Online Appendix: Additional Tables

Table A1: News and Proportions of Early/Late Announcers of Lottery Z-score Portfolios

Each quarter, firms with earnings announcements in that quarter are sorted into five portfolios based on the lottery composite z-score from the month prior to the announcement date. Panel A reports the equal-weighted average (-1,+1) three-day cumulative abnormal returns (CAR) and median standardized unexpected earnings (SUE) of these lottery portfolios, as well as the differences between the top and bottom quintile portfolios. SUE is calculated by taking the difference between actual quarterly earnings per share and the most recent median consensus EPS forecast of analysts for that quarter normalized by assets per share at previous quarter end. Lottery composite z-score is defined as in Table **??**. We exclude stocks with a price of less than $1 per share at the end of the month prior to the earnings announcements. The sample period is from 1972 to 2014 except for SUE, which is from 1985 to 2014. CAR and SUE are reported in percentages. The t-statistics are calculated based on the heteroskedasticity-consistent standard errors of White (1980) for CAR and the heteroskedasticity-adjusted standard errors of Newey-West (1987) for SUE. Panel B reports the percentage of firms making earnings announcements more than one day before (Early) and more than one day after (Late) the expected earnings announcement dates for these lottery portfolios. Expected earnings announcement dates are calculated by adding the historical reporting lag to the current fiscal quarter end. The historical reporting lag is the median number of trading days between a firm's fiscal quarter end and its actual announcement dates for the same fiscal quarter over the previous five years.

	Panel A: News		Panel B: % of Announcers	
	CAR	SUE	Early	Late
Q1	0.213	0.021	28.45	28.04
Q2	0.344	0.022	31.68	29.56
Q3	0.259	0.016	33.33	31.96
Q4	0.123	-0.019	33.60	35.62
Q5	0.107	-0.144	31.18	42.03
Q5-Q1	-0.106	-0.165	2.74	13.99
t-stat	(-1.33)	(-3.99)		

Table A2: Fama-MacBeth Regressions Controlling for Forecast Dispersion

Every quarter, we run two cross-sectional regressions of (-5,-1) pre-event excess returns (Panel A) and (+1,+5) post-event excess returns (Panel B) on lagged variables. The time-series average of the regression coefficients is reported. Analyst forecast dispersion is the standard deviation of all valid forecasts of next quarter's EPS during the period 90 days prior to the announcement date to 10 days prior to the announcement date, scaled by the absolute value of the mean forecast during the same period. Lottery proxies are defined as in Table **??**, and other control variables are defined as in Table **??**. The intercept of the regression is not reported. Independent variables (except returns) are winsorized at their cross-sectional 1st and 99th percentiles. We exclude stocks with a price of less than $1 per share at the end of the month prior to the earnings announcements. The sample period is from 1985 to 2014 except for Skewexp, which is from 1988 to 2014. The t-statistics are calculated based on the heteroskedasticity-consistent standard errors of White (1980).

Proxy=	Maxret	Skewexp	Prc	Jackpotp	Ivol	Z-score
Panel A: (-5,-1) Pre-event Regression						
Proxy	4.291	0.263	0.276	24.035	12.133	0.372
	(3.77)	(2.17)	(4.36)	(2.79)	(3.23)	(3.83)
LOGMB	0.057	0.071	0.088	0.052	0.053	0.045
	(1.22)	(1.61)	(1.80)	(1.18)	(1.16)	(1.02)
LOGME	-0.015	-0.038	0.026	0.022	-0.005	0.047
	(-0.78)	(-2.01)	(1.31)	(0.88)	(-0.23)	(2.36)
MOM(-1,0)	-0.617	-0.246	-0.108	-0.079	-0.309	-0.336
	(-1.76)	(-0.83)	(-0.35)	(-0.26)	(-0.99)	(-1.08)
MOM(-12,-1)	0.330	0.336	0.392	0.343	0.332	0.387
	(3.18)	(2.72)	(3.76)	(3.21)	(3.24)	(3.69)
MOM(-36,-12)	-0.012	-0.004	0.012	-0.012	-0.015	-0.013
	(-0.38)	(-0.15)	(0.36)	(-0.38)	(-0.48)	(-0.42)
Dispersion	-0.017	-0.001	-0.020	-0.020	-0.023	-0.037
	(-0.42)	(-0.03)	(-0.52)	(-0.55)	(-0.59)	(-0.99)
Panel B: (+1,+5) Post-event Regression						
Proxy	-6.723	-0.588	-0.393	-44.185	-22.924	-0.483
	(-5.45)	(-4.73)	(-5.32)	(-5)	(-6.29)	(-5.63)
LOGMB	-0.037	-0.059	-0.070	-0.023	-0.027	-0.017
	(-0.82)	(-1.24)	(-1.49)	(-0.54)	(-0.59)	(-0.37)
LOGME	0.032	-0.010	-0.029	-0.033	0.015	-0.057
	(1.55)	(-0.45)	(-1.28)	(-1.29)	(0.73)	(-2.69)
MOM(-1,0)	-0.064	-0.626	-0.893	-0.697	-0.583	-0.507
	(-0.2)	(-2.18)	(-3.27)	(-2.41)	(-2.05)	(-1.77)
MOM(-12,-1)	-0.347	-0.438	-0.447	-0.394	-0.345	-0.389
	(-3.77)	(-4.39)	(-4.87)	(-4.23)	(-3.84)	(-4.29)
MOM(-36,-12)	0.028	0.030	-0.017	0.018	0.024	0.020
	(0.78)	(0.82)	(-0.49)	(0.53)	(0.69)	(0.58)
Dispersion	-0.049	-0.082	-0.022	-0.058	-0.037	-0.008
	(-1.02)	(-1.61)	(-0.46)	(-1.21)	(-0.77)	(-0.16)

Table A3: Alternative Definition of Earnings Announcement Dates

Each quarter, firms with earnings announcements in that quarter are sorted into five portfolios based on each of six lottery proxies from the month prior to the announcement date. If the announcement date is in the first 10 trading days of a month, we lag one more month for the proxies. We report equal-weighted excess returns of these lottery portfolios, as well as the differences between the top and bottom quintile portfolios during the (-5,-1) pre-event period in Panel A and the (0,+5) post-event period in Panel B, with day 0 referring to the earnings announcement date. The earnings announcement date is defined following Engelberg, McLean, and Pontiff (2018): for each firm, we first compute its daily trading volume scaled by market trading volume for each day before, the day of, and the day after the reported earnings announcement date from the Compustat quarterly database. The highest relative trading volume day among these three days is treated as the earnings announcement day. Lottery proxies are defined as in Table **??**. We exclude stocks with a price of less than $1 per share at the end of the month prior to the earnings announcements. The sample period is from 1972 to 2014 except for Skewexp, which is from 1988 to 2014. Excess returns are reported in percentages. The t-statistics are calculated based on the heteroskedasticity-consistent standard errors of White (1980).

Proxy=	Maxret	Skewexp	Prc	Jackpotp	Ivol	Z-score
Panel A: (-5,-1) Pre-event Excess Return						
Q1	0.090	0.184	0.109	0.038	0.074	0.037
Q2	0.159	0.146	0.132	0.139	0.121	0.168
Q3	0.268	0.189	0.171	0.234	0.260	0.216
Q4	0.370	0.346	0.258	0.416	0.386	0.343
Q5	0.417	0.589	0.634	0.616	0.461	0.538
Q5-Q1	0.327	0.405	0.526	0.578	0.387	0.501
t-stat	(3.42)	(3.64)	(5.65)	(5.4)	(3.68)	(4.59)
Panel B: (0,+5) Post-event Excess Return						
Q1	0.293	0.203	0.231	0.225	0.303	0.300
Q2	0.334	0.226	0.219	0.308	0.328	0.325
Q3	0.132	0.172	0.098	0.182	0.182	0.189
Q4	-0.016	-0.091	-0.132	-0.018	-0.103	-0.142
Q5	-0.493	-0.290	-0.165	-0.287	-0.460	-0.423
Q5-Q1	-0.786	-0.493	-0.396	-0.512	-0.763	-0.723
t-stat	(-6.87)	(-3.5)	(-3.55)	(-3.91)	(-6.1)	(-5.55)

Table A4: Pre-event and Post-event Portfolio Returns, Controlling for Alternative Attention Proxies

Each quarter, firms with earnings announcements in that quarter are sequentially sorted into 25 5-by-5 portfolios based first on each of the three attention proxies and then on each of six lottery proxies. We further collapse across the attention groups and obtain five attention-adjusted lottery portfolios. The sorting variables are from the month prior to the announcement date. If the announcement date is in the first 10 trading days of a month, we lag one more month for the proxies. We report equal-weighted excess returns of the bottom and top quintile lottery portfolios as well as their differences during the (-5,-1) pre-event period in Panel A and the (+1,+5) post-event period in Panel B, with day 0 referring to the earnings announcement date. We consider three attention proxies: Abnormal turnover is computed as the difference in average daily turnover between the (-5,-1) window and the (-50,-6) benchmark window. Abnormal volume is computed as average daily trading volume during the (-5,-1) window divided by the average daily volume during the (-50,-6) benchmark window. Recency is the inverse of one plus the number of trading days between the Maxret day and the last trading day in the previous month. Lottery proxies are defined as in Table **??**. We exclude stocks with a price of less than $1 per share at the end of the month prior to the earnings announcements. The sample period is from 1972 to 2014 except for Skewexp, which is from 1988 to 2014. Excess returns are reported in percentages. The t-statistics are calculated based on the heteroskedasticity-consistent standard errors of White (1980). We only report the top and bottom quintile lottery portfolios and their difference to save space.

Proxy=	Maxret	Skewexp	Prc	Jackpotp	Ivol	Z-score
Panel A: (-5,-1) Pre-event Excess Return						
Panel A.1: Abnormal Turnover						
Q1	0.134	0.213	0.147	0.080	0.105	0.085
Q5	0.556	0.738	0.733	0.747	0.631	0.689
Q5-Q1	0.422	0.525	0.586	0.667	0.526	0.604
t-stat	(4.6)	(4.59)	(6.08)	(6.03)	(5.03)	(5.45)
Panel A.2: Abnormal Volume						
Q1	0.091	0.188	0.136	0.068	0.071	0.060
Q5	0.583	0.615	0.611	0.672	0.616	0.632
Q5-Q1	0.492	0.427	0.475	0.604	0.545	0.572
t-stat	(4.94)	(3.73)	(5.11)	(5.59)	(4.89)	(5.11)
Panel A.3: Recency						
Q1	0.125	0.235	0.155	0.070	0.109	0.072
Q5	0.463	0.646	0.684	0.651	0.505	0.592
Q5-Q1	0.338	0.411	0.529	0.580	0.396	0.520
t-stat	(3.49)	(3.57)	(5.5)	(5.32)	(3.66)	(4.68)

Proxy=	Maxret	Skewexp	Prc	Jackpotp	Ivol	Z-score
Panel B: (+1,+5) Post-event Excess Return						
Panel B.1: Abnormal Turnover						
Q1	0.102	0.072	0.084	0.117	0.130	0.162
Q5	-0.537	-0.613	-0.446	-0.482	-0.515	-0.566
Q5-Q1	-0.638	-0.685	-0.530	-0.599	-0.645	-0.727
t-stat	(-6.78)	(-5.71)	(-5.52)	(-5.58)	(-6.1)	(-6.42)
Panel B.2: Abnormal Volume						
Q1	0.102	0.047	0.074	0.097	0.136	0.175
Q5	-0.588	-0.584	-0.455	-0.469	-0.559	-0.554
Q5-Q1	-0.689	-0.630	-0.530	-0.566	-0.694	-0.728
t-stat	(-6.92)	(-5.22)	(-5.71)	(-5.31)	(-6.5)	(-6.49)
Panel B.3: Recency						
Q1	0.127	0.070	0.086	0.108	0.139	0.176
Q5	-0.602	-0.597	-0.447	-0.503	-0.592	-0.603
Q5-Q1	-0.729	-0.667	-0.532	-0.611	-0.731	-0.779
t-stat	(-7.25)	(-5.41)	(-5.72)	(-5.43)	(-6.66)	(-6.83)

Table A5: Retail Order Imbalance, Controlling for Alternative Attention Proxies

This table reports the difference in the change in the retail order imbalance (RIMB) between top and bottom quintile lottery portfolios during the (-5,-1) pre-event period in Panel A and the (+1,+5) post-event period in Panel B, controlling for alternative attention proxies. Each quarter, firms with earnings announcements in that quarter are first sorted into five quintiles according to each of the attention proxies; within each quintile, stocks are then sorted into five groups according to each of six lottery proxies; and finally we collapse across the attention groups and obtain five attention-adjusted lottery portfolios. We consider three attention proxies: abnormal turnover, abnormal volume, and recency. Change in RIMB is defined as in Table **??**, lottery proxies are defined as in Table **??**, and attention proxies are defined the same as in Table A4. We only include NYSE and AMEX common stocks and require the price to be at least $1 at the end of the month prior to the earnings announcements. The sample period is from 1983 to 2000 except for Skewexp, which is from 1988 to 2000. The t-statistics are calculated based on the heteroskedasticity-adjusted standard errors of Newey-West (1987). We only report the difference between the top and bottom quintile lottery portfolios, to save space.

Proxy=	Maxret	Skewexp	Prc	Jackpotp	Ivol	Z-score
Panel A: (-5,-1) Pre-event Window						
Panel A.1: Controlling for Abnormal Turnover						
Q5-Q1	1.442	1.206	3.104	2.457	2.988	2.904
t-stat	(3.31)	(1.63)	(5.23)	(3.7)	(5.9)	(4.8)
Panel A.2: Controlling for Abnormal Volume						
Q5-Q1	1.764	1.301	2.959	2.854	3.420	3.323
t-stat	(4.05)	(1.64)	(4.61)	(4.54)	(7.27)	(5.75)
Panel A.3: Controlling for Recency						
Q5-Q1	1.293	1.216	2.950	2.671	2.976	2.976
t-stat	(2.95)	(1.55)	(4.64)	(3.99)	(6.28)	(4.78)
Panel B: (+1,+5) Post-event Window						
Panel B.1: Controlling for Abnormal Turnover						
Q5-Q1	-0.247	0.107	1.075	0.333	0.802	0.619
t-stat	(-0.59)	(0.19)	(1.84)	(0.57)	(1.55)	(1.13)
Panel B.2: Controlling for Abnormal Volume						
Q5-Q1	-0.211	0.034	1.025	0.337	1.057	0.864
t-stat	(-0.57)	(0.06)	(1.74)	(0.59)	(2.02)	(1.62)
Panel B.3: Controlling for Recency						
Q5-Q1	-0.390	-0.173	1.125	0.470	0.827	0.551
t-stat	(-0.98)	(-0.3)	(1.85)	(0.8)	(1.65)	(0.99)

Table A6: Pre-event Portfolio Returns among Good/Neutral/Bad News Announcers

Each quarter, firms with earnings announcements in that quarter are sorted into five portfolios based on each of six lottery proxies from the month prior to the announcement date. If the announcement date is in the first 10 trading days of a month, we lag one more month for the proxies. Panel A uses (-1,+1) three-day cumulative abnormal returns (CAR) as the measure of news and reports equal-weighted excess returns of the bottom and top quintile lottery portfolios and their differences during the (-5,-1) pre-event period within the subsample of good news (Panel A.1) and bad news (Panel A.2) announcers. Good and bad news announcers are firms whose CAR measures are positive and negative, respectively. Panel B uses earnings surprise (SUE) as the measure of news and reports equal-weighted excess returns of these lottery portfolios and the differences between the top and bottom quintile portfolios during the (-5,-1) pre-event period within the subsample of good news (Panel B.1), neutral news (Panel B.2), and bad news (Panel B.3) announcers. Good, neutral, and bad news announcers are firms whose SUE measures are positive, zero, and negative, respectively. SUE is calculated by taking the difference between actual quarterly earnings per share and the most recent median consensus EPS forecast of analysts for that quarter normalized by assets per share at previous quarter end. Lottery proxies are defined as in Table 1. We exclude stocks with a price of less than $1 per share at the end of the month prior to the earnings announcements. The sample period is from 1972 to 2014 in Panel A and from 1985 to 2014 in Panel B, except for Skewexp, which is from 1988 to 2014. Excess returns are reported in percentages. The t-statistics are calculated based on the heteroskedasticity-consistent standard errors of White (1980). We only report the top and bottom quintile lottery portfolios and their difference to save space.

Proxy=	Maxret	Skewexp	Prc	Jackpotp	Ivol	Z-score
Panel A: CAR as the Measure of News						
Panel A.1: Good News Announcers						
Q1	0.738	0.691	0.710	0.568	0.673	0.564
Q5	1.576	1.628	1.922	1.911	1.699	1.838
Q5-Q1	0.838	0.938	1.212	1.343	1.027	1.274
t-stat	(7.74)	(8.02)	(12.31)	(11.21)	(9.05)	(11)
Panel A.2: Bad News Announcers						
Q1	-0.535	-0.268	-0.459	-0.442	-0.514	-0.465
Q5	-0.533	-0.241	-0.402	-0.423	-0.526	-0.470
Q5-Q1	0.003	0.027	0.057	0.019	-0.012	-0.005
t-stat	(0.03)	(0.23)	(0.57)	(0.17)	(-0.11)	(-0.05)
Panel B: SUE as the Measure of News						
Panel B.1: Good News Announcers						
Q1	0.359	0.630	0.457	0.328	0.288	0.272
Q5	1.321	1.302	1.409	1.464	1.401	1.470
Q5-Q1	0.963	0.672	0.952	1.137	1.114	1.198
t-stat	(6.00)	(4.32)	(6.38)	(6.56)	(6.34)	(6.31)
Panel B.2: Neutral News Announcers						
Q1	0.010	-0.044	-0.093	0.048	0.035	-0.030
Q5	0.655	0.677	0.688	0.827	0.763	0.770
Q5-Q1	0.645	0.721	0.781	0.779	0.729	0.800
t-stat	(3.33)	(3.74)	(4.13)	(3.56)	(3.31)	(3.51)
Panel B.3: Bad News Announcers						
Q1	-0.315	-0.349	-0.308	-0.296	-0.292	-0.280
Q5	-0.501	-0.304	-0.276	-0.371	-0.441	-0.436
Q5-Q1	-0.186	0.045	0.032	-0.074	-0.149	-0.156
t-stat	(-1.15)	(0.29)	(0.19)	(-0.39)	(-0.83)	(-0.83)

Table A7: News among Good/Bad News Announcers

Each quarter, firms with earnings announcements in that quarter are sorted into five portfolios based on each of six lottery proxies from the month prior to the announcement date. If the announcement date is in the first 10 trading days of a month, we lag one more month for the proxies. Panel A uses (-1,+1) three-day cumulative abnormal returns (CAR) as the measure of news and reports equal-weighted CAR of the top and bottom quintile lottery portfolios and their differences during the (-5,-1) pre-event period within the subsample of good news (Panel A.1), and bad news (Panel A.2) announcers. Good and bad news announcers are firms whose CAR measures are positive and negative, respectively. Panel B uses standardized unexpected earnings (SUE) as the measure of news and reports median SUE of the top and the bottom quintile lottery portfolios and their differences during the (-5,-1) pre-event period within the subsample of good news (Panel B.1) and bad news (Panel B.2) announcers. Good and bad news announcers are firms whose SUE measures are positive and negative, respectively. SUE is calculated by taking the difference between actual quarterly earnings per share and the most recent median consensus EPS forecast of analysts for that quarter normalized by assets per share at previous quarter end. Lottery proxies are defined as in Table 1. We exclude stocks with a price of less than $1 per share at the end of the month prior to the earnings announcements. The sample period is from 1972 to 2014 in Panel A and from 1985 to 2014 in Panel B, except for Skewexp, which is from 1988 to 2014. CAR and SUE are reported in percentages. The t-statistics are calculated based on the heteroskedasticity-consistent standard errors of White (1980) in Panel A and Newey-West (1987) in Panel B. We only report the top and bottom quintile lottery portfolios and their difference to save space.

Proxy=	Maxret	Skewexp	Prc	Jackpotp	Ivol	Z-score
Panel A: CAR as the Measure of News						
Panel A.1: Good News Announcers						
Q1	3.574	4.673	3.794	3.267	3.265	3.158
Q5	7.807	8.786	8.411	8.819	8.276	8.504
Q5-Q1	4.233	4.113	4.618	5.552	5.011	5.346
t-stat	(39.07)	(24.03)	(40.56)	(46.37)	(43.92)	(45.64)
Panel A.2: Bad News Announcers						
Q1	-3.224	-4.435	-3.581	-3.088	-2.913	-2.937
Q5	-6.709	-7.157	-6.686	-7.110	-6.958	-6.972
Q5-Q1	-3.485	-2.722	-3.105	-4.022	-4.045	-4.035
t-stat	(-41.15)	(-25.38)	(-49.29)	(-53.72)	(-47.58)	(-56.86)
Panel B: SUE as the Measure of News						
Panel B.1: Good News Announcers						
Q1	0.099	0.130	0.117	0.113	0.091	0.096
Q5	0.420	0.543	0.768	0.622	0.501	0.689
Q5-Q1	0.320	0.412	0.650	0.509	0.410	0.593
t-stat	(23.30)	(11.02)	(13.69)	(26.13)	(23.86)	(21.14)
Panel B.2: Bad News Announcers						
Q1	-0.121	-0.123	-0.113	-0.117	-0.098	-0.096
Q5	-0.715	-0.937	-1.208	-1.160	-0.889	-1.170
Q5-Q1	-0.595	-0.814	-1.095	-1.043	-0.790	-1.073
t-stat	(-25.46)	(-16.40)	(-17.47)	(-22.75)	(-25.18)	(-23.16)

Table A8: Aggregate mutual fund flows, hedge fund flows, and lottery spread

This table reports the coefficients of two quarterly time-series regressions of return spreads between the top and bottom lottery quintile portfolios on contemporaneous aggregate mutual fund flow (MFFLOW) and aggregate hedge fund flow (HFFLOW). Panel A is based on the (-5,-1) pre-event window, and Panel B is based on the (+1,+5) post-event window. Following Akbas, Armstrong, Sorescu, and Subrahmanyam (2015), monthly aggregate MFFLOW is defined as $MFFLOW_t = \frac{\sum_{i=1}^{N}[TNA_{i,t} - TNA_{i,t-1}(1+MRET_{i,t})]}{\sum_{i=1}^{N} TNA_{i,t-1}}$, where $TNA_{i,t}$ is the total net assets of mutual fund i in month t, $MRET_{i,t}$ is the monthly return of mutual fund i in month t, net of fees. Monthly aggregate HFFLOW is defined as $HFFLOW_t = \frac{\sum_{i=1}^{N}[TNA_{i,t} - TNA_{i,t-1}(1+HRET_{i,t})]}{\sum_{i=1}^{N} TNA_{i,t-1}}$, where $TNA_{i,t}$ is the total net assets of hedge fund i in month t, $HRET_{i,t}$ is the monthly return of hedge fund i in month t, net of fees. The quarterly MFFLOW and HFFLOW are the sum of monthly MFFLOW and HFFLOW within a quarter, respectively. Lottery proxies are defined as in Table **??**. The intercept is included but not reported to save space. The sample period is from 1994Q1 to 2014Q4. The t-statistics are calculated based on the heteroskedasticity-consistent standard errors of White (1980).

Proxy=	Maxret	Skewexp	Prc	Jackpotp	Ivol	Z-score
Panel A: (-5,-1) Pre-event Regression						
MFFLOW	0.336	0.144	0.224	0.302	0.287	0.271
	(2.76)	(1.49)	(1.95)	(2.44)	(2.21)	(2.1)
HFFLOW	-0.044	0.000	-0.043	-0.037	-0.037	-0.038
	(-0.93)	(-0.01)	(-0.99)	(-0.6)	(-0.78)	(-0.75)
Panel B: (+1,+5) Post-event Regression						
MFFLOW	0.499	0.474	0.565	0.612	0.631	0.667
	(5.28)	(5.16)	(6.21)	(5.56)	(6.19)	(5.89)
HFFLOW	-0.139	-0.100	-0.105	-0.119	-0.165	-0.149
	(-2.38)	(-2.86)	(-1.93)	(-2.03)	(-2.59)	(-2.34)