For Some Firms, a Case of 'Quadrophobia'

Study Suggests Companies Tweak Per-Share Earnings to Meet Expectations; 4 Is a Lonely Number

By SCOTT THURM

A new study provides further evidence suggesting many companies tweak quarterly earnings to meet investor expectations, and the companies that adjust most often are more likely to restate earnings or be charged with accounting violations.

The study, which examined nearly half a million earnings reports over a 27-year period, reached its conclusion by going beyond the standard per-share earnings results that are reported in pennies and analyzing the numbers down to the 10th of a cent.

That deeper look showed that companies tend to nudge their earnings numbers up by a 10th of a cent or two. That lets them round results up to the highest cent. Investors often snap up shares of companies that beat earnings expectations, even by a cent, and, likewise, sell off shares of companies that don’t make their numbers.

"Managements will exercise accounting discretion to try to make their numbers look better for Wall Street ... in a number of subtle ways," said Joseph Grundfest, one of the study’s authors. Mr. Grundfest is a law professor at Stanford University and a former member of the Securities and Exchange Commission.

Mr. Grundfest and co-author Nadya Malenko, a doctoral candidate at the Stanford Graduate School of Business, said the accounting maneuvers may be legal, even when they have the effect of boosting reported earnings per share. Most of the tactics involve judgment calls, such as the value of inventory or the amount that should be set aside for loans that won’t be repaid. The Securities and Exchange Commission declined to comment.

The authors’ conclusions rest on a simple piece of statistical analysis. When they ran the earnings-per-share numbers down to a 10th of a cent, they found that the number "4" appeared less often in the 10ths place than any other digit, and
significantly less often than would be expected by chance. They dub the effect "quadrophobia."

The amounts of money involved can be small. For the typical company in the study, an increase of $31,000 in quarterly net income would boost earnings per share by a 10th of a cent.

But the overall effect is striking. In theory, each digit should appear in the 10ths place 10% of the time. After reviewing nearly 489,000 quarterly results for 22,000 companies from 1980 to 2006, however, the authors found that "4" appeared in the 10ths place only 8.5% of the time. Both "2" and "3" also are underrepresented in the 10ths place; all other digits show up more frequently than expected by chance.

Companies tracked by Wall Street analysts are less likely to report "4s" in the 10ths place of an earnings-per-share figure particularly when their results are close to analysts' predictions. Companies with high price-to-earnings ratios also report fewer "4s."

In their most intriguing finding, the authors found that companies that later restate earnings or are charged with accounting violations report significantly fewer 4s. The pattern "appears to be a leading indicator of a company that's going to have an accounting issue," Mr. Grundfest said.

A Wall Street Journal analysis of quarterly results over the past four quarters for more than 2,600 companies found that rounding up remains more common than rounding down, though the shortage of "4s" wasn't as notable.

Computer maker Dell Inc. didn't report earnings per share with a "4" in the 10ths place between its 1988 initial public offering and 2006. The likelihood of that happening by random chance is 1 in 2,500.

In 2007, Dell restated its results for 2003 through early 2007, reducing its net income by $92 million over the period to correct what it said were errors in the way the company recognized revenue and handled reserve accounts for warranties and other items. Dell said in an SEC filing in 2007 that unnamed executives had adjusted its results after quarters had been completed "so that quarterly performance objectives could be met."

A Dell spokesman said the company wasn't sufficiently familiar with the study to comment. He said the $92 million adjustment was a small fraction of Dell's $12 billion in net income over the restatement period. He said Dell's financial-reporting practices are "rigorous" and the company is "committed to ongoing transparent and accurate reporting." Dell said in December that an SEC investigation is continuing.

Other accounting professionals said the study bolsters earlier research suggesting companies manage financial results to avoid disappointing investors.

"In the stock market, missing [expectations] by a penny versus beating by a penny, there are significant consequences for these managers," said Somnath Das, an accounting professor at the University of Illinois at Chicago.
Mr. Das co-authored a 2003 paper that found companies were more likely to round earnings-per-share figures to the next-highest penny, rather than down. He credits the Stanford researchers with finding links between companies that tend to round up and those that restate financial results.

Accounting professionals said the study highlights the discretion that managers exercise over financial results.

"There's a million ways you can adjust your earnings per share," said Jack Cieselski, publisher of the Accountant's Analyst Observer, a trade journal. "It's no revelation that companies can come to a desired earnings figure. [The study's authors] have pretty good circumstantial evidence that this does happen."

—Maurice Tamman contributed to this article.

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