
Rumor Has It: Sensationalism in Financial Media

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Kenneth Ahern

University of Southern California



Denis Sosyura

University of Michigan



Motivation

- News media plays a central role in financial markets
 - Provides new information to investors
 - Affects trading decisions
 - Serves as an intermediary between information and stock prices
- **How do newspapers choose which stories to publish?**

Newspapers Must Compete for Readership

- Incentives to report sensational news:
 - Attention-grabbing
 - Dramatic
 - Personal
 - Broad interest



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CEO Dependent: Independence Finds

BUSINESS

Indicted Ex-Chesapeake Energy CEO Aubrey McClendon Dies in Car Crash

56-year-old was killed after his vehicle hit a wall at speeds exceeding the local limit



Oklahoma City police said Wednesday that Mr. McClendon was found dead after driving into a concrete wall around 9 a.m. at a speed well above the 40-mph limit for the area. He was alone in the car.

Mr. McClendon was survived by his wife, Katie, and three children. He was 56.

Authorities were trying to determine whether the crash was the cause of death, or whether a health problem had figured in the accident. Police said it would take one to two weeks to complete their investigation.

"The vehicle was immediately engulfed in flames," said Capt. Paco Balderrama, of the Oklahoma City Police Department. "It appears that speed was most definitely a factor in the fatality."

Mr. McClendon was an archetype from a past era: an oil man with an endless appetite for risk who shrugged off personal and professional peaks and valleys as the cost of doing business.

This Paper

- Focus on one type of sensational business news – **merger rumors**
 - Broad interest: mergers affect employees, customers, and rivals
 - Potential for large gains: 15-20% target announcement returns
 - Secretive nature of negotiations
 - Newspaper can be the first to break the news
 - Speculative, lottery-like payoffs



Could GE Buy **Boeing**? It's Speculation Now, But Not Entirely Far-Fetched.

*“A scenario by which fiercely independent Boeing succumbs to an opportunistic corporate raider has been quietly percolating in certain corners of Wall Street. . .GE’s ambitious Chairman Jack Welch has been taking steps to position GE to make a major acquisition. . .Although he hasn’t said so explicitly, **Welch** appears to covet Boeing. Welch could offer the small group of institutional investors who control 43 percent of Boeing’s stock **\$50 a share**..”*



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Reader’s letter to the Editor: *In my opinion, your paper chose to give this story front-page attention only for the purpose of selling newspapers. Unfortunately, judging by the fact that The Times newspaper box was empty when I left work (this is the first time I’ve noticed this occurrence), you succeeded.*

Research Questions

- What predicts that a rumor will come true?
- Which characteristics of rumor articles are reflected in stock price response?
 - Newsworthiness of the target
 - Newspapers
 - Journalists
 - Details in the article text: alleged source, price, stage of negotiations

Rumor Articles

- Media articles in Factiva in 2000-2010
- Three steps to identify merger rumors:
 1. Search 33 major business publications for keywords: acquire, acquisition, merger, deal, takeover, buyout, or bid **and** rumor, rumour, said to be, in talks
 2. Read the article to ensure it is a merger rumor
 3. Trace the “scoop” article – the first report of the rumor – without any constraints on the type of media source (international, tabloids, etc.)
- Hand-match to public, private, and foreign mergers in SDC, including failed deals

Sample

Rumor articles	2,142
Journalists	798
Unique rumors	501
Media sources	105
Accuracy = offer for target within 1 year	33%

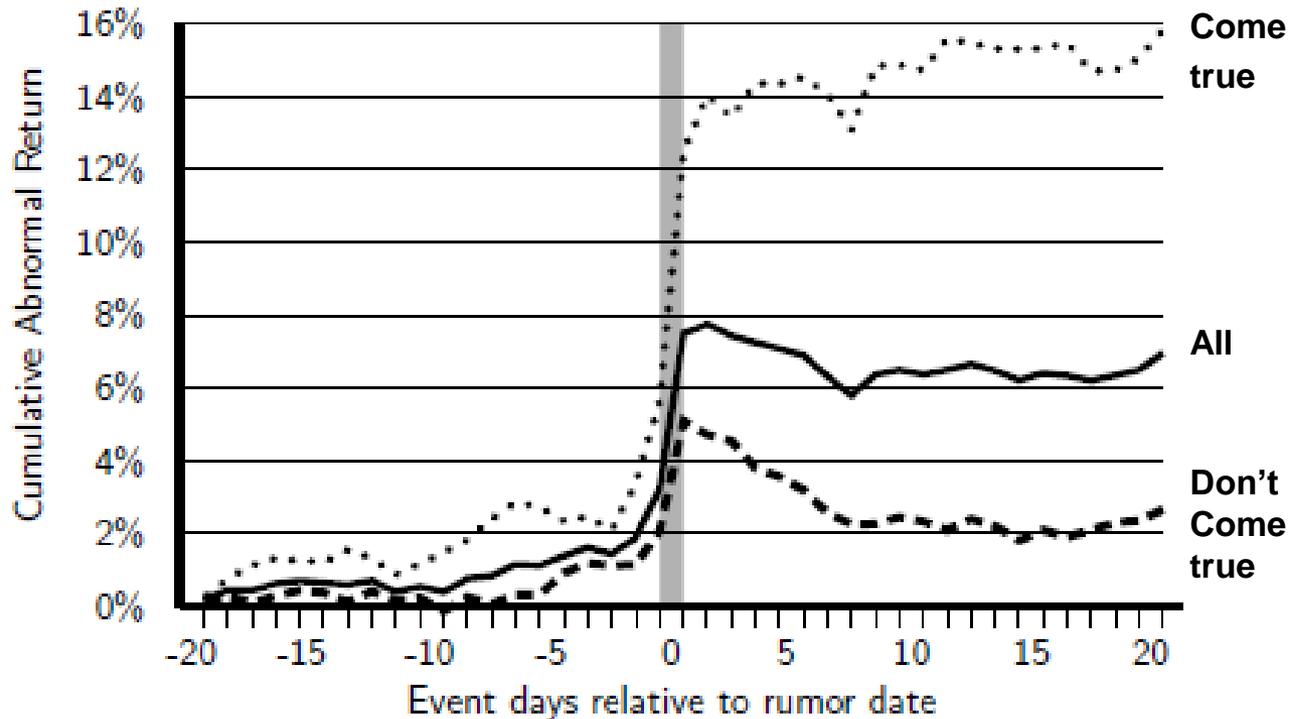
Which Rumors does the Media Publish?

Dep. variable: one if a rumor is published before the merger [p-values in brackets]

	All targets	Public targets
Public target	2.436*** [<0.001]	
Popular brand (top 100 brands)	3.050*** [<0.001]	1.786*** [0.002]
Foreign target	-1.925*** [<0.001]	-2.418*** [<0.001]
Industry sales to households	0.743* [0.086]	-0.804 [0.172]
Advertising / Assets		0.073** [0.014]
R&D / Assets		0.092*** [<0.001]
Tobin's Q		0.299*** [<0.001]
Size (log book assets)		0.737*** [<0.001]
Industry and year fixed effects	Yes	Yes
Observations	18,325	4,523

Media more likely to publish rumors about glamor stocks with recognizable brands and high advertising

Target Price Reaction to Rumors

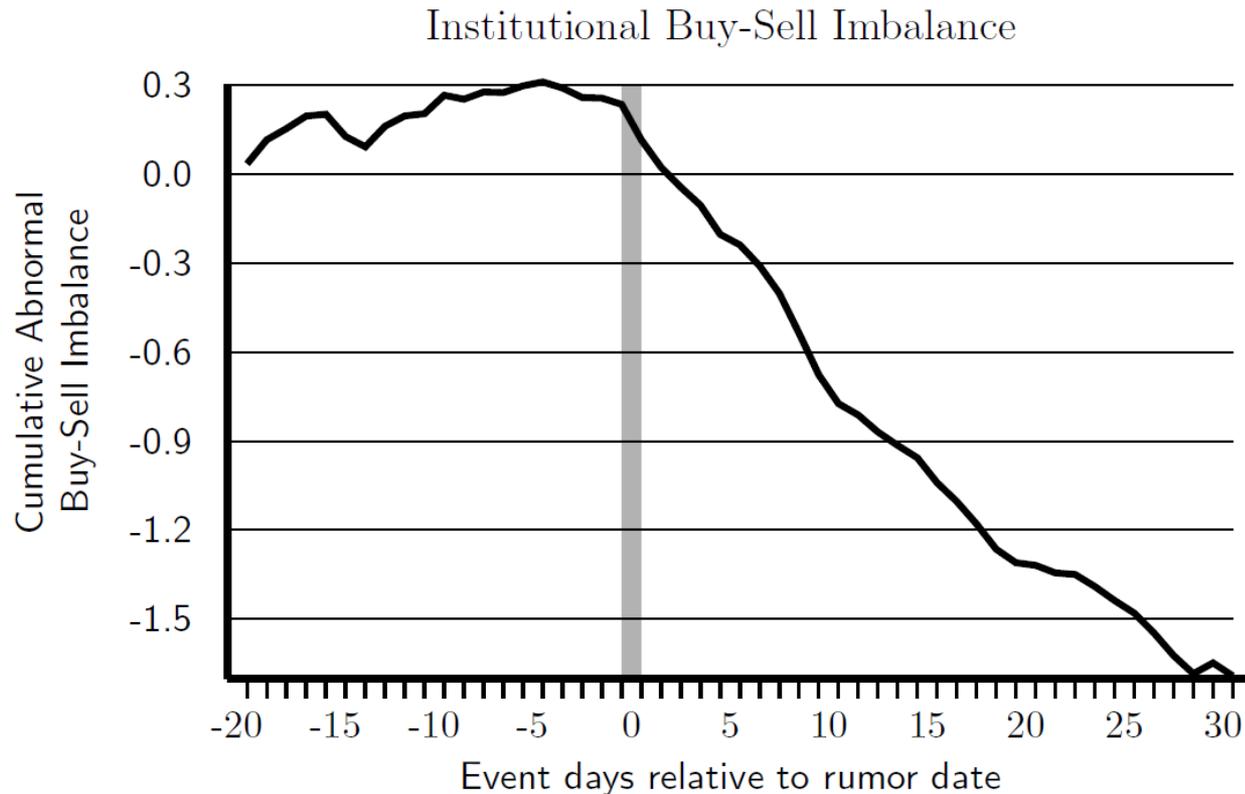


Day zero Abnormal return	
All	4.27%
Come true	6.87%
Don't come tr.	3.03%
Diff. [p-val]	3.84*** [<0.001]

On average, the market can separate the more accurate rumors

Rumors that don't come true → **spikes in prices, followed by reversals**

Who Trades on Rumors?



Institutions sell
on rumors

Retail investors are
the likely buyers

Which media characteristics predict that a rumor will come true?

To which of them do investors respond?

Accuracy and Target Newsworthiness

Dep. variable: one if a rumor comes true (bid for target within 1 year) [p-values]

Announcement day return		4.458***
		[<0.001]
Popular brand (top 100 brands)	-0.500*	-0.382*
	[0.078]	[0.082]
Advertising / Assets	-0.068**	-0.073***
	[0.035]	[0.007]
R&D / Assets	0.007	-0.005
	[0.847]	[0.860]
Tobin's Q	-0.045	-0.022
	[0.206]	[0.574]
Size (log book assets)	-0.287***	-0.264***
	[0.004]	[0.005]
Log (distance to target)	0.006	-0.013
	[0.729]	[0.475]
Trailing return _(-5; -1)	0.012	1.500
	[0.990]	[0.271]
Industry and year fixed effects	Yes	Yes
Pseudo R-sq.	0.103	0.138

Rumors about newsworthy targets are less likely to come true

This incremental predictive power persists even after controlling for contemporaneous and lagged returns

Economic Interpretation

- Newsworthy rumors are less likely to come true
 - Target with a popular brand → 11.6% lower likelihood the rumor is true
 - One σ increase in advertising expenses → 9.3% lower accuracy
- Results are not driven by a higher failure rate of such mergers
- Consistent with media incentives to publish newsworthy stories
→ lower accuracy threshold for such news

Do media characteristics predict whether a rumor will come true?

(1) media source

(2) journalist

(3) article text

Media Characteristics

- Likelihood that the rumor comes true varies systematically with the media source

Media source	Rumors that come true
Wall Street Journal	38.6%
New York Times	28.9%
Barron's	26.7%
Business Week	25.1%
Boston Globe	25.0%
Los Angeles Times	16.7%

- Newspaper characteristics have incremental predictive power over and above market returns



Journalist Data: an Illustration

Zach Kouwe		Data source
Industry focus	Financial services	Employer bio
Education	<i>University of Colorado at Boulder</i> MA in Journalism, 2004 <i>Hamilton College</i> BA in Economics and History, 2000	University registrars
Employment History	<i>Dukas Public Relations</i> , Sr. Acct Executive, 2011-pres. <i>New York Times</i> , Reporter, 2008-2010 <i>New York Post</i> , Staff Writer, 2005-2008 <i>Dow Jones News</i> , Private Equity Analyst, 2004-2005 <i>Denver Post</i> , Reporter, 2002-2003 <i>Wall Street Letter</i> , Reporter, 2000-2001	Employer bio
Awards	Gerald Loeb Award Finalist, 2009	Journalist award databases
Personal	Born: March 1978 Location at the time of writing: New York, NY	Lexis Nexis Public Records

Summary: Evidence on Journalists

- The likelihood that the rumor comes true varies systematically across journalists after controlling for current and lagged returns

- **Which journalists are more accurate?**

- Older and more prolific
- Area of expertise in the target's industry
- Undergraduate major in journalism
- Stationed in the New York bureau

Increase in accuracy
1 s.d. in age → 5.4%
5.2%
9.1%
3.4%

The accuracy of news and its effect on asset prices depend on who is relaying the news to the market

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→ one of the first studies on the role of journalists in financial markets

Real Effects: How do Rumors Affect Deals?

- Study the **narrative history of merger negotiations** compiled by corporate counsels in merger agreements

Management response	Freq.
Recognize the effect on the target stock price and compute the premium based on the pre-rumor price	62.5%
Expedite negotiations / hold unscheduled meetings	25.0%
Issue comment or press release	14.6%

Regression evidence: the takeover premium fully discounts the impact of a rumor on the target's stock price

Conclusion

- **Readership incentives affect the content of financial news**
 - More speculative reporting, esp. for glamor stocks with strong brands
 - Spikes in trading and stock prices, followed by reversals
 - Consistent with short-term demand from sensation-seeking investors
- **Reliability of news can be predicted from media characteristics**
 - Journalists and relevant details in the text are key predictors
 - Investors do not fully adjust for variation in media accuracy