

Whisper Numbers and Earnings Estimate Disparities



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Northfield Information Services, Inc. Research conference XIII
December 4, 2000
Wyndham Casa Marina
Key West, Florida

INTRODUCTION

Thirty years ago analysts' earnings estimates were simply benchmarks against which to value a company. Since then the investment community has come to recognize that when analysts change their estimates, stock prices follow. It is also evident that when companies surprise the market by reporting earnings different from the analysts' estimates stock prices also follow. Therefore corporations are eager to report earnings above the analysts' estimates so that their stock prices will rise. This is reflected each quarter in a preponderance of pessimistic earnings pre-announcements followed by a preponderance of earnings reports that exceed expectations.

Investors in turn are learning how to second-guess analysts' forecasts that have been guided too low by the companies. Such adjusted forecasts can be found in "whisper estimates" which seem to remove the bias in analysts' estimates. This has become a game in which corporations must guide analysts forecasts ever lower in order to beat the true market expectations.

THE FIRST ARTICLE ON ESTIMATE REVISIONS AND SUBSEQUENT STOCK PRICE MOVEMENTS

Burton P. Fabricand¹ published the first article on estimate revisions and subsequent stock prices in 1969. Using Value Line estimates from 1965 to 1968, he showed that portfolios of stocks selected on the basis of large estimate revisions significantly beat the market over three month holding periods.

¹ Burton P. Fabricand, *"Beating the Street – How to Make Money on the Stock Market"*, David McKay Company Inc, 1969. Chapter VII, "Earnings Changes vs. Stock Price Changes"
Fabricand, with a PhD. in Physics from Columbia was well acquainted with the academic literature in finance. He also published a book called *"A New and Rigorous Application Of Mathematical Methods to Successful Betting At The Track"*.

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OTHER STUDIES FOLLOWED²

It was during the 1970's after I/B/E/S introduced its comprehensive earnings estimates database that many research studies confirmed the affect of estimate revisions on stock prices.

It took until the 1990's for the investment community to embrace these relationships. Indeed, Lang Wheeler, one of the pioneers in the investment use of earnings forecasts, comments³ that "Even in 1990, when I presented a paper describing the technique (of stock selection utilizing estimate revisions) to the Institute for Quantitative Research in Finance, most quants were unaware of the importance of measuring changes in expectations."

EARNINGS SURPRISE

It was in the early '80's that I/B/E/S started collecting quarterly earnings estimates whose availability made possible studies in the '80's and '90's that confirmed that:

1. earnings surprises led to stock price changes and
2. if a company reported earnings significantly above the consensus in one quarter, it was more likely to report such earnings in subsequent quarters.

These studies looked for earnings surprises as reflected in large differences between analysts' consensus and the actual reported earnings, today the market seems focused on small differences, punishing companies whose actuals miss the consensus by pennies.

FOCUSING ON CORPORATE MANAGEMENT OF EXPECTATIONS MOST EARNINGS ANNOUNCEMENTS EXCEED THE ANALYSTS' CONSENSUS FORECAST.

A recent paper by DeGeorge, Patel and Zeckhauser⁴, "Earnings Management to Exceed Thresholds" examined three thresholds:

- Zero earnings, i.e., profitability
- Last year's earnings, i.e., growth
- Analysts' expectations of earnings

The paper concludes "...that executives manage earnings in predictable ways to exceed thresholds." Of the three thresholds examined in the paper profitability and last year's earnings are uncontrollable, but corporations do guide analysts' earnings forecasts and thus affect this benchmark.⁵

² For those not acquainted with the early studies I recommend the following anthologies:

- ***The Handbook of Corporate Earnings Forecasting***, edited by Brian R. Bruce and Charles B. Epstein, Probus 1994
- *Handbook of Security Analyst Forecasting and Asset Allocation*, Edited by John B. Guerard Jr. and Mustafa Gultekin, JAI Press 1993

³ Langdon B. Wheeler, "*n/I numeric investors Adviser's Report*", Oct. 2000.

⁴ Francois DeGeorge, Jayendu Patel, Richard Zeckhauser, "Earnings Management to Exceed Thresholds" *Journal of Business*, January 1999

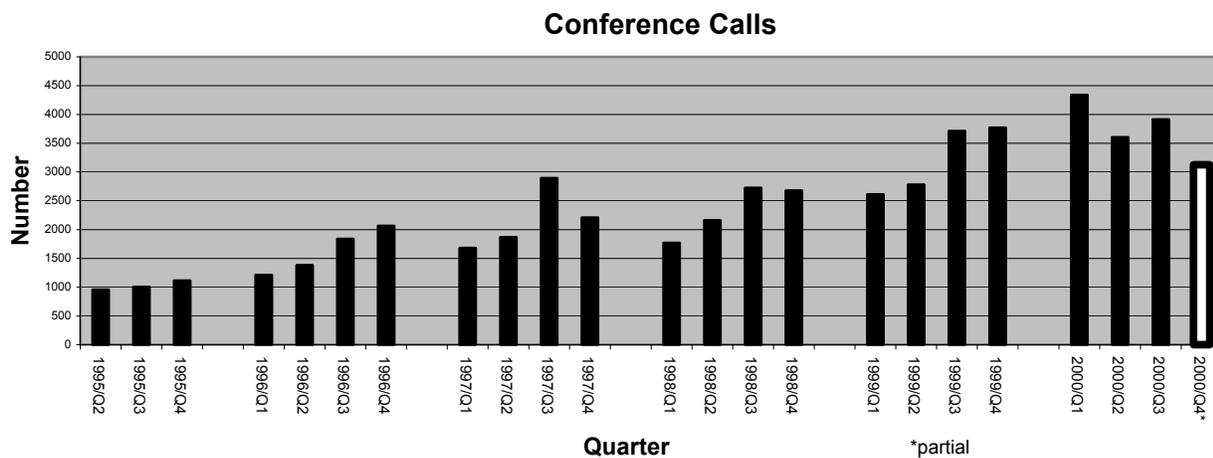
⁵ Dawn A. Matsumoto, "Management's Incentives to Guide Analysts' Forecasts" *Working Paper*, January 2000 finds that there are "...some firms providing downwardly biased information to analysts to ensure reported earnings meet or exceed analysts' forecasts at the earnings announcement

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AND WE ARE SEEING MORE CORPORATE COMMUNICATIONS

In an article in the Washington Post⁶, Henry Blodget, Merrill Lynch's e-commerce analyst is quoted as saying "This job has changed a huge amount over the last 10 years. Then, you never had quarterly conference calls. The company would put out a press release..."

This is reflected in the following graph that shows the number of conference call announcements that First Call has published since 1995. It looks as if there may be more conference calls in the fourth quarter of 2000 than ever. The bar on the graph reflects counts through half the quarter. Some of these calls will no doubt replace private conversations with analysts that occurred before Reg FD and virtually all will be open to all listeners.



THERE ARE MORE AND MORE NEGATIVE PRE-ANNOUNCEMENTS

As investors, corporate management, analysts, and journalists became more sensitive to the importance of earnings forecasts on stock prices, their behavior changed. In particular as corporations saw the effect of earnings surprise on stock prices, they became more aggressive in managing their accounting reports and analysts' expectations. This can be seen in the large number of earnings pre-announcements most of which guide the estimates downward.

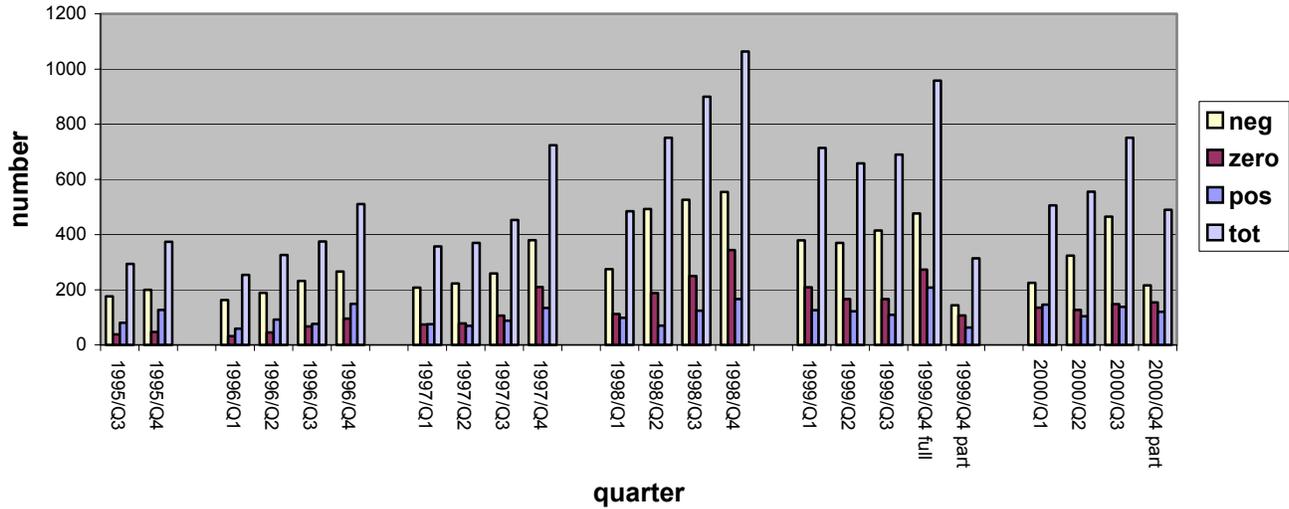
The graph below shows the number of positive, negative and total pre-announcements recorded by First Call quarter by quarter. We see a sharp rise in pre-announcements since 1995 (The peak in 1998 can be attributed to the negative earnings effect of the global financial crisis when a number of companies felt the need to warn the market of lower than expected earnings.).

For the partial fourth quarter this year through November 20 there were 56% more pre-announcements than in the same period last year. Some of this is no doubt a response to Regulation FD but it also reflects lower corporate expectations.

⁶ David Streitfeld, staff writer, "Analyst With A Knack For Shaking Up Net Stocks" *The Washington Post*, April 2, 2000, Page H01

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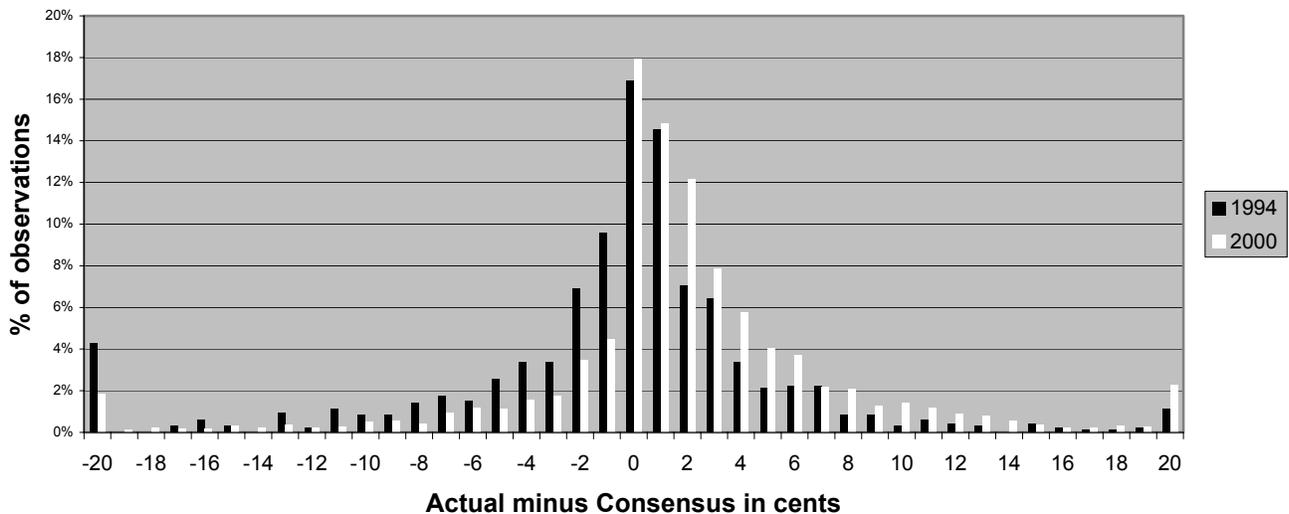
EPS Pre-Announcements per Quarter



**THE ANNOUNCEMENTS ARE GETTING MORE AND MORE POSITIVE
CORPORATE MANAGERS ARE MANAGING THEIR EARNINGS AND ANALYST
EXPECTATIONS TO REPORT EVER-LARGER EARNINGS SURPRISES**

The following graph - produced from First Call data as they were published on the First Call system⁷ – shows histograms for 1994 and 1999 grouped by the number of cents difference between reported and consensus earnings. Positive skewness is clearly evident in both histograms, with the skewness moving to the right from 1994 to 1999. I/B/E/S data prior to 1993 shows no such bias existed before 1993.

Quarterly Earnings Surprises 1994 and 2000

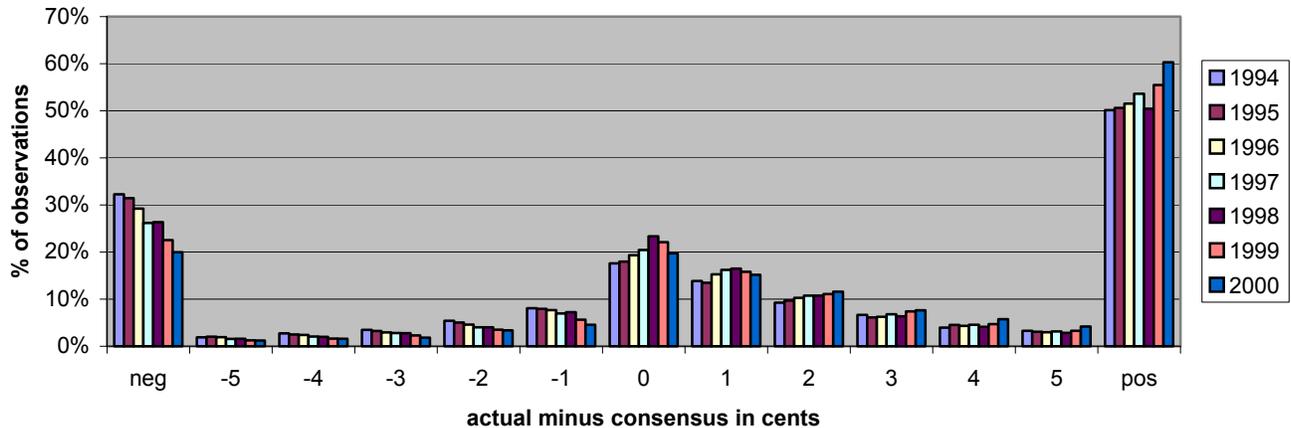


⁷ “As was” data comes from reports as they were published and not subject to subsequent stock splits, earnings restatements or survivorship bias.

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The graph below shows a steady year-by-year progression to more and bigger positive surprises.

Quarterly Earnings Surprises 1994 to 2000



The market well recognizes this and has been expressing it's skepticism. Indeed, nowadays it is not uncommon for stocks to report earnings above consensus expectations and have the price decline. The press often attributes this to the earnings not beating the "whisper" estimates.

Stock prices do indeed fall when companies do not beat the consensus by pennies. If a company is guiding the forecasts so as to report a small positive surprise, then when the company's earnings do not beat the consensus it may indicate that the company does not have wiggle room in its accounting numbers. The market reads this as a poor signal.

WHISPER ESTIMATES⁸

What are these whisper estimates? Bagnoli Beneish and Watts⁹ (BBW), who studied "whisper" estimates, define them as "...unofficial forecasts of earnings per share that circulate among traders and investors." BBW compared whisper estimates collected from web chat rooms to the First Call consensus. Much to their surprise they found that the whisper estimates were closer to the reported eps on average and did not have the same understated bias as the First Call consensus. In light of the evidence that corporations are managing forecasts to small positive surprises, this does not seem like an unreasonable finding. It represents the market's reaction to earnings managed to positive surprises.

Indeed, First Call has produced "HISPER" (HISTorical SurPrise-based EaRnings) numbers for selected companies by adjusting the consensus forecasts to reflect recent earnings surprises. Bagnoli and Watts found that these "hispers" were more accurate than the First Call consensus forecasts.

In other words the market recognizes that corporations are managing earnings and expectations to small surprises and adjusts analysts' forecasts to reflect this¹⁰.

⁸ For an excellent discussion of Whisper estimates see Mark Bagnoli and Susan Watts, "Whisper Numbers, the Internet and Investor Relations", *Investor Relations Quarterly*, Vol. 3, No. 2, 2000.

⁹ Mark Bagnoli, M. Daniel Beneish and Susan Watts, "Whisper forecasts of Quarterly Earnings Per Share" *Journal Of Accounting And Economics*, Vol: 28, Issue: 1, November 1999.

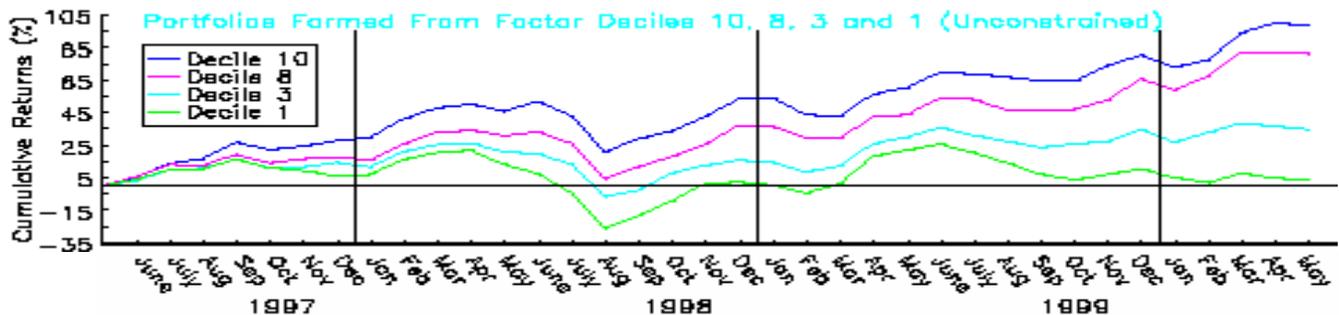
¹⁰ Mark Bagnoli and Susan Watts, "Improving Analyst Forecasts of Earnings: The Case of Hispers," *Working Paper*, 2000.

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But how does one explain the year-by-year creep to larger and larger earnings surprises? I would guess that corporations in order to keep ahead of the whisper estimates feel that they must produce larger and larger surprises relative to the analysts' consensus.

CONSENSUS ESTIMATE REVISIONS AND EARNINGS SURPRISE STILL WORK

Despite the fact that most portfolio managers today use estimate revisions and earnings surprise in their stock selection process, their effect on stock prices has not been arbitrated away. As an example here is the recent performance of the composite earnings estimates momentum and surprise factors model from DLJ's monthly quantitative report. This chart clearly shows the discrimination in price performance between stocks with positive and negative estimate revisions and earnings surprises.



However, the game seems to be changing. Wheeler¹¹, an intensive user of earnings estimate strategies, recently commented that "...a good way to profit from earnings revisions is to trade ten days after the earnings surprise, when analysts have all adjusted their forecasts in light of the surprise and the stock's price has corrected any overshoot from the announcement itself. It appears that most of the profit from an estimate revisions signal occurs in the weeks leading up to the next surprise, as investors position themselves to profit from the next post-surprise run-up."

A CHANGE OF FOCUS FROM DUMB CONSENSUS TO SMART ESTIMATES

Most of the studies in the books cited above focused on the consensus forecasts as represented by the mean estimate. More recently, and starting with Patricia O'Brien's¹² finding that more current estimates are more accurate, much focus has been placed on individual estimates, with an eye to discovering patterns of estimate changes that can produce more accurate estimates than the simple mean consensus. We know for example that there are times when one analyst clearly leads the pack¹³. Identifying such estimate revisions can be very profitable and that is what the research cited above is about. Estimate revisions often show clustering around corporate announcements. I have done an analysis, which shows the clear relationship between corporate announcements and clusters of estimate revisions¹⁴- and stock prices tend to react sharply to such events.

¹¹ See footnote 2.

¹² O'Brien, P. 1988. "Analysts' Forecasts As Earnings Expectations" *Journal of Accounting and Economics* (10:1) 53-83.

¹³ Robert McGough, "A Little Digging Can Go A Long Way For Wall Street Analysts" *The Wall Street Journal*, October 22, 1999, Page C1

¹⁴  "The Changing Nature of Earnings Estimates Databases, The implications for Research", *IIR Analyzing Corporate Earnings Seminar* October 19, 1999, NYC. (Double Click on icon to activate PowerPoint presentation).

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Joe Gatto of Starmine, Christi Gleason & Charles Lee of Cornell University, Marty Herzberg of DAIS, Andrew Rudd of Barra, and Haim Mozes of Fordham among others, are doing such work.

REGULATION FD

I tried to see if Reg FD, which was announced in August and went into effect the first week in October affected corporate behavior. The only effect seems to be an increase in pre-announcements.

Under this regulation corporations cannot selectively release significant information without simultaneously publishing such information. Effectively it seems that this will cut out most private communications with analysts, much to their chagrin. It is expected that corporations will publish more announcements and that they will hold more open conference calls. Anecdotes in the press tell us that some corporations started following Reg FD even before October.

Clearly the number of pre-announcements is up but some of this is probably because of Reg FD and some because earnings expectations are coming down. The number of conference calls had been rising for several years so it is not clear that the large number has been inspired by Reg FD.

CONCLUSION

It is clear that thirty years ago most market participants did not appreciate the importance of earnings forecast trends to investment decisions. Today one cannot read or hear about an earnings announcement without reference to the consensus forecast. With this sensitivity corporations are aggressively guiding analysts' forecasts to increasingly larger positive surprises. This seems to reflect their attempt to beat not only the analysts' consensus but also the whisper numbers.

Are these analysts unaware that their estimates show a systematic bias? I think not. It is like the Emperor's New Clothes. Everyone knows but no one is talking. Can this trend continue forever and will the transparency fostered by Reg FD cause the bias to disappear? The jury is out.