Fake News, Investor Attention, and Market Reaction

Online Appendix

Jonathan Clarke, Hailiang Chen, Ding Du, and Yu Jeffrey Hu

Table A1. Investor Attention to Fake News: *ReadCommentDummy*

VARIABLES	(1) *Log(ReadComment)* OLS	(2) *ReadComment Dummy* OLS	(3) *ReadComment Dummy* Probit	(4) *ReadComment Dummy* Logit
Fake	-0.287	-0.089	-0.122	-0.166
	(0.387)	(0.072)	(0.294)	(0.512)
Log(Length)	0.333	0.054	0.460	0.726
	(0.315)	(0.065)	(0.284)	(0.499)
%NegWord	-0.051	-0.021	0.008	0.003
	(0.288)	(0.053)	(0.214)	(0.359)
Premium	-0.130	-0.075	-0.323	-0.511
	(0.304)	(0.058)	(0.223)	(0.378)
EditorPick	-1.130***	-0.221***	-1.292***	-2.211**
	(0.383)	(0.079)	(0.454)	(0.863)
Log(Comment)	0.434***	0.057**	0.073	0.112
	(0.133)	(0.026)	(0.096)	(0.158)
%NegFactiva	0.004	0.016	-0.134	-0.209
	(0.401)	(0.068)	(0.228)	(0.381)
Factiva	0.566	0.120*	0.641**	1.075**
	(0.346)	(0.068)	(0.261)	(0.444)
PosEA	-0.778	-0.258*		
	(0.611)	(0.140)		
NegEA	-0.708	-0.168	-0.415	-0.747
	(0.863)	(0.146)	(0.879)	(1.580)
Log(Size)	-0.312*	-0.063	-0.539***	-0.900***
	(0.190)	(0.043)	(0.153)	(0.275)
Market-to-Book	0.002	0.000	0.048***	0.076**
	(0.002)	(0.000)	(0.018)	(0.033)
ROA	0.412**	0.067	0.188	0.329
	(0.188)	(0.043)	(0.153)	(0.262)
LEV	0.099	0.020	0.270**	0.447**
	(0.148)	(0.034)	(0.129)	(0.215)
$ARet_{-30,-1}$	-0.703**	-0.073	-0.380	-0.661
	(0.313)	(0.083)	(0.299)	(0.641)
Constant	-1.248	-0.099	-2.062	-3.115
	(2.428)	(0.523)	(2.052)	(3.674)
Sector FE	Yes	Yes	No	No
Quarter FE	Yes	Yes	No	No
Observations	172	172	171	171
Adj./Pseudo R^2	0.426	0.427	0.179	0.177

Notes: *, **, and *** indicate p<0.1, p<0.05, and p<0.01, respectively. Robust t-statistics are presented in parentheses.

As a robustness test, we construct a dummy variable, *ReadCommentDummy*, to denote whether an article has its comments read by at least one visitor. The mean of this dummy variable is 0.308, which implies that 30.8% of articles have their comments read by at least one visitor. The standard deviation is 0.463, so there is also significant variation in this dummy variable. In Table A1, we present the results from the robustness test that uses this dummy variable as the dependent variable. Columns (2) to (4) present the results for OLS, Probit, and Logit regressions, respectively. Because *PosEA*!=0 perfectly predicts the outcome, so one observation is dropped and *PosEA* is not included in the Probit and Logit regressions (Columns 3 and 4). As a comparison, Column (1) presents the results for when *Log(ReadComment)* is the dependent variable, which are the same as in Column (4) of Table 3 in the paper.

We obtain similar results when the dependent variable is a dummy variable, which has a significant level of variation. In short, we do not observe any significant difference between fake news articles and legitimate news articles in terms of how frequently and whether or not the article comments are read by visitors.

Table A2. Summary Statistics: Before and After Matching

Variable	#Obs	Median	Mean	Std. Dev.	Min	Max
Panel A. Before Matching						
Treatment group						
Log(Size)	322	3.661	3.538	0.729	1.904	4.843
Market-to-Book	322	2.186	-12.075	67.329	-335.723	19.507
ROA	322	-0.662	-3.580	16.562	-144.069	-0.193
LEV	322	0.556	9.647	57.007	0.272	391.310
$ARet_{-30,-1}$	322	0.025	0.117	0.347	-0.494	1.487
ConsumerGoods	322	0	0.019	0.135	0	1
Healthcare	322	1	0.724	0.448	0	1
Control group						
Log(Size)	14196	8.829	8.593	2.286	0.638	12.354
Market-to-Book	14196	3.784	10.565	65.443	-4027.244	713.515
ROA	14196	0.061	-0.085	2.337	-154.859	0.496
LEV	14196	0.591	0.660	3.609	0.014	247.099
$ARet_{-30,-1}$	14196	0.005	0.022	0.227	-0.907	5.855
ConsumerGoods	14196	0	0.295	0.456	0	1
Healthcare	14196	0	0.182	0.386	0	1
Panel B. After Matching						
Treatment group						
Log(Size)	248	3.968	3.767	0.582	1.904	4.843
Market-to-Book	248	2.186	-2.615	38.621	-335.723	19.507
ROA	248	-0.636	-0.892	1.342	-10.912	-0.193
LEV	248	0.495	0.730	0.782	0.272	6.431
$ARet_{-30,-1}$	248	0.038	0.122	0.324	-0.494	1.406
ConsumerGoods	248	0	0.024	0.154	0	1
Healthcare	248	1	0.899	0.302	0	1
Control group						
Log(Size)	248	3.646	3.688	0.978	0.638	7.011
Market-to-Book	248	2.186	-11.679	257.831	-4027.244	470.114
ROA	248	-0.504	-1.072	1.944	-11.526	0.401
LEV	248	0.386	0.796	1.805	0.014	14.375
$ARet_{-30,-1}$	248	-0.012	0.129	0.653	-0.756	4.528
ConsumerGoods	248	0	0.016	0.126	0	1
Healthcare	248	1	0.927	0.260	0	1

In Table A2, we present the summary statistics for variables in the matching procedure for the treatment and control groups separately and for both before- and after-matching.