can further explain the effect from match outcomes on the stock returns.

1.4 Results

In contrast to previous research by Renneboog & Vanbrabant, we cannot conclude that match results explain the variation in stock returns since the statistics results are insignificant. However, results show that factors such as table positions, earnings surprises and other events do explain the variation in stock returns. Even though this is our conclusion, we cannot exclude that, with more data on earnings forecasts and other events around the team, our results would have been different.

[10] Renneboog & Vanbrabant (2000).
[11] Duque & Abrantes Ferreira (2005).
[12] Benkraiem, Louhichi & Marques (2009).
[13] Edmans, García & Norli (2007).

1.5 OUTLINE

First, an explanation of the theoretical framework we build our assumptions on is presented in section 2. Then in section 3, we will describe the data needed for applying our method, which is described in section 4. The results from the implementation of the method with our data set are presented in section 5. The results are analyzed in section 6 and a summary with conclusions together with recommendations for future research brings the paper to an end in section 7.

2 THEORETICAL FRAMEWORK

2.1 THE EFFICIENT MARKET HYPOTHESIS

The classic definition of an efficient market was stated by Fama in 1970. He claims that, in an ideal market, "prices at any time 'fully reflect' all available information"[14]. He then defines three different levels of efficient markets. First, the weak form suggests that only historical prices are included in *available information*. Second, the semi-strong version also includes public information while, finally, the strong form includes all information.[15]

During the years, papers have voted in favor for or against the efficient market hypothesis. Some have argued that the market over-/under reacts to information, while others claim that there are other anomalies. The critics of the efficient market have actually introduced a new concept called behavioral finance. As a reply to the critics of his work, Fama published a paper in 1998 which defends the properties of the efficient market hypothesis. His first answer is that over- and under reaction to new information is about equally likely, i.e. it is not a threat against an efficient market. Second, he claims that the long-term anomalies discovered in different papers are sensitive to methodology, i.e. their existence is questioned.[16] For a comprehensive compilation of the efficient market hypothesis and people questioning it, a paper by Malkiel is recommended.[17]

2.1.1 THE EFFICIENT MARKET HYPOTHESIS IN THE WORLD OF FOOTBALL

Translating the theory stated above to returns of football clubs is just as natural as translating it to the return of any security. All information available (e.g. match odds), given the form of the efficient market, should be included in the stock price. Given this, the results from a match should not affect the stock price as far as the outcome of the game was anticipated by the market.

2.2 INTEREST RATE SHOCKS

Based on the theory about the efficient market, Bernanke & Kuttner present a paper about interest rate shocks and their effect on asset prices. By introducing a dummy variable indicating whether an interest rate shock was anticipated or not, they show striking

[14] Fama (1970), p. 383.
[15] Fama (1970).
[16] Fama (1998).
[17] Malkiel (2003).

differences between the two categories. The market reacts strongly to unanticipated actions while it is more or less unaffected by anticipated ones, all in line with the efficient market hypothesis.[18] It should be noted that the results apply to all assets on the market, even though Craine & Martin show that the effect is twice as high for shares compared to bonds.[19]

Other studies have been performed by Kuttner, Craine & Martin, Cochrane & Piazzesi and Rigobon & Sack, all with similar results.[20] The results also seem to be robust when comparing different markets as Bredin, Hyde & O´Reilly show that unanticipated interest rates shocks to the British market have a significant effect on asset prices while anticipated ones have not.[21] However, Bredin, Hyde, Nitzsche & O´Reilly and Bernanke & Kuttner show that there are industry-differences. For example the auto parts, oil and gas industries are extremely sensitive to shocks.

To differentiate between anticipated and unanticipated shocks Bernanke & Kuttner use the futures market. This classification is critical since Poole, Rasche & Thornton show that there can be a measurement bias if the definition of a shock is not accurate. They also conclude that the more transparency there is, the easier it is to identify a shock.[22] Cochrane & Piazzesi try to solve this problem by instead of using the futures market, looking at the interest target rate and the 1-month Eurodollar rate. Their finding is that the clearer the shock can be identified, the more indisputable are the results.[23]

Another issue would be if there was no action taken when the market anticipated something to happen, i.e. the FED did not change the interest rate as expected by the market. To avoid this problem, Rigobon & Sack included meeting dates of the Federal Open Market Committee (FOMC) and different congress decision dates in their sample. [24]

In the Bernanke & Kuttner paper they also highlight the possibility that there is a difference between the directions of the shock. An interest rate cut will have a positive impact of asset prices immediately and vice versa, but what about their respective magnitudes? This was

[18] Bernanke & Kuttner (2005).
[19] Craine & Martin (2003).
[20] Kuttner (2001), Craine & Martin(2003), Cochrane & Piazzesi(2002) and Rigobon & Sack (2002).
[21] Bredin, Hyde, Nitzsche & O´Reilly (2007).
[22] Poole, Rasche and Thornton (2002).
[23] Cochrane & Piazzesi(2002).
[24] Rigobon & Sack (2002).

solved by introducing a dummy variable, programmed to show if the interest-rate shock was positive or negative.[25]

2.2.1 SHOCKS TO FOOTBALL CLUBS

Our hypothesis is that a shock for a football club, which can be compared to an interest rate shock to the entire market, happens when the outcome of a match is unexpected. The shock is of course greater the lower the probability of the outcome.

[25] Bernanke & Kuttner (2005).

3 DATA DESCRIPTION

3.1 STOCK RETURNS

Stock prices of the clubs in our sample[26] are taken from the Datastream database.[27] This has been translated into returns by using the following formula: $R_{t+1} = \frac{P_{t+1}+D_{t+1}}{P_t} - 1$, where P_{t+1} and P_t is the share price at t+1 and t, respectively, and $D_{t+1}$is the dividend at t+1. Returns of *FTSE all share* and *Dow Jones STOXX® Football index* have been taken from the Datastream database and calculated in the same way as the club returns. FTSE all shares is a weighted index based on capitalization and includes about 98 % of the UK companies on London Stock Exchange.[28] The Dow Jones STOXX® Football index is a compilation of most listed football clubs on the European market, today including 26 clubs.

3.2 ODDS

A restriction for us has been that we have not been able to obtain match odds before year 2000. For all other variables, data from before year 2000 is available but since the odds is critical; our sample will only include observations from season start 2000/2001 to March 2009.

Odds for the matches are based on data from different betting companies, collected from an internet database.[29] For most of our observations, more than one betting company provides match odds. We then use the average for home wins, draws and away wins, respectively. It should also be noted that there are no major differences between the match odds from the different companies. The average match odds is translated into probabilities by using the formula: $\frac{1}{Match\ odds} = Probability$ for the different possible outcomes.[30] As the betting companies are profit-maximizing organizations the probabilities will not perfectly reflect what the market thinks about the outcome of the matches. However, there is a lot of competition between the betting companies, why margins are squeezed and therefore, the odds should give us a good indication of the actual probabilities.

[26] See table 1 in the appendix for a compilation of the club names and period listed.

[27] Thomson Financial: DataStream

[28] Ftse.com, 2009-05-03.

[29] Football-data.co.uk, 2009-04-21. See table 2 in the appendix for a compilation of the betting companies.

[30] Internet Soccer Fans Association, 2009-05-03.

3.3 Earnings Surprises and Other Events

The Factiva database, which is a joint venture between Reuters and Dow Jones, has been used to obtain different news about the clubs connected to match-days. Included is news from about 8000 sources including newspapers, magazines, web sites, company reports and equity prices from 85 exchanges.[31] Events have been picked subjectively, divided into a positive and a negative group. Typical events included are news about financial reports, rumors of takeovers, sponsorship deals, broadcasting deals and board/CEO news that might affect stock returns. From the Wharton Research Data Services (WRDS) we have also looked at earnings forecasts and compared them to the actual outcome. Unfortunately, most of the clubs in our sample only have a few number of forecasts registered in the database, why certain conclusions will be hard to draw from this.

3.4 Table Position Dummies

In the Premier League, the first four teams have the advantage of participating in next year's Champions League. Therefore, dummy variables were introduced to indicate when a team reaches/loses a top four position.[32] In a similar way, promotion variables including the top two teams in the Championship were created.[33] For both the Premier League and the Championship, dummy variables were introduced to control for teams entering/leaving relegation positions, which are the last three positions in respective competition.

[31] For a more detailed description, see table 3 in the appendix.
[32] Valuable help was given by www.majorleaguecharts.com, 2009-04-21.
[33] Information about league positions obtained from www.unibet.com and www.bet365.com, 2009-04-21.

4 METHOD

In order to be able to answer our research question stated above in section 1.2, we have performed a number of statistical studies. The common denominator in all studies is our ambition to look for differences between anticipated and unanticipated match outcomes, where the likelihood of a specific outcome is based on the match odds described above in section 3. However, to give a credible answer, it is not enough to just look at the returns, other factors apart from the odds may influence. Below, we will present different variables in our regressions and justify why they are appropriate to answer the research question. For a detailed description of how the different variables have been constructed, see section 9.1.

4.1 THE IMPACT OF MATCH OUTCOMES ON STOCK RETURNS

To test the effects of a match outcome we control for a number of properties that would potentially affect the clubs' stock returns. The stock returns are measured as abnormal and cumulative abnormal returns; these are our dependent variables in all regressions. The reason to why we use both abnormal and cumulative abnormal returns is to see if there are any differences between the one-day abnormal returns and the three- and five-day cumulative returns. The abnormal returns are in accordance with the market model,[34] defined as $\widehat{AR}_{it} = R_{it} - \hat{\alpha}_i - \widehat{\beta_i} \times R_m$ where R_{it} is the return of security i at time t, $\hat{\alpha}_i$ is the estimated alpha of security i, $\widehat{\beta_i}$ is the estimated beta of security i and R_m is the median return of the market for the sample period. The cumulative abnormal returns are then defined as $CAR_i = \sum_{t-k}^{t+k} \widehat{AR}_{it}$, where k = 0,1,2. $\widehat{\beta_i}$ are obtained by regressing team stock returns on the STOXX index. $\hat{\alpha}_i$ is assumed to be zero as they are insignificant and close to zero when regressing team stock returns on the STOXX index.

We also run regressions with the FTSE All Shares index as market proxy and then we assume that alphas and betas are zero and one, respectively. This is due to the fact that too many clubs show insignificant values for alpha and beta. Results for the FTSE index are similar to the results for the STOXX index. These extra regressions are done to make sure that we, by using the STOXX index, have a reasonable market approximation index. See graphs in section 9.3.2 for the development of the two indices and a comparison between them.

[34] MacKinley (1997).

4.1.1 Different Leagues

Different industries/countries can in the world of football be compared to different leagues, why we both estimate the effect for our entire sample and divided into Premier League and the Championship (2nd division in England). An interesting next step would be to compare our findings with leagues from other countries, but unfortunately that is beyond the scope of this paper. The number of postponed matches is probable few in number and by definition sooner or later actually played.

4.1.2 Surprise Effects

When looking at monetary policy changes as in the Bernanke & Kuttner approach described in section 2, it is rather easy to determine whether the change was a surprise or not when comparing to the futures market. With our approach, it is not that obvious how to define a shock. The risk we want to avoid when constructing variables to see differences between anticipated and unanticipated outcomes is that our definition can be questioned. We therefore create surprise effect variables. By our method, we do not need to choose a specific level for a shock, instead we look at how much the returns change for each extra unit of probability. For construction of these variables, see section 9.1.

4.1.3 Control Variables

The most obvious thing to control for is the different impact from wins, draws and losses. As a win in the normal case should be positive for the club and a loss negative, the effects would cancel out if all observations are included in the same independent variable. The draws are divided into two different variables, this to differentiate between good and bad draws. A good draw occurs when the probability of losing compared to winning the game is higher and the outcome is a draw, whereas a bad draw is the opposite to a good draw.

We also include results probabilities, see section 9.1. If these variables coefficients are insignificant, they would be already included in the stock price since the market form expectations given these probabilities. We also test if these variable coefficients are jointly significant because if so, there would be a reason to exclude them from the main regressions since they could take explanatory power from other variables.

If there is news about the club around the match-day that is not related to the outcome on the pitch, it will presumably have an impact on the stock returns. For this reason, we have included variables related to events and earnings. The event variables are divided into two

parts, where the first represents good news and the second bad news, this for the same reason as above regarding wins and losses.

To participate in different tournaments or leagues the forthcoming season is of great importance for the clubs. Per example, the difference between participating in the Champions League compared to the less glamorous UEFA Cup is large, partly due to immediate financial reasons and partly due to long-term values.[35] In a similar way, it is important to avoid relegation from the Premier League or the Championship and to be promoted from the Championship.

Due to different financial environments in the Championship compared to the Premier League we also examine if there might be any differences between the two divisions.

In the beginning of the season, the impact of a win/loss on the final league position is hard to predict. During the last few matches of the season a lot is at stake and then a step up or down in the table has the potential to mean a lot for the club. For this reason, wins/losses later in the season should have a greater impact on stock returns than results from the first matches. Therefore, we will run regressions for each month from August when the season starts, to May when it ends and see if there are any differences.

In our sample, there is a chance that the match-day stock return of a club affects next match-day stock return, i.e. the match-day returns might be correlated. If this is not taken into account, the output from the regressions will be biased; when the correlation becomes larger each observation contains less accurate information. This is called intraclass correlation and is different from Pearson correlation which is correlation between two variables. To correct for this potential bias we use cluster-robust standard errors in all of our regression.[36] We also use heteroskedasticity-robust standard errors in all our regressions to control for that the errors in the regressions do not have constant variance, conditional on the explanatory variables. The starting points for different clubs, regardless which division they belong to, are likely to be different why we use firm fixed effects in our regressions.

To sum up, there are several factors that have the potential to affect the stock returns of a football club. Of course, it is arguable to include even more factors, but we think the most relevant are taken into account above. A problem with some of the factors we thought about

[35] www.telegraph.co.uk, 2009-05-18
[36] www.ats.ucla.edu, 2009-05-17.

including was that they were not measureable or not available in different databases or in digital form. Examples of this would be rumors about transfers and extended player contracts with star players, which not necessary is included in the Factiva database. The first regression, where we use an approach similar to the one presented by Renneboog & Vanbrabant, is then:

$$CAR_{k,i,t} = \alpha_i + \beta_1 D_{Win} + \beta_2 D_{Loss} + \beta_3 D_{Good\ draw} + \beta_4 D_{Bad\ draw} + \beta_5 Positive\ Events_{i,t} + \beta_6 Negative\ events_{i,t} + \beta_7 Earnings\ surprises_{i,t} + \beta_8 D_{CL-position_{i,t}} + \beta_9 D_{No\ CL-position_{i,t}} + \beta_{10} D_{PL\ relegation_{i,t}} + \beta_{11} D_{No\ PL\ relegation_{i,t}} + \beta_{12} D_{Championship\ promotion_{i,t}} + \beta_{13} D_{No\ Championship\ promotion_{i,t}} + \beta_{14} D_{Championship\ relegation_{i,t}} + \beta_{15} D_{No\ Championship\ promotion_{i,t}} + \varepsilon_{i,t} \quad [1]$$

where k = 1, 3, 5. Our main regression is though:

$$CAR_{k,i,t} = \alpha_i + \beta_1 D_{Win_{i,t}} + \beta_2 Win\ surprise\ effect_{i,t} + \beta_3 Win\ probability_{i,t} + \beta_4 D_{Loss_{i,t}} + \beta_5 Lose\ surprise\ effect_{i,t} + \beta_6 Lose\ probability_{i,t} + \beta_7 D_{Good\ draw_{i,t}} + \beta_8 Good\ draw\ surprise\ effect_{i,t} + \beta_9 D_{Bad\ draw_{i,t}} + \beta_{10} Bad\ draw\ surprise\ effect_{i,t} + \beta_{11} Draw\ probability_{i,t} + \beta_{12} Positive\ Events_{i,t} + \beta_{13} Negative\ events_{i,t} + \beta_{14} Earnings\ surprises_{i,t} + \beta_{15} D_{CL-position_{i,t}} + \beta_{16} D_{No\ CL-position_{i,t}} \beta_{17} D_{PL\ relegation_{i,t}} + \beta_{18} D_{No\ PL\ relegation_{i,t}} + \beta_{19} D_{Championship\ promotion_{i,t}} + \beta_{20} D_{No\ Championship\ promotion_{i,t}} + \beta_{21} D_{Championship\ relegation_{i,t}} + \beta_{22} D_{No\ Championship\ promotion_{i,t}} + u_{i,t} \quad [2]$$

5 RESULTS

The first part (5.1) of this section will be a presentation of our results when we do not consider if the results are anticipated or not, but use dummy variables to indicate if the match outcome is a win, loss or draw, see regression 1 above. This is partly to be able to make comparisons to the previous research in section 1.3 and partly to show why further analysis might be is necessary. We then add other explanatory variables and, in section 5.2, report the anticipated versus unanticipated results, see regression 2 above.

5.1 WINS, DRAWS AND LOSSES AS DUMMY VARIABLES

In section 9.2.1 (STOXX) and 9.2.2 (FTSE), results from the regressions when we consider wins, losses and draws as dummy variables are presented.

5.1.1 WINS

In general, the values for the win dummy are insignificant. The monthly impacts, in section 9.2.3, do not follow a particular pattern although the values are significant during the months in the middle of the season.

5.1.2 LOSSES

A negative impact of the lose dummy variable is shown in all cases. The ARs are significant on the 5 % level when looking at all observations or the leagues separate, while 3CARs only are significant when using FTSE. The 5CARs are insignificant in all cases. When looking at monthly impacts, all significant values (except for January) are negative and the trend is more evident a few months into the season.

5.1.3 DRAWS

From the good and bad draw dummy variables a general negative impact can be seen. A difference between the two groups is hard to see, especially since many values are insignificant.

5.1.4 OTHER VARIABLES

When introducing the other explanatory variables we see if they add any explanation power. The results from these regressions are comprehensive and in some cases inconsistent, see section 9.2.3, why we only report the most interesting observations here. The variables that are significant when looking at ARs for all observations are the Positive Events, Earnings Surprises, No CL-Position and No Championship Relegation. When the time window is

extended to three days, Positive Events, Earnings Surprises and No Championship Relegation are still significant. Positive Events and No Championship Relegation are also significant for 5CARs where Positive Events show both higher (positive) values and significance level as the time window becomes wider. No Championship Relegation shows a negative sign for all time windows.

For the Premier League the only variable that is significant in all regressions is the Positive Events, while No CL-position is significant only in the short window. Both variables show the expected positive and negative sign, respectively. In the Championship, Earnings Surprises and No Championship relegation are significant, where the latter is negative.

The monthly impacts are often insignificant although some interesting values should be noted. First, there are some extreme values such as the No Premier League/Championship Relegation in January. Second, some values in the end of the season, especially May, are highly significant with large coefficients.

5.1.5 Summary

The overall impression when looking at the different variables above is that the values are insignificant with some interesting exceptions. The lose dummy variable shows a negative and significant impact for the ARs and the 3CARs when using FTSE as market proxy. No clear pattern, except that it seems to be negative to draw a game, can be seen in the draw dummy variables and the other variables are insignificant with some exceptions, especially late in the season.

5.2 Anticipated versus Unanticipated Combined with Results as Dummy Variables

Now we add more variables to the regressions, we take into account whether match results are anticipated or not and the probabilities of different outcomes. The results can be seen in table 18-21 in section 9.2.5.

5.2.1 Wins

For wins, the results for the surprise effect and dummies as well as the probability factor are insignificant in a great majority of the regressions. The seasonal effect for the surprise effect for wins is not that obvious, even though the value for May for ARs is 9.5 and significant. For the probability factor, the value for May (ARs) is 1.0 and almost significant. The win surprise effect is also significant in February with ARs of 14.7.

5.2.2 LOSSES

The surprise effect and dummies for losses seems insignificant in general, as well as the probability factor. When we look at the Championship, for five day CARs however, the lose dummy is significant, -2.5. We get basically the same seasonal effect results as for wins, for May the lose surprise effect is 12.6 and the probability factor is 11.1 . The lose surprise effect is also significant in February, 14.1.

5.2.3 DRAWS

For draws, the surprise effect and dummies in all observations are insignificant in general, except for 5CARs (all obs.) where the draw good surprise effect is 12.4 and for ARs (Champ.) where the draw bad dummy and the draw bad surprise effect is almost significant, 9.4 and -3.1 , respectively. For the probability factor, we get insignificant results in general. Regarding the seasonal effect, the draw probability coefficients are significant, more or less, in September and October.

5.2.4 OTHER VARIABLES

When looking at positive events, the results are significant in general, 2.1 for 3CAR (all obs.) and +2.6 for 5CAR. The results are moreover significant for the Premier League, but not for the Championship. The results for negative events are insignificant.

Earnings surprises are -0.387 for ARs (all obs.) and -0.485 for 3CARs (all obs.) For the Premier League the results are insignificant and for the Championship the results are highly significant.

Regarding table position variables (CL-qualifying, relegation/promotion), the results are insignificant when looking at the whole season. However, when looking at the monthly impacts, the results for table position variables are more significant later in the season, with the exception of April. For example, in May, the No CL variable is -1.8 for ARs, -7.6 for 3CARs and -8.6 for 5CARs. The PL-relegation variable is -15.4 for 3CARs and -15.6 for 5CARs; and the Championship no relegation variable is 4.2 for 3CARs and 4.8 for 5CARs, see table 21 in section 9.2.4.

5.2.5 TESTS FOR JOINT SIGNIFICANCE OF PROBABILITY FACTORS

We test if the probability factors are jointly significant. The results are presented in section 9.2.9-10. We see that generally, we cannot reject the null hypothesis that the probability

factors are statistically different from 0. Also see section 9.2.7-8 that show that the results variables in general is not affected by excluding the probability factors.

5.2.6 Summary of Results for Anticipated versus Unanticipated Outcomes

For wins, losses and draws, the surprise effects, dummies and the probability factor is in general insignificant.

Positive events seem, except for the Championship, significant in general, whereas negative events seem insignificant. Earnings surprises are, except for Premier League, significant in general. The table positions variables are insignificant in general. Although, when looking at monthly impacts we see that some of the table position variables are significant. Moreover, for some variables, especially CL-position variables, the results are more significant as the season proceeds. In fact, in May, many variables have a high value and are highly significant.

6 ANALYSIS

6.1 WINS, DRAWS AND LOSSES AS DUMMY VARIABLES

In contrast to what Renneboog and Vanbrabant find in their paper, we find no positive impact of wins. In line with their findings, however, is the negative impact of losses and draws, which is although significant in general for ARs only. A possible explanation to the difference could be the fact that the sample has changed since they did their study. Some of the teams included in their sample are no longer listed while some new have gone public, see table 1 in section 9.2. The total number of clubs listed has though decreased. A possible reason for that could be poor performance on the exchange, which also could explain why negative impacts dominate and why the only significant variable has a negative impact. The most likely reason is though that the results are biased. It would be naive of us to think that the results on the pitch by themselves can explain all stock movements of the clubs, no matter what time-window used for the ARs. The most evident problem with using their method is the draw variable. Per example, assume that one of the world's best teams play at home against a less well-known team. If the outcome of the game is a draw, it is obvious that the world-class team would be disappointed while the less well-known team would be more than satisfied. This said, the effect on the draw variable should be divided into two parts, good and bad draws, which is the case in all of our regressions.

One of the conclusions in the Renneboog and Vanbrabant paper is that the reason to why wins and losses have positive and negative impacts, respectively, is that future sponsorships, broadcasting rights etc. are linked to the performance on the pitch. This is probably true, but then it seems strange to not control for other variables than the match results with power to affect the returns on the match-day. Per example, there might be signed a new TV-deal for the Premier League connected to a match-day, then it is not the win/loss in itself that explains all of the stock return that day. As the industry is full of rumors, signings, TV-deals etc. (there are more than 40000 articles about the clubs registered in the Factiva Database during our sample period) we think that this has the potential to bias the results. To qualify for different tournaments and avoid relegation is also important. A win that helps the team to avoid relegation or qualify for the Champions League would therefore be worth more than a regular win.

To control for the sources of potential biases mentioned above, we included events, earnings surprises and position variables in our regression. The results can be seen in table 10-12 in section 9.2.3. From this, we can conclude that news concerning the teams, earnings surprises and loss of a CL-position has significant impacts on stock returns. Even though this does not change the effect of the win, draw and lose dummy variables by much, we think that this shows that other factors than the result in itself is important.

This conclusion becomes even stronger when we look at the impact from different months during the season, see table 13 in section 9.2.3. Especially when looking at May, the last month of the season, it is clear that a lost CL-position (-7 %), avoided relegation from the Championship (4 %) or relegation from the Premier League (-15 %) has significant impacts on the share price. It is not common for the clubs to move up or down in the table at this point of the season, why some of the variables are dropped.

Consider an example regarding a win at home for a high-quality team, A, against a poor-quality team, B. Now, compare this win with a win against another high-quality team, C, in the next round. Under normal circumstances, in the middle of the season everyone would value the win against C higher than the win against B. This should also be reflected in the stock price. The conclusion from this is that there is a difference between anticipated and unanticipated match results. Therefore, we will use the events variables, the earnings surprises variable and the table position variables and see if results, when the probability of a match result is taken into account, are different from what we have seen so far.

6.2 Anticipated versus Unanticipated Combined with Results as Dummy Variables

6.2.1 Wins, Losses and Draws

If the stock market is able to include the probabilities in the stock price, the coefficients for the probability factors should be insignificant or close to zero and significant. Regarding the surprise effects, a (significant) high value would mean a large difference between anticipated and unanticipated match results. For match result dummy variables, the coefficients are significant if there is an impact from match results in general, disregarding anticipation.

Results show that generally, match results in fact cannot explain the variation in stock returns. The surprise effect, dummy and probability factor variables are all in general insignificant,

which is not what we expected.[37] According to underlying theory, there should be a difference between anticipated and unanticipated match results. But as our results show, there does not seem to be a connection between match results and stock returns, regardless of whether the results were anticipated or not. Furthermore, there does not seem to be a seasonal effect regarding match results either. These results would not be in line with the efficient market hypothesis in which the stock returns should be affected by surprises.

Since the probability factor coefficients are insignificant, the market seems to include the probabilities in the stock price, which on the other hand is in line with the efficient market hypothesis.

6.2.2 Table Position Variables

When looking at other variables, we get results that partly could explain stock returns. Table position variables for example are significant, at least when you take into account a seasonal effect. The variables concerning CL qualifying for example seem to have a large impact late in the season. In May there is a 7-8 % negative effect if you don't get in the top 4. Thus, whether you get in the top 4 or not seem to be more important late in the season, as we expected.

We observe a similar effect if you are to be relegated from Premier League; in May, there is a 15 % negative effect. If you no longer are to be relegated from the Championship there is a 4-5 % positive effect.

Thus, we observe a general trend of more significance for table position variables from February and forward (with the exception of April) which is line with what you could expect; results are more important late in the season since they would have a higher correlation to the final table position.

6.2.3 Earnings Surprises and Events

Evidently, positive events and earnings surprises are important to the clubs' stock returns; in general, these variables are significant. Unfortunately, we haven't been able to obtain sufficient data regarding events and earnings surprises, for example regarding sponsorships, TV deals, and ticket sales. Thus, we suspect the regressions to be biased due to insufficient

[37] Also see section 9.3.1 that shows little or no connection between returns and surprise effects.

data in the earnings surprises and event variables. We suspect that additional data in this matter will lead to an effect on the stock returns, i.e. the regressions are biased.

Moreover, the number of obtained positive events for the Premier League is large, whereas the same number for Championship is small, which implies that more observations of positive events for the Championship might have provided explanation, since the results are significant for the Premier League but not for the Championship.

A consistent fact throughout all regressions is that R-squared is quite low. This would also support the idea that additional data, e.g. for earnings surprises and event variables would help to further explain the variation in the dependent variables.

Results show that table positions, relevant for Champions League qualifying, are important. As qualifying for Champions League typically means an increase in earnings, it would also support the need for additional data regarding earnings surprises.

6.2.4 TESTS FOR JOINT SIGNIFICANCE OF PROBABILIY FACTORS

As results show, the probability factors are not jointly significant. If they were, this would be a reason to exclude them from the model since they could take explanatory power from the results variables, i.e. there might be multi-collinearity Even with the probability factors being jointly insignificant, we run regressions excluding them. The results are not dramatically different from the results from previous regressions, which would further substantiate the results from those regressions.

7 CONCLUSIONS

This paper shows that regressions with team stock returns against match results as dummy variables, when not controlling for other factors, to some extent provide significant results, i.e. for losses and bad draws when you are using (one day) abnormal returns. However, when controlling for other factors, results show that factors such as positive events, earnings surprises events and table position variables, can explain variation in stock returns, rather than match results, for which the coefficients are in general insignificant. In fact, contrary to underlying theory, even when taking into account probabilities of certain outcomes, match results does not seem to explain variation in stock returns. The results are generally the same regardless of using one-day, three-day and five-day CARs.

Regarding the probability factors, they are insignificant which could indicate that the market forms expectations given these probabilities, which is in line with the efficient market hypothesis.

Based on the available data, we cannot conclude that there is a difference between how unanticipated and anticipated match results affect stock returns for English football clubs. Regardless of expectations, match results do not seem to affect stock returns at all. Although, factors such as positive events in general, earnings surprises events in particular and table position variables seem important for explaining team stock returns.

7.1 FURTHER RESEARCH

Earnings surprises as well as positive events, despite using insufficient data, provide significant results. Whether you qualify for Champions League is also important. Thus, this suggests a need for further investigation with a larger data set regarding these factors, which could substantiate our results.

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9 APPENDIX

9.1 DESCRIPTION OF THE VARIABLES

Win dummy – Equals 1 if a team wins, 0 otherwise.

Lose dummy – Equals 1 if a team loses, 0 otherwise

Good draw dummy – Equals 1 if the result is a good draw[38], 0 otherwise.

Bad draw dummy – Equals 1 if the result is a bad draw[39], 0 otherwise.

Win surprises – The win variable is defined as $[1 - P\{win\}] * 1\{win\}$ or in words, one minus the probability if winning times one if the club wins the match.

Lose surprises – The definition of the loss variable is $P\{loss\} * 1\{loss\}$ or in words, the probability of losing times one if the club loses the match..

Good draw surprises – When a sample team draws a match and they were not the favorites beforehand, i.e. the probability of winning was lower than the probability of losing, a good draw occurs. The definition of a good draw is then equal to the definition of a win when changing the word win to good draw, see description above.

Bad draw surprises – When a sample team draws a match and they were the favorites beforehand, i.e. the probability of winning was higher than the probability of losing, a bad draw occurs. The definition of a bad draw is then equal to the definition of a loss when changing the word loss to bad draw, see description above.

Win probability – The probability of winning regardless the match result = 1/Win odds

Lose probability – The probability of losing regardless the match result = 1 – 1/Win odds

Good draw probability – The probability of a good draw regardless the match result = 1/Draw odds

Bad draw probability – The probability of a bad draw regardless the match result = 1/Draw odds

Positive/negative events – Events have subjectively been chosen from the Factiva database and divided as dummy variables into one positive and one negative group. All news around the clubs have been considered, which includes a total of more than 20000 news articles etc.

[38] A "good draw" occurs when the odds for winning is *higher* than the odds of the other team winning.

[39] A "bad draw" occurs when the odds for winning if *lower* than the odds of the other team winning.

Earnings surprises – Actual earnings have been compared to forecasted earnings using data from the WRDS database. The variable has been constructed in the following way: $Earnings\ surprise_{i,d,m} = \frac{Actual\ earnings_{i,d,m}}{Median\ of\ forecasted\ earnings_{i,d,m}} - 1$ where i is the firm, d the date and m the earnings measure. Then the results are collapsed to show the median of the earnings surprise for each date.

CL-/ no CL-position – To qualify for next year's Champions League the club has to be top four in the league. Therefore two dummy variables were created, this to indicate top four-status. The variables equal one if the top four-status after a match is different from the top four-status before the match. If the top four-status remains the same after a match, the variables indicates a zero

Championship promotion – This variable is similar to the CL-variable except that it is just the top two teams that are promoted compared to the four Champions League spots in the Premier League.

Premier League/Championship relegation – The last three teams (position 18-20 and 22-24, respectively) in each division will be relegated. No relegation occurs when a club that is among these last three teams before a match manages to leave bottom three while relegation is the opposite. The variables are also created in the same way as the CL dummy variables.

9.2 TABLES

TABLE 1 CLUBS IN THE SAMPLE

= Public = Private

Club	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Manchester United										
Chelsea										
Aston Villa										
Arsenal										
Sunderland										
Bolton										
Tottenham										
Newcastle										
West Bromwich										
Preston NE										
Sheffield United										
Watford										
Nottingham										
Southampton										
Charlton										
Manchester City										
Millwall										
Leeds										
Leicester										

TABLE 2 BETTING COMPANIES

Bet 365	Sporting Odds	Interwetten	Gamebookers
Blue Square	Sportingbet	Ladbrokes	Stanleybet
Bet&Win	Stan James	VC Bet	William Hill

TABLE 3 THE FACTIVA DATABASE

The database includes 600 newswires, 2500 newspapers, 5500 business and industry publications, financial information from more than 32000 private and public companies and web and blog content from more 4000 business and news sites around the globe. Below are some of the most well-known sources:

Wall Street Journal	Financial Times
Business Week	Fortune
New York Times	South China Morning Post
Forbes	Economist

9.2.1 *Results as dummy variables using STOXX*

TABLE 4 Wins, Draws and Losses as Dummy Variables

All observations	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 5850									
Groups: 19									
	R-sq overall: 0.009			R-sq overall: 0.003			R-sq overall: 0.010		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	0.041	0.320	0.751	0.390	1.190	0.251	0.805	1.200	0.246
Lose Dummy	-0.507	-3.710	0.002	-0.576	-1.640	0.118	-0.344	-0.480	0.636
Good Draw Dummy	-0.157	-1.340	0.197	-0.240	-0.590	0.565	-0.035	-0.040	0.966
Bad Draw Dummy	-0.207	-1.650	0.116	-0.345	-0.920	0.371	0.019	0.030	0.978
Constant	0.196	1.900	0.074	0.094	0.280	0.779	-0.277	-0.390	0.699

TABLE 5 Wins, Draws and Losses as Dummy Variables (Premier League)

Premier League	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 3336									
Groups: 16									
	R-sq overall: 0.010			R-sq overall: 0.009			R-sq overall: 0.007		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-0.065	-0.570	0.577	0.162	0.500	0.626	0.756	0.900	0.382
Lose Dummy	-0.662	-2.630	0.019	-0.663	-1.650	0.120	-0.234	-0.260	0.801
Good Draw Dummy	-0.257	-1.330	0.203	-0.073	-0.190	0.853	0.318	0.320	0.751
Bad Draw Dummy	-0.352	-3.060	0.008	-0.529	-1.450	0.169	-0.276	-0.330	0.745
Constant	0.392	2.570	0.021	0.333	0.970	0.345	-0.205	-0.230	0.818

TABLE 6 Wins, Draws and Losses as Dummy Variables (Championship)

Championship	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 2514									
Groups: 13									
	R-sq overall: 0.007			R-sq overall: 0.015			R-sq overall: 0.012		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	0.163	0.740	0.474	0.634	1.330	0.207	0.904	1.250	0.235
Lose Dummy	-0.346	-2.320	0.039	-0.492	-1.040	0.319	-0.384	-0.460	0.656
Good Draw Dummy	-0.065	-0.370	0.721	-0.455	-0.750	0.467	-0.375	-0.380	0.709
Bad Draw Dummy	-0.033	-0.140	0.892	-0.166	-0.290	0.776	0.415	0.500	0.627
Constant	-0.033	-0.220	0.832	-0.177	-0.390	0.703	-0.441	-0.570	0.581

9.2.2 *Results as dummy variables using FTSE*

TABLE 7 Wins, Draws and Losses as Dummy Variables

All observations	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 5850									
Groups: 19									
	R-sq overall: 0.006			R-sq overall: 0.010			R-sq overall: 0.008		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-0.166	-1.070	0.300	0.013	0.040	0.972	-0.038	-0.060	0.956
Lose Dummy	-0.688	-4.440	0.000	-0.966	-2.390	0.028	-1.172	-1.540	0.140
Good Draw Dummy	-0.356	-2.500	0.022	-0.752	-1.540	0.141	-0.895	-1.010	0.324
Bad Draw Dummy	-0.538	-2.910	0.009	-0.873	-2.110	0.049	-0.973	-1.330	0.199
Constant	0.373	2.790	0.012	0.350	0.930	0.367	0.435	0.590	0.563

TABLE 8 Wins, Draws and Losses as Dummy Variables (Premier League)

Premier League	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 3336									
Groups: 16									
	R-sq overall: 0.006			R-sq overall: 0.008			R-sq overall: 0.008		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-0.208	-1.460	0.165	-0.144	-0.410	0.691	-0.035	-0.040	0.966
Lose Dummy	-0.737	-3.160	0.006	-0.927	-2.270	0.038	-1.017	-1.090	0.292
Good Draw Dummy	-0.393	-1.760	0.099	-0.405	-0.810	0.429	-0.431	-0.400	0.694
Bad Draw Dummy	-0.564	-4.220	0.001	-0.939	-2.490	0.025	-1.104	-1.340	0.200
Constant	0.461	2.810	0.013	0.4682	1.250	0.232	0.3844	0.430	0.670

TABLE 9 Wins, Draws and Losses as Dummy Variables (Championship)

Championship	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 2514									
Groups: 13									
	R-sq overall: 0.007			R-sq overall: 0.015			R-sq overall: 0.012		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-0.114	-0.380	0.711	0.218	0.400	0.693	0.007	0.010	0.993
Lose Dummy	-0.633	-2.560	0.025	-0.978	-1.710	0.113	-1.252	-1.350	0.202
Good Draw Dummy	-0.314	-1.300	0.218	-1.146	-1.710	0.113	-1.368	-1.320	0.212
Bad Draw Dummy	-0.504	-1.250	0.236	-0.793	-1.240	0.239	-0.784	-0.870	0.402
Constant	0.263	1.030	0.324	0.173	0.330	0.746	0.418	0.490	0.631

9.2.3 *Results as dummy variables + other explanatory variables using STOXX*

TABLE 10 Wins, Draws, Losses as Dummy Variables + other explanatory variables

All observations	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 5850									
Groups: 19									
	R-sq overall: 0.012			R-sq overall: 0.016			R-sq overall: 0.015		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	0.036	0.300	0.767	0.392	1.240	0.231	0.831	1.270	0.219
Lose Dummy	-0.483	-3.790	0.001	-0.566	-1.770	0.094	-0.325	-0.490	0.631
Good Draw Dummy	-0.135	-1.250	0.228	-0.241	-0.640	0.532	-0.028	-0.040	0.971
Bad Draw Dummy	-0.195	-1.630	0.122	-0.363	-1.020	0.321	0.029	0.040	0.966
Positive Events	0.823	2.190	0.042	2.479	3.530	0.002	3.247	4.310	0.000
Negative Events	0.937	0.720	0.479	-0.277	-0.180	0.856	-1.090	-0.710	0.486
Earnings surprises	-0.370	-2.100	0.050	-0.472	-2.390	0.028	0.074	0.330	0.746
CL-position	0.086	0.530	0.601	-0.142	-0.460	0.648	-0.158	-0.400	0.697
No CL-position	-0.351	-2.550	0.020	-0.363	-1.330	0.201	-0.204	-0.610	0.548
PL relegation	-0.376	-1.000	0.330	-0.465	-0.850	0.406	-0.043	-0.060	0.950
No PL relegation	-0.152	-0.990	0.334	-0.024	-0.060	0.955	-0.495	-1.300	0.209
Champ. promotion	-0.019	-0.070	0.949	0.641	1.170	0.256	1.646	1.350	0.193
No Champ. promotion	0.026	0.220	0.832	-0.274	-0.470	0.647	-0.395	-0.420	0.683
Champ. relegation	-0.101	-0.300	0.766	-0.215	-0.340	0.739	-0.113	-0.150	0.881
No Champ. relegation	-0.945	-2.000	0.060	-1.463	-1.810	0.087	-1.384	-1.750	0.098
Constant	0.172	1.840	0.083	0.078	0.250	0.805	-0.326	-0.490	0.630

TABLE 11 Wins, Draws, Losses as Dummy Variables + other explanatory variables (Premier League)

Premier League	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 3336									
Groups: 16									
	R-sq overall: 0.020			R-sq overall: 0.018			R-sq overall: 0.018		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-0.102	-0.830	0.418	0.108	0.320	0.756	0.755	0.890	0.390
Lose Dummy	-0.657	-2.570	0.021	-0.681	-1.620	0.126	-0.265	-0.300	0.771
Good Draw Dummy	-0.256	-1.430	0.173	-0.119	-0.300	0.771	0.261	0.260	0.796
Bad Draw Dummy	-0.356	-3.320	0.005	-0.547	-1.460	0.164	-0.266	-0.320	0.753
Positive Events	1.067	3.410	0.004	2.526	3.310	0.005	3.269	3.950	0.001
Negative Events	1.544	0.950	0.356	1.198	0.900	0.385	0.314	0.220	0.826
Earnings surprises	-0.146	-1.420	0.175	-0.249	-1.500	0.153	0.415	0.860	0.406
CL-position	0.038	0.220	0.825	-0.063	-0.220	0.828	-0.105	-0.310	0.763
No CL-position	-0.370	-2.760	0.015	-0.407	-1.580	0.134	-0.191	-0.590	0.566
PL relegation	-0.373	-1.000	0.334	-0.455	-0.790	0.443	-0.006	-0.010	0.994
No PL relegation	-0.213	-1.130	0.277	0.031	0.060	0.949	-0.458	-1.120	0.282
Constant	0.375	2.520	0.023	0.322	0.910	0.375	-0.258	-0.300	0.768

TABLE 12 WINS, DRAWS, LOSSES AS DUMMY VARIABLES + OTHER EXPLANATORY VARIABLES (CHAMPIONSHIP)

Championship	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 2514									
Groups: 13									
	R-sq overall: 0.010			R-sq overall: 0.026			R-sq overall: 0.020		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	0.178	0.840	0.418	0.641	1.450	0.173	0.911	1.350	0.202
Lose Dummy	-0.309	-2.320	0.039	-0.477	-1.160	0.267	-0.338	-0.440	0.666
Good Draw Dummy	-0.050	-0.280	0.783	-0.472	-0.860	0.405	-0.361	-0.390	0.702
Bad Draw Dummy	-0.021	-0.090	0.932	-0.224	-0.450	0.664	0.386	0.520	0.614
Positive Events	-0.816	-0.570	0.576	2.286	1.120	0.283	3.407	1.280	0.224
Negative Events	-1.083	-1.240	0.238	-5.028	-1.400	0.186	-5.541	-1.620	0.132
Earnings surprises	-1.292	-17.06	0.000	-1.642	-4.070	0.002	-1.700	-4.350	0.001
CL-position	0.082	0.300	0.773	0.768	1.360	0.197	1.802	1.440	0.175
No CL-position	-0.012	-0.130	0.898	-0.229	-0.420	0.681	-0.375	-0.420	0.681
PL relegation	-0.057	-0.180	0.860	-0.182	-0.280	0.782	-0.097	-0.140	0.894
No PL relegation	-0.790	-1.680	0.118	-1.388	-2.110	0.056	-1.276	-2.160	0.051
Constant	-0.043	-0.290	0.777	-0.154	-0.380	0.708	-0.445	-0.620	0.548

TABLE 13 MONTHLY IMPACTS OF WINS, DRAWS AND LOSSES AS DUMMY VARIABLES + OTHER EXPLANATORY VARIABLES (STOXX)

Three-Day CARs	**August**			**September**			**October**		
	Observations: 506			Observations: 542			Observations: 664		
Groups: 19									
	R-sq overall: 0.035			R-sq overall: 0.036			R-sq overall: 0.010		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-0.127	-0.340	0.734	0.700	0.770	0.449	0.805	2.650	0.016
Lose Dummy	0.050	0.120	0.902	-0.259	-0.270	0.792	0.796	1.510	0.147
Good Draw Dummy	0.257	0.680	0.506	-0.409	-0.350	0.733	(dropped)		
Bad Draw Dummy	0.718	1.650	0.117	-0.049	-0.060	0.955	0.308	0.550	0.592
CL-position	0.602	1.150	0.266	1.622	1.610	0.124	-1.459	-1.120	0.277
No CL-position	-0.127	-0.400	0.694	-0.735	-1.080	0.293	-0.355	-0.460	0.652
PL relegation	-0.187	-0.450	0.662	0.799	0.730	0.477	-0.047	-0.040	0.967
No PL relegation	-1.795	-2.040	0.056	-0.482	-0.760	0.455	0.361	0.550	0.590
Champ. promotion	3.111	2.520	0.021	-0.422	-0.890	0.386	1.012	1.280	0.216
No Champ. promotion	-2.798	-1.230	0.235	0.145	0.380	0.711	0.748	3.490	0.003
Champ. relegation	0.419	1.010	0.327	0.623	1.130	0.274	0.883	1.210	0.241
No Champ. relegation	0.808	1.590	0.129	-6.500	-1.470	0.159	-0.008	-0.040	0.968
Constant	-0.080	-0.220	0.830	-0.391	-0.440	0.663	-0.447	-1.350	0.195

Three-Day CARs	November			December			January		
	Observations: 639			Observations: 886			Observations: 544		
Groups: 19									
	R-sq overall: 0.022			R-sq overall: 0.026			R-sq overall: 0.045		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-0.767	-2.270	0.035	-0.982	-2.230	0.039	1.645	2.190	0.042
Lose Dummy	-1.419	-3.230	0.005	-1.984	-3.230	0.005	0.200	0.220	0.830
Good Draw Dummy	-0.528	-1.880	0.076	-1.939	-3.070	0.007	0.751	0.950	0.353
Bad Draw Dummy	-1.882	-2.990	0.008	-2.074	-2.460	0.024	0.769	1.410	0.176
CL-position	-0.528	-1.750	0.097	0.638	1.220	0.238	0.032	0.060	0.956
No CL-position	0.712	1.460	0.160	0.445	1.100	0.286	1.439	1.790	0.090
PL relegation	0.146	0.230	0.824	-0.950	-0.880	0.390	0.339	0.750	0.465
No PL relegation	0.954	1.030	0.314	0.194	0.380	0.706	-4.065	-17.45	0.000
Champ. promotion	-0.973	-2.690	0.015	-0.608	-2.080	0.052	1.166	3.360	0.003
No Champ. promotion	(dropped)			0.413	1.980	0.063	0.016	0.020	0.982
Champ. relegation	0.320	0.810	0.430	-1.978	-0.840	0.413	-0.983	-0.660	0.517
No Champ. relegation	-1.736	-0.850	0.404	0.398	0.770	0.453	-14.498	-56.59	0.000
Constant	0.858	2.700	0.015	1.731	3.160	0.005	-1.131	-1.460	0.161

Three-Day CARs	February			March			April		
	Observations: 565			Observations: 645			Observations: 650		
Groups: 19									
	R-sq overall: 0.045			R-sq overall: 0.028			R-sq overall: 0.016		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	0.869	2.220	0.040	0.167	0.340	0.736	0.078	0.070	0.941
Lose Dummy	-1.056	-2.400	0.027	-0.897	-1.870	0.077	-1.694	-3.620	0.002
Good Draw Dummy	(dropped)			-1.011	-1.790	0.090	-0.654	-1.210	0.242
Bad Draw Dummy	-0.061	-0.120	0.904	(dropped)			-0.753	-0.520	0.609
CL-position	1.692	5.990	0.000	-1.020	-2.500	0.022	-3.825	-8.310	0.000
No CL-position	-1.994	-8.000	0.000	-3.056	-1.220	0.239	(dropped)		
PL relegation	(dropped)			-0.378	-1.220	0.238	-1.430	-1.080	0.295
No PL relegation	6.035	19.230	0.000	1.738	0.860	0.402	2.396	0.830	0.419
Champ. promotion	-0.641	-1.180	0.254	-0.651	-2.790	0.012	-0.323	-0.620	0.542
No Champ. promotion	-0.165	-0.780	0.445	0.509	2.320	0.033	(dropped)		
Champ. relegation	1.279	4.490	0.000	-2.321	-0.900	0.378	-0.547	-0.290	0.773
No Champ. relegation	-0.353	-0.770	0.450	-0.233	-0.730	0.473	-0.566	-0.390	0.704
Constant	0.027	0.120	0.909	0.000	0.000	1.000	1.148	1.590	0.130

Three-Day CARs	May		
	Observations: 275		
Groups: 19			
	R-sq overall: 0.198		
Variable	**Coef.**	**t**	**P>|t|**
Win Dummy	-0.279	-0.400	0.692
Lose Dummy	-0.392	-0.980	0.342
Good Draw Dummy	-1.005	-3.370	0.003
Bad Draw Dummy	-0.517	-0.870	0.397
CL-position	-0.716	-4.050	0.001
No CL-position	-7.103	-24.29	0.000
PL relegation	-15.49	-2.220	0.039
No PL relegation	-2.593	-1.360	0.191
Champ. promotion	(dropped)		
No Champ. promotion	(dropped)		
Champ. relegation	-0.026	-0.080	0.939
No Champ. relegation	4.459	7.700	0.000
Constant	0.501	1.210	0.242

9.2.4 Results as dummy variables + other explanatory variables using FTSE

TABLE 14 Wins, Draws, Losses as Dummy Variables + other explanatory variables

All observations	ARs			Three-Day CARs			Five-Day CARs		
Observations:									
Groups: 19									
	R-sq overall: 0.010			R-sq overall: 0.016			R-sq overall: 0.014		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-0.138	-0.910	0.377	-0.217	-0.770	0.453	-0.511	-0.960	0.352
Lose Dummy	-0.708	-4.770	0.000	-1.296	-3.960	0.001	-1.773	-2.870	0.010
Good Draw	-0.329	-2.300	0.034	-1.005	-2.510	0.022	-1.397	-1.930	0.069
Bad Draw Dummy	-0.467	-2.590	0.019	-1.007	-2.920	0.009	-1.359	-2.310	0.033
Positive Events	0.578	0.990	0.337	2.148	3.150	0.006	2.928	3.790	0.001
Negative Events	0.768	0.600	0.554	0.123	0.080	0.937	-0.843	-0.470	0.641
Earnings surprises	-0.421	-1.540	0.140	-0.683	-1.820	0.086	0.062	0.360	0.726
CL-position	-0.204	-0.960	0.348	-0.338	-0.940	0.360	-0.443	-0.890	0.385
No CL-position	0.005	0.020	0.984	-0.078	-0.260	0.795	0.096	0.280	0.779
PL relegation	-0.402	-1.030	0.317	-0.293	-0.490	0.633	0.186	0.250	0.803
No PL relegation	-0.307	-1.850	0.080	0.031	0.070	0.947	-0.354	-0.990	0.337
Champ.	0.378	0.680	0.504	0.756	1.430	0.169	1.979	1.370	0.186
No Champ.	-0.028	-0.120	0.909	0.080	0.110	0.915	0.171	0.150	0.884
Champ.	-0.699	-1.310	0.207	-0.619	-0.850	0.407	-0.339	-0.290	0.776
No Champ.	-1.093	-2.440	0.025	-2.414	-2.770	0.013	-1.760	-2.130	0.048
Constant	0.362	2.710	0.014	0.602	2.080	0.052	0.938	1.650	0.117

TABLE 15 WINS, DRAWS, LOSSES AS DUMMY VARIABLES + OTHER EXPLANATORY VARIABLES (PREMIER LEAGUE)

Premier League	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations:									
Groups: 16									
	R-sq overall: 0.012			R-sq overall: 0.015			R-sq overall: 0.014		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-0.220	-1.430	0.173	-0.451	-1.270	0.224	-0.627	-0.720	0.483
Lose Dummy	-0.790	-3.270	0.005	-1.237	-2.830	0.013	-1.671	-1.710	0.108
Good Draw	-0.435	-1.960	0.068	-0.687	-1.420	0.177	-1.012	-0.950	0.357
Bad Draw	-0.548	-4.020	0.001	-1.095	-3.040	0.008	-1.567	-1.900	0.077
Positive Events	0.814	1.450	0.168	2.414	3.390	0.004	3.301	4.120	0.001
Negative Events	1.336	0.850	0.410	1.550	1.190	0.252	0.706	0.400	0.692
Earnings surprises	-0.208	-0.770	0.456	-0.442	-1.200	0.250	0.378	1.170	0.261
CL-position	-0.227	-1.080	0.296	-0.209	-0.620	0.546	-0.348	-0.780	0.448
No CL-position	-0.010	-0.040	0.967	-0.141	-0.470	0.645	0.094	0.270	0.792
PL relegation	-0.407	-1.030	0.319	-0.333	-0.510	0.621	0.222	0.270	0.788
No PL	-0.333	-1.830	0.087	0.149	0.300	0.769	-0.244	-0.650	0.526
Constant	0.477	2.870	0.012	0.721	1.890	0.079	0.954	1.060	0.304

TABLE 16 WINS, DRAWS, LOSSES AS DUMMY VARIABLES + OTHER EXPLANATORY VARIABLES (CHAMPIONSHIP)

Championship	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations:									
Groups: 13									
	R-sq overall: 0.012			R-sq overall: 0.027			R-sq overall: 0.020		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-0.067	-0.240	0.815	-0.001	0.000	0.998	-0.425	-0.770	0.457
Lose Dummy	-0.649	-2.580	0.024	-1.387	-2.610	0.023	-1.862	-2.380	0.035
Good Draw	-0.258	-1.100	0.295	-1.436	-2.370	0.035	-1.873	-2.130	0.055
Bad Draw	-0.399	-1.050	0.314	-0.964	-1.730	0.110	-1.162	-1.630	0.129
Positive Events	-1.297	-0.580	0.570	0.394	0.300	0.767	0.466	0.330	0.751
Negative Events	-1.105	-1.000	0.336	-4.382	-1.010	0.333	-5.684	-1.520	0.154
Earnings surprises	-1.282	-14.73	0.000	-1.950	-3.340	0.006	-1.640	-9.660	0.000
CL-position	0.361	0.610	0.551	0.652	1.160	0.269	1.876	1.280	0.226
No CL-position	-0.061	-0.290	0.774	0.244	0.340	0.742	0.237	0.220	0.832
PL relegation	-0.663	-1.220	0.245	-0.537	-0.780	0.453	-0.382	-0.340	0.739
No PL	-0.992	-2.310	0.040	-2.440	-3.390	0.005	-1.789	-2.330	0.038
Constant	0.255	1.020	0.326	0.491	1.170	0.264	0.925	1.480	0.164

TABLE 17 MONTHLY IMPACTS OF WINS, DRAWS AND LOSSES AS DUMMY VARIABLES + OTHER EXPLANATORY VARIABLES

Three-Day CARs	August			September			October		
	Observations: 506			Observations: 542			Observations: 664		
Groups: 19									
	R-sq overall: 0.029			R-sq overall: 0.025			R-sq overall: 0.017		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-0.069	-0.180	0.861	0.887	1.500	0.150	0.627	1.080	0.294
Lose Dummy	-0.148	-0.290	0.776	0.162	0.270	0.791	0.444	0.870	0.393
Good Draw	0.509	0.950	0.354	(dropped)			(dropped)		
Bad Draw Dummy	0.306	0.600	0.554	-0.260	-0.430	0.674	-0.449	-0.780	0.447
CL-position	0.714	1.500	0.150	1.431	0.940	0.360	-2.647	-2.070	0.053
No CL-position	-0.950	-2.340	0.031	-0.870	-0.790	0.439	1.445	2.380	0.028
PL relegation	-0.210	-0.460	0.649	0.505	0.440	0.664	-0.184	-0.120	0.902
No PL relegation	-2.386	-2.210	0.041	0.414	0.480	0.639	0.661	0.520	0.609
Champ.	2.448	2.630	0.017	-1.207	-1.950	0.067	-0.234	-1.140	0.268
No Champ.	-1.905	-0.690	0.500	(dropped)			1.675	13.240	0.000
Champ.	1.011	1.990	0.062	-0.817	-0.630	0.533	2.556	1.730	0.100
No Champ.	-0.237	-0.340	0.737	-4.283	-2.310	0.033	0.350	0.910	0.377
Constant	0.001	0.000	0.999	0.092	0.200	0.845	-0.518	-1.200	0.247

Three-Day CARs	November			December			January		
	Observations: 639			Observations: 886			Observations: 544		
Groups: 19									
	R-sq overall: 0.030			R-sq overall: 0.040			R-sq overall: 0.041		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-0.439	-1.070	0.300	-2.883	-5.380	0.000	0.099	0.200	0.845
Lose Dummy	-1.363	-2.340	0.031	-3.918	-5.990	0.000	-1.389	-1.980	0.063
Good Draw	-1.719	-2.430	0.026	-4.124	-4.780	0.000	-0.810	-1.810	0.087
Bad Draw Dummy	-0.220	-0.670	0.511	-3.875	-5.800	0.000	-0.739	-1.160	0.261
CL-position	-1.399	-2.470	0.024	0.426	0.580	0.567	-0.410	-0.280	0.782
No CL-position	1.448	0.970	0.344	0.192	0.300	0.767	3.117	1.740	0.099
PL relegation	-0.220	-0.200	0.844	0.233	0.200	0.844	1.426	2.060	0.055
No PL relegation	0.264	0.270	0.791	0.918	1.280	0.218	-4.639	-2.600	0.018
Champ.	1.838	3.900	0.001	-0.496	-1.470	0.158	3.184	7.050	0.000
No Champ.	(dropped)			0.266	1.150	0.266	1.225	1.590	0.130
Champ.	-1.570	-0.710	0.489	-2.024	-0.700	0.493	-0.583	-0.380	0.705
No Champ.	-4.353	-1.210	0.243	-1.261	-2.170	0.044	-10.69	-1.530	0.144
Constant	0.240	0.600	0.555	3.384	5.680	0.000	0.629	1.210	0.243

Three-Day CARs	February			March			April		
	Observations: 565			Observations: 645			Observations: 650		
Groups: 19									
	R-sq overall: 0.035			R-sq overall: 0.021			R-sq overall: 0.019		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	0.794	1.220	0.239	0.593	1.010	0.328	0.158	0.160	0.876
Lose Dummy	-0.952	-2.140	0.046	-0.714	-1.290	0.213	-1.787	-3.550	0.002
Good Draw	(dropped)			(dropped)			-0.671	-0.500	0.621
Bad Draw Dummy	-0.259	-0.460	0.648	-0.417	-0.570	0.575	-0.610	-1.130	0.272
CL-position	1.261	4.050	0.001	-0.984	-1.390	0.180	-3.182	-1.900	0.074
No CL-position	-0.987	-0.750	0.465	-2.930	-1.100	0.284	(dropped)		
PL relegation	(dropped)			-1.157	-3.110	0.006	-1.356	-1.030	0.317
No PL relegation	6.424	19.390	0.000	1.851	0.890	0.383	2.715	1.000	0.332
Champ.	-0.839	-2.360	0.030	-0.028	-0.080	0.936	-0.554	-1.080	0.293
No Champ.	-1.534	-5.850	0.000	0.081	0.050	0.961	(dropped)		
Champ.	0.079	0.080	0.939	-3.190	-0.930	0.363	-1.302	-0.710	0.487
No Champ.	-0.847	-0.390	0.704	-1.457	-1.320	0.202	-1.191	-0.790	0.438
Constant	-0.053	-0.130	0.898	-0.563	-1.290	0.215	0.783	1.130	0.271

Three-Day CARs	May		
	Observations: 275		
Groups: 19			
	R-sq overall: 0.170		
Variable	**Coef.**	**t**	**P>|t|**
Win Dummy	0.794	1.220	0.239
Lose Dummy	-0.952	-2.140	0.046
Good Draw	(dropped)		
Bad Draw Dummy	-0.259	-0.460	0.648
CL-position	1.261	4.050	0.001
No CL-position	-0.987	-0.750	0.465
PL relegation	(dropped)		
No PL relegation	6.424	19.390	0.000
Champ.	-0.839	-2.360	0.030
No Champ.	-1.534	-5.850	0.000
Champ.	0.079	0.080	0.939
No Champ.	-0.847	-0.390	0.704
Constant	-0.053	-0.130	0.898

9.2.5 *Results as dummy variables. Surprises and prob. + other explanatory variables using STOXX*

TABLE 18 Wins, Draws and Losses as Dummy Variables. Surprises and Probabilities + other Explanatory Variables

All observations	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 5850									
Groups: 19									
	R-sq overall: 0.014			R-sq overall: 0.019			R-sq overall: 0.017		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	0.102	0.350	0.729	0.949	1.210	0.242	0.926	0.640	0.531
Win Surprise Effect	0.484	0.830	0.419	-0.206	-0.150	0.881	0.524	0.220	0.825
Win Probability	0.091	0.550	0.590	0.714	1.770	0.094	0.482	1.000	0.329
Lose Dummy	0.070	0.320	0.751	0.229	0.460	0.653	0.200	0.200	0.845
Lose Surprise Effect	-0.754	-1.420	0.174	-1.027	-0.960	0.350	-0.527	-0.250	0.808
Lose Probability	-0.357	-1.110	0.282	-0.968	-1.260	0.223	-0.189	-0.110	0.911
Draw Good Dummy	1.027	0.500	0.623	-3.576	-1.300	0.211	-8.119	-2.090	0.051
Draw Good Surp. Effect	-2.210	-0.740	0.471	4.623	1.390	0.182	12.353	2.700	0.015
Draw Good Probability	-0.393	-0.360	0.721	-0.924	-0.490	0.628	-1.727	-0.530	0.602
Draw Bad Dummy	-1.168	-1.520	0.147	-1.899	-1.280	0.217	-1.273	-0.750	0.465
Draw Bad Surp. Effect	2.690	1.240	0.231	3.874	0.830	0.417	3.340	0.590	0.565
Draw Bad Probability	-1.422	-1.780	0.093	-1.399	-0.690	0.500	-1.143	-0.380	0.706
Positive Events	0.708	1.580	0.130	2.070	2.690	0.015	2.551	3.120	0.006
Negative Events	1.053	0.830	0.416	0.065	0.050	0.963	-0.947	-0.670	0.512
Earnings surprises	-0.387	-2.160	0.044	-0.485	-2.470	0.024	0.055	0.250	0.807
CL-position	0.017	0.130	0.900	-0.393	-1.470	0.158	-0.432	-1.480	0.155
No CL-position	-0.245	-1.670	0.112	-0.042	-0.190	0.854	0.172	0.600	0.558
PL relegation	-0.401	-1.060	0.303	-0.431	-0.850	0.405	-0.013	-0.020	0.984
No PL relegation	-0.240	-1.420	0.172	-0.149	-0.340	0.741	-0.612	-1.460	0.161
Champ. promotion	0.029	0.090	0.932	0.790	1.220	0.240	1.879	1.350	0.193
No Champ. promotion	0.045	0.360	0.724	-0.152	-0.240	0.812	-0.222	-0.220	0.830
Champ. relegation	-0.167	-0.380	0.709	-0.102	-0.170	0.870	-0.070	-0.090	0.930
No Champ. relegation	-1.010	-2.070	0.053	-1.592	-1.970	0.064	-1.473	-1.920	0.071
Constant	0.673	1.820	0.085	0.698	1.200	0.246	0.161	0.180	0.859

TABLE 19 WINS, DRAWS AND LOSSES AS DUMMY VARIABLES. SURPRISES AND PROBABILITIES + OTHER EXPLANATORY VARIABLES (PREMIER LEAGUE)

Premier League	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 3336									
Groups: 16									
	R-sq overall: 0.027			R-sq overall: 0.021			R-sq overall: 0.020		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-0.361	-1.070	0.303	-1.128	-1.190	0.251	-2.799	-1.740	0.102
Win Surprise Effect	1.265	1.650	0.119	2.218	1.290	0.215	5.243	2.000	0.064
Win Probability	0.203	0.930	0.369	0.603	1.120	0.282	0.432	0.610	0.553
Lose Dummy	-0.156	-0.420	0.677	-1.151	-1.940	0.071	-2.476	-2.270	0.039
Lose Surprise Effect	-0.417	-0.530	0.607	1.069	0.880	0.395	3.998	1.860	0.082
Lose Probability	-0.288	-0.510	0.617	0.906	0.950	0.357	3.599	1.860	0.082
Draw Good Dummy	1.863	0.790	0.442	-1.129	-0.510	0.619	-1.385	-0.290	0.777
Draw Good Surp. Effect	-3.357	-0.930	0.368	2.806	0.990	0.340	6.024	1.340	0.199
Draw Good Probability	-1.433	-0.980	0.341	-4.105	-2.060	0.058	-7.515	-1.780	0.096
Draw Bad Dummy	-0.888	-1.010	0.326	-0.811	-0.540	0.599	0.758	0.390	0.706
Draw Bad Surp. Effect	0.857	0.370	0.718	-1.305	-0.290	0.778	-5.681	-0.920	0.373
Draw Bad Probability	-1.370	-1.620	0.126	0.259	0.110	0.914	2.209	0.510	0.618
Positive Events	0.928	2.230	0.041	2.070	2.250	0.040	2.532	2.370	0.032
Negative Events	1.791	1.160	0.264	1.434	1.140	0.273	0.516	0.410	0.685
Earnings surprises	-0.181	-1.760	0.099	-0.288	-1.810	0.091	0.371	0.730	0.474
CL-position	-0.033	-0.220	0.827	-0.343	-1.210	0.244	-0.412	-1.590	0.132
No CL-position	-0.240	-1.590	0.134	-0.042	-0.170	0.864	0.225	0.710	0.488
PL relegation	-0.373	-1.000	0.334	-0.407	-0.790	0.443	0.037	0.050	0.958
No PL relegation	-0.340	-1.610	0.128	-0.130	-0.260	0.801	-0.686	-1.560	0.141
Constant	1.040	1.930	0.073	0.827	1.020	0.325	-0.214	-0.150	0.879

TABLE 20 WINS, DRAWS AND LOSSES AS DUMMY VARIABLES. SURPRISES AND PROBABILITIES + OTHER EXPLANATORY VARIABLES (CHAMPIONSHIP)

Championship	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 2514									
Groups: 13									
	R-sq overall: 0.013			R-sq overall: 0.032			R-sq overall: 0.027		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	0.586	0.980	0.348	2.319	1.680	0.120	3.688	1.490	0.162
Win Surprise Effect	-0.216	-0.230	0.825	-1.862	-0.810	0.435	-3.356	-0.790	0.446
Win Probability	-0.260	-1.220	0.247	0.585	1.070	0.308	0.243	0.350	0.735
Lose Dummy	0.231	0.710	0.492	0.925	1.460	0.171	1.826	1.370	0.196
Lose Surprise Effect	-0.799	-0.970	0.352	-2.050	-1.420	0.181	-3.512	-1.240	0.240
Lose Probability	0.199	0.220	0.828	-1.369	-0.840	0.416	-1.857	-0.670	0.518
Draw Good Dummy	0.820	0.290	0.780	7.303	1.480	0.165	-7.958	-0.440	0.669
Draw Good Surp. Effect	-2.062	-0.440	0.668	-13.750	-1.680	0.119	8.881	0.300	0.770
Draw Good Probability	-0.222	-0.150	0.886	0.537	0.270	0.790	1.709	0.490	0.634
Draw Bad Dummy	-3.078	-2.050	0.062	-5.916	-2.060	0.062	-6.278	-1.930	0.078
Draw Bad Surp. Effect	9.424	2.100	0.057	17.451	1.780	0.101	20.84	1.660	0.123
Draw Bad Probability	-2.493	-1.490	0.161	-4.335	-0.750	0.468	-5.239	-0.720	0.485
Positive Events	-0.799	-0.550	0.592	2.446	1.180	0.262	3.594	1.330	0.210
Negative Events	-1.280	-1.300	0.219	-4.016	-1.280	0.225	-5.244	-1.680	0.118
Earnings surprises	-1.286	-13.850	0.000	-1.589	-4.970	0.000	-1.651	-4.320	0.001
Champ. promotion	0.102	0.300	0.773	0.876	1.400	0.187	1.998	1.460	0.170
No Champ. promotion	0.017	0.160	0.876	-0.100	-0.160	0.875	-0.193	-0.190	0.849
Champ. relegation	-0.170	-0.400	0.693	-0.032	-0.050	0.960	-0.017	-0.020	0.982
No Champ. relegation	-0.714	-1.600	0.135	-1.413	-2.030	0.065	-1.167	-2.090	0.059
Constant	0.597	1.210	0.250	1.016	0.740	0.474	0.839	0.590	0.568

TABLE 21 MONTHLY IMPACTS OF WINS, DRAWS AND LOSSES AS DUMMY VARIABLES. SURPRISES AND PROBABILITIES + OTHER EXPLANATORY VARIABLES

August	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 506									
Groups: 19									
	R-sq overall: 0.024			R-sq overall: 0.042			R-sq overall: 0.051		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-0.125	-0.340	0.737	-1.766	-1.760	0.096	4.036	0.810	0.426
Win Surprise Effect	0.146	0.180	0.855	3.010	1.620	0.122	-0.579	-0.110	0.913
Win Probability	-0.589	-1.280	0.215	-0.643	-0.620	0.543	-0.599	-0.420	0.678
Lose Dummy	-0.314	-0.660	0.518	-0.839	-1.230	0.234	4.178	1.070	0.300
Lose Surprise Effect	0.078	0.060	0.949	2.128	1.090	0.288	-1.237	-0.360	0.726
Lose Probability	0.727	1.140	0.269	2.230	1.740	0.099	-1.373	-0.300	0.770
Draw Good Dummy	-5.780	-0.890	0.387	-13.651	-1.260	0.223	-14.441	-1.080	0.294
Draw Good Surp. Effect	9.295	0.910	0.376	22.406	1.320	0.202	24.805	1.190	0.249
Draw Good Probability	-0.361	-0.250	0.806	-0.962	-0.600	0.558	-1.027	-0.380	0.706
Draw Bad Dummy	0.529	0.620	0.542	1.357	0.980	0.341	2.776	1.250	0.228
Draw Bad Surp. Effect	-1.784	-0.730	0.477	-1.060	-0.250	0.802	-0.542	-0.070	0.944
Draw Bad Probability	-0.210	-0.170	0.865	-2.169	-0.920	0.368	-4.462	-0.770	0.450
CL-position	0.259	1.020	0.320	0.117	0.290	0.772	0.058	0.090	0.931
No CL-position	0.007	0.060	0.956	0.100	0.320	0.754	0.168	0.230	0.824
PL relegation	-0.019	-0.060	0.954	-0.223	-0.560	0.582	0.014	0.020	0.983
No PL relegation	-0.766	-2.300	0.034	-1.908	-2.120	0.048	-2.372	-2.750	0.013
Champ. promotion	0.622	0.570	0.578	3.059	2.410	0.027	7.138	2.440	0.025
No Champ. promotion	-0.679	-1.170	0.258	-2.840	-1.260	0.223	-3.550	-1.050	0.309
Champ. relegation	0.138	0.710	0.486	0.395	1.000	0.330	0.197	0.310	0.762
No Champ. relegation	0.228	1.540	0.141	0.702	1.450	0.163	1.063	1.550	0.139
Constant	0.068	0.160	0.877	-0.099	-0.200	0.845	-0.795	-0.890	0.388

September	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 542									
Groups: 19									
	R-sq overall: 0.043			R-sq overall: 0.034			R-sq overall: 0.030		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	6.047	0.770	0.454	1.459	0.070	0.941	-7.793	-0.290	0.774
Win Surprise Effect	0.864	0.180	0.862	2.264	0.170	0.867	19.362	1.400	0.180
Win Probability	-0.104	-0.130	0.901	0.132	0.070	0.942	-2.024	-1.820	0.085
Lose Dummy	5.522	0.690	0.498	0.302	0.020	0.986	-6.018	-0.240	0.817
Lose Surprise Effect	0.507	0.090	0.931	4.484	0.320	0.755	20.583	1.400	0.178
Lose Probability	-0.110	-0.020	0.985	3.391	0.240	0.815	21.589	1.460	0.161
Draw Good Dummy	(dropped)			(dropped)			(dropped)		
Draw Good Surp. Effect	3.630	0.430	0.673	-0.007	0.000	0.999	15.823	0.560	0.582

Draw Good Probability	7.272	5.610	0.000	4.232	1.610	0.125	-2.260	-0.780	0.444
Draw Bad Dummy	3.962	0.700	0.491	8.083	0.810	0.426	11.655	0.600	0.557
Draw Bad Surp. Effect	12.73	2.630	0.017	-8.371	-0.590	0.565	6.255	0.560	0.579
Draw Bad Probability	-11.86	-4.570	0.000	-12.66	-2.090	0.051	-11.394	-1.350	0.193
CL-position	0.280	0.640	0.530	1.135	1.170	0.258	0.808	0.850	0.405
No CL-position	-0.531	-1.180	0.255	-0.969	-1.150	0.267	-0.575	-0.710	0.487
PL relegation	-0.001	0.000	0.999	0.626	0.630	0.536	0.737	0.880	0.391
No PL relegation	-1.019	-1.900	0.073	-0.248	-0.330	0.742	0.182	0.250	0.803
Champ. promotion	-0.291	-1.060	0.304	-0.369	-0.670	0.511	-1.045	-1.650	0.116
No Champ. promotion	(dropped)			(dropped)			(dropped)		
Champ. relegation	0.305	1.370	0.187	-0.128	-0.350	0.730	0.845	2.030	0.057
No Champ. relegation	-4.652	-1.180	0.253	-3.824	-1.030	0.315	-3.562	-1.020	0.321
Constant	-4.438	-0.780	0.447	-1.847	-0.250	0.802	-10.931	-0.580	0.572

October	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 664									
Groups: 19									
	R-sq overall: 0.014			R-sq overall: 0.011			R-sq overall: 0.008		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-6.196	-1.510	0.149	-10.344	-1.400	0.179	22.419	2.160	0.044
Win Surprise Effect	1.146	0.740	0.468	-1.711	-0.730	0.475	-0.966	-0.240	0.812
Win Probability	0.126	0.240	0.813	1.297	1.150	0.267	1.543	1.190	0.249
Lose Dummy	-6.002	-1.430	0.171	-10.210	-1.440	0.167	23.477	2.360	0.030
Lose Surprise Effect	0.169	0.170	0.863	-2.898	-1.190	0.250	-4.148	-1.090	0.291
Lose Probability	0.443	0.530	0.600	-2.743	-2.250	0.037	-2.800	-1.090	0.292
Draw Good Dummy	(dropped)			(dropped)			(dropped)		
Draw Good Surp. Effect	-7.934	-1.370	0.189	-7.857	-0.790	0.441	29.548	2.030	0.058
Draw Good Probability	-3.412	-7.050	0.000	-16.152	-20.64	0.000	10.855	12.32	0.000
Draw Bad Dummy	-3.511	-0.800	0.435	-14.111	-1.630	0.121	18.832	1.750	0.097
Draw Bad Surp. Effect	-9.293	-1.200	0.246	-13.648	-0.930	0.365	13.642	0.840	0.411
Draw Bad Probability	0.434	0.120	0.906	23.217	2.960	0.008	-0.980	-0.090	0.930
CL-position	-0.102	-0.150	0.880	-1.671	-1.210	0.240	-2.004	-1.300	0.212
No CL-position	-0.959	-1.200	0.247	-0.903	-1.020	0.323	-1.204	-1.520	0.146
PL relegation	-0.327	-0.760	0.460	-0.020	-0.020	0.986	0.457	0.280	0.780
No PL relegation	0.125	0.190	0.852	0.101	0.160	0.877	-0.767	-0.830	0.417
Champ. promotion	-0.125	-0.960	0.350	1.063	1.630	0.120	1.040	1.610	0.124
No Champ. promotion	0.237	2.090	0.051	0.794	3.770	0.001	0.951	4.420	0.000
Champ. relegation	0.241	0.860	0.401	1.005	1.420	0.172	1.210	1.080	0.293
No Champ. relegation	-0.024	-0.180	0.861	-0.126	-0.410	0.685	-0.377	-0.810	0.430
Constant	6.420	1.570	0.133	10.509	1.530	0.144	-23.337	-2.360	0.030

November	ARs			Three-Day CARs			Five-Day CARs		
Observations: 639									
Groups: 19									
	R-sq overall: 0.020			R-sq overall: 0.037			R-sq overall: 0.033		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	9.768	1.850	0.081	9.679	1.120	0.277	-1.224	-0.110	0.911
Win Surprise Effect	-8.631	-2.030	0.057	-8.534	-1.210	0.241	0.754	0.080	0.934
Win Probability	0.347	1.000	0.332	1.614	1.840	0.082	1.352	1.270	0.219
Lose Dummy	8.424	1.740	0.099	7.816	1.020	0.323	-1.560	-0.160	0.872
Lose Surprise Effect	-9.979	-1.900	0.074	-9.585	-1.240	0.232	0.030	0.000	0.998
Lose Probability	-8.835	-1.740	0.098	-9.531	-1.240	0.230	1.212	0.130	0.900
Draw Good Dummy	4.047	1.390	0.182	10.42	1.120	0.277	-12.598	-0.830	0.419
Draw Good Surp. Effect	-5.119	-1.420	0.171	-14.71	-0.990	0.334	21.363	0.920	0.368
Draw Good Probability	0.070	0.060	0.957	-1.217	-1.670	0.113	-3.116	-4.250	0.000
Draw Bad Dummy	-0.842	-0.850	0.408	-2.974	-1.820	0.085	-3.155	-1.830	0.083
Draw Bad Surp. Effect	0.915	0.340	0.739	5.633	1.280	0.215	7.274	1.430	0.171
Draw Bad Probability	4.091	1.540	0.142	6.520	2.300	0.034	4.766	0.940	0.358
CL-position	0.151	0.690	0.496	-0.554	-1.860	0.080	-0.908	-1.950	0.067
No CL-position	0.426	0.730	0.476	2.120	1.480	0.155	1.925	0.990	0.335
PL relegation	-0.323	-0.670	0.514	-0.005	-0.010	0.994	0.753	1.270	0.220
No PL relegation	0.164	0.640	0.532	0.629	0.630	0.539	1.511	1.440	0.166
Champ. promotion	-0.060	-0.560	0.579	-0.139	-0.740	0.471	0.281	0.770	0.449
No Champ. promotion	(dropped)			(dropped)			(dropped)		
Champ. relegation	0.192	1.540	0.141	0.461	1.000	0.329	0.542	0.830	0.417
No Champ. relegation	0.070	0.450	0.660	-2.009	-0.990	0.335	-2.707	-0.910	0.375
Constant	-0.936	-0.980	0.338	-1.280	-1.160	0.263	-1.102	-0.680	0.505

December	ARs			Three-Day CARs			Five-Day CARs		
Observations: 886									
Groups: 19									
	R-sq overall: 0.035			R-sq overall: 0.035			R-sq overall: 0.033		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-0.039	-0.050	0.962	0.961	0.580	0.567	2.119	1.120	0.279
Win Surprise Effect	1.940	0.810	0.428	-0.873	-0.240	0.815	-3.523	-0.910	0.375
Win Probability	0.128	0.270	0.787	1.319	1.620	0.122	2.196	1.910	0.073
Lose Dummy	1.162	1.060	0.303	1.174	0.920	0.368	1.484	0.810	0.431
Lose Surprise Effect	-2.237	-1.410	0.175	-4.474	-2.470	0.024	-6.705	-2.280	0.035
Lose Probability	-2.238	-1.940	0.068	-2.877	-1.890	0.075	-3.319	-1.560	0.136
Draw Good Dummy	-1.819	-0.160	0.872	3.287	0.180	0.856	5.500	0.290	0.773
Draw Good Surp. Effect	0.747	0.040	0.965	-8.469	-0.310	0.757	-11.622	-0.400	0.691
Draw Good Probability	-2.790	-0.650	0.522	-2.078	-0.380	0.705	-5.436	-0.670	0.513
Draw Bad Dummy	-1.727	-1.830	0.084	-1.190	-0.580	0.567	2.833	0.800	0.434
Draw Bad Surp. Effect	-1.178	-0.460	0.651	-3.542	-0.540	0.594	-19.705	-1.470	0.158

Draw Bad Probability	-2.000	-0.920	0.371	-2.011	-0.640	0.533	1.379	0.350	0.733
CL-position	0.246	0.740	0.469	0.747	1.420	0.173	1.234	1.370	0.189
No CL-position	0.479	1.720	0.103	0.570	1.310	0.207	1.298	1.380	0.186
PL relegation	-0.046	-0.230	0.820	-1.217	-1.170	0.257	-1.419	-1.500	0.151
No PL relegation	-0.480	-1.100	0.285	0.106	0.150	0.879	-0.031	-0.030	0.973
Champ. promotion	-0.113	-0.760	0.456	-0.412	-1.820	0.086	-0.694	-1.930	0.069
No Champ. promotion	0.189	1.040	0.311	0.135	0.480	0.635	0.055	0.140	0.891
Champ. relegation	-2.780	-1.120	0.278	-1.704	-0.760	0.458	-1.274	-0.530	0.605
No Champ. relegation	-1.020	-1.170	0.258	-0.220	-0.230	0.821	0.498	0.350	0.732
Constant	2.551	1.770	0.093	2.849	1.750	0.096	3.014	1.120	0.278

January	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 544									
Groups: 19									
	R-sq overall: 0.011			R-sq overall: 0.033			R-sq overall: 0.037		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	0.401	0.490	0.628	1.991	1.560	0.137	1.106	0.680	0.505
Win Surprise Effect	-0.080	-0.060	0.953	-1.092	-0.390	0.703	0.693	0.240	0.816
Win Probability	-0.043	-0.080	0.934	0.658	0.670	0.511	0.396	0.300	0.771
Lose Dummy	-0.399	-0.570	0.577	-0.367	-0.260	0.798	-1.191	-0.810	0.430
Lose Surprise Effect	0.738	0.460	0.649	1.411	0.490	0.631	3.660	1.090	0.292
Lose Probability	0.645	0.720	0.484	0.337	0.260	0.801	1.985	1.070	0.301
Draw Good Dummy	8.255	1.120	0.277	-4.289	-0.450	0.661	-4.951	-0.300	0.765
Draw Good Surp. Effect	-11.69	-1.070	0.300	8.203	0.560	0.580	11.78	0.480	0.634
Draw Good Probability	-1.567	-1.190	0.248	-1.110	-0.340	0.739	-1.690	-0.340	0.738
Draw Bad Dummy	1.232	1.770	0.093	2.201	1.440	0.167	4.755	1.340	0.197
Draw Bad Surp. Effect	-3.234	-1.500	0.150	-4.315	-0.890	0.388	-11.18	-0.970	0.345
Draw Bad Probability	-0.384	-0.250	0.807	0.379	0.100	0.918	2.288	0.280	0.785
CL-position	-0.142	-1.030	0.315	0.736	0.770	0.450	1.508	1.360	0.191
No CL-position	0.236	1.140	0.270	1.264	1.370	0.188	2.173	1.610	0.124
PL relegation	0.144	0.520	0.611	0.284	0.520	0.610	-1.304	-0.640	0.530
No PL relegation	0.003	0.010	0.991	-3.077	-3.240	0.005	-6.170	-3.240	0.005
Champ. promotion	0.704	3.060	0.007	1.314	3.180	0.005	2.331	5.860	0.000
No Champ. promotion	0.290	1.140	0.269	0.223	0.330	0.746	0.014	0.010	0.990
Champ. relegation	0.489	1.380	0.183	-1.168	-0.810	0.429	-0.783	-0.660	0.518
No Champ. relegation	-2.256	-1.730	0.101	-7.493	-1.450	0.165	-7.094	-1.460	0.163
Constant	-0.065	-0.140	0.888	-1.273	-1.370	0.189	-2.678	-1.320	0.204

February	ARs			Three-Day CARs			Five-Day CARs		
Observations: 565									
Groups: 19									
	R-sq overall: 0.045			R-sq overall: 0.058			R-sq overall: 0.042		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-11.72	-1.450	0.165	-21.657	-1.620	0.123	-13.602	-1.020	0.319
Win Surprise Effect	14.703	2.780	0.012	12.763	1.290	0.215	16.328	1.380	0.184
Win Probability	0.470	0.650	0.522	1.396	1.000	0.330	0.260	0.120	0.905
Lose Dummy	-9.452	-1.220	0.237	-22.459	-1.750	0.098	-13.059	-1.050	0.306
Lose Surprise Effect	14.110	2.460	0.024	17.329	1.510	0.149	18.213	1.320	0.204
Lose Probability	15.322	2.790	0.012	16.352	1.500	0.151	17.769	1.370	0.189
Draw Good Dummy	(dropped)			(dropped)			(dropped)		
Draw Good Surp. Effect	(dropped)			(dropped)			(dropped)		
Draw Good Probability	6.252	0.390	0.699	-24.798	-1.450	0.166	0.929	0.100	0.925
Draw Bad Dummy	1.291	0.230	0.824	-9.611	-1.650	0.115	0.316	0.100	0.925
Draw Bad Surp. Effect	21.501	1.320	0.204	-8.422	-0.430	0.669	18.503	1.150	0.266
Draw Bad Probability	-18.46	-1.120	0.278	12.468	0.670	0.512	-17.622	-1.140	0.268
CL-position	2.591	20.97	0.000	1.401	3.500	0.003	1.905	5.060	0.000
No CL-position	0.436	0.550	0.590	-2.490	-4.860	0.000	-2.066	-1.860	0.080
PL relegation	(dropped)			(dropped)			(dropped)		
No PL relegation	0.080	0.400	0.695	6.238	18.38	0.000	6.137	14.94	0.000
Champ. promotion	-0.199	-0.710	0.489	-0.889	-1.690	0.108	0.284	0.520	0.611
No Champ. promotion	-0.381	-1.990	0.062	-0.257	-1.070	0.299	-0.454	-1.210	0.243
Champ. relegation	0.345	1.170	0.257	1.036	2.930	0.009	1.832	4.200	0.001
No Champ. relegation	-0.391	-1.550	0.138	-0.341	-0.730	0.475	0.040	0.090	0.926
Constant	-2.099	-0.390	0.701	8.234	1.440	0.168	-0.618	-0.190	0.850

March	ARs			Three-Day CARs			Five-Day CARs		
Observations: 645									
Groups: 19									
	R-sq overall: 0.053			R-sq overall: 0.036			R-sq overall: 0.036		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-7.835	-0.700	0.496	-25.30	-1.130	0.272	6.578	0.380	0.710
Win Surprise Effect	-1.030	-0.190	0.855	2.877	0.310	0.760	6.519	0.530	0.600
Win Probability	-0.782	-1.360	0.191	0.697	0.430	0.675	0.040	0.030	0.977
Lose Dummy	-8.366	-0.730	0.472	-26.32	-1.150	0.267	4.938	0.310	0.761
Lose Surprise Effect	-2.891	-0.470	0.642	4.391	0.370	0.716	9.560	0.600	0.554
Lose Probability	-2.501	-0.430	0.673	1.893	0.180	0.857	6.405	0.470	0.641
Draw Good Dummy	(dropped)			(dropped)			(dropped)		
Draw Good Surp. Effect	-8.767	-0.620	0.540	-17.52	-0.690	0.500	-1.659	-0.070	0.948
Draw Good Probability	-9.996	-1.140	0.270	-33.94	-1.620	0.123	-38.602	-1.690	0.108
Draw Bad Dummy	(dropped)			(dropped)			(dropped)		

Draw Bad Surp. Effect	(dropped)			(dropped)			(dropped)		
Draw Bad Probability	13.85	1.010	0.324	31.678	1.200	0.245	32.622	1.200	0.245
CL-position	-0.254	-0.670	0.511	-1.162	-2.150	0.045	-2.717	-1.630	0.121
No CL-position	-2.244	-1.860	0.079	-3.390	-1.380	0.183	-4.044	-1.790	0.090
PL relegation	-0.697	-2.290	0.035	-0.878	-1.770	0.094	-0.332	-0.590	0.565
No PL relegation	-0.717	-3.010	0.008	1.417	0.780	0.445	-0.205	-0.220	0.825
Champ. promotion	-0.512	-3.660	0.002	-0.608	-2.870	0.010	-0.394	-1.310	0.206
No Champ. promotion	-0.033	-0.080	0.939	0.239	0.620	0.542	1.303	1.420	0.172
Champ. relegation	-0.795	-0.680	0.505	-2.160	-0.850	0.408	-2.512	-0.780	0.446
No Champ. relegation	-0.367	-2.220	0.039	-0.341	-0.760	0.460	-0.692	-1.530	0.144
Constant	9.567	0.830	0.419	23.177	0.990	0.334	-11.823	-1.320	0.205

April	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 650									
Groups: 19									
	R-sq overall: 0.015			R-sq overall: 0.030			R-sq overall: 0.028		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	1.033	1.140	0.270	1.662	0.970	0.344	0.502	0.220	0.830
Win Surprise Effect	-1.156	-0.730	0.476	-0.541	-0.150	0.882	2.170	0.450	0.657
Win Probability	0.623	1.220	0.237	0.461	0.260	0.795	0.765	0.360	0.724
Lose Dummy	0.779	1.170	0.258	0.475	0.470	0.645	-0.760	-0.440	0.664
Lose Surprise Effect	-2.883	-1.180	0.253	-3.448	-1.110	0.283	0.115	0.020	0.982
Lose Probability	-0.845	-0.680	0.504	-1.266	-0.640	0.528	0.368	0.130	0.901
Draw Good Dummy	1.442	0.670	0.514	-4.020	-0.650	0.525	-9.257	-0.900	0.378
Draw Good Surp. Effect	-1.808	-0.550	0.591	5.334	0.590	0.560	14.238	1.120	0.276
Draw Good Probability	-0.967	-0.340	0.737	-2.341	-0.840	0.412	-5.052	-0.980	0.338
Draw Bad Dummy	-2.090	-1.290	0.212	-3.135	-1.580	0.133	-5.761	-2.670	0.016
Draw Bad Surp. Effect	6.928	1.480	0.155	6.624	1.060	0.304	17.597	2.040	0.056
Draw Bad Probability	0.898	0.430	0.675	-2.509	-0.360	0.726	-5.483	-0.560	0.582
CL-position	0.772	0.410	0.683	-2.769	-0.750	0.460	-6.325	-1.880	0.076
No CL-position	-1.739	-0.940	0.359	0.867	0.230	0.818	2.781	0.830	0.418
PL relegation	-0.317	-0.610	0.552	-0.138	-0.150	0.880	0.259	0.240	0.813
No PL relegation	1.825	0.820	0.423	2.028	0.680	0.506	-3.168	-0.510	0.620
Champ. promotion	(dropped)			(dropped)			(dropped)		
No Champ. promotion	(dropped)			(dropped)			(dropped)		
Champ. relegation	0.090	0.310	0.759	0.851	1.850	0.081	1.362	1.770	0.094
No Champ. relegation	-0.986	-1.680	0.109	-2.615	-1.770	0.094	-2.963	-1.730	0.100
Constant	0.097	0.120	0.906	1.908	0.990	0.338	2.118	0.840	0.412

May	ARs			Three-Day CARs			Five-Day CARs		
Observations: 275									
Groups: 19									
	R-sq overall: 0.379			R-sq overall: 0.205			R-sq overall:		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-7.234	-1.700	0.105	4.430	0.250	0.803	-1.472	-0.110	0.913
Win Surprise Effect	9.521	2.370	0.029	5.263	0.410	0.683	9.924	0.830	0.419
Win Probability	0.924	2.060	0.054	1.891	1.430	0.169	1.344	1.440	0.166
Lose Dummy	-6.497	-1.610	0.125	4.663	0.280	0.786	-0.793	-0.060	0.951
Lose Surprise Effect	12.641	2.770	0.013	7.115	0.440	0.667	14.619	0.950	0.357
Lose Probability	11.050	2.690	0.015	3.342	0.210	0.838	9.002	0.660	0.519
Draw Good Dummy	16.081	1.290	0.213	26.940	0.830	0.416	26.433	0.760	0.455
Draw Good Surp. Effect	-11.581	-1.470	0.159	-15.81	-0.800	0.433	-13.461	-0.610	0.550
Draw Good Probability	-11.465	-1.090	0.290	-24.73	-0.900	0.380	-26.599	-0.890	0.384
Draw Bad Dummy	1.648	1.300	0.212	1.620	0.500	0.625	1.551	0.450	0.661
Draw Bad Surp. Effect	(dropped)			(dropped)			(dropped)		
Draw Bad Probability	7.663	0.750	0.461	19.272	0.740	0.468	24.130	0.920	0.368
CL-position	0.631	2.010	0.059	-0.021	-0.040	0.968	0.791	1.870	0.077
No CL-position	-1.786	-13.01	0.000	-7.613	-10.04	0.000	-8.638	-7.100	0.000
PL relegation	-13.502	-1.590	0.130	-15.44	-2.160	0.044	-15.560	-2.820	0.011
No PL relegation	-0.408	-0.970	0.344	-2.459	-1.090	0.288	-4.055	-1.250	0.229
Champ. promotion	(dropped)			(dropped)			(dropped)		
No Champ. promotion	(dropped)			(dropped)			(dropped)		
Champ. relegation	-0.252	-1.110	0.280	-0.001	0.000	0.997	0.548	1.710	0.105
No Champ. relegation	-1.102	-1.940	0.068	4.155	6.230	0.000	4.731	7.260	0.000
Constant	-4.248	-0.990	0.335	-8.274	-0.720	0.481	-9.255	-0.810	0.430

9.2.6 *Results as dummy variables. Surprises and prob. + other explanatory variables using FTSE*

TABLE 22 Wins, Draws and Losses as Dummy Variables. Surprises and Probabilities + other Explanatory Variables

All observations	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 5850									
Groups: 19									
	R-sq overall: 0.013			R-sq overall: 0.019			R-sq overall: 0.016		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	0.213	0.480	0.635	0.601	0.740	0.470	-0.928	-0.610	0.548
Win Surprise Effect	0.149	0.170	0.870	-0.520	-0.330	0.748	1.544	0.630	0.535
Win Probability	0.289	1.270	0.220	1.219	2.250	0.037	0.705	1.520	0.146
Lose Dummy	0.075	0.240	0.811	-0.505	-1.420	0.171	-1.352	-1.250	0.228
Lose Surprise Effect	-0.972	-1.270	0.220	-0.430	-0.370	0.719	0.063	0.030	0.978
Lose Probability	-0.722	-1.620	0.122	-1.500	-1.730	0.101	-0.120	-0.070	0.947
Draw Good Dummy	2.167	0.760	0.456	-4.741	-1.490	0.154	-8.259	-2.100	0.050
Draw Good Surp.	-4.467	-1.070	0.298	4.832	1.240	0.232	9.862	2.010	0.059
Draw Good Probability	-0.312	-0.240	0.815	-0.683	-0.300	0.770	-1.714	-0.500	0.622
Draw Bad Dummy	-1.130	-1.210	0.240	-0.066	-0.030	0.979	-0.959	-0.360	0.726
Draw Bad Surp. Effect	1.972	0.730	0.475	-3.037	-0.400	0.695	-0.967	-0.110	0.911
Draw Bad Probability	-1.821	-2.080	0.052	-2.235	-0.880	0.389	-3.080	-1.070	0.300
Positive Events	0.579	0.980	0.338	2.164	3.220	0.005	2.947	3.850	0.001
Negative Events	0.784	0.610	0.547	0.161	0.110	0.916	-0.814	-0.470	0.647
Earnings surprises	-0.437	-1.580	0.131	-0.710	-1.970	0.064	0.026	0.150	0.880
CL-position	-0.192	-0.940	0.361	-0.297	-0.830	0.418	-0.412	-0.830	0.420
No CL-position	0.011	0.050	0.965	-0.072	-0.240	0.811	0.123	0.350	0.728
PL relegation	-0.437	-1.100	0.288	-0.322	-0.520	0.608	0.133	0.180	0.860
No PL relegation	-0.333	-1.960	0.066	-0.044	-0.090	0.927	-0.443	-1.060	0.303
Champ. promotion	0.421	0.750	0.460	0.816	1.550	0.138	2.044	1.410	0.176
No Champ. promotion	-0.038	-0.160	0.872	-0.008	-0.010	0.992	0.124	0.110	0.917
Champ. relegation	-0.650	-1.240	0.231	-0.589	-0.800	0.436	-0.317	-0.270	0.790
No Champ. relegation	-1.175	-2.730	0.014	-2.584	-3.030	0.007	-1.962	-2.390	0.028
Constant	0.974	2.400	0.027	1.407	2.160	0.045	1.872	2.230	0.039

TABLE 23 WINS, DRAWS AND LOSSES AS DUMMY VARIABLES. SURPRISES AND PROBABILITIES + OTHER EXPLANATORY VARIABLES (PREMIER LEAGUE)

Premier League	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 3336									
Groups: 16									
	R-sq overall: 0.018			R-sq overall: 0.020			R-sq overall: 0.021		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-0.836	-1.830	0.087	-0.978	-1.080	0.298	-4.047	-2.380	0.031
Win Surprise Effect	1.927	1.750	0.100	1.702	0.860	0.403	5.695	2.130	0.050
Win Probability	0.148	0.540	0.598	0.503	0.740	0.474	0.103	0.160	0.874
Lose Dummy	-0.424	-0.970	0.346	-0.907	-1.210	0.245	-3.044	-2.030	0.061
Lose Surprise Effect	-0.001	0.000	0.999	0.031	0.020	0.984	2.532	0.980	0.344
Lose Probability	0.090	0.180	0.856	-0.208	-0.210	0.837	2.730	1.350	0.196
Draw Good Dummy	3.623	1.120	0.279	-3.836	-1.420	0.175	-3.631	-0.780	0.449
Draw Good Surp.	-6.105	-1.260	0.229	5.498	1.890	0.078	6.036	1.390	0.184
Draw Good Probability	-2.124	-1.340	0.199	-3.078	-1.300	0.213	-5.911	-1.370	0.190
Draw Bad Dummy	-1.114	-0.980	0.340	1.659	0.660	0.520	1.314	0.450	0.659
Draw Bad Surp. Effect	1.085	0.330	0.746	-10.26	-1.330	0.205	-10.720	-1.230	0.239
Draw Bad Probability	-1.719	-1.430	0.172	0.255	0.090	0.926	0.195	0.060	0.956
Positive Events	0.816	1.420	0.176	2.432	3.430	0.004	3.343	4.110	0.001
Negative Events	1.334	0.840	0.412	1.524	1.180	0.257	0.674	0.390	0.700
Earnings surprises	-0.235	-0.880	0.395	-0.511	-1.480	0.159	0.291	0.860	0.404
CL-position	-0.210	-1.060	0.308	-0.187	-0.550	0.590	-0.331	-0.720	0.483
No CL-position	0.013	0.050	0.957	-0.097	-0.320	0.753	0.162	0.440	0.669
PL relegation	-0.398	-1.010	0.330	-0.311	-0.470	0.644	0.242	0.300	0.770
No PL relegation	-0.401	-2.260	0.039	0.034	0.070	0.948	-0.418	-0.930	0.369
Constant	1.244	2.070	0.056	1.231	1.390	0.186	1.496	1.100	0.289

TABLE 24 WINS, DRAWS AND LOSSES AS DUMMY VARIABLES. SURPRISES AND PROBABILITIES + OTHER EXPLANATORY VARIABLES (CHAMPIONSHIP)

Championship	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 2514									
Groups: 13									
	R-sq overall: 0.015			R-sq overall: 0.034			R-sq overall: 0.024		
Variable	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	1.437	1.620	0.130	1.660	0.840	0.416	0.883	0.320	0.756
Win Surprise Effect	-2.069	-1.270	0.230	-1.902	-0.510	0.617	-0.841	-0.160	0.874
Win Probability	0.320	0.890	0.393	1.955	2.190	0.049	1.307	1.260	0.231
Lose Dummy	0.444	0.970	0.352	-0.869	-2.110	0.057	-0.757	-0.620	0.547
Lose Surprise Effect	-1.788	-1.530	0.153	1.111	0.440	0.669	-0.022	-0.010	0.995
Lose Probability	-1.213	-1.310	0.214	-0.923	-0.430	0.673	0.070	0.020	0.981
Draw Good Dummy	2.241	0.470	0.649	20.54	2.980	0.011	2.435	0.120	0.904
Draw Good Surp.	-5.157	-0.720	0.486	-35.92	-3.230	0.007	-9.338	-0.290	0.775
Draw Good Probability	1.208	0.970	0.351	-1.447	-0.380	0.710	-1.904	-0.420	0.680
Draw Bad Dummy	-2.045	-0.920	0.375	-6.906	-1.960	0.074	-8.821	-2.110	0.057
Draw Bad Surp.. Effect	5.427	0.860	0.408	19.34	1.660	0.122	25.505	1.760	0.104
Draw Bad Probability	-2.143	-1.620	0.132	-8.450	-1.290	0.221	-10.611	-1.290	0.220
Positive Events	-1.264	-0.580	0.575	0.691	0.500	0.627	0.718	0.490	0.635
Negative Events	-1.062	-0.980	0.348	-4.051	-0.960	0.357	-5.406	-1.470	0.168
Earnings surprises	-1.259	-15.94	0.000	-1.892	-3.360	0.006	-1.570	-8.870	0.000
Champ. promotion	0.348	0.570	0.578	0.650	1.280	0.225	1.828	1.280	0.225
No Champ. promotion	-0.084	-0.440	0.666	0.064	0.090	0.930	0.065	0.060	0.954
Champ. relegation	-0.647	-1.260	0.231	-0.425	-0.630	0.542	-0.374	-0.350	0.730
No Champ. relegation	-0.945	-2.370	0.035	-2.508	-3.310	0.006	-1.868	-2.500	0.028
Constant	0.792	1.680	0.119	2.760	1.660	0.123	3.552	1.870	0.087

TABLE 25 MONTHLY IMPACTS OF WINS, DRAWS AND LOSSES AS DUMMY VARIABLES. SURPRISES AND PROBABILITIES + OTHER EXPLANATORY VARIABLES

August	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 506									
Groups: 19									
	R-sq overall: 0.018			R-sq overall: 0.052			R-sq overall: 0.053		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	0.232	0.420	0.683	-3.417	-3.470	0.003	3.417	0.710	0.489
Win Surprise Effect	-0.262	-0.210	0.839	7.359	4.250	0.000	2.134	0.440	0.664
Win Probability	-0.471	-1.220	0.237	-2.977	-3.680	0.002	-2.195	-1.670	0.112
Lose Dummy	-0.063	-0.150	0.885	-0.718	-1.000	0.333	4.497	1.130	0.275
Lose Surprise Effect	-0.434	-0.440	0.664	2.309	1.050	0.308	-1.088	-0.270	0.787
Lose Probability	0.193	0.250	0.803	4.528	3.360	0.003	-0.485	-0.110	0.915
Draw Good Dummy	-6.782	-1.050	0.308	-16.65	-1.710	0.105	-14.25	-1.280	0.217
Draw Good Surp.	10.819	1.070	0.301	26.940	1.780	0.092	24.29	1.430	0.170
Draw Good Probability	0.278	0.190	0.850	-2.731	-1.190	0.248	-2.634	-0.820	0.420
Draw Bad Dummy	-0.475	-0.680	0.504	1.121	0.370	0.717	2.463	0.560	0.584
Draw Bad Surp. Effect	0.825	0.420	0.682	0.877	0.100	0.920	0.126	0.010	0.993
Draw Bad Probability	0.672	0.470	0.641	-4.574	-1.560	0.136	-6.022	-0.890	0.384
CL-position	-0.012	-0.040	0.972	0.706	1.410	0.176	0.636	0.730	0.476
No CL-position	0.088	0.530	0.601	-0.901	-2.280	0.035	-0.473	-0.570	0.578
PL relegation	-0.373	-0.940	0.360	-0.217	-0.480	0.637	-0.014	-0.020	0.985
No PL relegation	-0.581	-1.390	0.181	-2.509	-2.290	0.035	-3.353	-2.970	0.008
Champ. promotion	0.549	0.460	0.650	2.467	2.560	0.020	7.081	2.790	0.012
No Champ. promotion	-0.469	-0.610	0.550	-1.843	-0.660	0.516	-3.194	-0.940	0.359
Champ. relegation	-0.098	-0.220	0.832	1.080	2.170	0.043	1.015	1.550	0.139
No Champ. relegation	-0.271	-1.720	0.103	-0.270	-0.400	0.693	0.289	0.380	0.705
Constant	-0.337	-0.730	0.475	0.415	0.590	0.559	-0.249	-0.290	0.772

September	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 542									
Groups: 19									
	R-sq overall: 0.036			R-sq overall: 0.028			R-sq overall: 0.023		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-25.503	-1.620	0.122	-0.779	-0.020	0.983	-22.266	-0.700	0.492
Win Surprise Effect	12.861	1.850	0.081	-2.143	-0.120	0.903	10.810	0.700	0.495
Win Probability	1.011	1.090	0.292	1.262	0.580	0.566	-2.687	-1.410	0.174
Lose Dummy	-24.543	-1.670	0.112	-3.706	-0.110	0.913	-20.717	-0.710	0.490
Lose Surprise Effect	15.757	2.250	0.037	3.206	0.170	0.863	9.073	0.600	0.555
Lose Probability	13.205	1.810	0.088	-0.262	-0.010	0.989	11.761	0.760	0.460
Draw Good Dummy	(dropped)			(dropped)			(dropped)		
Draw Good Surp.	-17.438	-1.320	0.204	-12.29	-0.480	0.634	-12.562	-0.460	0.650
Draw Good Probability	-8.468	-1.330	0.199	9.707	0.650	0.521	-14.798	-0.950	0.354

Draw Bad Dummy	-13.006	-1.170	0.259	0.663	0.030	0.979	-16.253	-0.800	0.435
Draw Bad Surp. Effect	(dropped)			(dropped)			(dropped)		
Draw Bad Probability	-5.917	-1.020	0.320	-17.33	-1.000	0.330	8.621	0.870	0.394
CL-position	0.946	1.220	0.239	1.493	0.920	0.367	1.135	0.600	0.558
No CL-position	-0.264	-0.330	0.742	-1.086	-1.000	0.328	-0.786	-1.060	0.303
PL relegation	0.358	0.500	0.625	0.603	0.510	0.615	0.493	0.370	0.717
No PL relegation	-0.565	-0.680	0.505	0.499	0.570	0.574	1.125	1.110	0.280
Champ. promotion	-0.720	-3.420	0.003	-1.415	-1.700	0.107	-1.243	-1.790	0.091
No Champ. promotion	(dropped)			(dropped)			(dropped)		
Champ. relegation	-0.101	-0.120	0.903	-0.898	-0.680	0.505	-1.139	-0.630	0.534
No Champ. relegation	-3.589	-1.410	0.176	-4.304	-2.240	0.038	-4.010	-1.320	0.203
Constant	14.958	1.460	0.162	4.958	0.240	0.814	12.952	0.640	0.531

October	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 664									
Groups: 19									
	R-sq overall: 0.024			R-sq overall: 0.020			R-sq overall: 0.020		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	9.239	0.830	0.415	14.789	0.920	0.368	18.173	1.190	0.251
Win Surprise Effect	-3.317	-1.710	0.105	-5.504	-1.250	0.228	0.963	0.210	0.837
Win Probability	1.805	1.180	0.255	3.625	1.590	0.128	4.690	2.490	0.023
Lose Dummy	7.877	0.710	0.486	13.324	0.850	0.404	19.392	1.350	0.194
Lose Surprise Effect	-1.987	-1.360	0.190	-3.547	-1.240	0.230	-0.672	-0.160	0.874
Lose Probability	-2.480	-1.480	0.157	-5.602	-1.830	0.084	-2.157	-0.650	0.525
Draw Good Dummy	(dropped)			(dropped)			(dropped)		
Draw Good Surp. Effect	5.293	0.320	0.750	14.680	0.640	0.533	23.585	1.110	0.282
Draw Good Probability	12.504	21.830	0.000	10.329	14.130	0.000	14.995	16.810	0.000
Draw Bad Dummy	7.170	0.670	0.510	7.765	0.460	0.652	9.336	0.600	0.557
Draw Bad Surp. Effect	9.486	0.980	0.340	13.659	0.700	0.495	41.609	2.160	0.045
Draw Bad Probability	-8.702	-2.100	0.050	0.999	0.130	0.894	-9.624	-0.790	0.438
CL-position	-1.005	-1.460	0.161	-2.496	-1.990	0.062	-2.874	-2.000	0.061
No CL-position	0.549	0.920	0.371	1.251	2.180	0.043	0.522	0.540	0.593
PL relegation	-0.902	-1.500	0.151	-0.232	-0.150	0.881	0.046	0.020	0.981
No PL relegation	0.301	0.370	0.717	0.404	0.330	0.744	-0.651	-0.520	0.607
Champ. promotion	-0.542	-1.330	0.201	0.877	1.430	0.170	-0.235	-0.380	0.708
No Champ. promotion	0.474	5.650	0.000	1.642	8.870	0.000	1.877	14.050	0.000
Champ. relegation	0.543	1.440	0.166	2.520	1.710	0.104	-0.822	-2.780	0.012
No Champ. relegation	-0.213	-1.050	0.310	0.335	0.560	0.581	0.326	0.550	0.588
Constant	-7.808	-0.720	0.483	-13.631	-0.890	0.386	-20.806	-1.470	0.158

November	ARs			Three-Day CARs			Five-Day CARs		
Observations: 639									
Groups: 19									
	R-sq overall: 0.037			R-sq overall: 0.050			R-sq overall: 0.036		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	29.095	2.190	0.042	29.958	2.280	0.035	-3.980	-0.270	0.787
Win Surprise Effect	-23.242	-2.130	0.047	-24.551	-2.280	0.035	2.827	0.230	0.821
Win Probability	-0.042	-0.060	0.951	1.616	0.840	0.413	-0.406	-0.240	0.813
Lose Dummy	25.743	2.180	0.043	26.028	2.150	0.045	-2.346	-0.180	0.858
Lose Surprise Effect	-26.653	-2.160	0.045	-28.567	-2.230	0.038	-3.049	-0.220	0.827
Lose Probability	-24.009	-1.960	0.065	-25.416	-2.070	0.053	1.550	0.120	0.908
Draw Good Dummy	14.569	1.730	0.101	21.014	2.490	0.023	-8.242	-0.640	0.532
Draw Good Surp. Effect	-15.452	-1.200	0.246	-18.261	-1.330	0.200	15.865	0.850	0.408
Draw Good Probability	0.682	0.490	0.629	-4.102	-3.630	0.002	-6.717	-4.810	0.000
Draw Bad Dummy	3.800	0.640	0.528	18.168	1.390	0.183	10.845	0.970	0.347
Draw Bad Surp. Effect	-7.660	-0.440	0.666	-55.441	-1.420	0.172	-44.496	-1.320	0.202
Draw Bad Probability	10.629	1.910	0.072	27.296	5.090	0.000	13.240	1.480	0.155
CL-position	-0.257	-0.540	0.593	-1.249	-2.330	0.031	-2.222	-2.900	0.010
No CL-position	-0.302	-0.330	0.745	1.351	0.940	0.359	1.470	0.870	0.398
PL relegation	-0.279	-0.420	0.682	0.097	0.080	0.935	1.576	1.800	0.089
No PL relegation	-0.362	-0.550	0.587	0.359	0.320	0.752	1.929	1.160	0.261
Champ. promotion	0.001	0.000	0.998	1.193	0.950	0.357	2.556	2.240	0.038
No Champ. promotion	(dropped)			(dropped)			(dropped)		
Champ. relegation	-1.772	-1.350	0.194	-1.482	-0.730	0.475	0.523	0.220	0.828
No Champ. relegation	-2.036	-1.050	0.309	-4.286	-1.220	0.240	-2.616	-0.580	0.569
Constant	-4.971	-2.440	0.025	-8.888	-4.700	0.000	-0.739	-0.250	0.803

December	ARs			Three-Day CARs			Five-Day CARs		
Observations: 886									
Groups: 19									
	R-sq overall: 0.035			R-sq overall: 0.035			R-sq overall: 0.033		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-0.999	-0.930	0.367	0.868	0.390	0.698	4.224	1.500	0.150
Win Surprise Effect	2.790	0.910	0.374	-2.440	-0.530	0.603	-9.090	-1.730	0.101
Win Probability	0.135	0.310	0.757	2.446	2.670	0.016	4.072	3.250	0.004
Lose Dummy	0.394	0.320	0.753	0.469	0.270	0.789	2.129	0.840	0.413
Lose Surprise Effect	-1.771	-1.060	0.304	-4.914	-2.030	0.058	-10.782	-2.720	0.014
Lose Probability	-3.040	-2.650	0.016	-5.942	-3.000	0.008	-9.265	-3.350	0.004
Draw Good Dummy	-7.004	-0.840	0.413	-8.073	-0.580	0.571	-6.376	-0.360	0.725
Draw Good Surp. Effect	6.498	0.520	0.610	4.542	0.210	0.833	1.301	0.050	0.963
Draw Good Probability	-2.633	-0.600	0.555	0.934	0.160	0.876	1.912	0.220	0.826
Draw Bad Dummy	-3.007	-1.910	0.072	-3.244	-1.260	0.225	0.351	0.100	0.921
Draw Bad Surp. Effect	-0.561	-0.160	0.873	-1.895	-0.250	0.807	-17.011	-1.320	0.205

Draw Bad Probability	-2.622	-0.930	0.363	-2.515	-0.680	0.507	3.052	0.690	0.499
CL-position	0.303	0.560	0.581	0.475	0.720	0.481	1.092	1.090	0.290
No CL-position	0.752	1.770	0.093	0.292	0.460	0.654	0.443	0.350	0.729
PL relegation	0.568	1.410	0.176	0.130	0.110	0.917	-0.014	-0.010	0.989
No PL relegation	-0.540	-1.140	0.271	0.607	0.750	0.464	0.398	0.410	0.689
Champ. promotion	-0.017	-0.080	0.939	-0.266	-0.720	0.480	-0.874	-2.040	0.057
No Champ. promotion	0.227	1.090	0.292	0.043	0.130	0.901	-1.072	-2.320	0.032
Champ. relegation	-2.241	-0.780	0.443	-1.619	-0.610	0.548	-0.317	-0.090	0.926
No Champ. relegation	-2.123	-1.920	0.070	-2.427	-2.010	0.060	-2.163	-1.250	0.229
Constant	3.694	2.350	0.031	4.220	2.400	0.027	3.507	1.210	0.243

January	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 544									
Groups: 19									
	R-sq overall: 0.022			R-sq overall: 0.046			R-sq overall: 0.046		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	1.100	1.180	0.252	2.478	1.250	0.227	-0.367	-0.150	0.885
Win Surprise Effect	-1.439	-0.990	0.334	-4.717	-1.330	0.201	-0.942	-0.220	0.831
Win Probability	-0.009	-0.020	0.988	1.853	2.310	0.033	1.907	1.580	0.133
Lose Dummy	-0.130	-0.160	0.877	-0.782	-0.450	0.658	-1.958	-0.940	0.358
Lose Surprise Effect	-0.133	-0.070	0.944	-1.135	-0.320	0.753	-0.098	-0.020	0.981
Lose Probability	0.301	0.280	0.783	-1.688	-0.840	0.413	0.692	0.250	0.805
Draw Good Dummy	4.975	0.840	0.413	-17.259	-2.010	0.059	-17.230	-1.180	0.252
Draw Good Surp. Effect	-6.831	-0.770	0.449	24.028	1.840	0.082	22.368	1.040	0.314
Draw Good Probability	-1.427	-0.850	0.408	1.212	0.360	0.720	2.261	0.550	0.586
Draw Bad Dummy	0.517	0.370	0.719	2.509	1.350	0.194	3.804	1.030	0.318
Draw Bad Surp. Effect	-1.390	-0.330	0.745	-9.380	-1.570	0.134	-12.568	-1.040	0.312
Draw Bad Probability	-0.908	-0.560	0.585	-0.665	-0.160	0.872	-6.545	-1.160	0.260
CL-position	-1.448	-2.030	0.057	-0.722	-0.470	0.643	4.478	3.170	0.005
No CL-position	0.300	0.900	0.382	3.186	1.810	0.086	5.321	2.510	0.022
PL relegation	0.448	0.760	0.455	1.461	1.570	0.134	0.060	0.040	0.967
No PL relegation	-0.743	-0.910	0.375	-4.748	-2.550	0.020	-7.133	-2.660	0.016
Champ. promotion	5.723	19.130	0.000	3.199	6.700	0.000	7.233	15.480	0.000
No Champ. promotion	-0.357	-1.710	0.105	1.100	1.120	0.278	1.773	1.080	0.293
Champ. relegation	0.587	0.670	0.508	-0.723	-0.490	0.629	1.455	1.400	0.179
No Champ. relegation	-1.859	-1.480	0.157	-10.284	-1.480	0.156	-8.552	-1.450	0.165
Constant	0.441	0.810	0.427	0.639	0.550	0.589	1.667	1.250	0.227

February	ARs			Three-Day CARs			Five-Day CARs		
Observations: 565									
Groups: 19									
	R-sq overall: 0.045			R-sq overall: 0.051			R-sq overall: 0.037		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-14.464	-1.640	0.119	-30.321	-2.040	0.056	-23.309	-1.510	0.147
Win Surprise Effect	18.625	3.270	0.004	20.229	1.670	0.111	26.925	2.050	0.055
Win Probability	0.305	0.590	0.564	0.660	0.480	0.636	-1.322	-0.830	0.419
Lose Dummy	-11.518	-1.320	0.202	-29.391	-2.120	0.048	-20.479	-1.440	0.166
Lose Surprise Effect	18.521	2.650	0.016	24.066	1.790	0.091	28.138	1.890	0.076
Lose Probability	19.621	3.090	0.006	23.609	1.800	0.089	28.863	1.990	0.062
Draw Good Dummy	(dropped)			(dropped)			(dropped)		
Draw Good Surp. Effect	(dropped)			(dropped)			(dropped)		
Draw Good Probability	9.363	0.530	0.604	-29.748	-1.690	0.108	2.239	0.180	0.862
Draw Bad Dummy	2.685	0.450	0.657	-10.603	-1.690	0.109	-0.352	-0.090	0.932
Draw Bad Surp. .Effect	26.722	1.370	0.187	-11.662	-0.610	0.550	29.218	1.520	0.146
Draw Bad Probability	-25.273	-1.380	0.184	13.135	0.720	0.483	-25.200	-1.450	0.164
CL-position	1.849	10.570	0.000	0.898	1.930	0.069	0.756	1.570	0.134
No CL-position	0.368	0.750	0.461	-1.548	-0.930	0.362	-1.682	-1.240	0.231
PL relegation	(dropped)			(dropped)			(dropped)		
No PL relegation	-0.115	-0.530	0.600	6.729	19.880	0.000	5.581	13.790	0.000
Champ. promotion	0.253	0.460	0.649	-1.059	-2.260	0.036	-0.037	-0.080	0.941
No Champ. promotion	-3.605	-18.52	0.000	-1.687	-5.830	0.000	-2.865	-6.240	0.000
Champ. relegation	-0.825	-0.630	0.536	-0.366	-0.400	0.694	0.021	0.010	0.990
No Champ. relegation	0.497	0.580	0.569	-1.064	-0.460	0.652	1.105	0.600	0.559
Constant	-3.192	-0.530	0.602	9.823	1.670	0.112	-1.209	-0.280	0.779

March	ARs			Three-Day CARs			Five-Day CARs		
Observations: 645									
Groups: 19									
	R-sq overall: 0.041			R-sq overall: 0.036			R-sq overall: 0.037		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	4.264	0.240	0.810	-16.828	-0.450	0.655	-17.156	-0.720	0.478
Win Surprise Effect	2.381	0.240	0.810	16.879	1.490	0.155	26.687	1.900	0.073
Win Probability	-1.045	-1.390	0.183	1.293	0.730	0.474	-2.859	-1.950	0.067
Lose Dummy	4.758	0.270	0.790	-15.809	-0.420	0.679	-13.655	-0.620	0.543
Lose Surprise Effect	-0.768	-0.070	0.945	19.411	1.340	0.198	23.643	1.270	0.221
Lose Probability	-0.801	-0.070	0.942	14.584	1.080	0.294	21.230	1.260	0.223
Draw Good Dummy	(dropped)			(dropped)			(dropped)		
Draw Good Surp. Effect	3.325	0.160	0.874	3.191	0.080	0.937	15.837	0.460	0.654
Draw Good Probability	1.627	0.100	0.924	-19.743	-0.630	0.538	-24.919	-0.790	0.441
Draw Bad Dummy	(dropped)			(dropped)			(dropped)		

Draw Bad Surp. Effect	(dropped)			(dropped)			(dropped)		
Draw Bad Probability	-6.208	-0.280	0.780	0.412	0.010	0.991	-2.224	-0.060	0.955
CL-position	0.207	0.190	0.854	-0.879	-1.200	0.248	-2.317	-1.120	0.278
No CL-position	-1.743	-1.390	0.181	-2.694	-1.020	0.323	-1.603	-0.670	0.509
PL relegation	1.981	4.720	0.000	-0.885	-1.480	0.156	-1.292	-1.910	0.073
No PL relegation	-0.800	-1.650	0.115	1.143	0.500	0.624	-0.460	-0.390	0.698
Champ. promotion	-0.184	-0.830	0.420	-0.058	-0.170	0.869	-0.248	-0.730	0.474
No Champ. promotion	1.560	0.980	0.341	-0.671	-0.550	0.588	2.176	1.850	0.080
Champ. relegation	-1.753	-1.430	0.170	-2.957	-0.880	0.392	-3.189	-0.690	0.500
No Champ. relegation	-0.415	-1.110	0.283	-1.856	-2.310	0.033	-1.884	-0.680	0.506
Constant	-2.409	-0.130	0.900	4.102	0.110	0.911	-0.161	-0.010	0.990

April	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 650									
Groups: 19									
	R-sq overall: 0.026			R-sq overall: 0.029			R-sq overall: 0.031		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	1.148	1.080	0.293	-0.224	-0.090	0.927	-1.771	-0.640	0.530
Win Surprise Effect	-0.840	-0.430	0.673	3.821	0.820	0.422	4.425	0.880	0.391
Win Probability	0.512	0.650	0.525	0.314	0.180	0.863	1.061	0.560	0.584
Lose Dummy	0.765	1.150	0.267	-2.292	-1.090	0.292	-4.728	-2.090	0.051
Lose Surprise Effect	-2.583	-0.960	0.349	6.214	0.900	0.378	8.763	1.230	0.235
Lose Probability	-0.583	-0.450	0.659	2.657	0.860	0.401	3.428	1.060	0.305
Draw Good Dummy	3.669	1.410	0.175	1.229	0.220	0.827	-4.298	-0.580	0.566
Draw Good Surp. Effect	-5.098	-1.300	0.211	-2.431	-0.260	0.796	5.478	0.540	0.593
Draw Good Probability	-2.900	-1.430	0.170	-12.933	-2.030	0.058	-13.34	-2.040	0.057
Draw Bad Dummy	-0.979	-0.500	0.625	-2.768	-0.940	0.360	-6.429	-2.260	0.037
Draw Bad Surp. Effect	3.871	0.650	0.524	5.387	0.640	0.533	16.63	1.840	0.083
Draw Bad Probability	-0.487	-0.210	0.835	-10.570	-1.170	0.259	-11.52	-1.000	0.331
CL-position	-1.231	-1.150	0.267	-3.329	-1.800	0.089	-5.316	-2.220	0.039
No CL-position	(dropped)			(dropped)			(dropped)		
PL relegation	0.179	0.520	0.610	-1.106	-0.780	0.447	-0.212	-0.130	0.897
No PL relegation	1.375	0.550	0.586	3.463	1.150	0.263	-1.858	-0.250	0.809
Champ. promotion	-0.013	-0.050	0.962	-0.178	-0.300	0.767	0.139	0.250	0.806
No Champ. promotion	(dropped)			(dropped)			(dropped)		
Champ. relegation	0.796	0.860	0.401	-1.646	-0.860	0.402	-1.096	-0.470	0.647
No Champ. relegation	-1.049	-1.150	0.266	-1.532	-1.190	0.251	-1.047	-0.950	0.353
Constant	0.675	1.150	0.267	4.900	1.590	0.128	5.595	1.530	0.143

May	ARs			Three-Day CARs			Five-Day CARs		
Observations: 275									
Groups: 19									
	R-sq overall: 0.365			R-sq overall: 0.171			R-sq overall: 0.121		
	Coef.	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**	**Coef.**	**t**	**P>|t|**
Win Dummy	-8.102	-2.160	0.045	-1.211	-0.070	0.947	-1.124	-0.080	0.936
Win Surprise Effect	12.950	3.040	0.007	12.630	0.940	0.358	11.653	0.920	0.371
Win Probability	0.053	0.060	0.952	-1.426	-0.720	0.484	-1.036	-0.700	0.494
Lose Dummy	-6.478	-1.880	0.076	2.268	0.130	0.895	1.170	0.090	0.931
Lose Surprise Effect	14.537	2.940	0.009	8.223	0.470	0.645	11.697	0.690	0.496
Lose Probability	13.589	2.940	0.009	8.531	0.510	0.618	8.797	0.600	0.554
Draw Good Dummy	23.710	3.230	0.005	25.629	0.830	0.416	25.178	0.840	0.411
Draw Good Surp. Effect	-18.995	-3.750	0.001	-14.825	-0.780	0.445	-11.692	-0.590	0.563
Draw Good Probability	-17.300	-2.090	0.051	-23.700	-0.910	0.374	-21.499	-0.830	0.417
Draw Bad Dummy	2.002	2.190	0.042	2.144	0.700	0.494	3.465	1.130	0.274
Draw Bad Surp. Effect	(dropped)			(dropped)			(dropped)		
Draw Bad Probability	9.048	1.290	0.213	16.781	0.680	0.503	23.390	1.020	0.322
CL-position	0.622	1.930	0.070	-0.688	-1.060	0.302	0.162	0.340	0.735
No CL-position	-1.343	10.180	0.000	-7.363	-8.600	0.000	-8.595	-6.740	0.000
PL relegation	-13.876	-1.620	0.122	-15.214	-2.100	0.050	-15.961	-2.930	0.009
No PL relegation	-0.819	-1.730	0.100	-2.378	-0.820	0.424	-4.986	-1.480	0.157
Champ. promotion	(dropped)			(dropped)			(dropped)		
No Champ. promotion	(dropped)			(dropped)			(dropped)		
Champ. relegation	-0.434	-1.510	0.149	-1.595	-5.860	0.000	-2.435	-6.930	0.000
No Champ. relegation	-1.415	-2.310	0.033	2.830	4.310	0.000	1.852	2.830	0.011
Constant	-4.762	-1.650	0.116	-8.392	-0.770	0.449	-10.880	-1.090	0.288

9.2.7 *Wins, Draws and Losses as Dummy Variables. Surprises + other Explanatory Variables Using STOXX*

TABLE 26 WINS, DRAWS AND LOSSES AS DUMMY VARIABLES. SURPRISES + OTHER EXPLANATORY VARIABLES

All observations	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 5850									
Groups: 19									
	R-sq overall: 0,014			R-sq overall: 0,018			R-sq overall: 0,016		
Variable	**Coef,**	**t**	**P>|t|**	**Coef,**	**t**	**P>|t|**	**Coef,**	**t**	**P>|t|**
Win Dummy	-0.292	-0.930	0.364	-0.025	-0.050	0.964	0.599	0.730	0.477
Win Surprise Effect	0.631	1.300	0.209	0.881	0.910	0.373	0.686	0.600	0.556
Lose Dummy	-0.275	-1.720	0.103	-0.266	-0.700	0.494	0.096	0.150	0.882
Lose Surprise Effect	-0.666	-2.010	0.059	-0.946	-1.470	0.159	-1.049	-1.280	0.216
Draw Good Dummy	1.019	0.770	0.450	-3.915	-1.820	0.086	-9.299	-2.890	0.010
Draw Good Surp. Effect	-1.711	-0.840	0.413	5.595	1.720	0.103	14.130	2.970	0.008
Draw Bad Dummy	-0.758	-1.000	0.332	-1.345	-0.920	0.368	-0.785	-0.480	0.638
Draw Bad Surp. Effect	1.438	0.650	0.526	2.669	0.640	0.529	2.429	0.560	0.585
Positive Events	0.701	1.570	0.134	2.058	2.650	0.016	2.532	3.070	0.007
Negative Events	1.031	0.820	0.421	0.010	0.010	0.994	-0.997	-0.710	0.489
Earnings surprises	-0.389	-2.170	0.043	-0.490	-2.500	0.022	0.050	0.230	0.823
CL-position	0.016	0.120	0.906	-0.396	-1.480	0.155	-0.429	-1.470	0.160
No CL-position	-0.249	-1.650	0.115	-0.044	-0.200	0.847	0.166	0.580	0.569
PL relegation	-0.393	-1.040	0.313	-0.409	-0.820	0.424	0.008	0.010	0.990
No PL relegation	-0.232	-1.400	0.177	-0.133	-0.300	0.769	-0.591	-1.460	0.163
Champ, promotion	0.023	0.070	0.946	0.784	1.220	0.238	1.880	1.360	0.189
No Champ, promotion	0.076	0.590	0.563	-0.101	-0.170	0.870	-0.188	-0.190	0.853
Champ, relegation	-0.184	-0.410	0.689	-0.132	-0.210	0.833	-0.085	-0.110	0.914
No Champ, relegation	-0.976	-2.020	0.059	-1.538	-1.910	0.072	-1.416	-1.850	0.081
Constant	0.203	1.790	0.091	0.067	0.190	0.851	-0.418	-0.560	0.580

TABLE 27 WINS, DRAWS AND LOSSES AS DUMMY VARIABLES. SURPRISES + OTHER EXPLANATORY VARIABLES (PREMIER LEAGUE)

Premier League	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 3336									
Groups: 19									
	R-sq overall: 0,026			R-sq overall: 0,019			R-sq overall: 0,018		
Variable	**Coef,**	**t**	**P>|t|**	**Coef,**	**t**	**P>|t|**	**Coef,**	**t**	**P>|t|**
Win Dummy	-0.749	-1.660	0.118	-0.587	-0.840	0.416	0.004	0.000	0.997
Win Surprise Effect	1.228	1.730	0.103	1.346	1.120	0.279	1.758	1.270	0.222
Lose Dummy	-0.497	-2.070	0.056	-0.464	-0.990	0.338	0.035	0.040	0.970
Lose Surprise Effect	-0.632	-1.190	0.252	-0.849	-0.910	0.376	-0.636	-0.680	0.509
Draw Good Dummy	1.017	0.660	0.519	-4.880	-1.830	0.088	-9.046	-3.140	0.007
Draw Good Surp, Effect	-1.924	-0.790	0.444	7.074	1.760	0.099	14.048	3.560	0.003
Draw Bad Dummy	-0.390	-0.460	0.654	-0.538	-0.360	0.726	0.636	0.350	0.730
Draw Bad Surp,, Effect	-0.270	-0.110	0.914	-0.677	-0.160	0.871	-2.941	-0.730	0.474
Positive Events	0.910	2.180	0.046	2.028	2.180	0.046	2.460	2.270	0.038
Negative Events	1.761	1.150	0.267	1.381	1.110	0.285	0.449	0.360	0.722
Earnings surprises	-0.181	-1.800	0.092	-0.293	-1.860	0.082	0.363	0.710	0.487
CL-position	-0.034	-0.230	0.819	-0.329	-1.170	0.260	-0.374	-1.470	0.162
No CL-position	-0.246	-1.600	0.129	-0.054	-0.230	0.822	0.204	0.650	0.523
PL relegation	-0.370	-0.990	0.339	-0.394	-0.760	0.457	0.058	0.090	0.933
No PL relegation	-0.327	-1.600	0.130	-0.095	-0.190	0.853	-0.627	-1.480	0.161
Constant	0.452	2.450	0.027	0.406	1.050	0.309	-0.307	-0.320	0.753

TABLE 28 WINS, DRAWS AND LOSSES AS DUMMY VARIABLES. SURPRISES + OTHER EXPLANATORY VARIABLES (CHAMPIONSHIP)

Championship	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 2514									
Groups: 19									
	R-sq overall: 0,013			R-sq overall: 0,030			R-sq overall: 0,026		
Variable	**Coef,**	**t**	**P>|t|**	**Coef,**	**t**	**P>|t|**	**Coef,**	**t**	**P>|t|**
Win Dummy	0.540	0.920	0.373	0.840	0.890	0.391	1.809	1.900	0.081
Win Surprise Effect	-0.725	-0.740	0.476	-0.394	-0.190	0.854	-1.637	-0.700	0.499
Lose Dummy	-0.011	-0.050	0.964	-0.066	-0.110	0.911	0.399	0.540	0.600
Lose Surprise Effect	-0.892	-2.470	0.029	-1.389	-1.540	0.150	-2.185	-2.020	0.067
Draw Good Dummy	0.437	0.140	0.894	6.978	1.230	0.241	-7.547	-0.400	0.697
Draw Good Surp, Effect	-0.729	-0.140	0.888	-11.32	-1.250	0.234	10.968	0.370	0.715
Draw Bad Dummy	-2.492	-1.850	0.089	-4.759	-2.270	0.042	-5.002	-2.130	0.055
Draw Bad Surp,, Effect	6.998	2.000	0.069	13.161	2.270	0.042	15.742	2.350	0.036
Positive Events	-0.808	-0.560	0.586	2.437	1.150	0.271	3.592	1.310	0.216
Negative Events	-1.286	-1.290	0.221	-4.125	-1.300	0.218	-5.320	-1.710	0.113
Earnings surprises	-1.308	-14.08	0.000	-1.620	-4.810	0.000	-1.683	-4.480	0.001
Champ, promotion	0.111	0.330	0.747	0.885	1.390	0.190	1.998	1.470	0.167
No Champ, promotion	0.052	0.490	0.636	0.009	0.020	0.988	-0.076	-0.080	0.935
Champ, relegation	-0.184	-0.410	0.689	-0.077	-0.120	0.907	-0.084	-0.110	0.915
No Champ, relegation	-0.690	-1.540	0.149	-1.361	-1.970	0.073	-1.125	-1.950	0.074
Constant	-0.006	-0.040	0.973	-0.154	-0.350	0.732	-0.473	-0.580	0.574

9.2.8 *Wins, Draws and Losses as Dummy Variables. Surprises + other Explanatory Variables Using FTSE*

TABLE 29 WINS, DRAWS AND LOSSES AS DUMMY VARIABLES. SURPRISES + OTHER EXPLANATORY VARIABLES

All observations	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 5850									
Groups: 19									
	R-sq overall: 0,012			R-sq overall: 0,017			R-sq overall: 0,016		
Variable	**Coef,**	**t**	**P>|t|**	**Coef,**	**t**	**P>|t|**	**Coef,**	**t**	**P>|t|**
Win Dummy	-0.520	-1.480	0.155	-0.893	-1.700	0.107	-1.295	-1.810	0.087
Win Surprise Effect	0.721	1.240	0.231	1.341	1.290	0.212	1.570	1.320	0.205
Lose Dummy	-0.458	-2.590	0.018	-1.173	-3.700	0.002	-1.434	-2.540	0.021
Lose Surprise Effect	-0.731	-1.790	0.090	-0.333	-0.530	0.605	-0.903	-1.050	0.309
Draw Good Dummy	2.308	1.090	0.288	-4.725	-2.330	0.032	-9.169	-3.440	0.003
Draw Good Surp, Effect	-3.974	-1.250	0.226	5.627	1.850	0.081	11.756	2.850	0.011
Draw Bad Dummy	-0.606	-0.720	0.479	0.631	0.270	0.791	-0.174	-0.070	0.948
Draw Bad Surp,, Effect	0.353	0.150	0.886	-4.992	-0.730	0.476	-3.598	-0.480	0.638
Positive Events	0.573	0.980	0.342	2.157	3.110	0.006	2.930	3.750	0.001
Negative Events	0.751	0.590	0.561	0.093	0.060	0.952	-0.880	-0.500	0.622
Earnings surprises	-0.438	-1.590	0.130	-0.715	-1.980	0.063	0.022	0.130	0.896
CL-position	-0.196	-0.940	0.358	-0.310	-0.840	0.413	-0.415	-0.820	0.422
No CL-position	0.006	0.030	0.978	-0.072	-0.250	0.806	0.111	0.320	0.751
PL relegation	-0.425	-1.060	0.302	-0.295	-0.480	0.635	0.166	0.220	0.826
No PL relegation	-0.334	-1.990	0.062	-0.047	-0.100	0.924	-0.431	-1.060	0.301
Champ, promotion	0.407	0.730	0.473	0.790	1.500	0.150	2.033	1.420	0.174
No Champ, promotion	0.012	0.050	0.962	0.087	0.120	0.907	0.209	0.180	0.856
Champ, relegation	-0.664	-1.240	0.231	-0.615	-0.830	0.418	-0.339	-0.290	0.777
No Champ, relegation	-1.128	-2.570	0.019	-2.528	-2.930	0.009	-1.885	-2.310	0.033
Constant	0.378	2.840	0.011	0.607	2.120	0.048	0.933	1.640	0.117

TABLE 30 WINS, DRAWS AND LOSSES AS DUMMY VARIABLES. SURPRISES + OTHER EXPLANATORY VARIABLES (PREMIER LEAGUE)

Premier League	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 3336									
Groups: 19									
	R-sq overall: 0,016			R-sq overall: 0,019			R-sq overall: 0,019		
Variable	**Coef,**	**t**	**P>|t|**	**Coef,**	**t**	**P>|t|**	**Coef,**	**t**	**P>|t|**
Win Dummy	-0.935	-1.760	0.099	-1.399	-1.730	0.104	-1.968	-1.650	0.120
Win Surprise Effect	1.354	1.640	0.122	1.839	1.330	0.204	2.586	1.650	0.120
Lose Dummy	-0.601	-2.320	0.035	-1.093	-2.330	0.034	-1.407	-1.550	0.141
Lose Surprise Effect	-0.657	-1.140	0.272	-0.562	-0.630	0.535	-0.962	-1.120	0.281
Draw Good Dummy	2.153	0.850	0.408	-6.501	-2.930	0.010	-9.215	-5.270	0.000
Draw Good Surp. Effect	-3.892	-1.020	0.323	8.656	2.630	0.019	12.224	4.900	0.000
Draw Bad Dummy	-0.517	-0.540	0.594	1.987	0.830	0.422	1.564	0.560	0.585
Draw Bad Surp. Effect	-0.330	-0.110	0.911	-9.751	-1.330	0.204	-10.02	-1.280	0.219
Positive Events	0.805	1.420	0.175	2.423	3.360	0.004	3.306	4.040	0.001
Negative Events	1.297	0.830	0.421	1.487	1.160	0.266	0.620	0.360	0.722
Earnings surprises	-0.235	-0.880	0.390	-0.516	-1.510	0.152	0.287	0.830	0.419
CL-position	-0.216	-1.060	0.306	-0.190	-0.550	0.590	-0.323	-0.710	0.491
No CL-position	0.002	0.010	0.994	-0.106	-0.360	0.726	0.141	0.390	0.701
PL relegation	-0.392	-0.990	0.340	-0.305	-0.460	0.649	0.259	0.320	0.754
No PL relegation	-0.392	-2.250	0.040	0.047	0.090	0.929	-0.373	-0.870	0.397
Constant	0.534	2.700	0.016	0.789	2.010	0.063	1.050	1.160	0.264

TABLE 31 WINS, DRAWS AND LOSSES AS DUMMY VARIABLES. SURPRISES + OTHER EXPLANATORY VARIABLES (CHAMPIONSHIP)

Championship	**ARs**			**Three-Day CARs**			**Five-Day CARs**		
Observations: 2514									
Groups: 19									
	R-sq overall: 0,014			R-sq overall: 0,029			R-sq overall: 0,021		
Variable	**Coef,**	**t**	**P>|t|**	**Coef,**	**t**	**P>|t|**	**Coef,**	**t**	**P>|t|**
Win Dummy	0.305	0.460	0.651	0.008	0.010	0.993	-0.120	-0.120	0.908
Win Surprise Effect	-0.761	-0.610	0.552	-0.233	-0.110	0.916	-0.692	-0.280	0.785
Lose Dummy	-0.300	-0.850	0.411	-1.586	-3.130	0.009	-1.371	-1.960	0.073
Lose Surprise Effect	-0.986	-1.610	0.134	0.210	0.210	0.837	-1.423	-0.900	0.387
Draw Good Dummy	2.644	0.610	0.553	18.216	2.720	0.018	-0.299	-0.020	0.988
Draw Good Surp. Effect	-4.462	-0.680	0.512	-30.05	-2.850	0.015	-2.483	-0.080	0.937
Draw Bad Dummy	-1.567	-0.760	0.462	-4.806	-1.530	0.153	-6.345	-1.630	0.129
Draw Bad Surp. Effect	3.374	0.640	0.536	11.060	1.330	0.208	15.209	1.480	0.164
Positive Events	-1.317	-0.600	0.561	0.394	0.300	0.768	0.443	0.310	0.759
Negative Events	-1.114	-1.020	0.329	-4.362	-1.000	0.335	-5.677	-1.520	0.154
Earnings surprises	-1.267	-16.35	0.000	-1.948	-3.420	0.005	-1.642	-9.230	0.000
Champ, promotion	0.341	0.560	0.583	0.673	1.250	0.235	1.876	1.310	0.214
No Champ, promotion	-0.018	-0.080	0.934	0.318	0.480	0.637	0.332	0.320	0.753
Champ, relegation	-0.666	-1.240	0.237	-0.442	-0.640	0.533	-0.395	-0.360	0.726
No Champ, relegation	-0.918	-2.240	0.045	-2.386	-3.230	0.007	-1.714	-2.300	0.040
Constant	0.288	1.060	0.308	0.608	1.400	0.188	0.986	1.400	0.186

9.2.9 *Tests of Joint Significance of the Probability Variables using STOXX*

All observations	ARs	Three-Day CARs	Five-Day CARs
winprob = 0			
loseprob = 0			
drawgoodprob = 0			
drawbadprob = 0			
F(4, 18) =	**1.160**	**1.190**	**0.490**
Prob > F =	**0.360**	**0.350**	**0.743**

Premier League	ARs	Three-Day CARs	Five-Day CARs
winprob = 0			
loseprob = 0			
drawgoodprob = 0			
drawbadprob = 0			
F(4, 15) =	**0.780**	**1.520**	**1.570**
Prob > F =	**0.556**	**0.247**	**0.234**

Championship	ARs	Three-Day CARs	Five-Day CARs
winprob = 0			
loseprob = 0			
drawgoodprob = 0			
drawbadprob = 0			
F(4, 12) =	**1.200**	**1.150**	**0.800**
Prob > F =	**0.360**	**0.381**	**0.550**

9.2.10 Tests of Joint Significance of the Probability Variables using FTSE

All observations	ARs	Three-Day CARs	Five-Day CARs
winprob = 0			
loseprob = 0			
drawgoodprob = 0			
drawbadprob = 0			
F(4, 18) =	**1.790**	**2.450**	**1.410**
Prob > F =	**0.175**	**0.084**	**0.270**

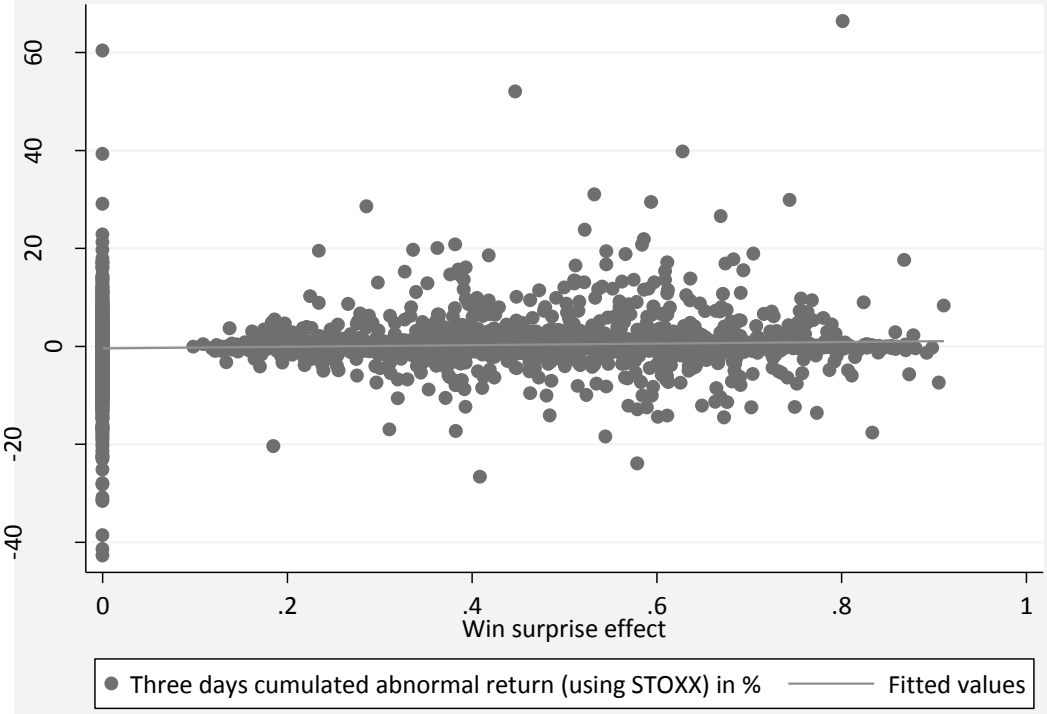
Premier League	ARs	Three-Day CARs	Five-Day CARs
winprob = 0			
loseprob = 0			
drawgoodprob = 0			
drawbadprob = 0			
F(4, 15) =	**0.750**	**0.670**	**0.820**
Prob > F =	**0.575**	**0.623**	**0.534**

Championship	ARs	Three-Day CARs	Five-Day CARs
winprob = 0			
loseprob = 0			
drawgoodprob = 0			
drawbadprob = 0			
F(4, 12) =	**1.580**	**1.990**	**4.030**
Prob > F =	**0.242**	**0.160**	**0.027**

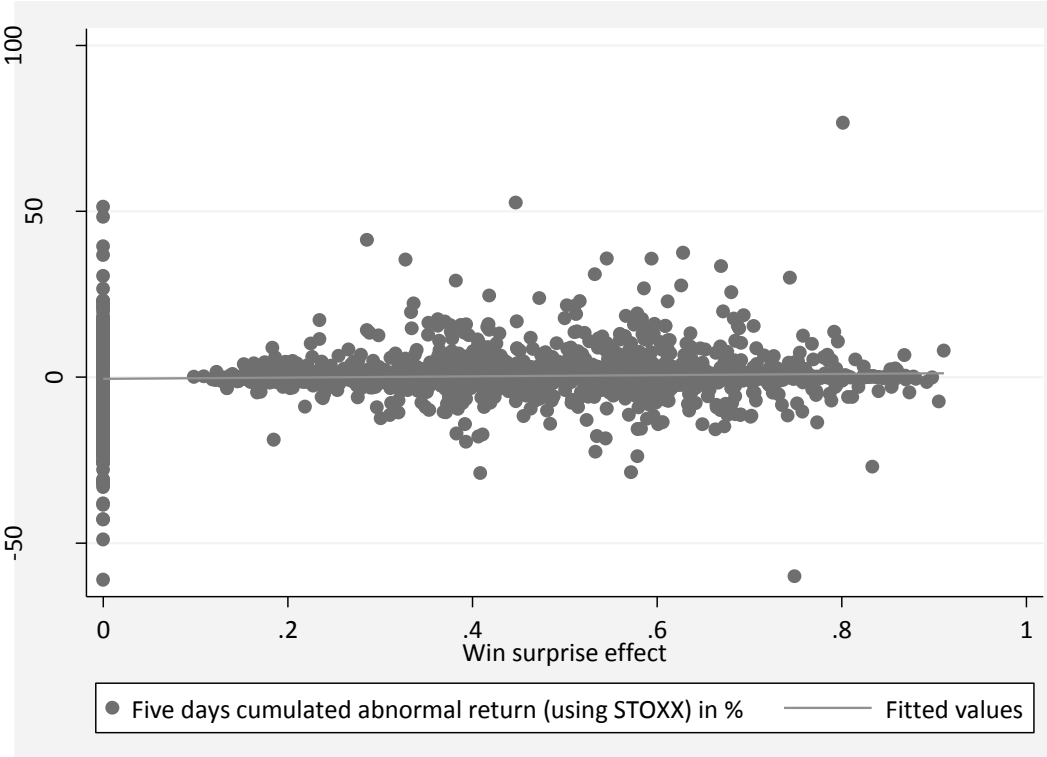
9.3 GRAPHS

9.3.1 RETURNS AGAINST SURPRISE EFFECTS

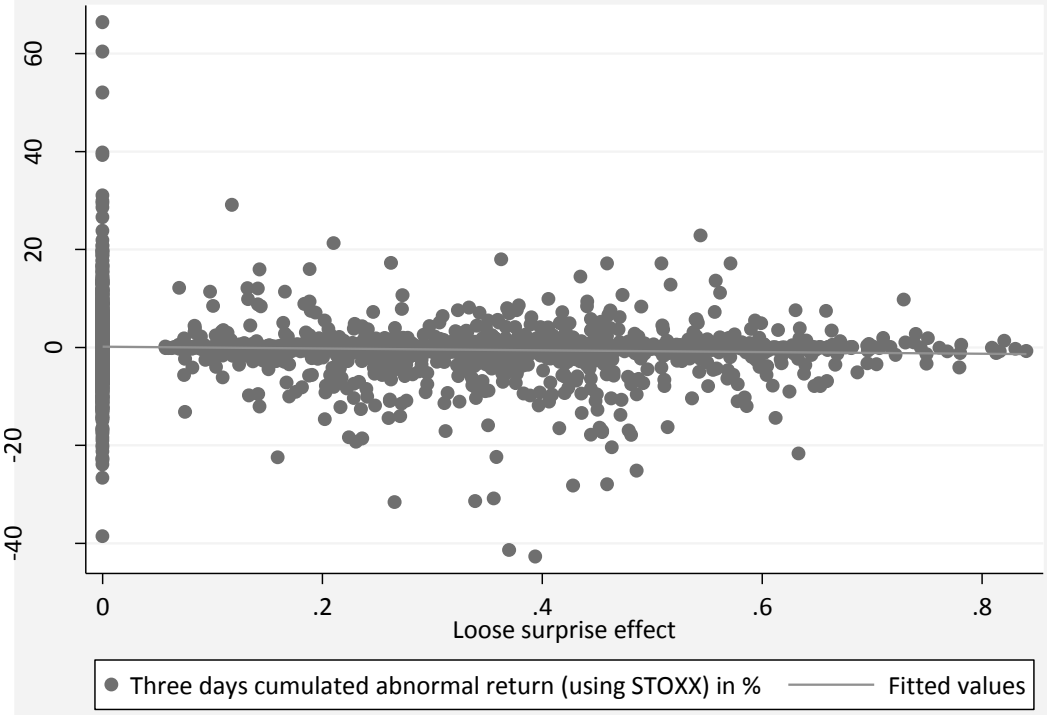
GRAPH 1 3CAR AGAINST WIN SURPRISE EFFECT (STOXX)



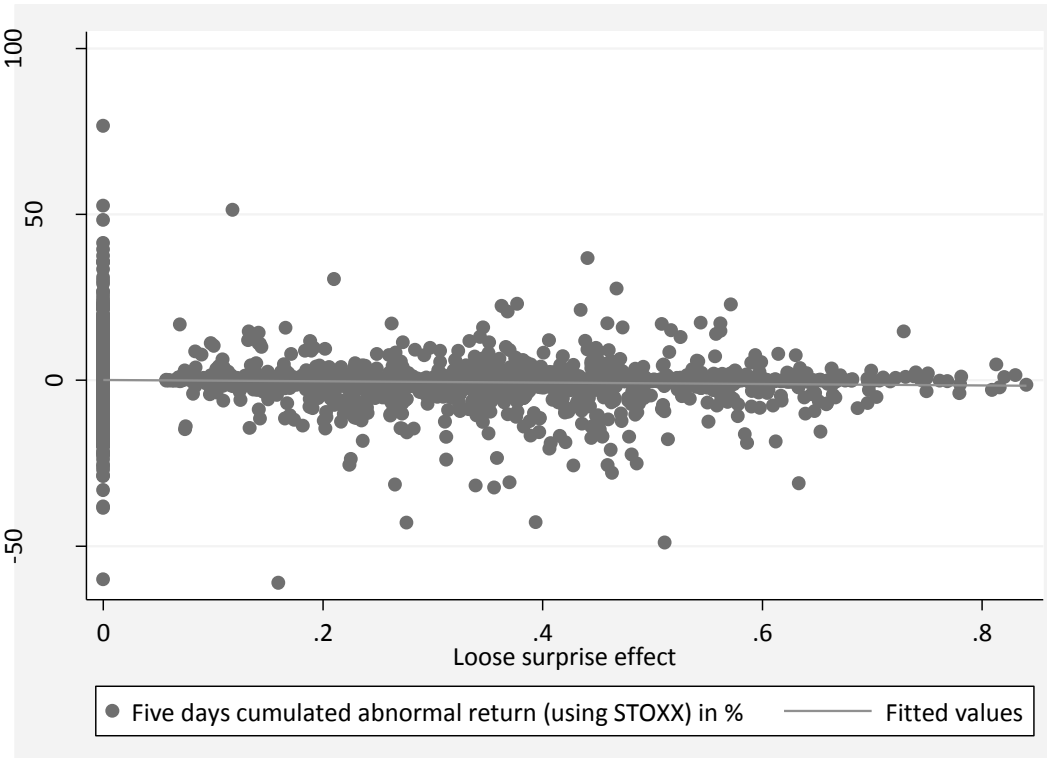
GRAPH 2 5CAR AGAINST WIN SURPRISE EFFECT (STOXX)



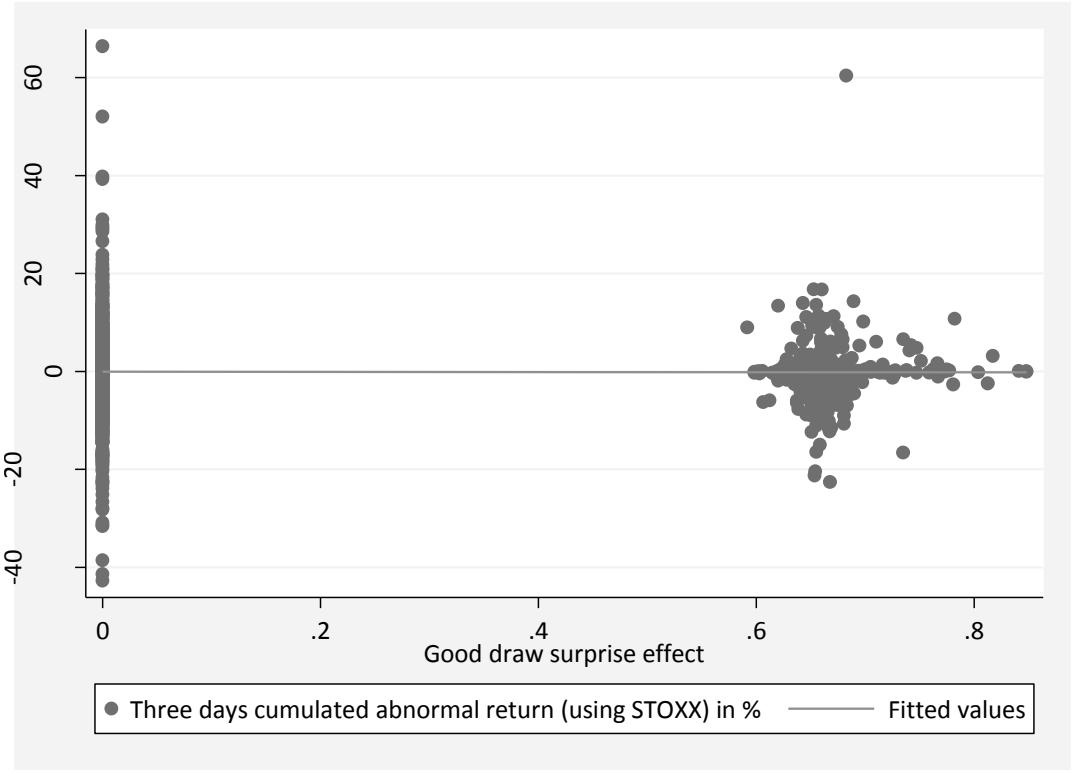
GRAPH 3 3CAR AGAINST LOSE SURPRISE EFFECT (STOXX)



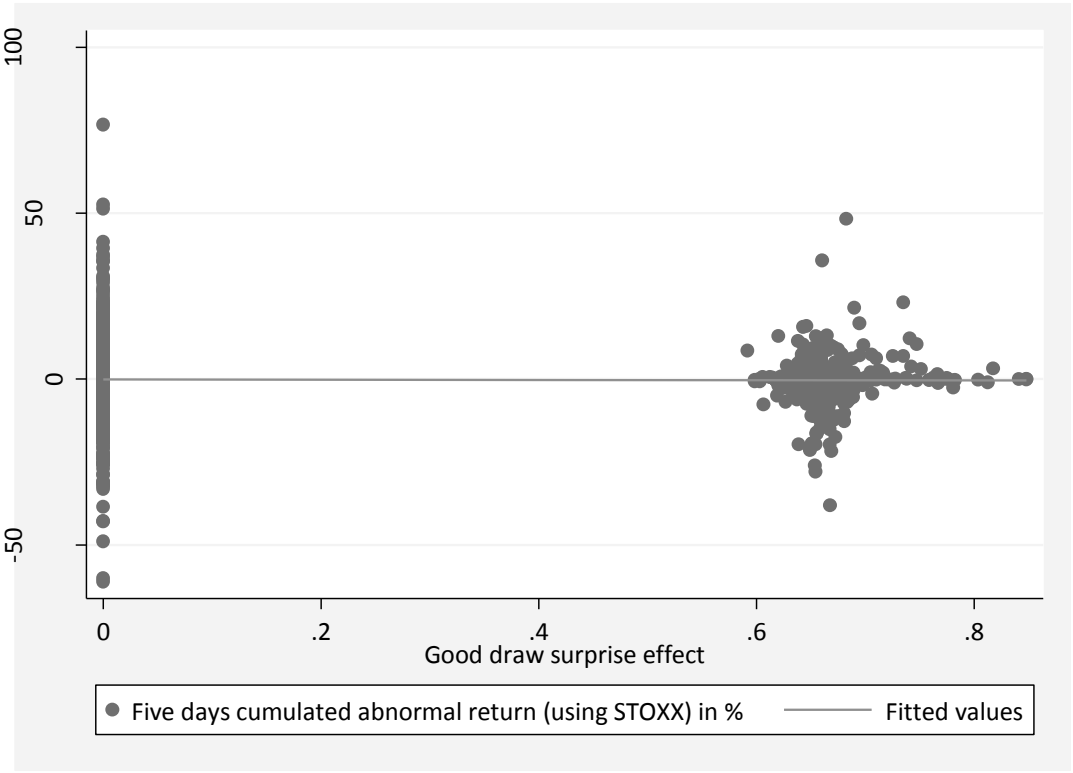
GRAPH 4 5CAR AGAINST LOSE SURPRISE EFFECT (STOXX)



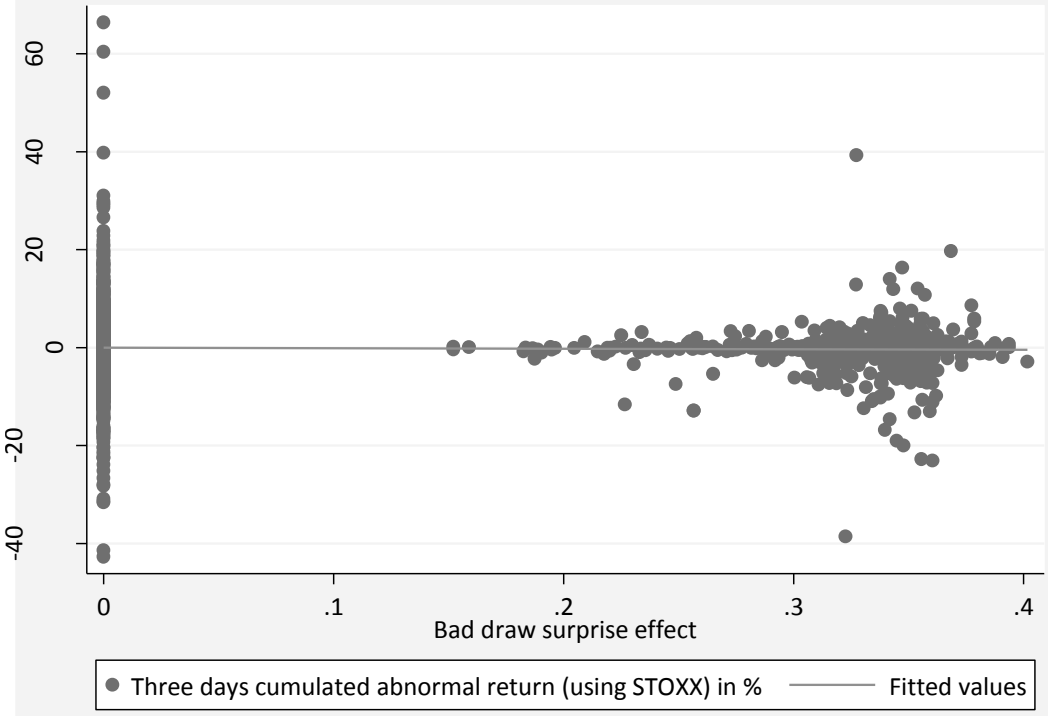
GRAPH 5 3CAR AGAINST GOOD DRAW SURPRISE EFFECT (STOXX)



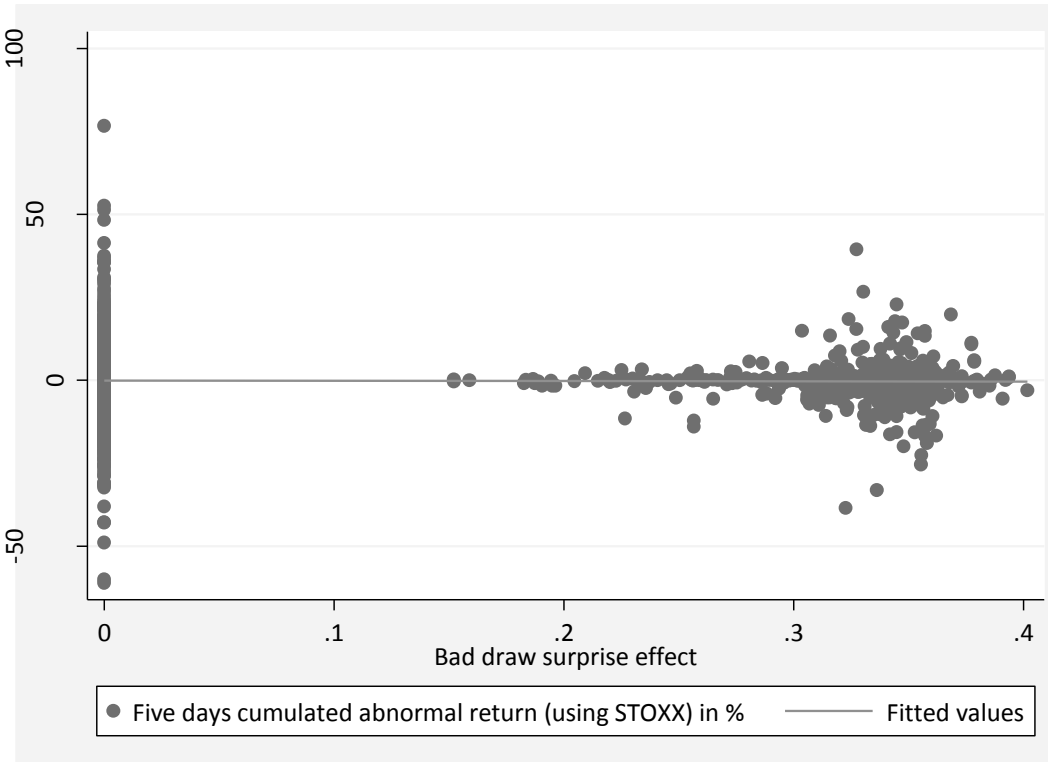
GRAPH 6 5CAR AGAINST GOOD DRAW SURPRISE EFFECT (STOXX)



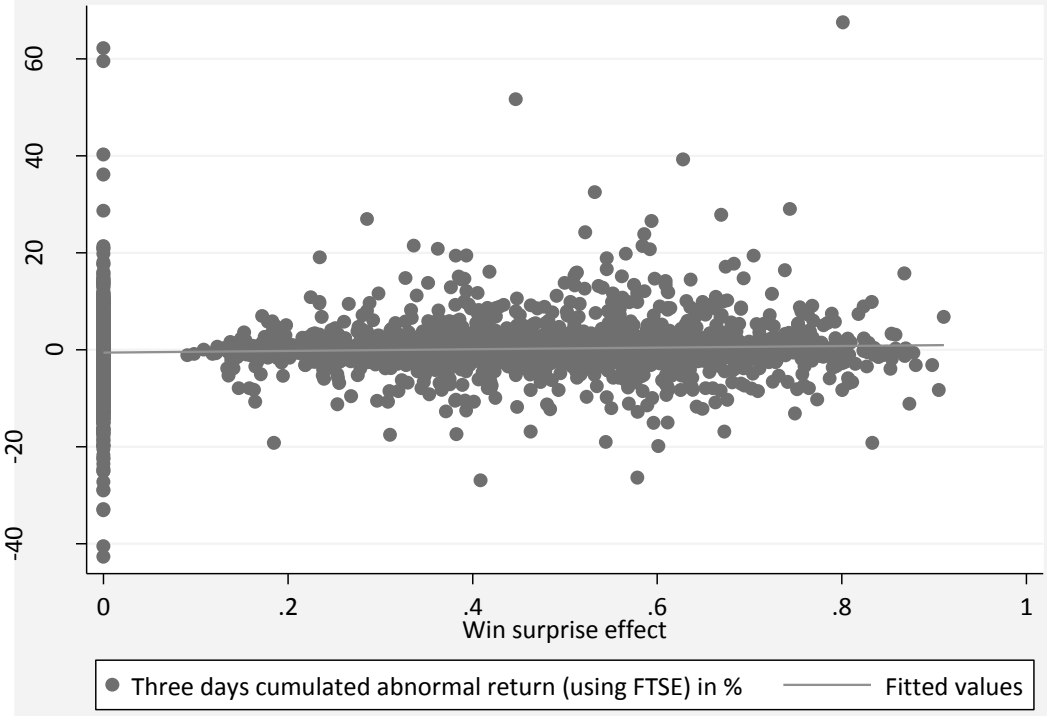
GRAPH 7 3CAR AGAINST BAD DRAW SURPRISE EFFECT (STOXX)



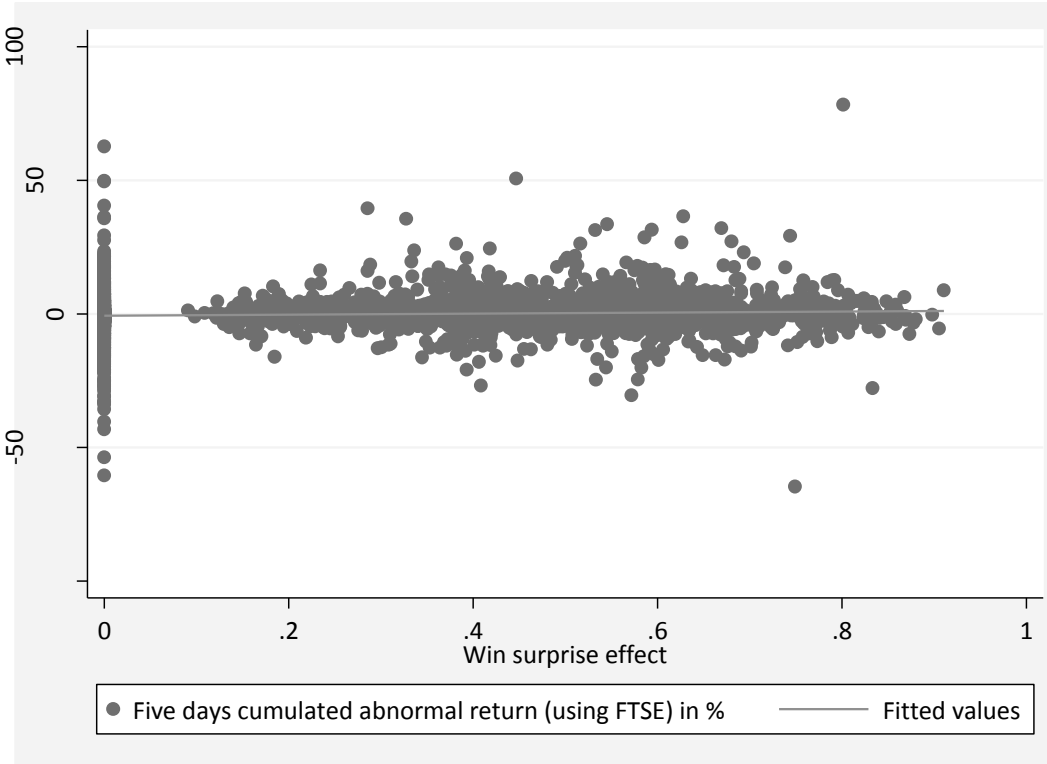
GRAPH 8 5CAR AGAINST BAD DRAW SURPRISE EFFECT (STOXX)



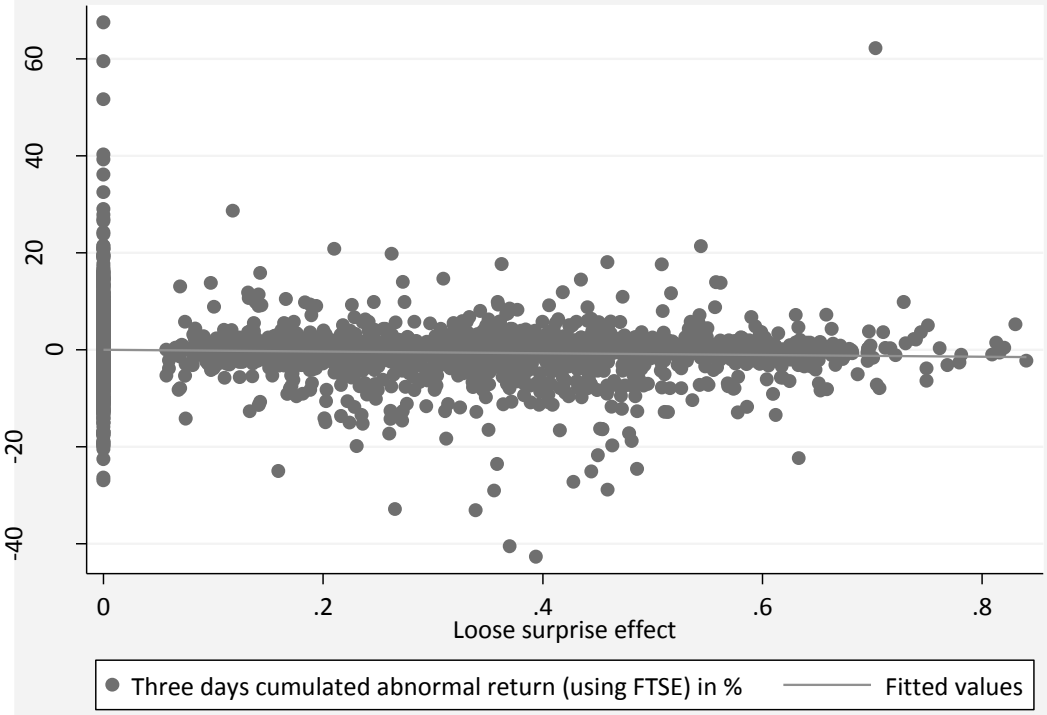
GRAPH 9 3CAR AGAINST WIN SURPRISE EFFECT (FTSE)



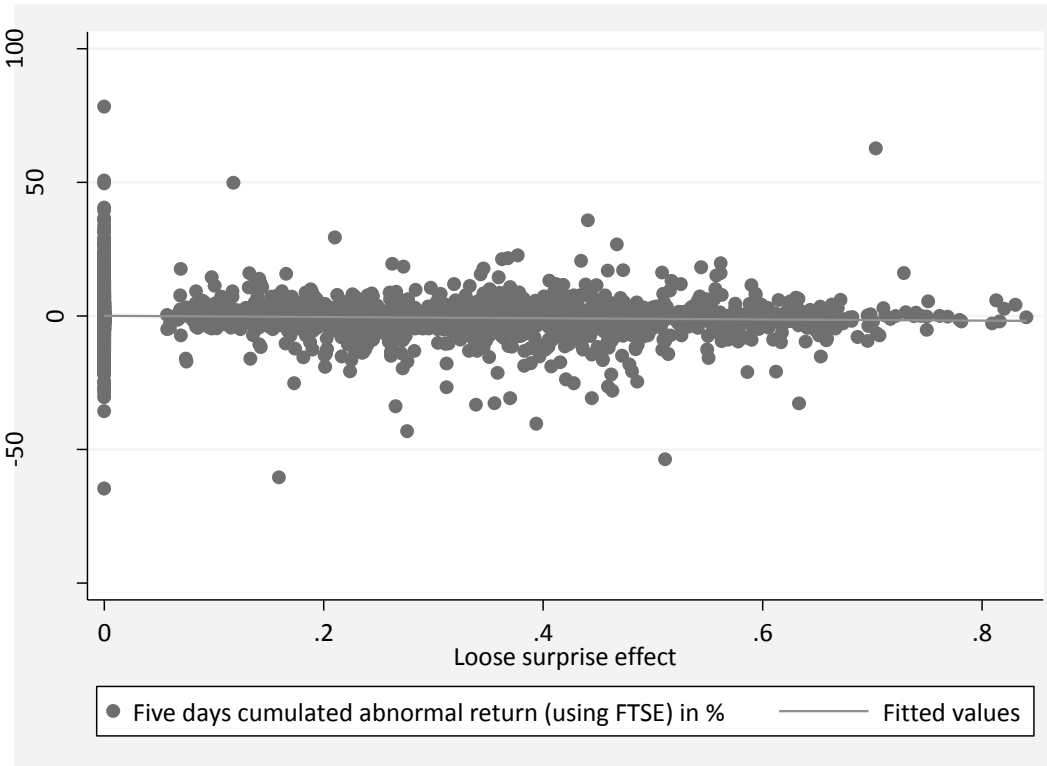
GRAPH 10 5CAR AGAINST WIN SURPRISE EFFECT (FTSE)



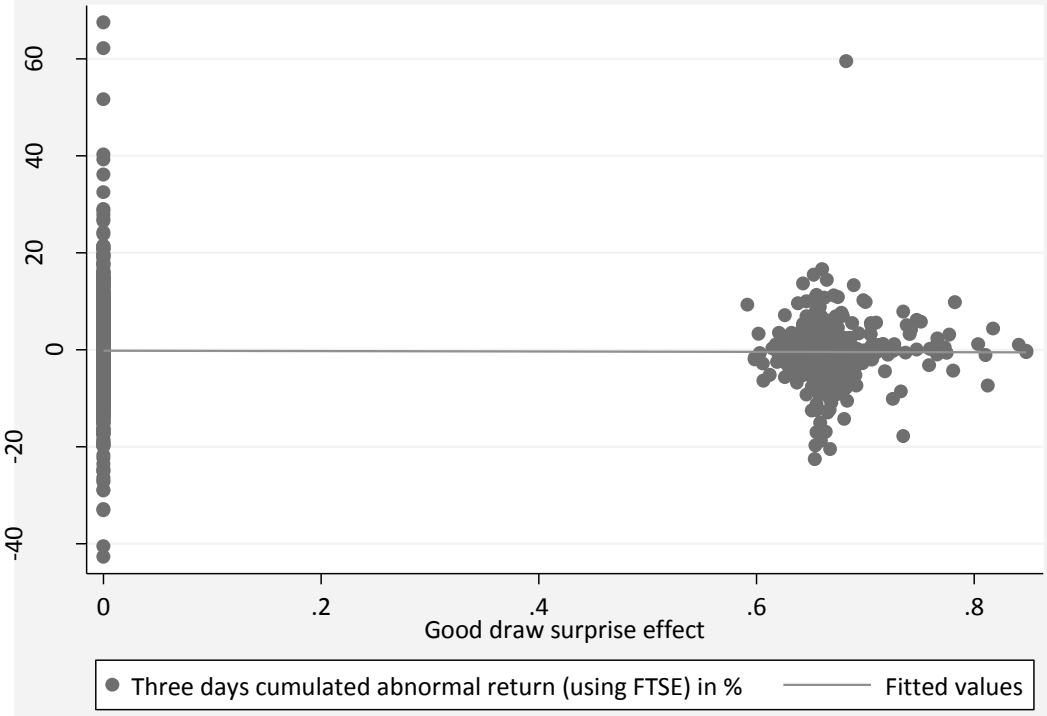
GRAPH 11 3CAR AGAINST LOSE SURPRISE EFFECT (FTSE)



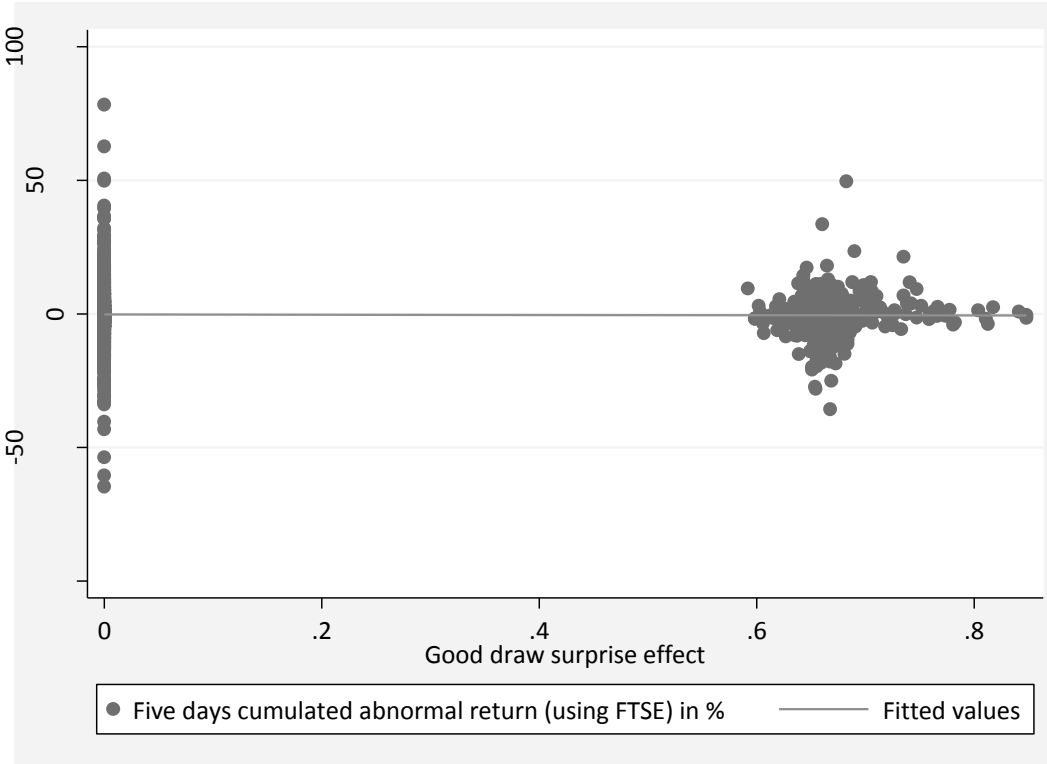
GRAPH 12 5CAR AGAINST LOSE SURPRISE EFFECT (FTSE)



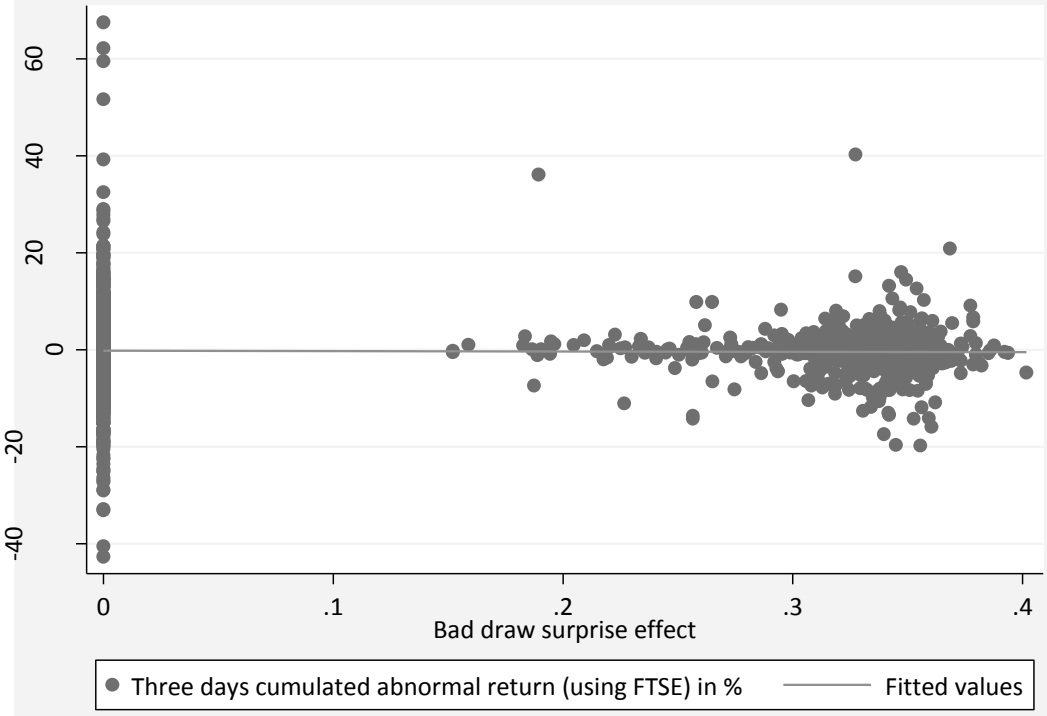
GRAPH 13 3CAR AGAINST GOOD DRAW SURPRISE EFFECT (FTSE)



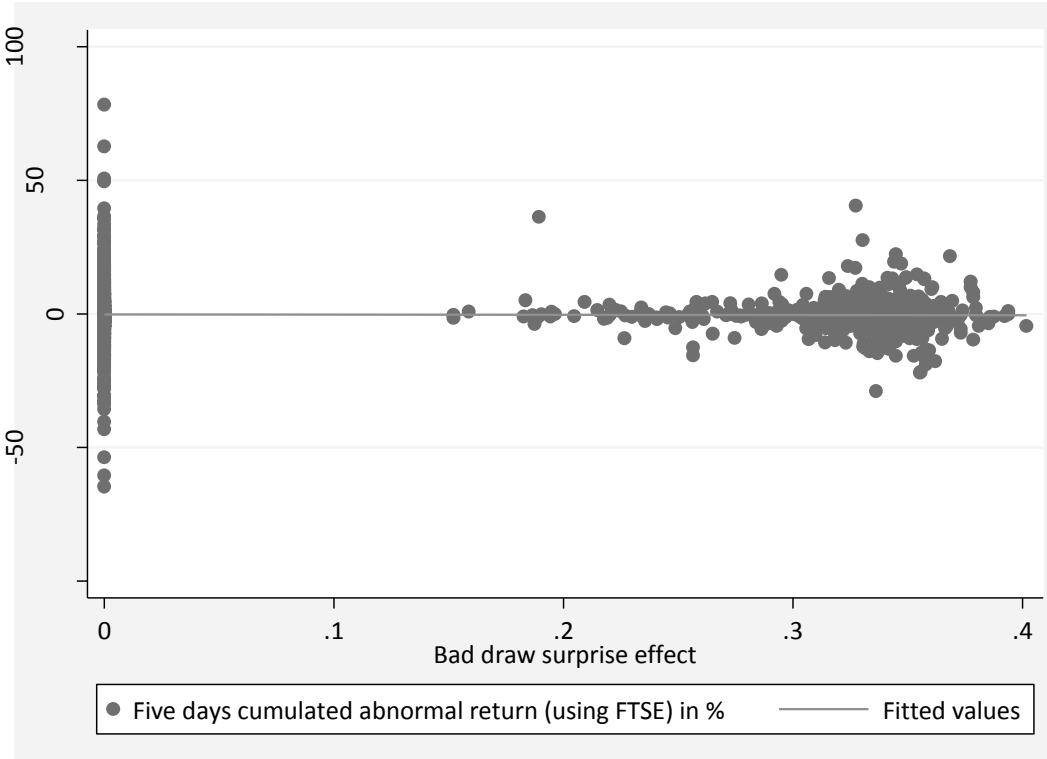
GRAPH 14 5CAR AGAINST GOOD DRAW SURPRISE EFFECT (FTSE)



GRAPH 15 3CAR AGAINST BAD DRAW SURPRISE EFFECT (FTSE)

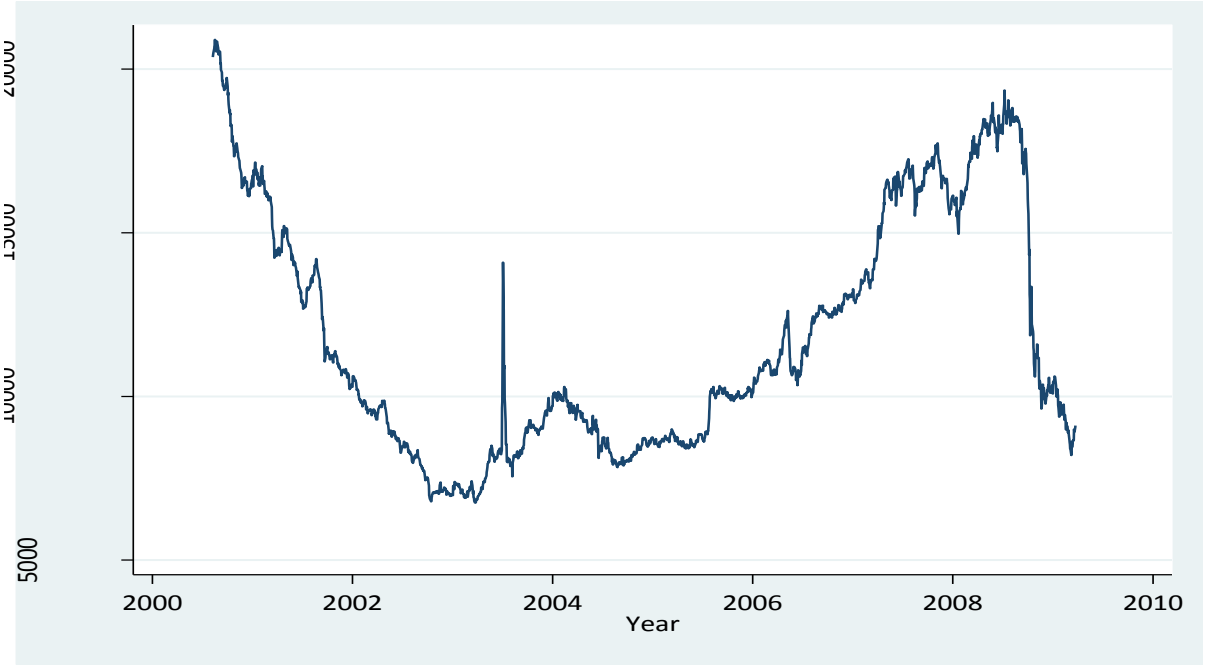


GRAPH 16 5CAR AGAINST BAD DRAW SURPRISE EFFECT (FTSE)

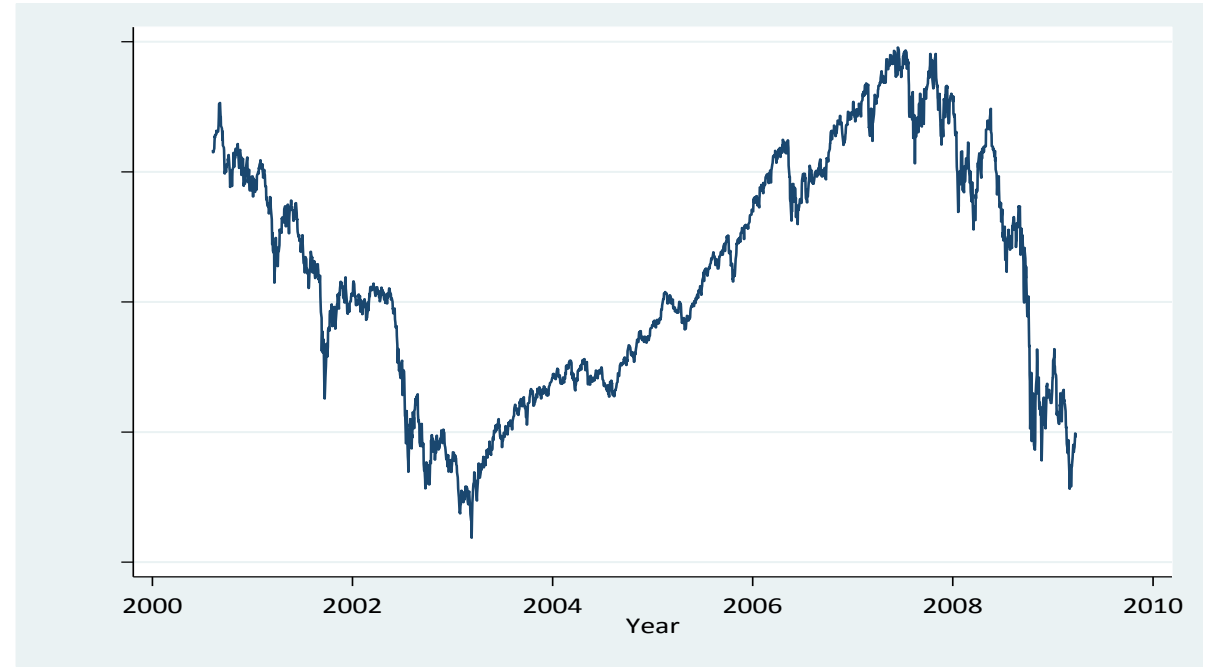


9.3.2 THE STOXX INDEX AGAINST THE FTSE INDEX

GRAPH 17 STOXX INDEX VALUE



GRAPH 18 FTSE INDEX VALUE



GRAPH 19 STOXX AGAINST FTSE, RETURNS