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Measures of Corporate Earnings: What Number Is Best?

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For many years, I've had little confidence in the earnings reported by most corporations. I'm not talking about Enron and WorldCom—examples of outright crookedness. Rather I am referring to the legal, but improper, accounting methods used by chief executives to inflate reported earnings.

— Warren Buffett
New York Times, July 24, 2002

Revelations of corporate fraud in 2002 shook the public's confidence in financial reporting and led to calls for reform. Without credible, transparent, and comparable financial information, investors, auditors, and others cannot make decisions that are essential to the efficient functioning of the economy. But while rules can be improved, it is not possible to achieve a rigid standard that applies uniformly to every company. This *Economic Commentary* explains why.

Revelations of corporate fraud over the past year or so have clearly shaken investor confidence. No doubt the equity market's poor performance in 2002 can be attributed in some part to heightened uncertainty about the quality of financial reports—especially those regarding quarterly earnings. The quality of earnings reports concerns more than just illegal practices. Even when they stay within the bounds of legal accounting practices, there is concern about whether the reports provide investors information appropriate for assessing the value of a firm.

The possibility that legal but improper accounting practices contributed to the recent stock market woes has fostered a public debate about existing accounting practices. This *Commentary* briefly reviews some key issues and describes alternative methods and measures used to report earnings. We assess the implications of alternative accounting practices for stock price valuation to highlight the economic issues.

Some Key Issues

One recent practice receiving closer scrutiny is that of public companies developing and reporting their own measures of earnings in press releases. Such measures—so-called *pro forma, street*, or *operating* earnings—differ from the measure of earnings defined by generally accepted accounting principles—GAAP earnings—in that they omit a variety of nonrecurring, noncash, and other miscellaneous items. Although full reports typically contain GAAP earnings somewhere within, the company-defined measures are most prominently featured. The crux of the matter is whether firms use this practice to exaggerate earnings and thereby mislead investors.

Figure 1 compares Standard and Poor's measures of GAAP and operating earnings per share for its S&P 500 index. Because the items excluded are most often expenses or other charges against income, the company-defined measures generally exceed GAAP earnings, offering a more upbeat representation of a firm's performance. Indeed, the company-defined earnings have been wryly referred to as "earnings before the bad stuff." Not only are operating earnings typically larger than GAAP earnings, the discrepancy is widening.

Some observers note that the potential for earnings exaggeration arises even under GAAP. For example, under current GAAP rules, firms are not required to expense the value of employee stock options, an omission that critics claim results in earnings overstatement. Also, GAAP treatment of pension expenses allows for a significant amount of company discretion and hence the potential for manipulation of GAAP earnings.

Accounting Standards

Financial accounting and reporting standards are essential to the efficient functioning of the economy because investors, creditors, auditors, and others rely on credible, transparent, and comparable financial information. The Securities and Exchange Commission has statutory authority to establish such standards for public companies under the Securities Exchange Act of 1934. Throughout its history, the SEC's policy has been to rely on the private sector for this function to the extent that the private sector demonstrates the ability to fulfill the responsibility in the public interest. In 1973, the SEC designated the Financial Accounting Standards Board (FASB) as the private-sector organization in charge of establishing the standards. Thus, the FASB establishes the guidelines that determine how GAAP earnings can be measured.

The most comprehensive measure of earnings under GAAP is *net income*. Net income is the difference between total sales and both total costs and expenses from operations plus income or less losses from other sources. Total costs comprise the cost of goods sold, includ-

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ing depreciation of plant, equipment, and other capital goods. Total expenses comprise selling, general, and administrative expenses and include financing costs and taxes.

The rules also allow for a narrow set of exclusions from net income related to discontinued operations, extraordinary items, and the effects of cumulative changes in accounting practices. Extraordinary items are transactions or events that are *both* unusual in nature *and* infrequent in occurrence. Examples are charges related to floods, hurricanes, earthquakes, and so forth. GAAP earnings are defined as *net income from continuing operations*, which is net income excluding the narrow set of prescribed transactions or events.

Economic Perspective

Although GAAP-based rules provide for a credible, transparent, and comparable earnings benchmark, it is not evident that such a measure is the most relevant for an investor trying to assess the fundamental value of the firm. From an economic perspective, the value of a firm is determined by the present value of *future* cash payouts, usually in the form of dividends. A firm can sustain such payouts only if it can generate a stream of *future* earnings.

A key implication of this perspective is that current earnings represent only a small contribution to the value of a firm. Nevertheless, changes in current earnings often contain information about future earnings. On the other hand, current earnings may contain an item, say a nonrecurring cost, which is not representative of future costs. In such cases, it may be appropriate to exclude the item from reported earnings to give investors a clearer picture of the value of the firm.

Are Exclusions Unimportant?

When ascertaining the appropriateness of exclusions, the point is whether earnings reports exclude items that are truly nonrecurring and thus unimportant for the value of the firm. To address this issue one needs to examine whether the exclusions are at all related to the firm's future performance and hence fundamental value. A recent study by accountants Doyle, Lundholm, and Soliman investigates this very question using a large sample of quarterly earnings reports from 1988 to 1999. They find that excluded expenses are far from unimportant. Rather, higher levels of exclusions are associated with lower future cash flows. They also find that investors do not fully appreciate the lower-cash-flow implications at the time of the earnings announcements. Indeed, they show that an investment strategy based on the excluded expenses produces a large abnormal positive return in the years following the announcement and persists. This suggests that many investors may have been misled by firms' use of pro forma earnings.

The study also breaks exclusions into two categories, special items and other exclusions. Special items, like extraordinary items, are nonrecurring but are from a much broader class of transactions or events. Special items may be *either* unusual *or* infrequent. Examples of special items include restructuring charges, asset write-downs, or losses on the sale of assets. Other exclusions are the residual—the difference between total exclusions in the earnings reports and special items—and are not easily defined. The study finds that when special items and other exclusions are treated separately in the analysis, only other exclusions are statistically associated with lower earnings. These results suggest that investors need to examine carefully the nature of each item excluded. The fuzzier the excluded item, the more likely its importance for assessing future earnings. On the other hand, some items are unimportant for the value of the firm, and their exclusion is warranted. Flexibility in the presentation of income components is justified under such circumstances.

Unfortunately, the distinction between special items and other exclusions is not always obvious. In practice, it would seem doubtful that any uniform standard could be applied. The FASB issues occasional statements that provide some guidance. What is truly infrequent or nonrecurring, however, will always be subject to judgment. For example, when firms restructure, they often treat the related severance costs as a special item. Are such costs truly nonrecurring? Firms in declining industries may undergo several phases of restructuring.

More research is clearly needed. It would seem useful to examine whether the results in the Doyle, Lundholm, and Soliman study were driven by companies that were later exposed for fraud. Whether or not that turns out to be the case, it seems likely that investors will have learned from their recent experiences and will be more skeptical of the measures featured in press releases. It will be interesting to see whether the study's results hold up with additional data.

Accounting for Employee Stock Options

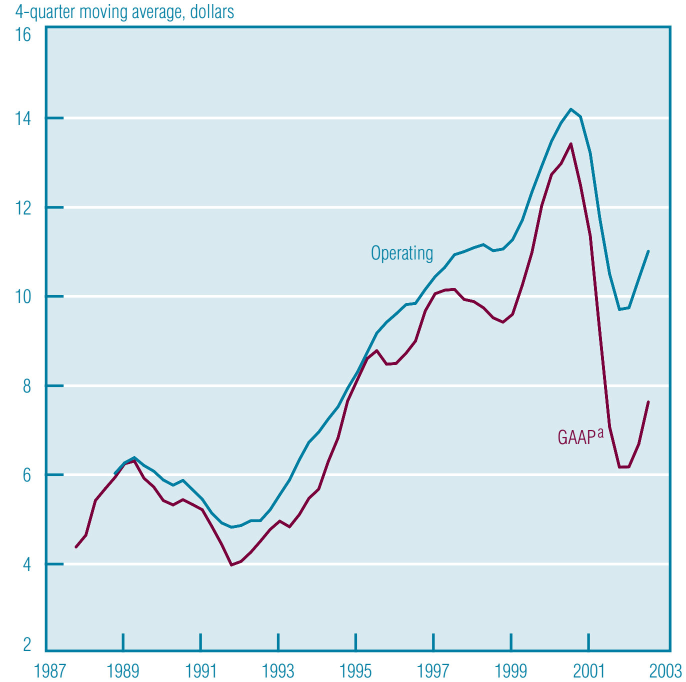
Under current GAAP rules, firms are not required to expense employee stock options (ESOs), even though the value of the option is deductible from corporate income for tax purposes when the option is exercised. When ESOs are omitted from expenses, it tends to inflate measured earnings at the time the ESOs are granted. Researchers Liang and Sharpe note, however, that earnings per share decline at the time options are exercised because earnings are divided by a greater number of shares.

The debate concerning whether to expense ESOs has revealed some glaring economic misconceptions. Some opponents of expensing options have claimed they are cost-free and hence should not be expensed. Such a claim is clearly fallacious. ESOs have value and are a form of compensation. Firms that grant ESOs can offer lower wages and salaries.

There is compelling evidence in the aggregate compensation numbers of the late 1990s that ESO grants were indeed a substitute for cash compensation. This was a period during which the economy and productivity were accelerating. These are conditions under which one might expect to find rising rates of compensation, but growth in compensation per hour was actually falling. Labor economists found this to be puzzling. Research by New York Fed economists Mehran and Tracy, however, showed that the puzzle was resolved when the value of ESOs was incorporated into total compensation.

Accounting for the value of ESOs is not a simple matter. What matters for the viability of the firm is the total compensation it must pay to keep valued employees. Ideally, one would want to incorporate the ESO value at the time it is granted because it would correspond to current compensation. ESOs, however, are very complicated contracts about uncertain future payments, and thus involve sophisticated pricing models. Because such models involve

FIGURE 1 GAAP AND OPERATING EARNINGS PER SHARE, S&P 500



a. Standard and Poor's calls these "as-reported earnings."
SOURCE: Standard and Poor's Corporation.

several assumptions, some advocates argue for expensing options at the time they are exercised.

It is worth noting that the corporate profit measure in the National Income and Product Accounts expenses stock options for the value they create for employees at the time they are exercised. Standard and Poor's estimates the value of ESOs using standard models. They estimate that expensing ESOs would reduce S&P 500 GAAP earnings by almost 20 percent in the 12 months ending June 2002.

Since this issue resurfaced in recent years, the number of firms voluntarily treating ESOs as an expense has jumped sharply. In 2001, only two firms in the S&P 500 expensed their ESOs. In 2002, more than 100 have indicated they will report income measures that expense ESOs, and the issue is under review at FASB.

Accounting for Pension Funds

Another accounting issue is the treatment of pension fund costs or gains. About 70 percent of the S&P 500 firms offer defined-benefit pension plans. Under such plans, the firms are obligated to pay future benefits to current and retired employees. The benefits are specified by a formula that takes account of an employee's years of service and final average salary. These plans use pension asset funds that contain stocks and bonds to cover future obligations. As obligations grow and the market value of the fund varies, pension funds can vacillate between being overfunded and underfunded.

Firms contribute to the fund as needed to keep it roughly balanced. FASB rules specify a method for determining the amounts to be expensed. Because market valuation variations are often transitory, individual firms are given some discretion to estimate the plan's fund value using a method that ignores the actual recent performance of the asset fund. Essentially, pension expenses depend on the expected value of future portfolio returns.

Because portfolio holdings vary from firm to firm, one firm may choose an expected return of 10 percent, while another may choose one of 6 percent. An assumption of higher projected returns requires lower contributions to be expensed against current earnings. In essence, there is no uniform standard, and corporations can effectively manipulate earnings numbers if they choose. Another concern is that under GAAP, firms are allowed to include pension plan gains in their reported net income even though the pension fund is not part of their core business.

To provide a better benchmark for core earnings, Standard and Poor's has proposed an adjustment method to limit the discretionary element of pension fund expenses. Moreover, they exclude pension fund gains from company income, since such gains are not generated by core operations. Their pension fund adjustment method reduces GAAP earnings of the S&P 500 by approximately 25 percent for the year ending June 2002. Their technique introduces substantial variation to their earnings estimate. While this may not be useful for assessing the value of the firm, it provides a clear standard against which firms would have to justify their assumptions. What's more, S&P's adjustment can serve to provide a red flag for potential pension problems ahead.

Caveat Investor

Accounting and reporting standards are essential to the efficient functioning of the economy because investors, creditors, auditors, and others rely on credible, transparent, and comparable financial information. It is impossible, however, to develop a standard that applies to every contingency. No single measure can be best for all circumstances. Some exclusions from GAAP earnings, for example, may be warranted on the basis that the excluded item is not relevant for assessing the future performance of the company. Tension will always exist between the need for a rigid standard and some flexibility.

Investors must examine earnings reports carefully and make their own judgment about company-defined measures. Firms that abuse their discretion will lose credibility, and the value of the company will suffer. The experience of the late 1990s suggests that investors were too credulous. One might expect, however, that lessons were learned, and investors will demand better information. Firms will be more prudent to regain credibility. Only time will tell.

Transparency is always important. Concerns about accounting for ESOs and pension expenses may lead to changes in accounting rules. In any case, the public debate will likely impose some form of discipline. Firms are becoming increasingly willing to include ESOs in their own earnings measures. Moreover, some recent earnings reports offer alternative implications of a range of assumptions about pension fund returns. By providing an array of information, investors can choose their own assumptions.

■ Recommended Reading

Hamid Mehran and Joseph Tracy, "The Effect of Employee Stock Options on the Evolution of Compensation in the 1990s." Federal Reserve Bank of New York, *Economic Policy Review*, vol. 7, no. 3, December 2001.

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