

## Corporate Earnings: *It's not just a question of quantity*

September 30, 2007

### Introduction

They say beauty is only skin-deep. Investors would be wise to remember this aphorism when choosing stocks since a company's stated earnings, though eagerly watched by the market, are only ink-deep. To truly understand a firm's financial situation, it is important to consider the quality of a firm's earnings, not just the quantity.

#### The Basics...

Understanding the quality of earnings is important to forecasting the quantity and credibility of future earnings.

Level of accruals, operating margins, asset turnover and expense exclusions are significant indicators of the degree of earnings quality.

Earnings quality measures differ by industry, making customization of rankings models necessary.

Companies with high earnings quality have a higher likelihood of reporting positive earnings surprises in the future.

There is evidence that company management teams overly fixate on meeting short-term earnings growth expectations. When these earnings targets are at risk, many companies manipulate accounting rules to create the appearance of continued growth. Unfortunately, aggressive accounting practices used to pump up earnings today will have to be reversed at some point in the future. This opens up the possibility that an accurate assessment of earnings quality can be used to achieve superior investment returns.

Academic work has revealed certain measures that can offer insight into the quality and sustainability of a firm's earnings. In addition, Smith Group has conducted its own research in this area, building upon prior work. We have verified, refined and expanded the findings, and used these results to enhance our proprietary earnings quality ranking model.

This paper will summarize relevant past research related to the subject of earnings quality. It will then

outline the findings of our own research and illustrate how we have incorporated earnings quality analysis into our investment process.

### Background

The success Smith Group has achieved over the years is attributable to our ability to control portfolio risk and invest in companies whose earnings grow faster than the market expects. Because reported earnings are so important to our process, and because managements have so many accounting tools available to them to manipulate earnings, it is important that we assess the credibility of earnings for every company we invest in our clients' portfolios.

The foundations of our earnings quality model rest on a large array of research generated both externally and internally. We have studied numerous academic papers from some of the leading minds in the field. The outcome of this review was a confirmation of the primary measures that we already use, but with some enhancements that give us improved insight into a company's earnings quality at an industry level. This enhancement added a great deal of strength to the model's performance by eliminating or overweighting certain measures according to their specific relevance to an industry. For example, banks clearly generate earnings in a different way than other businesses, so customizing the measurements to determine the quality of earnings for a bank is important. This type of industry-level customization can make the difference between enhancing performance and detracting from it.

From an investment analysis perspective, high quality earnings should be:

- *Truthful* – Earnings growth derived from accounting manipulation does not represent a company's true fundamentals and is of little use for investors.
- *Sustainable* – Only earnings from the ongoing activities of a company's operations can be expected to recur in future periods. Earnings that come from an atypical activity, such as the one time sale of a large asset, do not form a good basis for prediction.

## Academic Papers

Recent academic literature has suggested metrics that can be used to measure earnings quality.

In Richard Sloan's 1996 paper "Do Stock Prices Fully Reflect Information in Accruals and Cash Flows About Future Earnings?", he finds two effective measures of earnings quality: accruals and cash flow. Accruals are the difference between reported earnings and cash flow; they often result from revenue and expenses which have been booked but for which cash has not yet changed hands (i.e. accounts receivable and payable). The paper concludes that companies with high use of accruals are less likely to show persistence in reported earnings growth. On the other hand, companies with relatively low use of accruals are more likely to have high quality and sustainable earnings. Sloan's work identified mispricing associated with this variable.

Additional insight into earnings quality can be found in Mark Soliman's 2002 paper "Using Industry-Adjusted Dupont Analysis to Predict Future Profitability." This analysis looks at two components of ROA (return on assets): profit margin and asset turnover and investigates their ability to predict future returns.

The results show that companies with high profit margins and high asset turnover relative to their industry are likely to have positive earnings growth in the future due to a company's competitive edge. Soliman concludes that improving asset turnover is a particularly persistent factor and a good predictor of repeat earnings.

In a 2003 paper Jeffrey Doyle, Russell Lundholm and Mark Soliman looked at the predictive value of expense exclusions from pro forma earnings to assess the quality of these "non-standardized" earnings reports.

While the practice has abated somewhat over the past few years, many firms prefer to announce pro forma earnings instead of GAAP (generally accepted accounting principals) earnings. Pro forma earnings often exclude certain expenses from earnings calculations creating the appearance of higher profitability and more attractive valuation. The stated reasoning given by management is that adjusted earnings give investors a better view of the core, ongoing activities of the enterprise. More pessimistic observers claim the intention is merely to inflate earnings.

The paper finds that excluded expenses do, in fact, have a significant negative relationship to future earnings. Thus, firms do not appear to be justified in their use of exclu-

sions, and earnings that result from a high level of exclusions are of questionable quality.

To summarize, the quality of earnings can be successfully measured by such variables as:

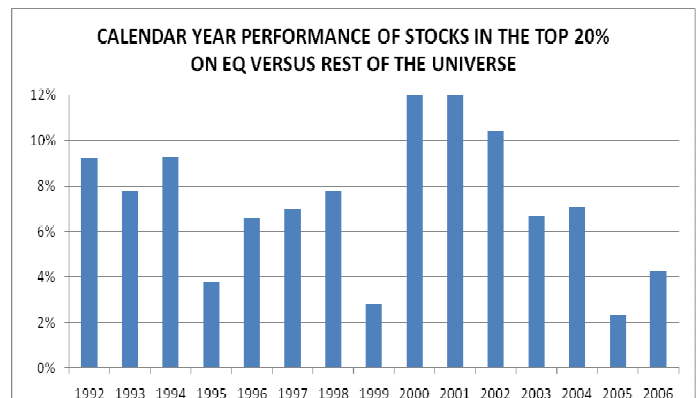
- Accruals
- Profit margin
- Asset turnover
- Expense exclusions

These insights bolstered our existing beliefs and pointed us toward possible enhancements that could be made to our earnings quality model.

## The Smith Group Earnings Quality Model

We began the project by testing existing components of our earnings quality model as well as additional measures presented in academia and other research. We measured them based on their intuitive ability to explain earnings quality as well as their historical ability to predict future return. All measures fit within our traditional approach to fundamental analysis. Tests were conducted at the sector and industry level.

The result is an improved ranking model tailored individually to the nature of each company's business. In all cases we let theory guide and validate our efforts. Blind data mining turns up relationships that are coincidental and do not hold up outside the sample in which they are found. We only accepted as valid those relationships which both exhibited strong statistical significance and made sense from a theoretical point of view. These measures provide us with a window into the future sustainability of earnings which is not reflected by current stock prices.



The chart above illustrates the consistency of market return relative to our investment universe to stocks ranked in the top 20 percent according to our earnings quality model. Many stock selection factors perform well in either growth or value cycles (such as 2000 – 2002) but rarely

in both. However, our EQ model performs remarkably well in distinctly different types of market environments. This analysis is useful in determining when the factor outperforms or underperforms and establishing how well the model might interact with other factors we use in our investment process.

### The How We Use Earnings Quality in Our Investment Process

Our earnings quality model helps us at both ends of our investment process – identifying companies that outperform as well as underperform the market.

Because companies with poor earnings quality rankings have a higher likelihood of underperforming the market, we eliminate them from consideration through quantitative screening.

On the positive side, the ranking model is very good at identifying companies that are more likely to show earnings growth persistence and to report positive earnings surprises. Because of these benefits, our portfolios are made up of companies with much better earnings quality than the benchmark.

From an individual company level, earnings quality analysis provides us a window into the direction of a company’s financial position and future earnings growth. We prefer companies that are decreasing their use of accruals, improving the efficiency in which they operate their businesses and generating increased levels of free cash flow.

Deterioration of these trends results in a lower model score and is a “red flag” that warrants further analysis. An existing holding that experiences a material decline in earnings quality will be sold. Our sell discipline is focused on eliminating companies that have a high likelihood of reporting a negative earnings surprise and our research shows this occurs more often in companies with low and declining earnings quality.

Our earnings quality model is used both quantitatively and qualitatively. We use quantitative screening to eliminate companies from consideration for long positions that increase risk in the portfolio. For selection of short positions, the opposite is true. Low earnings quality companies make great shorting candidates for our 130/30 portfolios (see related white paper). Screening for companies with both attractive earnings quality and improving earnings growth outlook help refine our final candidate list that is used as a starting place for more in-

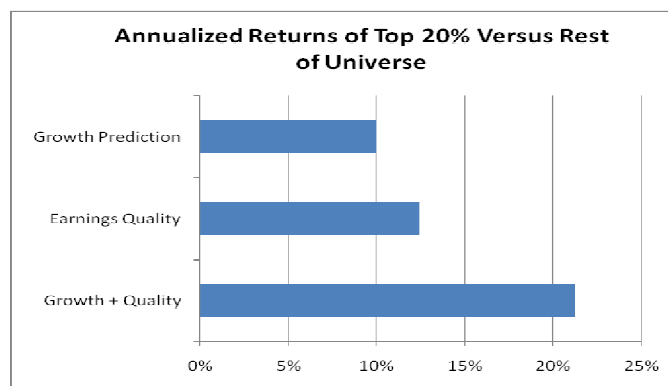
depth fundamental analysis. Qualitatively, portfolio managers use the components of the earnings quality model to identify areas of concern that may warrant further fundamental analysis.

### Combination with Other Ranking Models

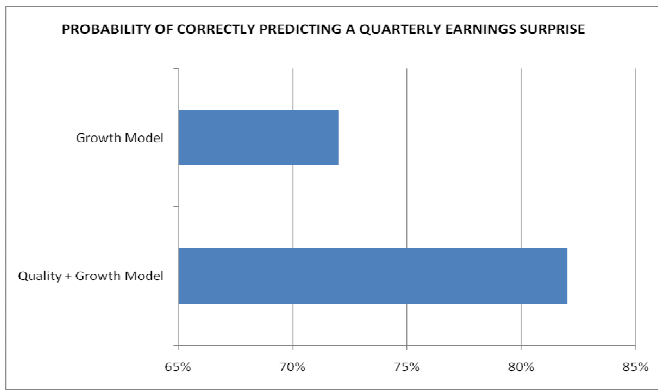
Our model works well on its own and when incorporated into our existing stock selection process. The earnings quality score can independently generate alpha, helping identify companies that will generate positive earnings surprises and sustainable growth. Additionally, the measure enhances our ability to avoid companies that are more likely to restate earnings, something almost always associated with significant negative returns.

The true test of any fundamental factor we consider is whether it contributes to enhancing the performance pattern we deliver to our clients. Our “Growth Prediction” models focus on companies that will grow faster than the market expects. Screening on this factor in addition to high earnings quality has a compounding effect, providing a significant boost to the model’s ability to deliver alpha.

The bar chart below measures the historical return spreads associated with each model individually and combined. Companies with the highest Growth Prediction and Earnings Quality rankings outperform those with the worst combined rankings by over 30% per year.



Further evidence of the value derived from combining the two factors is supported by the chart on the following page. The most attractive companies based on the “Growth Prediction” model beat quarterly earnings estimates 72% of the time whereas companies that are ranked attractively by both models beat quarterly earnings estimates 82% of the time. This is a significant increase in surprise prediction given that the average stock beats earnings estimates nearly 60% of the time.



### Combination with Other Ranking Models

Earnings quality analysis has long been part of the research process at Smith Group. It gives us an additional tool to work with in selecting stocks and building superior portfolios for our clients. It allows us to put a firm’s earnings data “under the microscope” to gain insight into future earnings growth. This is necessary in a world where the earnings picture painted by management can be distorted through the intricacies of modern accounting procedures. Intelligent investing requires analysis below the surface to the true beauty, or lack thereof, that lies beneath. You can rest assured that at Smith Group, we look at both the quantity *and* quality of earnings.

# Smith Group

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### Disclosures

Founded in 1995, Smith Asset Management Group, L.P. (“Smith Group”) is a registered investment advisor that specializes in equity investment management services.

Earnings Quality/Earnings Surprise: According to many academic studies as well as our own research, earnings quality and earnings surprise have had a positive relationship to relative performance in certain time periods for certain companies. However, this does not mean that this relationship exists for all time periods and for all companies. In the past, periods coinciding with an inverse relationship between earnings surprise and earnings quality, and relative performance have typically been periods in which corporate earnings are not the focus of investors’ attention. Additionally, companies which have had a chronic negative relationship between earnings surprise and relative performance are typically those companies whose earnings are not product-driven, such as commodity companies. There is no assurance that the historic positive relationship between earnings surprise, earnings quality, and relative performance will exist in the future. Nor is there any assurance that the historic ability of Smith Group to forecast a high rate of positive earnings surprise and high earnings quality companies will exist in the future.

The pro-forma performance results presented in this study do not represent the results of actual trading using client or firm assets, but were achieved by means of the retroactive application of a computer model that was designed with the benefit of hindsight. Pro-forma performance results such as those shown in this presentation have significant limitations, and should not be relied upon as indicative of future performance. Pro-forma performance is presented before estimated exchange fees, commissions and trade execution costs. During the time periods presented in this study, Smith Group, L.P. was not managing assets in a dedicated earnings quality focused investment strategy.

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