

## Internet Appendix to “Media Coverage and the Cross-section of Stock Returns”\*

In this document, we display additional statistics describing our dataset and tests confirming the robustness of our findings.

**Table IA.I**

### **Circulation Statistics of Our Newspaper Sample**

This table presents ranking and circulation statistics of our newspaper sample. Newspapers are ranked according to their average weekday paid circulation from April 1, 2002 to September 30, 2002. Our sample includes four out of the five top-ranked daily newspapers – *USA Today*, *Wall Street Journal*, *New York Times*, and *Washington Post*. The *Los Angeles Times* (not in our sample) ranks 4<sup>th</sup>. Sources: Individual newspaper data from the Audit Bureau of Circulations, aggregate U.S. data from Newspaper Association of America.

Rank	Newspaper	Average weekday circulation
1	USA Today	2,230,899
2	Wall Street Journal	1,800,607
3	New York Times	1,113,000
5	Washington Post	746,724
	Total sample	5,891,230
	Total U.S. daily newspapers	55,186,157
	Fraction of total U.S. daily newspapers	11%

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**Table IA.II**  
**Transition Matrices Between Media Coverage Types**

Panel A. Monthly transitions between three media groups (no, low, and high media coverage)

From:	To:		
	No Coverage	Low Coverage	High Coverage
No Coverage	83.26%	11.61%	5.13%
Low Coverage	64.11%	20.10%	15.79%
High Coverage	32.19%	19.10%	48.71%

Panel B. Transition probabilities between receiving media coverage (“Some media”) and not receiving any media coverage (“No media”) for various horizons

Monthly transition matrix		
	No media	Some media
No media	0.8325	0.1675
Some media	0.4937	0.5063
Stationary probability	0.7467	0.2533
Quarterly transition matrix		
	No media	Some media
No media	0.7875	0.2125
Some media	0.252	0.748
Stationary probability	0.5425	0.4575
Semi-annual transition matrix		
	No media	Some media
No media	0.7461	0.2539
Some media	0.1979	0.8021
Stationary probability	0.4380	0.5620
Annual transition matrix		
	No media	Some media
No media	0.7136	0.2864
Some media	0.1527	0.8473
Stationary probability	0.3478	0.6522

**Table IA.III**

**More Statistics and Analyses on the Media Coverage Variable:  
Media Coverage Statistics by Firm Characteristic**

This table presents newspaper coverage statistics for stock groups sorted on various characteristics. “All papers” refers to all four national newspapers in our sample: WSJ, NYT, WP, and USAT. Size is measured as the average market capitalization of equity over the previous calendar year. Book-to-market is measured as the book value of equity over market value of equity as of the previous year-end. Individual ownership is calculated as one minus the aggregate institutional ownership using 13f data. Current month return is the return in the same calendar month as the media coverage statistic. Current month absolute return is the absolute value of the current month return. Past month return is the stock return in the calendar month preceding the measurement of media coverage statistics. Quintile 1 in each sort represents the group of firms with the lowest value of each variable. Analyst coverage is measured by the number of analysts providing fiscal year-end forecasts for the firm. Three groups of firms are formed based on analyst coverage: group 0 refers to firms with no analyst coverage, group 1 refers to firms with below-median analyst coverage, and group 2 refers to firms with above-median analyst coverage.

Group	Unconditional coverage statistics (% of stocks covered by)					Conditional statistics (No. of articles)	
	All papers	WSJ	NYT	WP	USAT	Mean	Median
Panel A: Size							
1 (Small)	0.45	0.35	0.24	0.03	0.01	3.3	2
5 (Large)	0.92	0.79	0.86	0.37	0.17	28	14
Panel B: Individual ownership							
1 (Low)	0.79	0.66	0.63	0.15	0.06	11	6
5 (High)	0.59	0.48	0.45	0.10	0.06	13	5
Panel C: Analyst coverage							
0 (No)	0.45	0.35	0.28	0.05	0.03	7	3
1 (Low)	0.61	0.48	0.41	0.07	0.02	4.8	3
2 (High)	0.86	0.72	0.74	0.23	0.1	18	8
Panel D: Book-to-market							
1 (Low)	0.69	0.55	0.51	0.15	0.07	13	5
5 (High)	0.67	0.52	0.53	0.12	0.06	13	5
Panel E: Current month return							
1 (Low)	0.67	0.56	0.49	0.13	0.05	12	4
5 (High)	0.72	0.58	0.55	0.14	0.07	11	4
Panel F: Current month absolute return							
1 (Low)	0.68	0.54	0.52	0.12	0.05	11	5
5 (High)	0.7	0.57	0.52	0.14	0.06	12	4
Panel G: Past month return							
1 (Low)	0.67	0.56	0.48	0.12	0.05	10	4
5 (High)	0.7	0.56	0.53	0.15	0.06	12	5

**Table IA.IV****More Statistics and Analyses on the Media Coverage Variable:  
Determinants of Media Coverage by Subperiods**

This table investigates the determinants of media coverage for two equal-length subperiods, 1993 to 1997, and 1998 to 2002. The methodology and variable definitions are identical to those of Table II in the paper. In particular, in all regressions, Newey-West (1987) standard errors are used to correct for serial correlation.

	Model 1			Model 2		
	1993-1997	1998-2002	t-stat for difference	1993-1997	1998-2002	t-stat for difference
SIZE	1.154 (13.56)**	1.028 (24.71)**	1.33	1.158 (13.80)**	1.019 (24.62)**	1.49
B/M	0.268 (14.78)**	0.204 (14.87)**	2.81	0.265 (15.28)**	0.198 (19.37)**	3.33
ANALYST	-0.538 (5.80)*	-0.502 (4.63)**	-0.25	-0.544 (5.99)**	-0.483 (4.49)*	-0.43
INDIVIDUAL	0.117 -2.6	0.237 (3.67)*	-1.52	0.113 -2.55	0.229 (3.63)*	-1.50
DISPERSION	0.245 (4.96)*	0.206 -1.57	0.28	0.227 (5.16)*	0.2 -1.27	0.17
IDIO_VOL	51.166 (11.21)**	35.323 (3.85)*	1.55	50.808 (10.51)**	36.156 (4.55)*	1.58
ABS_PAST_RET	-0.105 -2	0.1 -0.56	-1.10			
PAST_RET				-0.127 -2.55	-0.044 -0.32	-0.57
CONSTANT	-14.711 (16.53)**	-13.732 (21.04)**	-0.89	-14.747 (16.72)**	-13.613 (21.47)**	-1.04

**Table IA.V****More Statistics and Analyses on the Media Coverage Variable:  
Determinants of Media Coverage, by Size Groups**

This table investigates the determinants of media coverage for different size groups. The methodology and variable definitions are identical to Table II of the revised draft except that we separately estimate the regression for three size portfolios. Newey-West (1987) standard errors are used to correct for serial correlation.

	Small Stocks		Medium Stock		Large Stocks	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
SIZE	0.1158 3.26**	0.1166 3.24**	0.2614 14.16***	0.2639 14.42***	2.1596 8.91***	2.1507 8.67***
B/M	0.0509 4.37***	0.0493 4.45***	0.0916 12.61***	0.0868 11.09***	0.379 7.96***	0.3721 7.86***
ANALYST	0.0213 0.82	0.0206 0.79	-0.0145 0.44	-0.0171 0.54	-0.8618 5.05***	-0.8426 4.62***
INDIVIDUAL	-0.0629 3.67***	-0.0636 3.66***	-0.1442 6.27***	-0.1456 6.37***	0.179 2.31**	0.1646 2.17*
DISPERSION	0.0587 2.00*	0.055 1.88*	0.1706 3.04**	0.1581 2.87**	0.5937 1.77	0.5539 1.49
IDIO_VOL	6.2558 3.59***	6.1993 3.48***	11.0102 6.89***	11 6.16***	84.3113 4.77***	85.5752 4.74***
ABS_PAST_RET	-0.0119 2.52**		-0.0226 1.15		0.0334 0.13	
PAST_RET		-0.0158 1.48		-0.0531 2.21*		-0.1692 0.8
CONSTANT	-1.4083 3.42***	-1.4152 3.39***	-3.3197 16.52***	-3.3422 16.64***	-30.655 9.77***	-30.533 9.48***

**Table IA.VI**

**Robustness Checks on Baseline Results:  
Portfolio Returns by Subperiods**

This table reports the media effect for two equal subperiods, 1993 to 1997, and 1998 to 2002. The methodology and variable definitions are identical to the baseline results in the paper (Table IV). This table shows that the “media effect” seems stronger in the first subperiod. But a scatter plot of the return series suggests that this may be due to larger return volatilities in the second period (see figure IA.1 below).

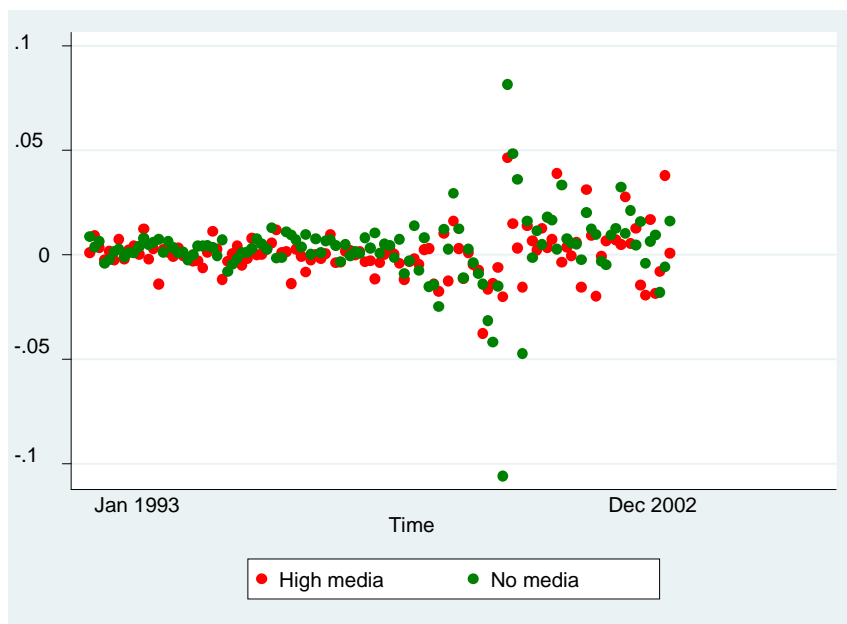
	First Period: 1993 - 1997				Second Period: 1998 - 2002			
	Panel A: Long no-media stocks, short high-media stocks							
	Model 1: CAPM	Model 2: 3-factor	Model 3: 4-factor	Model 4: PS Liquidity	Model 1: CAPM	Model 2: 3-factor	Model 3: 4-factor	Model 4: PS Liquidity
Mkt-Rf	-0.0966* [0.0879]	-0.0376 [0.3330]	-0.0416 [0.2993]	-0.0361 [0.3653]	-0.1530*** [0.0069]	-0.1463*** [0.0043]	-0.0972* [0.0505]	-0.0982* [0.0509]
SMB	--	0.4406*** [0.0000]	0.4432*** [0.0000]	0.4313*** [0.0000]	--	0.3626*** [0.0000]	0.3373*** [0.0000]	0.3397*** [0.0000]
HML	--	0.1539*** [0.0066]	0.1507*** [0.0086]	0.1431** [0.0120]	--	0.1435** [0.0263]	0.1722*** [0.0054]	0.1664** [0.0114]
UMD	--	--	0.0223 [0.6371]	0.0425 [0.3873]	--	--	0.0903*** [0.0037]	0.0979** [0.0197]
LIQ	--	--	--	-7.0168 [0.1636]	--	--	--	-1.1306 [0.7822]
Intercept	0.0034* [0.0594]	0.0029** [0.0117]	0.0028** [0.0193]	0.0027** [0.0212]	0.005 [0.1112]	0.0033 [0.1372]	0.002 [0.3499]	0.0019 [0.3837]
Observations	60	60	60	60	59	59	59	59
R <sup>2</sup>	0.05	0.67	0.67	0.68	0.12	0.58	0.64	0.64
	Panel B: Alphas for no-media stocks							
Intercept	0.0042* [0.0646]	0.0033*** [0.0000]	0.0036*** [0.0000]	0.0036*** [0.0000]	0.0075* [0.0828]	0.0036 [0.1145]	0.0053** [0.0117]	0.0050** [0.0183]
	Panel C: Alphas for high-media stocks							
Intercept	0.0009 [0.4434]	0.0004 [0.6261]	0.0008 [0.3721]	0.0009 [0.3275]	0.0025 [0.5361]	0.0003 [0.9175]	0.0033* [0.0579]	0.0031* [0.0780]

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**Figure IA.1**

**Robustness Checks on Baseline Results:  
Scatter Plot of the Long and Short Legs of the Portfolio Strategy**

The picture shows monthly returns on the high-media (red dots) and low-media (green dots) legs of the portfolio strategy. Returns in month  $t+1$  are displayed, when stocks are sorted on media coverage in month  $t$ . Returns on both legs of the portfolio became more noisy in the second subperiod.



**Table IA.VII****Robustness Checks on Baseline Results: Portfolio  
Results Using Bid-Ask Mid-point Returns**

This table reproduces our baseline media effect analysis (Table IV of the paper) using returns based on bid-ask midpoints rather than closing prices. Month-end bid and ask prices are obtained from the CRSP monthly stock file. Methodology and variable definitions are otherwise identical to Table VII in the paper.

	Model 1: CAPM	Model 2: FF 3-factor	Model 3: Carhart 4-factor	Model 4: PS Liquidity
Panel A: Long no-media stocks, short high-media stocks				
Mkt-Rf	-0.1136*** [0.0041]	-0.1032*** [0.0027]	-0.0714** [0.0302]	-0.0718** [0.0298]
SMB	--	0.3711*** [0.0000]	0.3529*** [0.0000]	0.3550*** [0.0000]
HML	--	0.1280*** [0.0048]	0.1458*** [0.0007]	0.1396*** [0.0020]
UMD	--	--	0.0900*** [0.0001]	0.0996*** [0.0011]
LIQ	--	--	--	-1.4143 [0.6294]
Intercept	0.0051*** [0.0051]	0.0043*** [0.0010]	0.0030** [0.0159]	0.0029** [0.0195]
Observations	119	119	119	119
R <sup>2</sup>	0.07	0.55	0.61	0.61
Panel B: Alphas for no-media coverage stocks				
Intercept	0.0066*** [0.0041]	0.0029* [0.0520]	0.0049*** [0.0005]	0.0046*** [0.0009]
Panel C: Alphas for high-media coverage stocks				
Intercept	0.0015 [0.4537]	-0.0014 [0.4005]	0.0019 [0.1048]	0.0017 [0.1537]



**Table IA.VIII**

**Robustness Checks on Baseline Results:  
Portfolio Results after Including the PIN Factor as an Additional Factor**

This table reports results of the media effect after including the PIN factor as an additional factor in our multivariate model. PIN factor data are obtained from Soeren Hvidkjaer's website. Methodology and variable definitions are otherwise identical to Table IV of the paper. This table shows that including the PIN factor does not diminish the alpha on the long-short portfolios.

	FF 3-factor Model	3-factor + PIN	4-Factor + PIN	5-factor + PIN
Mkt-RF	-0.1210*** [0.0003]	-0.1203*** [0.0003]	-0.0919*** [0.0043]	-0.0927*** [0.0040]
SMB	0.3752*** [0.0000]	0.3653*** [0.0000]	0.3494*** [0.0000]	0.3529*** [0.0000]
HML	0.1521*** [0.0006]	0.1381*** [0.0023]	0.1545*** [0.0004]	0.1419*** [0.0017]
PINF	--	-0.0009 [0.2162]	-0.0009 [0.2084]	-0.0009 [0.1889]
UMD	--	--	0.0805*** [0.0003]	0.0988*** [0.0008]
liq	--	--	--	-2.7167 [0.3391]
Intercept	0.0035*** [0.0048]	0.0037*** [0.0030]	0.0026** [0.0335]	0.0025** [0.0437]
Observations	119	119	119	119
R <sup>2</sup>	0.59	0.59	0.64	0.64
Panel B: Alphas for no-media coverage stocks				
Intercept	0.0024 [0.1018]	0.0027* [0.0735]	0.0045*** [0.0013]	0.0041*** [0.0025]
Panel C: Alphas for high-media coverage stocks				
Intercept	-0.0011 [0.4762]	-0.0011 [0.4962]	0.0019 [0.1145]	0.0017 [0.1650]

**Table IA.IX**

**Robustness Checks on Baseline Results:  
Portfolio Alphas – Earnings Months and Non-earnings Months**

This table reports the media effects for earnings months (January, April, July, and October) and non-earnings months. Methodology and variable definitions are identical to Table IV of the paper (baseline results). This table shows that the media effect is concentrated in non-earnings months. This is consistent with our finding that excluding earnings-related coverage actually leads to a stronger no-media premium (Panel B of Table VI), and our conclusion that the media effect is not driven by post-earnings announcement drift or other market reactions to earnings-related news.

	Non-earnings Months				Earnings Months			
	Model 1: CAPM	Model 2: FF 3-factor	Model 3: Carhart 4- factor	Model 4: PS Liquidity	Model 1: CAPM	Model 2: FF 3-factor	Model 3: Carhart 4- factor	Model 4: PS Liquidity
	Panel A: Long-short strategy alphas				Panel A: Long-short strategy alphas			
Mkt-Rf	-0.1917*** [0.0001]	-0.1563*** [0.0001]	-0.1290*** [0.0009]	-0.1289*** [0.0010]	-0.0777 [0.2244]	-0.0544 [0.3600]	-0.0288 [0.6290]	-0.0326 [0.5838]
SMB	--	0.3705*** [0.0000]	0.3632*** [0.0000]	0.3619*** [0.0000]	--	0.4101*** [0.0000]	0.3736*** [0.0000]	0.3680*** [0.0000]
HML	--	0.1341*** [0.0073]	0.1499*** [0.0018]	0.1527*** [0.0024]	--	0.2273** [0.0126]	0.2296*** [0.0100]	0.1919** [0.0419]
UMD	--	--	0.0776*** [0.0022]	0.0732** [0.0279]	--	--	0.0768* [0.0906]	0.1265* [0.0533]
LIQ	--	--	--	0.6899 [0.8418]	--	--	--	-5.8409 [0.2808]
Intercept	0.0054** [0.0105]	0.0053*** [0.0003]	0.0039*** [0.0063]	0.0040*** [0.0069]	0.003 [0.3616]	-0.0005 [0.8344]	-0.0008 [0.7541]	-0.0005 [0.8418]
Observations	79	79	79	79	40	40	40	40
R <sup>2</sup>	0.17	0.64	0.68	0.68	0.04	0.56	0.59	0.61
	Panel B: Alphas for no-media coverage stocks				Panel B: Alphas for no-media coverage stocks			
Intercept	0.0054* [0.0680]	0.0032* [0.0540]	0.0058*** [0.0001]	0.0055*** [0.0003]	0.0086** [0.0414]	0.0011 [0.7268]	0.0015 [0.6332]	0.0022 [0.4584]
	Panel C: Alphas for high-media coverage stocks				Panel C: Alphas for high-media coverage stocks			
Intercept	0.0001 [0.9839]	-0.0022 [0.2720]	0.0019 [0.2042]	0.0016 [0.3002]	0.0056* [0.0874]	0.0016 [0.5482]	0.0022 [0.3003]	0.0027 [0.2013]