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## Sentiment and Stock Returns: Anticipating a Major Sporting Event -- Online Appendix

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### **Online Appendix**

for

"Sentiment and Stock Returns: Anticipating a Major Sporting Event"

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Table 3 (Appendix) shows daily return behavior for all firms in this study as well as the subsamples: winning, losing, favored, and non-favored. Additionally, the Generalized Sign Z-statistic shows whether there is a statistically significant proportion of firms exhibiting positive (positively-signed number) or negative (negatively-signed number) returns on a particular day relative to these proportions during the estimation period. With a couple of exceptions, the results indicate that all firms and the sub-samples are generally positive in both return and proportion during days -9 to -6, which is the week after each Super Bowl team has won its playoff game to qualify them for the Super Bowl. This result bolsters prior studies' findings that local stocks react positively to local sports' team wins. Looking at all firms, after a few days of statistically insignificant daily returns and proportions of positive-return stocks, returns again become statistically positive over the final trading days leading up to the Super Bowl (e.g., -2 and -1). This result suggests anticipation of the Super Bowl game could play a role in investor behavior. These same trends generally hold for the returns to winning and non-favored states' firms, but they are not as strong for the losing and favored sub-samples. Looking at post-game behavior, these unadjusted returns show effectively no significant daily behavior, however, there are significantly more stocks earning negative returns in the post-Super Bowl Monday than during the estimation period. Yet this trend reverses itself significantly over the ensuing four trading days.

Table 3 (Appendix)
Average Daily Raw Returns around NFL Super Bowl Events for Firms Headquartered in Losing, Winning, Favored, and Non-Favored States and the S&P 500

This table shows the close-to-close average raw returns for all firms headquartered in states that house the favored, non-favored, winning, and losing Super Bowl teams. Returns are measured daily for a 9-trading-day window before and after 42 Super Bowls between 1967 and 2010. Columns one and two show the day of the week and day number relative to the Super Bowl event. Subsequent columns show the daily mean unadjusted (raw) returns for all firms headquartered in states that house the losing, winning, favored, and non-favored Super Bowl teams for the (-9,+9) trading day window around the Super Bowl, which occurs on the Sunday prior to trading day zero. Statistical significance is based on Brown and Warner's (1980) portfolio time-series t-statistic (CDA). We also report a generalized sign Z- statistic (Cowan, 1992). \*\*\*,\*\*,\* indicates significance at 1%, 5%, 10% levels. All values are in percentages.

			Mean U	nadjusted Ra	w Returns			Genera	lized Sign Z-	- statistic	
	Event-	All Firms	Winning	Losing	Favored	Non-Favored	All Firms	Winning	Losing	Favored	Non-Favored
Day	Relative Day	(n=18,603)	(n=10,412)	(n=8,191)	(n=9,919)	(n=8,684)	(n=18,603)	(n=10,412)	(n=8,191)	(n=9,919)	(n=8,684)
Tue	-9	0.23*	0.00	0.52**	0.10	0.41**	4.95***	-0.19	7.67***	0.81	6.38***
Wed	-8	0.65***	0.71***	0.56***	0.62***	0.67***	17.93***	13.28***	12.04***	12.99***	12.35***
Thurs	-7	0.43***	0.44***	0.42**	0.40**	0.46**	9.51***	7.96***	5.35***	6.47***	6.99***
Fri	-6	0.32**	0.32**	0.31*	0.28*	0.36**	7.00***	5.19***	4.71***	4.80***	5.13***
Mon	-5	0.22	0.31**	0.11	0.08	0.38**	6.97***	5.35***	4.49***	2.33***	7.72***
Tue	-4	0.07	0.08	0.08	0.12	0.04	-1.27	-2.17**	0.54	-0.05	-1.79**
Wed	-3	0.15	0.02	0.30*	0.05	0.26*	0.48	-2.23**	3.23***	-0.74	1.51*
Thurs	-2	0.30**	0.25*	0.37*	0.29*	0.31*	9.29***	5.33***	7.99***	7.16***	5.96***
Fri	-1	0.25*	0.31**	0.16	0.18	0.32*	4.32***	3.76***	2.28**	1.92**	4.27***
Mon	0	-0.10	-0.18	0.01	-0.05	-0.15	-5.08***	-6.50***	-0.36	-2.22**	-5.07***
Tue	1	0.17	0.08	0.28	0.25	0.08	6.98***	3.12***	7.00***	7.88***	1.82**
Wed	2	0.21	0.21	0.21	0.30*	0.11	4.35***	4.05***	1.99**	5.96***	-0.00
Thurs	3	0.30**	0.41***	0.17	0.33**	0.27*	10.42***	9.44***	5.07***	7.78***	6.93***
Fri	4	0.27*	0.33**	0.19	0.41**	0.10	7.66***	5.74***	5.05***	10.44***	0.06
Mon	5	0.06	0.04	0.09	0.16	-0.05	-0.08	-1.82**	1.92**	1.01	-1.20
Tues	6	0.04	0.14	-0.08	0.07	0.01	1.32*	3.06***	-1.47*	1.77**	0.03
Wed	7	0.31**	0.38**	0.21	0.37**	0.23	10.70***	10.26***	4.55***	9.53***	5.47***
Thurs	8	0.17	0.17	0.17	0.22	0.12	2.90***	1.87**	2.27**	2.43***	1.67**
Fri	9	0.11	0.14	0.08	0.15	0.07	0.58	0.74	0.04	1.03	-0.25

Table 5 (Appendix) shows daily abnormal return behavior over the study period. All subcategories of firms experience significant positive average abnormal daily returns during the pre-event period. The fact that these positive return days are relatively concentrated more closely to the pre-Super Bowl days than to the post-playoff days is also consistent with the anticipation hypothesis. The patterns are also generally similar to those of the raw returns in Table 3. However, as expected due to the factor risk adjustments, the abnormal returns tend to be lower than the raw returns. Across all firms, daily abnormal returns are significantly positive in all days leading up to the Super Bowl except -9 and -5. Once again, one could argue the "break" at day -5 might represent a transition between post-playoff reaction and pre-Super Bowl anticipation, particularly because the abnormal return point estimates for the week leading up to the Super Bowl are relatively high. As with the raw returns, the winning, losing, favored, and non-favored subsamples show varying pre-Super Bowl abnormal return behavior. But in no date is the abnormal return significantly negative from (-9,-1). Winning states' firms have a slightly higher incidence of significantly positive abnormal daily returns (eight statistically significant days) versus losing states' firms (three statistically significant days) over the pre-Super Bowl window.

The sign-test results are not as well-aligned with the raw return sign-test results in Table 3 (Appendix), as are the return results. Across all firms and in each sub-sample, there are disproportionately large numbers of firms experiencing negative returns in days -8 to -6 (i.e., the post-playoff week). The break again occurs at day -5 before a couple days of significantly high proportions of firms earning positive returns. The proportions of stocks earning positive and negative abnormal returns in the final two days before the Super Bowl (i.e., -2 and -1) is very similar to the the proportion over the estimation period—the lone exceptions being for losing states' teams in day -1 (negative) and non-favored states' teams in day -2 (positive).

Regarding the post-event period, the results in Figure 2 and Table 5 generally support earlier findings. As Edmans et al (2007) find a loss effect but no symmetric wining effect, losing teams have negatively-signed abnormal returns immediately after the Super Bowl loss while the immediate effect of winning is zero. Furthermore, across all firms, only day +9 shows significant positive abnormal post-Super

Bowl returns. And significant returns among the subcategories are scant in the post-Super Bowl period. However, consistent with Palomino et al (2009), Table 5 (original paper) tabulates that winning teams experience upward drift for the two week period after the Super Bowl leading to a cumulative 0.33 percent abnormal return. This abnormal return value is significantly higher than for the losing teams' firms (0.00 percent) over the identical period. The same trends hold for favored versus non-favored firms. Considering these cumulative abnormal returns, the "Post" column indicates that the post-game results depend on the outcome of the game (i.e., investors do respond to the outcome of the game itself).

Table 5 (Appendix)
Average Daily Abnormal Returns around NFL Super Bowl Events for Firms Headquartered in Losing, Winning, Favored, and Non-Favored States

This table shows the close-to-close average abnormal returns for all firms headquartered in states that house the favored, non-favored, winning, and losing Super Bowl teams. Abnormal returns come from a four-factor model with 252-day estimation period that ends 46 days prior to the Super Bowl event. Returns are measured daily for a 9-trading-day window before and after 42 Super Bowls between 1967 and 2010. Columns one and two show the day of the week and day number relative to the Super Bowl event. Subsequent columns show the daily mean abnormal returns for all firms headquartered in states that house the losing, winning, favored, and non-favored Super Bowl teams for the (-9,+9) trading day window around the Super Bowl, which occurs on the Sunday prior to trading day zero. Statistical significance is based on Brown and Warner's (1980) portfolio time-series t-statistic (CDA). We also report a generalized sign Z- statistic (Cowan, 1992). \*\*\*,\*\*,\* indicates significance at 1%, 5%, 10% levels. All values are in percentages.

	Event-		Me	an Abnormal	Return		Gener	alized Sign Z	Z- statistic		
Day	Relative Day	All	Winning	Losing	Favored	Non-Favored	All	Winning	Losing	Favored	Non-Favored
Tue	-9	0. 03	0. 02	0.05	0.00	0.10	-1.39*	2.27**	-4.68***	0.10	-2.17**
Wed	-8	0. 14***	0. 21***	0.05	0.16***	0.11*	-0.67	0.57	-1.71**	0.94	-2.04**
Thurs	-7	0. 10**	0.08**	0.13*	0.13**	0.07	-3.99***	-2.96***	-2.64***	-2.06**	-3.61***
Fri	-6	0. 10**	0.10**	0.10	0.08	0.12**	-4.56***	-3.70***	-2.67***	-4.32***	-2.03**
Mon	-5	0.07	0.09*	0.04	0.05	0.08	0.63	0.27	0.69	0.50	0.43
Tue	-4	0.11**	0.17***	0.06	0.16***	0.07	6.17***	4.98***	3.68***	6.04***	2.58***
Wed	-3	0. 15***	0.09*	0.24***	0.13**	0.18***	3.58***	2.88***	2.16**	2.91***	2.15*
Thurs	-2	0.11**	0.10**	0.12*	0.07	0.16**	1.17	1.09	0.51	-0.60	2.33***
Fri	-1	0. 14***	0.17***	0.09	0.16***	0.11*	-1.17	0.32	-2.11**	-0.63	-1.03
Mon	0	-0. 03	0.00	-0.06	0.02	-0.07	6.13***	7.69***	0.59	5.26***	3.36***
Tue	1	0.04	0.07	0.01	0.09*	-0.01	1.75**	3.38***	-1.14	2.65***	-0.23
Wed	2	0.04	0.04	0.03	0.05	0.01	-3.04***	-1.26	-3.12***	-3.02***	-1.19
Thurs	3	0.00	0.03	-0.05	0.03	-0.04	-3.88***	-1.97**	-3.63***	-3.50***	-1.94**
Fri	4	0.07	0.08*	0.06	0.06	0.08	-2.21**	-2.10**	-0.96	-3.10***	0.08
Mon	5	0.01	0.03	-0.03	0.02	-0.01	0.63	1.08	-0.28	-1.09	2.08**
Tues	6	-0. 07	-0.01	-0.13**	-0.04	-0.09	-4.14***	-2.77***	-3.07***	-4.76***	-0.93
Wed	7	0.01	0.00	0.03	0.02	0.01	-1.83**	-2.37***	-0.13	-3.61***	1.15
Thurs	8	0.01	0.00	0.02	0.04	-0.03	-1.15	-1.07	-0.51	-0.45	-1.18
Fri	9	0. 11**	0.010*	0.12*	0.12**	0.09	0.15	-0.98	1.28*	-1.92**	2.23**

Table 6 (Appendix) tabulates the same information as the two previous Appendix tables, however, it supports Table 6 as described in the original paper.

Table 6 (Appendix)
Average Daily Abnormal Returns around NFL Super Bowl Events for Firms Headquartered in Losing, Winning, Favored, and Non-Favored States Conditioned on whether the Firm is in a Losing or Winning State

This table shows the close-to-close average abnormal returns for all firms headquartered in states that house the combinations of non-favored/favored and winning/losing Super Bowl teams. Abnormal returns come from a four-factor model with 252-day estimation period that ends 46 days prior to the Super Bowl event. Returns are measured daily for a 9-trading-day window before and after 42 Super Bowls between 1967 and 2010. Columns one and two show the day of the week and day number relative to the Super Bowl event. Subsequent columns show the daily mean abnormal returns for all firms headquartered in states that house the losing, winning, favored, and non-favored Super Bowl teams for the (-9,+9) trading day window around the Super Bowl, which occurs on the Sunday prior to trading day zero. Statistical significance is based on Brown and Warner's (1980) portfolio time-series t-statistic (CDA). We also report a generalized sign Z- statistic (Cowan, 1992). \*\*\*,\*\*,\* indicates significance at 1%, 5%, 10% levels. All values are in percentages.

			Mean Abr	normal Return			Generalized	Sign Z- statistic	e
Day	Event-Relative Day	Favored/ Winning	Favored/ Losing	Non-Favored/ Winning	Non- Favored/ Losing	Favored/ Winning	Favored/ Losing	Non- Favored/ Winning	Non-Favored/ Losing
Tue	-9	0.00	-0.10	0.00	0.10	1.87**	-3.47***	1.31*	-3.41***
Wed	-8	0.23***	-0.09	0.15	0.10	1.49*	-0.86	-1.47*	-1.48*
Thurs	-7	0.11**	0.20	-0.02	0.11*	-2.28**	-0.06	-1.99**	-3.01***
Fri	-6	0.11**	-0.05	0.08	0.14**	-3.53***	-2.58***	-1.27	-1.60*
Mon	-5	0.08*	-0.06	0.12	0.07	-0.23	1.57*	0.96	-0.11
Tue	-4	0.17***	0.15	0.16*	0.03	4.66***	4.16***	1.88**	1.86**
Wed	-3	0.08	0.35**	0.12	0.20***	2.24**	2.02**	1.90**	1.34*
Thurs	-2	0.11**	-0.09	0.10	0.19**	-0.10	-1.13	2.40***	1.23
Fri	-1	0.18***	0.09	0.16*	0.09	-1.12	0.81	2.64***	-2.90***
Mon	0	0.03	-0.04	-0.10	-0.06	5.15***	1.48*	6.52***	-0.17
Tue	1	0.10**	0.06	-0.02	-0.01	3.05***	-0.17	1.48*	-1.22
Wed	2	0.07	-0.02	-0.06	0.05	-2.44**	-1.87**	1.76**	-2.53***
Thurs	3	0.02	0.07	0.08	-0.09	-4.20***	0.54	3.44***	-4.49***
Fri	4	0.09*	-0.08	0.03	0.11	-2.26**	-2.40***	-0.27	0.27
Mon	5	0.06	-0.15	-0.08	0.02	-0.77	-0.88	3.58***	0.18
Tues	6	-0.03	-0.11	0.03	-0.14**	-4.96***	-0.75	3.16***	-3.11***
Wed	7	0.02	0.00	-0.08	0.04	-2.99***	-2.09**	0.49	1.05
Thurs	8	0.06	-0.01	-0.18*	0.03	0.62	-2.22**	-3.27***	0.68
Fri	9	0.13**	0.07	-0.01	0.13*	-2.38***	0.46	2.24**	1.22

#### **Robustness Test Results**

Table 7 (Appendix) tabulates results described in the original paper involving size quintiles as a proxy for institutional and individual ownership.

Table 8 (Appendix) tabulates results for the matched sample. The matching process involves first matching by 4 digit SIC codes; the asset ratio between matched and treated firm must be within a 0.7 to 1.3 band. If not match is found, then the SIC codes are progressively decremented to 3 digits and 2 digits while using the same asset ratio band. We also eliminate firms from surrounding states to forestall any anticipatory or reactionary leakage. We achieve above a 99 percent firm-by-firm match rate, and results are statistically identical if we remove non-matched treatment firms.

Table 8 (Appendix) shows the characteristics for the matched sample, broken out by favored/non-favored as well as winning/losing sub-samples. Differences in means tests show that the matched sample firms are remarkably similar to the treatment sample in Table 2. Systematic differences only occur in cash, asset tangibility, and retained earnings. Again, these matched firms are in the same industries and are very nearly the same size as the treatment firms.

Table 9 (Appendix) shows the mean CARs for the treatment samples versus those of the matched samples, once again broken down by favored/non-favored and winning/losing sub-samples.

### Table 7 (Appendix)

### **Sample Split into Size Quintiles**

This table contains for each sample Mean Cumulative Abnormal Returns which are split into quintiles by *LOGSIZE* by year. Quintile 5 represents the group of companies with the highest 20% of *LOGSIZE* while quintile 1 represents the smallest. The returns are measured daily for a 9-trading-day window around 42 Super Bowls between 1967 and 2010. The "Mean Cumulative Abnormal Returns" column shows the window close-to-close value-weighted average abnormal return (CAR) for all firms headquartered in states that house non-favored, favored, winning, and losing Super Bowl teams. The CAR comes from a four-factor model with 252-day estimation period that ends 46 days prior to the Super Bowl event. Statistical significance is based on Brown and Warner's (1980) portfolio time-series t-statistic (CDA). \*\*\*\*,\*\*,\* Indicates significance at 1%, 5%, 10% levels

			Mean (	Cumulative Abnorma	l Return	
Sample	Days	Quintile 5	Quintile 4	Quintile 3	Quintile 2	Quintile 1
Favored	(-9,-1)	0.24	0.35**	0.40*	1.04***	2.75***
	(0,+9)	0.03	0.1	0.49**	0.60*	0.83*
	(-9,+9)	0.27	0.45*	0.89**	1.64***	3.58***
Non-Favored	(-9,-1)	-0.12	-0.01	0.97***	1.06***	3.00***
	(0,+9)	-0.04	-0.07	-0.02	-0.18	0.03
	(-9,+9)	-0.16	0.06	0.84**	0.88*	3.04***
Winning	(-9,-1)	0.32**	0.54***	0.51**	1.2***	2.62***
	(0,+9)	0.08	0.17	0.42*	0.26	0.76*
	(-9,+9)	0.41*	0.71***	0.92***	1.46***	3.37***
Losing	(-9,-1)	-0.25	-0.27	0.87**	0.86**	3.18***
	(0,+9)	-0.11	-0.03	-0.08	0.2	0.09
	(-9,+9)	-0.35	-0.3	0.79*	1.07*	3.27***

# Table 8 (Appendix) Characteristics of the Matched Sample and Comparison to Main Sample

This table contains the matched sample characteristics and the *p*-value to test the difference in means between the matched group and main sample. Each firm is matched by year, industry, and firm characteristics and every matched firm appears only once in a given year. We first match by 4 digit SIC codes. The asset ratio between the matched and treated firm has to be within the 0.7-1.3 band. If no match is found, the SIC codes are then lowered to a 3-digit and 2 digit match while the same asset ratio band is used. We also eliminate firms from surrounding states. Each observation has to have enough return observations to conduct the event study as follows. Returns are measured daily for a 9-trading-day window around 42 Super Bowls between 1967 and 2010. The Mean Cumulative Abnormal Returns is the close-to-close value-weighted average abnormal return (CAR) for all firms headquartered in states that house the non-favored, favored, winning, and losing Super Bowl teams. The CAR comes from a four-factor model with 252-day estimation period that ends 46 days prior to the Super Bowl event.

Panel A: Favored Sample Matched Group Characteristics and Comparison of Means

Variable	N	Mean	Median	Std Dev	5th	25th	75th	95th	p-value for difference in means
LOGSIZE	9845	4.754	4.580	2.178	1.402	3.197	6.194	8.566	0.604
MA/BA	8601	1.860	1.185	6.756	0.682	0.930	1.857	4.579	0.480
LEVERAGE	9751	0.248	0.210	0.330	0.000	0.065	0.371	0.642	0.234
ASSET TANG	9742	0.290	0.228	0.247	0.008	0.087	0.433	0.801	0.132
RTE	9732	-0.185	0.119	2.014	-1.748	-0.043	0.324	0.605	0.000
TE	9841	0.443	0.460	0.591	0.054	0.281	0.650	0.874	0.382
ROA	8889	0.071	0.111	0.276	-0.293	0.037	0.175	0.291	0.180
CASH	8963	0.148	0.068	0.192	0.004	0.023	0.193	0.583	0.000

Panel B: Non-Favored Sample Matched Group Characteristics and Comparison of Means

Variable	N	Mean	Median	Std Dev	5th	25th	75th	95th	p- value for difference in means
LOGSIZE	8602	4.818	4.609	2.283	1.393	3.158	6.327	8.790	0.599
MA/BA	7305	2.033	1.251	4.831	0.688	0.947	1.988	5.365	0.398
LEVERAGE	8510	0.250	0.211	0.252	0.000	0.064	0.376	0.642	0.673
ASSET TANG	8491	0.281	0.217	0.248	0.007	0.071	0.423	0.792	0.000
RTE	8501	-0.161	0.110	1.655	-1.774	-0.048	0.310	0.588	0.899
TE	8588	0.433	0.447	0.446	0.051	0.263	0.640	0.876	0.126
ROA	7600	0.068	0.115	0.382	-0.336	0.042	0.179	0.290	0.526
CASH	7659	0.151	0.066	0.204	0.004	0.023	0.186	0.642	0.088

Panel C: Winning Sample Matched Group Characteristics and Comparison of Means

Variable	N	Mean	Median	Std Dev	5th	25th	75th	95th	p- value for difference in means
LOGSIZE	10324	4.693	4.480	2.210	1.388	3.106	6.137	8.606	0.587
MA/BA	9023	1.958	1.204	6.745	0.695	0.936	1.897	4.658	0.255
LEVERAGE	10239	0.253	0.215	0.321	0.000	0.072	0.375	0.643	0.080
ASSET TANG	10230	0.293	0.233	0.248	0.008	0.087	0.437	0.802	0.043
RTE	10204	-0.143	0.124	1.707	-1.599	-0.029	0.323	0.596	0.154
TE	10316	0.442	0.457	0.564	0.054	0.277	0.642	0.867	0.270
ROA	9344	0.075	0.114	0.284	-0.288	0.041	0.177	0.294	0.806
CASH	9401	0.143	0.066	0.188	0.004	0.023	0.184	0.572	0.000

Panel D: Losing Sample Matched Group Characteristics and Comparison of Means

Variable	N	Mean	Median	Std Dev	5th	25th	75th	95th	p-value for difference in means
LOGSIZE	8137	4.898	4.744	2.246	1.414	3.304	6.410	8.761	0.627
MA/BA	6889	1.981	1.221	4.795	0.670	0.937	1.929	5.109	0.449
LEVERAGE	8030	0.246	0.205	0.262	0.000	0.058	0.372	0.645	0.805
ASSET TANG	8008	0.275	0.209	0.246	0.007	0.070	0.413	0.787	0.000
RTE	8036	-0.222	0.099	2.036	-1.988	-0.070	0.303	0.602	0.007
TE	8116	0.431	0.448	0.478	0.046	0.261	0.647	0.881	0.110
ROA	7153	0.062	0.113	0.381	-0.344	0.037	0.175	0.287	0.113
CASH	7228	0.158	0.067	0.209	0.004	0.023	0.198	0.657	0.001

#### Table 9 (Appendix)

# Comparison of Mean Cumulative Abnormal Returns between the Main Sample and Its Match

This table contains the matched sample results. Each firm is matched by year, industry and firm characteristics and every matched firm appears only once in a given year. We first match by the 4 digit SIC codes. The asset ratio between the matched and treated firm has to be within the 0.7-1.3 band. If no match is found, the SIC codes are then lowered to a 3-digit and 2 digit match while the same asset ratio band is used. We also eliminate firms from surrounding states. Returns are measured daily for a 9-trading-day window around 42 Super Bowls between 1967 and 2010. The "Mean Cumulative Abnormal Returns" column shows the window close-to-close value-weighted average abnormal return (CAR) for all firms headquartered in states that house non-favored, favored, winning, and losing Super Bowl teams. The CAR comes from a four-factor model with 252-day estimation period that ends 46 days prior to the Super Bowl event. Panel A and B shows the *Favored and Non-Favored* sample with its respective matched group, while panels C and D show the *Winning* and *Losing* Sample. All values are in percentages. Statistical significance is based on Brown and Warner's (1980) portfolio time-series t-statistic (CDA). \*\*\*,\*\*,\* Indicates significance at 1%, 5%, 10% levels.

Panel A: Favored Sample and its Matched Group

	Mean	Mean Cumulative Abnormal Return						
		Days						
	(-9,-1)	(0,+9)	(-9,+9)					
Favored	0.95***	0.40***	1.35***					
(n=9,919)								
Matched	0.50***	0.09	0.59**					
(n=9845)								
Difference	0.45*	0.31	0.76**					
p-value	0.092	0.109	0.049					

Panel B: Non-Favored Sample and its Matched Group

	Mean	Cumulative Abnormal	Return					
	Days							
	(-9,-1)	(0,+9)	(-9,+9)					
Non-Favored	0.98***	-0.07	0.91***					
(n=8,684)								
Matched	0.51***	-0.01	0.50*					
(n=8,602)								
Difference	0.47*	-0.06	-0.41					
p-value	0.096	0.856	0.354					

Panel C: Winning Sample and its Matched Group

	Mear	Mean Cumulative Abnormal Return							
	Days								
	(-9,-1)	(0,+9)	(-9,+9)						
Winning	1.03***	0.33**	1.36***						
(n=10,412)									
Matched	0.50***	0.13	0.64**						
(n=10,324)									
Difference	0.53**	0.20	0.72**						
p-value	0.039	0.228	0.027						

Panel D: Losing Sample and its Matched Group

	Mean Cumulative Abnormal Return Days		
	(-9,-1)	(0,+9)	(-9,+9)
Losing	0.87***	0.00	0.87***
(n=8,191)			
Matched	0.48**	0.19	0.67**
(n=8,137)			
Difference	0.39*	-0.19	0.20
p-value	0.087	0.484	0.631