



**Empirical Research in
Financial Accounting**

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EUROPEAN
eaa
ACCOUNTING
ASSOCIATION
PhD forum

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Understanding Society

Learning objectives

- develop a research question and hypotheses with an appropriate research design to address a question related to a business press article/report
- understand the structure and cohesion of the empirical financial accounting research literature
- assess the methodologies employed in the financial accounting literature
- understand how financial accounting research can affect practice/standard setting

Boeing's earnings release

- Did investors react to earnings information of Boeing?
 - Why do firms disclose information to external users?
 - Who are the external users?
 - What type of information is disclosed?
 - Where can you find this information?
- Why would you expect external users to react to earnings releases?
- Was there any media coverage?
 - Wall Street Journal article
- What do you think is the role of media and other information intermediaries, such as equity analysts?

Boeing's earnings release

Boeing Reports Second-Quarter Financial Results, Reaffirms Guidance

- *Second-quarter revenues steady at \$17.0 billion*
- *Net income was \$0.9 billion with EPS of \$1.16 per share, including a previously disclosed charge of \$0.22 per share*
- *First-half EPS grew 13 percent to \$2.79 per share as revenue grew 2 percent to \$33.0 billion*
- *Backlog at record \$346 billion*
- *2008 and 2009 financial guidance reaffirmed*

Table 1. Summary Financial Results

(Millions, except per share data)	2nd Quarter			First Half		
	2008	2007	Change	2008	2007	Change
Revenues	\$16,962	\$17,028	(0%)	\$32,952	\$32,393	2%
Earnings From Operations	\$1,247	\$1,506	(17%)	\$3,046	\$2,815	8%
Operating Margin	7.4%	8.8%	(1.4)Pts	9.2%	8.7%	0.5 Pts
Reported Net Income	\$852	\$1,050	(19%)	\$2,063	\$1,927	7%
Reported Earnings per Share	\$1.16	\$1.35	(14%)	\$2.79	\$2.48	13%
Operating Cash Flow	(\$251)	\$3,634	N.A.	\$1,682	\$4,362	(61%)

Boeing's earnings release

How does the press react to the disclosure?

WSJ July 24, 2008 (published one day after release):

- The company reported net income of \$852 million, or \$1.16 a share, down from \$1.05 billion, or \$1.35 a share, a year earlier.
- Revenue slipped to \$16.96 billion from \$17.03 billion.
- The Chicago aerospace company's earnings were hit hardest by a charge of \$250 million, or 22 cents a share, for delivery delays of an aerial-surveillance plane for Australia's air force.
- The mean forecast by analysts surveyed by Thomson Reuters had been for profit of about \$1.22 a share.

Boeing's earnings release

Boeing's Net Falls 19% as Clouds Gather

By J. Lynn Lunsford
24 July 2008
The Wall Street Journal

Boeing Co.'s net income fell 19% during the second quarter after a charge on a troubled defense contract coincided with the delivery of a number of commercial jetliners that were sold at bargain prices during the last industry slump.

Although the results caught analysts by surprise, Boeing said it still plans to meet its projections for sales and earnings growth for 2008 and 2009, even amid growing concerns that high oil prices could lead to a wave of order cancellations.

The Chicago aerospace company's earnings were hit hardest by a charge of \$250 million, or 22 cents a share, for delivery delays of an aerial-surveillance plane for Australia's air force. The company reported net income of \$852 million, or \$1.16 a share, down from \$1.05 billion, or \$1.35 a share, a year earlier. Revenue slipped to \$16.96 billion from \$17.03 billion. The mean forecast by analysts surveyed by Thomson Reuters had been for profit of about \$1.22 a share.

The biggest surprise came from the company's commercial-airplanes unit, where operating income was down 19%. Boeing said that expenses associated with the Dreamliner program are rising as the company prepares for full-scale production. Boeing also delivered three fewer high-margin 777 widebodies than expected due to parts shortages, and a handful of aggressively priced single-aisle 737s helped dilute the numbers further.

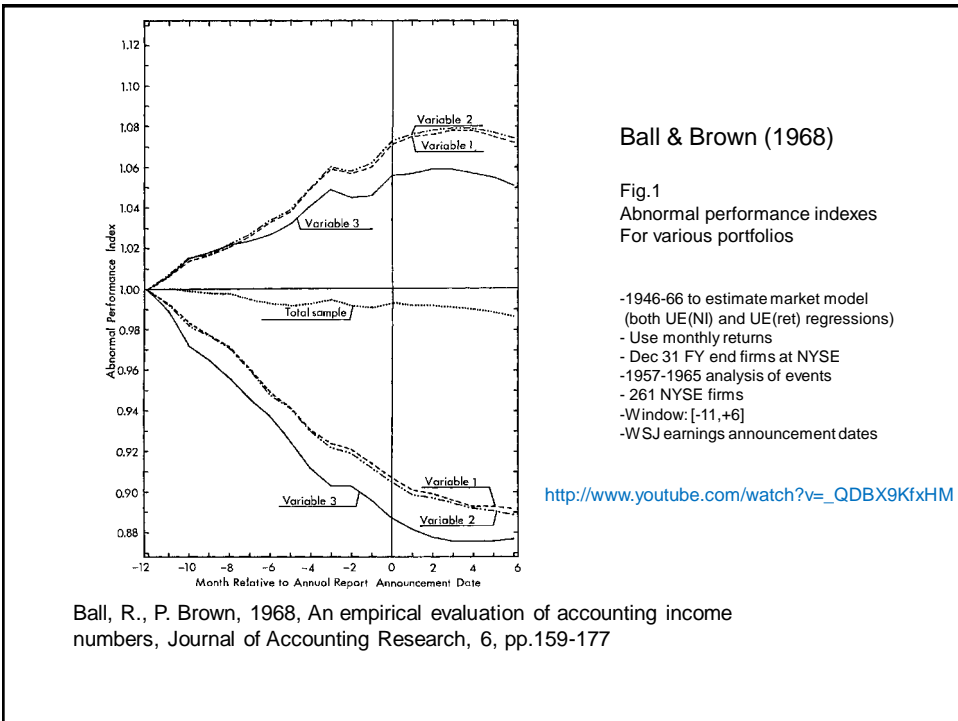
Boeing's earnings release



Stock price of Boeing around Q2 earnings release (July 23, 2008) compared to S&P 500 performance



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Ball & Brown (1968)

Fig.1
Abnormal performance indexes
For various portfolios

- 1946-66 to estimate market model (both UE(NI) and UE(ret) regressions)
- Use monthly returns
- Dec 31 FY end firms at NYSE
- 1957-1965 analysis of events
- 261 NYSE firms
- Window: [-11,+6]
- WSJ earnings announcement dates

http://www.youtube.com/watch?v=_QDBX9KfxHM

Ball, R., P. Brown, 1968, An empirical evaluation of accounting income numbers, Journal of Accounting Research, 6, pp.159-177

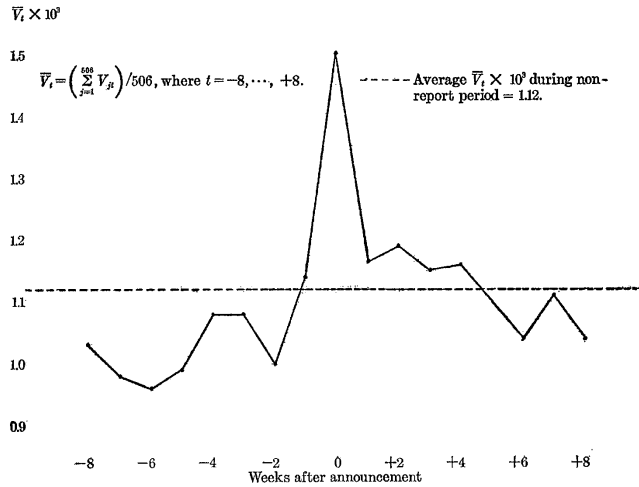


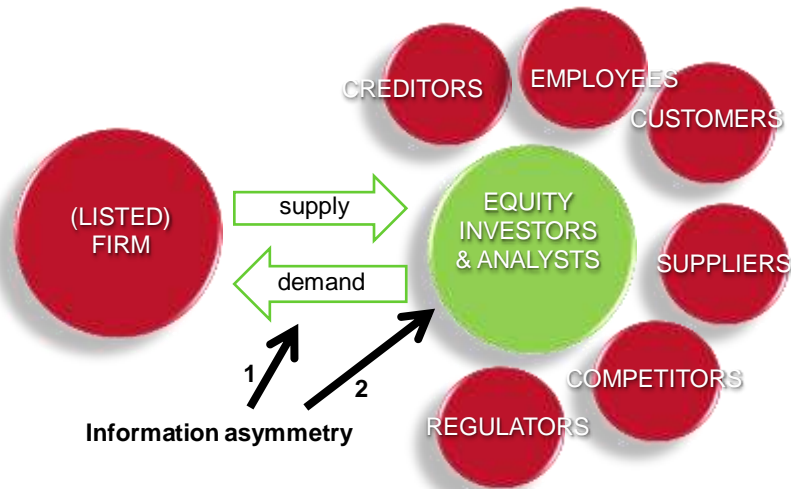
FIG. 1. Volume Analysis

Beaver, W., 1968, The information content of annual earnings announcements, Journal of Accounting Research Supplement, 6, pp.67-92

Recent research (informational value)

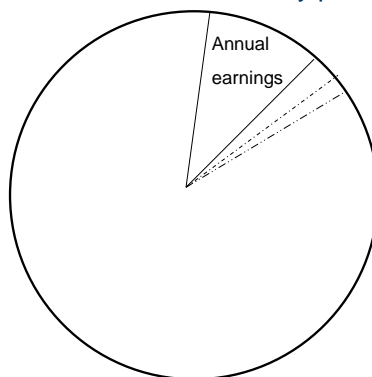
- Hirshleifer, Lim & Teoh (Oct 2009) Journal of Finance
“Driven to distraction: extraneous events and underreaction to earnings news”
 - Limited investor attention causes underreaction to earnings releases (opposite to instantaneous market efficiency)
 - Investor distraction hypothesis: immediate price and volume reaction to earnings news is weaker when a greater number of same-day earnings releases are made by other firms.

The information game



Usefulness of financial statement info

- What information alters security prices?



Other information

Press releases, macro-economic events, chat rooms, advice from broker, terror threat, etc

- Ball 2013: reports are not timely; quarterly announcements are about 2% if the total information incorporated in stock prices

Usefulness of financial statement info

BALL 2013 (Accounting Horizons)

- Instead of providing new information, financial statements have other roles that result in their social value:
 - *Confirmation*: the role of audited financial statements in confirming and disciplining the more timely private information disclosures of managers
 - *Complementary role*: Enhancing credibility of mgt disclosures
 - *Contracting role*: compensation, debt, supply, licensing, royalties

Economic value - examples:

minimizing fraud, alerting firms (resource allocation)

Analysts

Sell side analysts
are sophisticated users
of financial reports

Apple Inc. (AAPL) Financials

428.43 +9.44(2.16%) 4:00PM EDT | After Hours: 428.22 -0.21(0.05%) 5:10PM EDT - No

Analyst Estimates Get Analyst Estimates

Earnings Est	Current Qtr Mar 13	Next Qtr Jun 13	Current Year Sep 13	Next Year Sep 14
Avg. Estimate	10.22	9.63	44.47	50.16
No. of Analysts	47.00	47.00	50.00	50.00
Low Estimate	9.23	7.58	40.37	46.17
High Estimate	12.00	11.70	51.96	63.70
Year Ago EPS	12.30	9.32	44.15	44.47

Revenue Est	Current Qtr Mar 13	Next Qtr Jun 13	Current Year Sep 13	Next Year Sep 14
Aug. Estimate	42.92B	40.04B	182.51B	205.95B
No. of Analysts	43	43	52	48
Low Estimate	41.44B	35.73B	170.31B	188.24B
High Estimate	44.18B	48.83B	198.25B	251.20B
Year Ago Sales	38.18B	38.02B	166.51B	182.51B
Sales Growth (yearest)	9.50%	10.00%	16.00%	12.00%

Earnings History	Mar 12	Jun 12	Sep 12	Dec 12
EPS Est	10.04	10.37	8.75	13.47
EPS Actual	12.30	9.32	8.67	13.81
Difference	2.26	-1.05	-0.08	0.34
Surprise %	22.50%	-10.10%	-0.90%	2.50%

EPS Trends	Current Qtr Mar 13	Next Qtr Jun 13	Current Year Sep 13	Next Year Sep 14
Current Estimate	10.22	9.63	44.47	50.16
7 Days Ago	10.24	9.69	44.56	50.51
30 Days Ago	10.24	9.79	44.71	50.90
60 Days Ago	12.10	11.25	48.69	57.10
90 Days Ago	12.43	11.67	46.39	57.87

Analysts and information processing



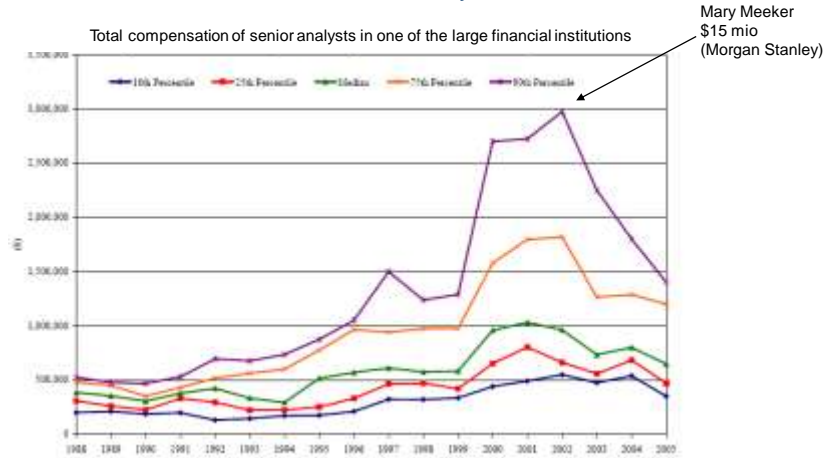
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Analysts and information processing

- What do financial analysts (FA) do?
 - They are sophisticated users of financial reports
 - Demand for FA
 - Small investors
 - Institutional investors (mutual funds, pension funds)
 - Investment banks
 - Information produced by FA
 - EPS forecasts
 - Business strategy analysis
 - Valuation and buy/hold/sell recommendation

Analysts and information processing

- What are incentives of financial analysts?



Analysts and information processing

- What are performance metrics?
 1. Firm/sector performance determines size of bonus pool
 2. Input metrics
 - Analyst experience
 - Homegrown versus externally hired
 - Trading activity for covered stocks
 3. Process metrics
 - Number of earnings forecasts made during a year
 - Number of initiations
 - Number of phone calls
 4. Output metrics
 - Investment banking business generated from firms FA covers
 - Stock recommendation performance
 - Earnings forecast accuracy
- Traders seem to appreciate FA's access to management, and responsiveness to feedback (see *Institutional Investor* annual poll among traders and sales force)

Groysberg, Healy & Maber, "What drives sell-side analyst compensation at high status investment banks"
Journal of Accounting Research, vol.49 n.4, Sep 2011, pp.969-1000

Understanding the research context / trends

EXAMPLE : Understanding investor information needs / TRENDS

Center for Accounting Research and Education

Impact of emerging information technology on capital markets

http://business.nd.edu/Center_For_Accounting_Research_and_Education/Conferences/CARE_Conferences/2013_CARE_Conference/

MORNING KEYNOTE (April 5, 2013)

Investing in a World of Technological Change

Barry Hurewitz

Chief Operating Officer, Managing Director for Research, Morgan Stanley

How is technology affecting investor needs, and what is the current and future role of information intermediaries

Understanding the research context / trends

EXAMPLE : Understanding investor needs

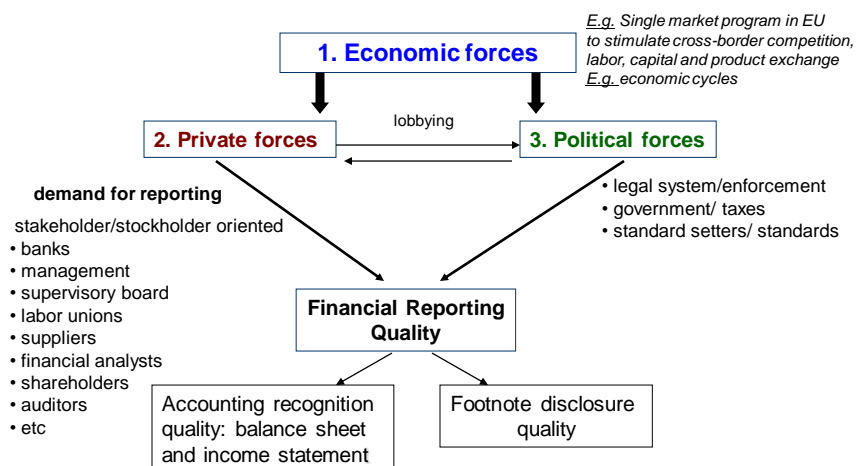
- What is the future role of research performed by brokerage firms?
- Two elements (according to Barry Hurewitz):
 1. Technology
 2. Regulation
- Technology: PAST two decades
 - Automation, eg electronic share trading
 - Informating, eg Bloomberg, DowJones, Factset
 - Client experience, eg, email, mobile devices, web docs (vs PDF)

Understanding the research context / trends

EXAMPLE : Understanding investor needs

- Technology: DISRUPTIVE CHANGES
 1. Big data, eg weblogs, satellite info, twitter, facebook
Best Buy - Apple (search robots to estimate value of the deal)
predictive ability
 2. Social networks (similar to Encyclopedia Britannica and Wikipedia)
 - What do consumers trust?
 - How do people share information
 3. The cloud
- Competition among brokerages
 - Analytical capabilities (not person specific): data & methods
 - Japan 1750: it is not about the technology, but about the way you use it

Financial accounting research - framework



Interaction private and political forces

- How do private forces react to 'bad accounting rules'?
 1. More frauds
 2. Private initiatives to provide alternative information
 - S&P 'core earnings' (exclude gains from pension activities, impairment of GW, settlements from litigation,...)
 - Banks adjust GAAP-based F/S of borrowers to obtain more conservative net assets/ earnings (Beatty, Weber & Yu JAE 2008)
 3. Lobbying against the bad standards
 4. Set up system to exploit rules
 - Excessive stock options (no expensing before IFRS2, FAS123R)

Quality of financial reporting

- What are indicators of reporting quality?
 1. Earnings management (measurement)
 2. Selective disclosure (disclosure quality)
- *Earnings management* is one indicator of reporting quality
 - High quality reporting should limit earnings management
 - Patterns of earnings management
 - Taking a bath
 - Income minimization
 - Income smoothing
- Selective disclosure: poor or no footnote disclosure

Reporting quality - earnings management

- **Burgstahler & Dichev (1997)**
 - “Earnings management to avoid earnings decreases and losses”
 - *Anecdotal evidence*
 - “I must emphasize that all of our strategic actions are guided by and measured against this goal of delivering consistently high increases in earnings over the long term” Tenneco’s 1994 Report
 - “Increasing earnings per share was our most important objective this year” Bank of America’s CEO Richard Rosenberg 1994
 - Strong incentives to avoid reporting
 - Losses
 - Earnings decreases

- **Ball (2013)** : incorrect belief and critical about earning management literature

Impact of academic accounting research

> 1300 articles between 1975-2014 in top journals: Journal of Accounting Research, Accounting Review, Journal of Accounting and Economics

1. Improve our understanding of the accounting environment
 - Exec compensation and motivation of manager
 - Firm value and its relation to earnings
 - Etc.

2. Accounting research affects practice
 - Accounting education – research as fundament of education of future professions
 - Audit risk assessment (quality of corporate governance, understanding earnings management incentives, etc.)
 - Compensation contract design
 - Hedge funds: exploiting temporary mispricing of accounting information (eg. Default risk in IPOs, Sloan’s accrual anomaly)
 - Credit risk assessment
 - Investment banks – financial analysts: Earnings quality (e.g. ModelWare project of Morgan Stanley started by Trevor Harris)
 - Accounting-based valuation: Ohlson’s residual income model
 - Standard setters: need to know how informationally efficient market is

Conclusion – my beliefs

- Empirical financial accounting research is *exciting*
- Multidisciplinary (finance, economics, psychology...)
- Understand institutional context – study relevant topics
 - Talk to practitioners
 - Read business press, discussion pieces, etc.
- Impact: fellow academics, students, practice/standard setting
- Great job opportunities for good accounting researchers

GOOD LUCK WITH YOUR RESEARCH

