

Current Research Agenda

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HBS-WRDS USERS MEETING

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General Area of Research

- Accounting information is provided by firms for investors and creditors.
- A large body of research in accounting addresses the broad question of what kind of accounting information is used by investors and creditors.
- Typically, research in this area spans accounting and finance.

Institutional Setting

- Companies provide quarterly and annual reports to the Securities and Exchange Commission (SEC).
- Annual reports are detailed and are audited, whereas quarterly reports are condensed.
- Most companies issue a press release about **four weeks** after quarter-end with a summary of quarterly results.
- Most companies file their reports with the SEC on the **last two days** allowed; 45 days for quarterly reports and 90 days for annual reports.

My Main Concerns

- Most accounting information is provided in the reports filed with the SEC. Yet, most studies of the short-window stock returns use the date of the earnings press release, which comes about three weeks prior to the SEC filing date.
- The amount of information conveyed in the preliminary earnings release vary widely across firms.
- Most studies that examine market reactions around SEC filing dates are unable to document significant effects of the information.

Technical Obstacles

- The computerized databases include the preliminary earnings release date but not the SEC filing dates.
- The computerized databases used by researchers do not use preliminary information; they only use the most updated quarterly SEC-filed information.
- The SEC maintains identification of firms by CIK numbers, which are different from other identifiers of firms (GVKEY, CUSIP, Ticker, etc.).
- The SEC filings are now freely available through the SEC EDGAR database.

One Example

- What happens when preliminary earnings are subsequently revised when filed with the SEC (recall, about three weeks later).
- This is a unique case when new **earnings** information is available at the SEC filing dates for such firms.

Definitions

- **Earnings restatements** are changes in previously reported (and SEC filed) earnings. They typically occur and are announced in future quarters.
- **Earnings revisions** occur when companies file with the SEC different earnings from the immediately preceding preliminary earnings announcement.

Overview

- **Purpose:**

- Examine characteristics and market reactions to earnings revisions.

- **Methodology:**

- Univariate and Logistic models that compare Revisers and Controls.
- Assess the association of abnormal returns around SEC filings with the additional earnings surprise of Revisers.
- Comparison of abnormal returns to the total earnings surprises between Revisers and similar firms that did not revise earnings.

Overview – Cont.

Results:

- Earnings revisions are more likely to occur for more complex and less stable firms.
- Market participants react to the additional earnings surprise in the SEC filings.
- The reaction to the entire earnings surprise is weaker for Revisers than that of control firms with the same earnings surprise, indicating a potential concern with earnings quality.

Acknowledgements for Data

- **Charter Oak Investment Systems Inc. for providing the PIT quarterly data used to identify Revisers.**
- **Thomson Financial for providing earnings forecasts available through the Institutional Brokers Estimate System.**
- **Compustat for SEC filing dates.**

The Compustat Quarterly File

- Compustat initially updates quarterly information from preliminary earnings press releases. This is denoted by update code 2.
- When the firm files with the SEC, Compustat updates the information again. The update code is now 3, to show the 10-Q/10-K filed numbers.
- If earnings for a quarter are subsequently revised, for example for M&A, divestitures, etc., Compustat inserts the revised earnings figure into the database, essentially “rewriting history”!

The Charter Oak Database

- Collected the weekly Compustat CD-Roms which were sent to PC clients.
- For each line item, it constructed three figures:
 - The one from the press release (update code 2).
 - The one from the first filing (first time of update code 3). This is the AFR figure.
 - Current Compustat figure (which may include subsequent restatements).
- This database allows one to simulate what Compustat information a user had at a particular point in time.

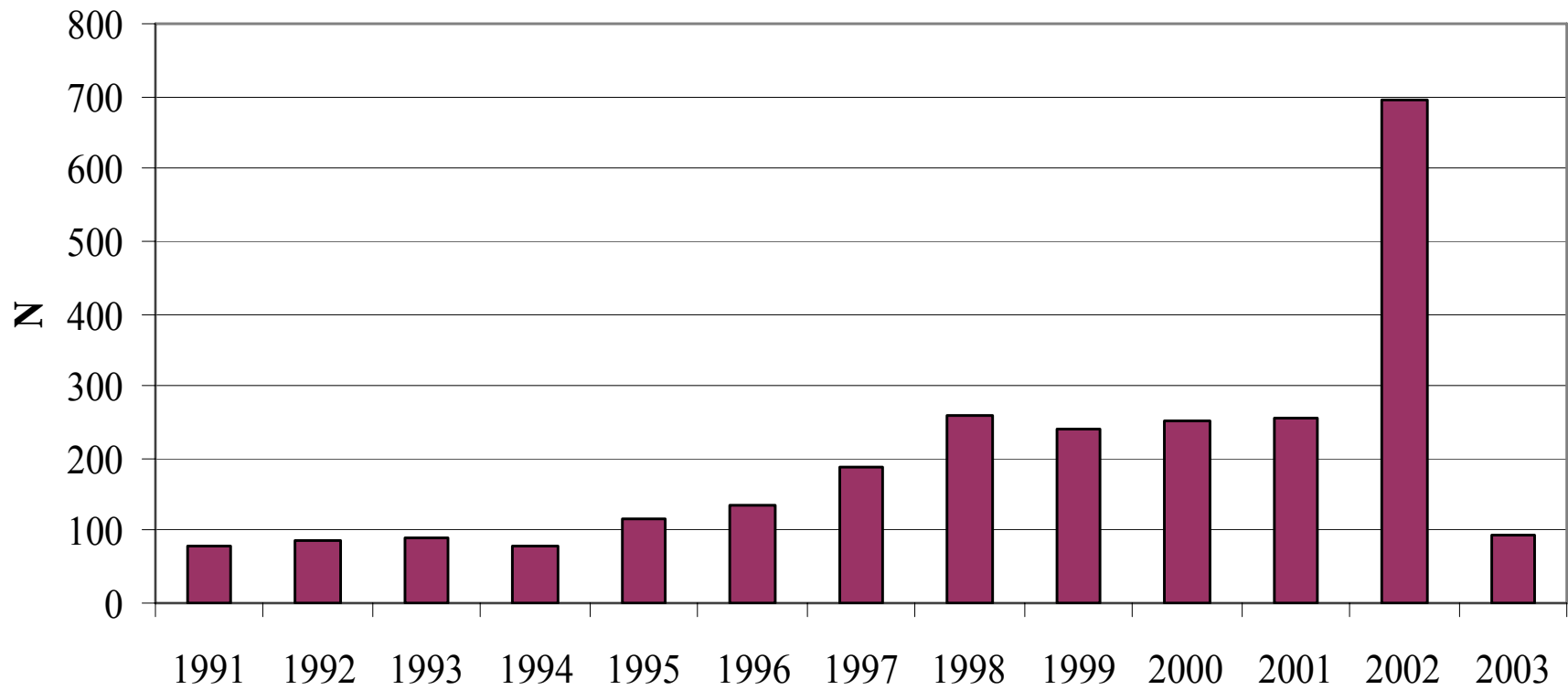
Reasons for Earnings Revisions

- Auditor's audit or review found problems with previously reported preliminary earnings (revenue recognition, new regulations).
- New information which became available after the preliminary earnings release, but prior to the SEC filing, requiring the company to revise its preliminary earnings (loan loss reserves, litigation settlements).
- Errors or misstatements that are discovered before the SEC filing.

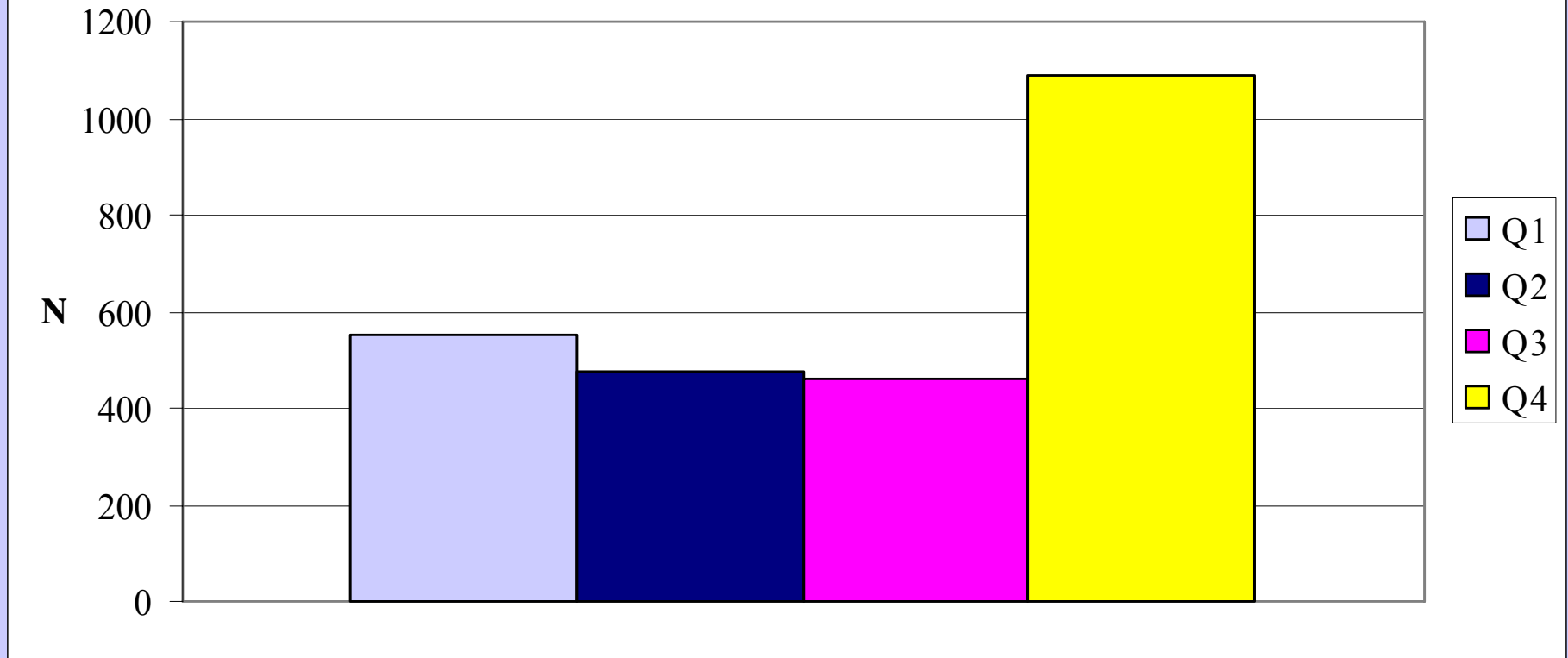
How Frequent Are Earnings Revisions?

- Population of about 298,000 firm quarters between 1991 and 2003.
 - Eliminated very small companies (market cap and assets less than \$1 million, price per share less than \$1). Eliminated foreign issuers, firms with no preliminary earnings.
- About 4,800, or **2.4%** had earnings revisions!
- Examined only material earnings revisions (at least 10% effect on preliminary earnings, and \$0.01 change in EPS). Excluded subsequent events.

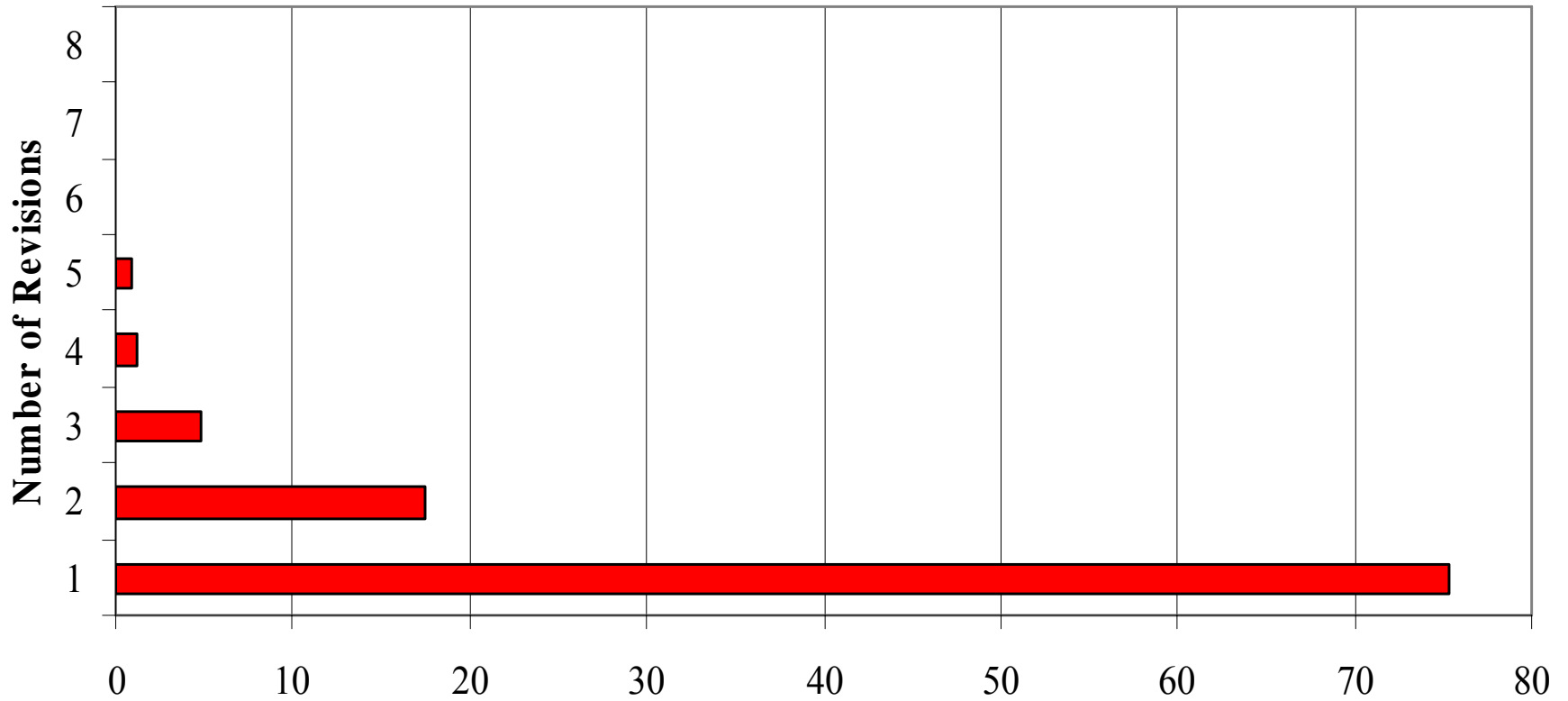
Sample of Revisers



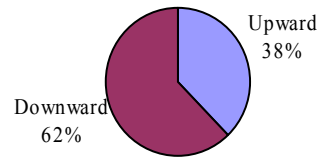
Revisions by Quarters



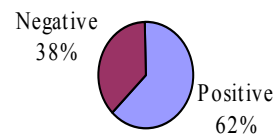
Percentage of Firms



Revisers



First Surprise - Sample



First Surprise -Control

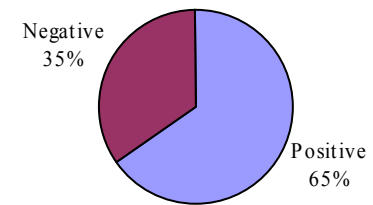


Table 4: Logistic Regression to Predict Earnings Revisions

Variable	Expected	Estimate	χ^2	Significance	Average change in odds (%)
Intercept	?	-0.906	45.3	<.0001	
Debt/Assets	Greater Scrutiny +	0.475	9.3	0.0023	12
Log(Market Value)	Complexity +	0.032	2.8	0.0966	7
Number of Segments	+	0.142	33.5	<.0001	26
Earnings Volatility	+	0.078	11.6	0.0006	14
Persistence of Earnings	Stability -	-0.285	8.5	0.0035	-10
Loss	Operational Problems +	0.753	89.9	<.0001	43

Strategic Behavior

Sample N

1,703

Control N

1,562

Likelihood Ratio

183.9

p-value

<0.0001

Percent Concordant

63.1

Timeline: Preliminary Earnings Announcements and SEC Filings

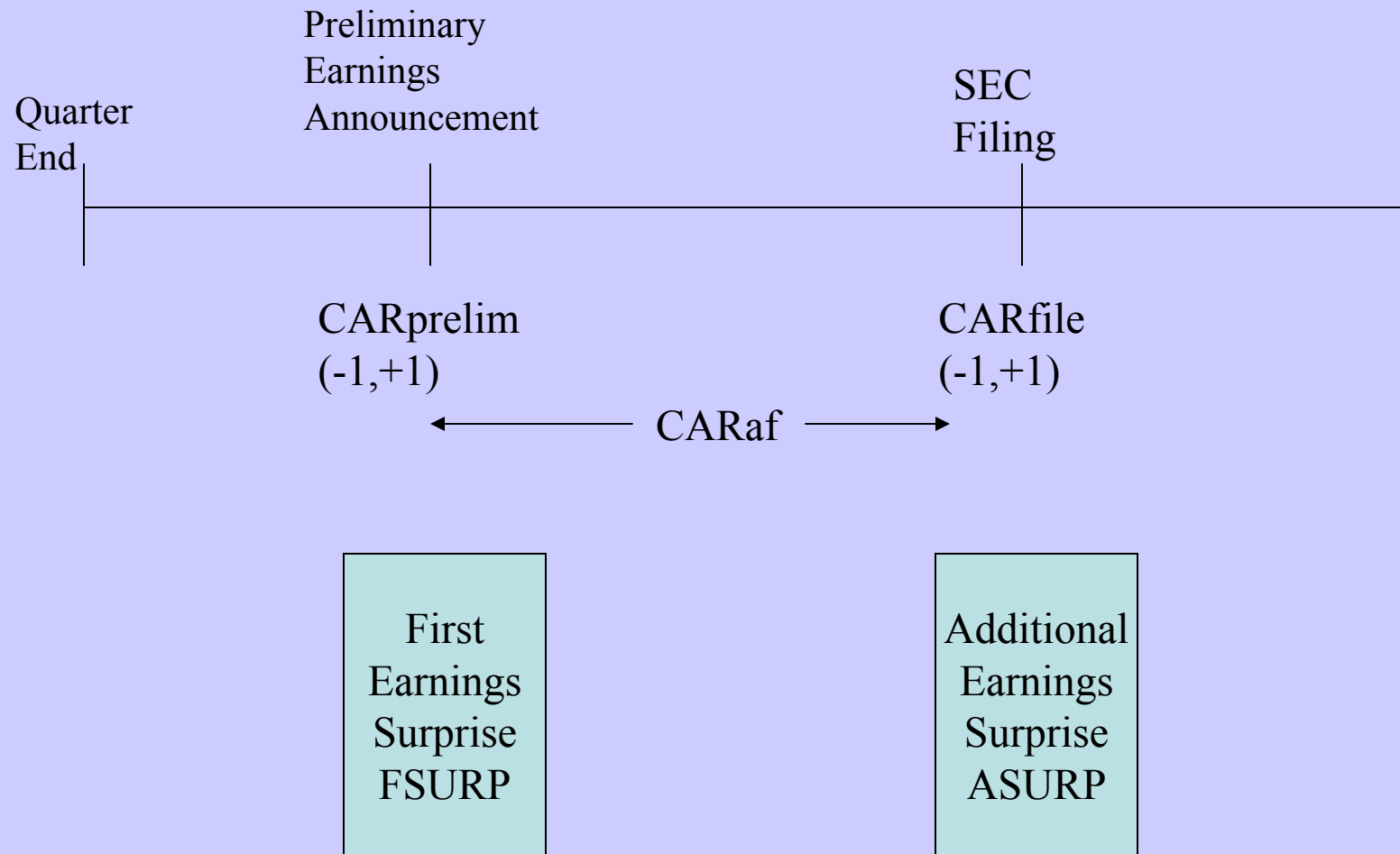


Table 5

No differences between groups

Panel A: Regressions of Stock Market Reactions to Preliminary Earnings Surprises

Variable	Intercept	REVISER	FSURP	REVISER*FSURP	F-Value	Adj. R ²	Obs.
Coefficient	0.005	-0.007	0.215	-0.016	<0.0001	0.019	3912
p-value	0.029	0.024	<0.0001	0.745			

Significant Reactions to Preliminary Surprise

Dependent variable = CAR_{prelim}

Panel B: Regressions of Stock Market Reactions to Additional Earnings Surprises in SEC Filings

Variable	Intercept	REVISER	FSURP	REVISER*FSURP	ASURP	CAR _{af}	REVISER*CAR _{af}	F-Value	Adj. R ²	Obs
Coefficient	0.001	-0.002	-0.005	-0.006	0.109	-0.052	0.033	<0.0001	0.013	3583
p-value	0.675	0.354	0.860	<0.866	<0.0001	<0.0001	0.039			

Dependent variable = CAR_{file}

Panel C: Regressions of Combined Preliminary Earnings Announcement and SEC Filing Returns to Earnings Surprises

Variable	Intercept	REVISER	FSURP	REVISER*FSURP	ASURP	CAR _{af}	REVISER*CAR _{af}	F-Value	Adj. R ²	Obs.
Coefficient	0.005	-0.005	0.203	-0.027	0.237	-0.054	0.107	<0.0001	0.026	3582
p-value	0.090	0.182	<0.0001	0.6665	<0.0001	0.009	<0.0001			

Dependent variable = CAR_{both}

Significant Reactions to Additional Surprise

Dependent	CARtot	EARNVOL	0.000	SSURP*REVISER	-0.018
Intercept	0.004		0.222		0.032
	<.0001	PERSE	0.002		
REVISER	-0.008		0.109		
	0.007	AUC	-0.002	N	128,031
ROA	0.06		0.276	F-Value	<.0001
	<.0001	LOSS	-0.010	Adj. R2	0.027
DEBT	-0.001		<.0001		
	0.725	SSURP	0.062		
SEGNUM	0.002		<.0001		
	<.0001				

Weaker market reactions
For Revisers

Significant market reactions
To earnings surprises

Examples of Recent Publications

- Post-Earnings-Announcement Drift is stronger when the Revenue surprise is aligned with the Earnings surprise (JAE, 2006 with N. Jegadeesh).
 - Used the preliminary database to verify that revenues were disclosed in the preliminary earnings release (94% of firms).
- Comparing the Post-Earnings-Announcement Drift from time-series and analyst forecasts (JAR, 2006 with R. Mendenhall).
 - Used the database to assess whether differences are due to Compustat restatements, special items, or the use of forecasts.
- The market reaction to earnings, cash flows and accruals on the SEC filing dates (TAR, forthcoming with J. Callen and D. Segal).
 - Used the database to verify that preliminary data about cash flows and accruals were not reported in the preliminary earnings release.

Examples of Recent Publications

- Earnings revisions (JPM, 2005 with D. Hollie and B. Segal).
 - Used the preliminary database and the immediately subsequent SEC filings to identify cases where earnings are revised.
- The quarterly accruals anomaly (FAJ, forthcoming with M. Santicchia).
 - Used the database to construct the initial accruals on the SEC filing date. Checked that results are unaffected by firms that reported cash flows in the preliminary earnings releases (only about 10% of firms do).

Other Current Research Examples

- The effects of level of detail and timing of preliminary earnings announcements on immediate and delayed market reactions.
 - Uses the databases to identify disclosed preliminary data.
- The effects of information actually available to market participants versus what we assume they had on market anomalies.
 - Uses the PIT database to identify at the end of a particular month the exact information investors had at the time if they used Compustat.

Other Current Research Examples

- Understanding why some firms do not issue preliminary earnings announcements (Filers).
 - Uses the preliminary and the first SEC filings to identify Filers (about 11%).
- Quarterly earnings restatements.
 - Uses firms where earnings changed between the first SEC filing and subsequent SEC filings. PIT allows us to identify the month of restatement.
- Simulating trading strategies.
 - “The Little Book that Beats the Market”.

Takeaway Points

- Extremely rich databases.
- Can highlight when financial information is received, revised, and finalized.
- Should be used in research of “anomalies” that are based on accounting data.
- Even more powerful in combination with SEC filing dates.