

3-9-2003

Quality Accounting for Equity Analysis

Stephen H. Penman

[How does access to this work benefit you? Let us know!](#)

Follow this and additional works at: https://academicworks.cuny.edu/bb_pubs

Recommended Citation

Penman, Stephen H., "Quality Accounting for Equity Analysis" (2003). *CUNY Academic Works*.
https://academicworks.cuny.edu/bb_pubs/1028

This Presentation is brought to you for free and open access by the Baruch College at CUNY Academic Works. It has been accepted for inclusion in Publications and Research by an authorized administrator of CUNY Academic Works. For more information, please contact AcademicWorks@cuny.edu.



QUALITY ACCOUNTING FOR EQUITY ANALYSIS

by

Stephen H. Penman

George O. May Professor and Morgan Stanley Research Fellow

Graduate School of Business, Columbia University

March 3, 2003

Stephen H. Penman is the George O. May Professor and the Morgan Stanley Research Scholar in the Graduate School of Business, Columbia University. Prior to his appointment at Columbia in 1999 he was the L. H. Penney Professor in the Walter A. Haas School of Business at the University of California at Berkeley. From 1990-95 he served as Chairman of the Professional Accounting Program and Chairman of the Accounting Faculty at Berkeley. He also chaired the Haas School's Annual Conference on Financial Reporting. He has served as a Visiting Professor at Columbia University and the London Business School, and as the Jan Wallander Visiting Professor at the Stockholm School of Economics.

Professor Penman received a first-class honors degree in Commerce from the University of Queensland, Australia, and M.B.A. and Ph.D. degrees from the University of Chicago. His research is concerned with the valuation of equity and the role of accounting information in security analysis. He has published widely in finance and accounting journals and has conducted seminars on fundamental analysis and equity evaluation for academic and professional audiences. In 1991 he was awarded the notable Contribution to Accounting Literature Award by the American Accounting Association and the American Institute of Certified Public Accountants, and in 2002 was awarded the American Accounting Association and Deloitte & Touche Wildman Medal for his book, *Financial Statement Analysis and Security Valuation*, published by McGraw-Hill/Irwin in 2001. He is managing editor of the *Review of Accounting Studies* and is on the editorial board of the *Sclzmalenbach Business Review*.

It almost goes without saying that financial statements are an important source of information for equity analysts. The quality of analysts' products - their advice to investors, in particular - is determined in part by the quality of the financial information they work with. This observation has, of course, been reinforced in the last two years; as the stock market bubble burst, analysts have been surprised, and investors have been damaged, by accounting failures. No doubt the bubble was supported by speculative equity analysis that ignored information in financial statements. But the quality of the accounting in financial statements has also been called to task. Appropriately so, but to criticize accounting, we do need an understanding of what is expected of accounting.

I want to ask two questions:

- What does "quality accounting" look like from an equity analyst's point of view?
- How does the equity analyst deal with "poor quality accounting"?

The answer to the first question conveys what the analyst expects of the accountant and so characterizes accounting quality. The second question focuses on the quality of equity analysis rather than the quality of the accounting. How does the analyst recognize the imperfections of accounting - some of which are inevitable, I will argue -- and adapt to them? Quality analysis deals with deficiencies in the accounting to produce a quality equity analysis product.

Before attempting to answer these questions, we had better have an understanding of what the equity analyst's task is. I view analysts as primarily involved in valuation. Equity research reports culminate in a buy, hold, or sell recommendation, and it is on this recommendation that analysts are called to task. To reach a recommendation, they probe into the workings of the firm and its industry, they analyze financial reports, and they forecast earnings, but all

with the aim of assessing whether a stock is appropriately priced. Analysts challenge the current market price. Accordingly, accounting quality is judged on how well it helps in evaluating the underlying value of stocks.

Framing the Quality Question: Why Investors Buy Earnings

Earnings, the accountant's bottom-line number, is the number that analysts rely on most in getting to their bottom-line, the buy, hold, or sell recommendation. Analysts forecast earnings as the primary indicator of value. Stock prices appear to be driven by earnings; if a firm's earnings are below analysts' estimates, its stock price typically drops, and if the quality of its earnings reporting comes into suspicion, the price typically drops precipitously. Investors are said to buy earnings.

Why should earnings have such a central role in equity valuation? After all, earnings are an accounting construct, dictated by rules that are by fiat or justified by "general acceptance." Earnings involve estimates and thus can be biased. Should not the analyst rather focus on the cash flow that investors are expected to receive? Surely investors value cash, not earnings? Cash flows are "real" and not subject to the dictates of so-called arbitrary accounting rules. Understanding why earnings are better quality than cash flows (at least in principle) is fundamental to dealing with the issue of the quality of earnings.

Buying Cash Flows

Dividends are the cash that shareholders receive from owning shares; literally investors buy future dividends, not earnings. One does not have to think long, however, before coming to the conclusion that focusing on the dividends that a firm pays will not help much in valuing a share. Many very profitable (and valuable) firms do not pay dividends, nor are likely to do so in the immediate future. It is inconceivable to think of Microsoft's share price as based on the dividends it pays (which up to recently was zero). In the parlance of the Miller and Modigliani dividend irrelevance concept, dividends have to do with the distribution of value, not the generation of value. The investor is left with the dividend paradox: dividends are the payoff from owning shares, but forecasting dividends short of the liquidating dividend does not indicate value (and firms are going concerns).

Modern finance texts recognize the irrelevance of dividends. They advocate forecasting cash flows within the firm instead: What is the cash that the firm will generate from its operations? Discounted cash flow (DCF) analysis applies this idea to valuation, and has been a prominent tool in equity analysis. DCF models forecast cash from operations minus cash investment, that is, free cash flow. In accounting terms, the focus is on the cash flow statement, not the income statement. Indeed when teaching DCF we teach students to forecast earnings but then to "back out the accruals" to get to the "real" cash flows; that is, construct a forecasted cash flow statement. But does this really work for equity analysis?

Consider the following cash flows for Home Depot, Inc., the home improvement retailer and second largest retailer in the United States (after Wal-Mart). This firm has certainly generated value for shareholders, with its stock price rising from \$24 in 1998 to over \$50 in 2002. Here are the numbers for Home Depot's free cash flow reported over those years (in millions of dollars, except stock price):

Fiscal year ending January 31	1999	2000	2001	2002
Cash flow from operations	1,894	2,439	2,977	5,942
Cash investment	2,273	2,620	3,521	3,406
Free cash flow	(379)	(181)	(544)	2,536
Operating income	1,618	2,322	2,305	2,325
Stock price per share	40	61	51	52

Suppose one were an investor thinking about buying Home Depot stock at the beginning of its 1999 fiscal year and

received an analyst's report providing, in advance, the actual cash flows that were to be reported. There would be no uncertainty, but how useful would these cash flow forecasts be in evaluating how much to pay for the stock? Well, not much. Free cash flows are negative for three of the years because the firm used more cash for investment than it took in from operations. And the positive free cash flow in 2002 was largely due to a large increase in accounts payable and accrued liabilities. Free cash flow is a perverse measure of value added, for firms reduce free cash flow by investing (to create value) and increase free cash flow by reducing or liquidating investments. Free cash flow is, in part, a liquidation concept. For many a growing (and valuable) firm with a lot of investment opportunities (like Wal-Mart), free cash flow is negative. Firms also increase free cash flow by delaying payments on accounts payable and accrued liabilities.

Buying Earnings

Home Depot's operating income (under the cash flows here) has a different pattern. Not only are they positive, but also roughly track the stock price. They have the appearance of being a better valuation attribute than cash flows. To appreciate why earnings might be a better number to focus on, recognize the formal difference between free cash flow (from operations) and operating income (that is, earnings from operations, before net interest expense):

$$\begin{aligned}\text{Operating income} &= \text{Free cash flow} + \text{Investment} + \text{Accruals} \\ &= \text{Cash from operations} - \text{Investment} + \text{Investment} + \text{Accruals} \\ &= \text{Cash from operations} + \text{Accruals}\end{aligned}$$

This is an accounting relation that always has to hold. Accountants, in effect, calculate operating income by adding back investment from free cash flow and placing it in the balance sheet as an asset that produces future earnings and cash flows. Thus accrual accounting, in most cases, gets rid on the offending investment in the free cash flow calculation, so improving the quality of the number. (Where GAAP accounting expenses investments - as with the investment in R&D - income is likely to be poor quality.) In addition, accrual accounting adds accruals to recognize value added for which there is no cash flow. Thus revenue is recognized for sales in exchange for a receivable, even though cash has not been received. And wage expense incurred to generate revenues is booked even though the cash payment will not occur (in the form of a pension payment) until the employee retires.

This discussion is just a primer on accrual accounting as taught in every Accounting 101 class. But recognize the quality implications for equity analysis. If the investor is concerned with the ability of a firm to add value, he wants a measure that compares value added with value given up. Accrual accounting, in principle at least, tries to do this: Recognize revenues and match the expenses incurred to generate the revenues against those revenues. In accounting parlance, follow the matching principle. The cash accounting that yields free cash flow violates the matching principle because it matches investment to produce future cash flows against current cash flow from past investments. Therefore it does not yield a picture of value added from investment. Further, cash accounting does not recognize value that is added or lost that does not involve a cash flow in the current period. In short, cash accounting mishandles cash investment and fails to recognize changes in value (accruals) that do not involve cash flows.

I hope I have persuaded you that, for equity valuation, the analyst should focus on accrual accounting earnings rather than free cash flow. Earnings, in principle, are of better quality for the purpose at hand. Analysts covering Home Depot certainly forecast its earnings rather than its free cash flow, as they do for almost all companies. And investors are justified in thinking about their purchase of a share as one of buying earnings rather than buying cash flows. In the long run, a profitable firm (like Home Depot) must return positive cash flows, of course, as investments slow and cash from operations exceed cash investment. But "in the long run we are all dead." Forecasting cash flows in the long run (to value stocks) is not a practical solution.

The Tension in Accounting

You will notice that I have qualified the claim about the quality of earnings: Earnings are better quality than cash flows, *in principle*. The difference between cash flow and earnings that yields the desired matching is a matter of accrual accounting *principle*. But here is the rub: accrual accounting requires estimates and estimates can be abused. Deciding what is an investment (to place on the balance sheet) is a matter of judgment (of what cash expenditures

are for future benefit and what are expenses to be matched in the current period.) Almost every accrual adjustment to cash flow involves an estimate, whether it be useful lives for depreciation, collectibility of receivables to allow for expected bad debts, or actuarial calculations for pension expenses. Herein lies the tension in accounting and, indeed, the tension for the equity analyst who desires a quality measure of net value added through matching.

How is this tension to be resolved? At one extreme, one might argue that all estimates should be ignored, and the accountant should revert to cash accounting. Under this accounting, there is no income statement and the balance sheet reports only cash. That would be a sorry state for an analysis of Home Depot. At the other extreme, the accountant estimates the value of the firm and books it to the balance sheet. This comprehensive mark-to-market accounting presents a perfect balance (in principle) where value of the equity is equal to its book value. We have questioned the cash accounting extreme. What of the other extreme?

With a perfect balance sheet, the analyst has lost her job. The investor merely looks up the net asset value on the balance sheet, much as he would for an investment fund whose investments are marked to market; he has no need for an analyst. Equity analysis is necessary only because of the imperfections of the balance sheet. Why, apart for territorial reasons, would an equity analyst want an imperfect balance sheet? Why would a "low quality" balance sheet indeed be the quality that is desired?

The Fundamental Analysts' Creed

I do not pretend to be definitive on this issue, but it seems to me that a statement of a principle, long enunciated by traditional fundamental analysts dating back to Benjamin Graham, has an important bearing on the question. Investing in equities, they said, is a matter of speculating about payoffs. However, some things we know with reasonable precision and some things we do not. In carrying out fundamental analysis, *don't mix what we know with what we don't know* (and must speculate about). Analysts can speculate and accountants can speculate, but accountants have little comparative advantage in speculation. So, say the fundamental analysts to the accountant: Report what you know but do not mix that with speculation; leave the speculation to us. Mixing soft, speculative information with hard information only makes the task of speculation more difficult.

The investor, less concerned about the division of tasks between the analyst and the accountant, also has an interest in minimizing speculation in the financial statements. Share prices are driven by speculation; indeed excessive speculation can create stock price bubbles, as recent history attests. The investor requires financial information that can challenge stock prices, information that can test them against the facts. The investor looks to financial reporting to ground him in waves of speculative fever. Don't mix speculation with what we know.

The fundamentalist creed has its expression in the accountants' reliability criterion: Accounting numbers must be measured with reasonable precision and be supported by objective evidence, free of opinion and bias. Accrual accounting contains many estimates, of course, and (to be candid) I am not sure where the line is drawn. But the demand for the reliability criterion in accounting is clear: don't mix what we know with speculation.

The reliability criterion leads to a number of insights about desirable features of accounting, to which I will come. But first, let me entertain the idea of the accountant providing a perfect balance sheet which, one could maintain, would be accounting of high quality.

The Perfect Balance Sheet

The demand for better balance sheets increased during the bubble. Balance sheets omitted intangible assets, it was said, and so traditional accounting became less relevant. The modern firm's value is in its intellectual capital, its human capital, and its structural capital, and these assets are not on the balance sheet. The practicing accountant balks, for she understands how difficult it is to measure the value of these assets. The reason, of course, is that these assets are speculative; indeed, "intangible assets" is inherently a speculative concept. Not only are these assets difficult to measure, they are difficult to even identify. The accountant does well not to book these assets for she then follows that creed: Do not book these assets for then you will be destroying information by mixing it with speculation.

Indeed, under the way that accounting works, booking speculative value in the balance sheet destroys accounting information. It is not true that accountants omit the value of so-called intangible assets. The assets are not on the balance sheet, to be sure, but accountants also produce an income statement that reports earnings from those assets, and earnings can be used to value a firm. When a balance sheet is marked to market - in pursuit of a perfect balance sheet - the income statement becomes a statement of changes in market values, and changes in market values are uninformative about value. Add in estimation error in estimating the (speculative) value of assets, and the income statement becomes a statement of changes in estimates, destroying the information about earnings from matching revenues and expenses that otherwise would be presented. The problem we now have of bad debt expense representing the current period's experience plus the change in estimate for the previous period would be magnified significantly.

Fair Value Accounting

This discussion carries warnings to standard setters who are increasingly leaning towards fair value accounting - and a warning to analysts who have to work with fair value accounting. Fair value accounting tries to get the balance sheet right and is a reasonable accounting for the interest-bearing assets and liabilities involved in financing activities. But its application to operation activities is doubtful.

Consider the case of an analyst who is valuing a firm with investment in equities that are marked to market. During a stock market bubble, the analyst is concerned that the firm's stock price might be overpriced, so she looks to the accounting information to challenge the possibly speculative price. If the equity investments are carried on the balance sheet at a speculative price and if comprehensive income incorporates speculative unrealized gains, the accounting information may lead her to overprice the firm. Indeed, unless analysts are careful, one can envision a scenario where speculative prices generate balance sheets that then are used to justify speculative prices. The circularity creates a pyramid scheme that further promotes the bubble. Observe the gains that were booked on the investment portfolios of Microsoft, Intel, and Cisco Systems (to name a few) during the bubble, only to be followed by large unrealized losses as the bubble burst. A perceptive analyst who appreciated the bubble effect on the accounting might have predicted those losses.

You see that fair value accounting implicitly assumes "market efficiency," but it is market efficiency that the equity analyst is testing in order to reach a buy or sell recommendation. The fundamental analyst might rather prefer the equity method to mark-to-market accounting (as with investments in equities representing greater than 20% ownership), or proportional consolidation. For then he gets a number that is independent of prices.

Consider the case where fair values are not available from liquid markets, but have to be estimated - or should I say, speculated about. Now the income statement not only includes possibly speculative gains, but also changes in estimates. Not very good information, particularly when company management engages in the estimation. We have the legacy of Enron; a good deal of its "fake profits" resulted from speculative mark-to-market accounting. We have, of course, the models of modern finance to help with estimation, but while seemingly precise, they can lead to fake precision.

We have had another experience with fair value accounting for operations. The accounting for pensions is quasi-mark-to-market accounting. During the bubble, gains on pension assets ran into the income statement, magnified in some cases by high expected rates of return applied to bubble assets prices. These gains were a considerable portion of earnings for many firms with defined benefit pension plans. Earnings, taken on face value, again reflected the speculation in prices, so were a poor metric to challenge speculative prices. A perceptive analyst who understood that these were low-quality earnings would have expected a significant increase in net pension expenses and lower earnings upon the bursting of the bubble.

The lesson tells us: Beware of accounting that is based on prices, for it is of low quality in evaluating equity prices. Let's go down the road of fair value accounting with care.

Revenue Recognition and Matching

By now you can see that I am a proponent of old-fashioned historical cost accounting, at least for non-financial firms. The core principles of historical cost accounting are the revenue recognition principle and the matching principle. These principles serve the equity analyst well. The revenue recognition principle says, simply, don't add value in the accounts until you have hooked a customer. Speculating about future customers or future revenues is not the accountant's role. Tell us what you know - about the success in winning customers - and leave the speculation about future customers to the analyst. Further, match expenses to get value added, but minimize the speculation in doing so. Under this prescription, financial statements are seldom likely to be a perfect indicator of value; indeed, quality accounting must be imperfect.

Diagnosing Accounting Quality

I think I have supplied at least a partial answer to my first question: What does "quality accounting" look like from an analyst's point of view? Implicit is also an answer to the second question: How does the analyst deal with "poor quality accounting"? The analyst challenges the more speculative features of the accounting. Where income and balance sheets are constructed with fair value accounting (as with Enron), he investigates. Where the more speculative assets are candidates for impairment - like goodwill booked in an acquisition during a bubble or capitalized software development costs -- he challenges the accounting. When prices are brought into the financial statements - with mark-to-market for equities or the accounting for net pension assets - he has reservations. When restructuring liabilities are estimated - another example of quasi-fair value accounting - he worries about possible overestimation and credits future income. In short, in his exercise of challenging market prices, he develops diagnostics that challenge the more speculative aspects of accounting.

I cannot lay out a comprehensive quality of earnings analysis here⁽¹⁾. Needless-to-say, the analyst must investigate such issues as up-front revenue recognition (involving speculation about future customer behavior), allowances (for bad debts, rebates, and warranties, for example), estimated useful lives, estimated residual values of leases, unearned revenues, and "cookie-jar" reserves, and off-balance sheet liabilities, all of which are part of the standard litany of complaints. (Apologies, in advance, for the poor disclosure on these items!)

Disciplined Speculation

The analyst also deals with the (necessarily) imperfect accounting by adding speculation. The analyst starts where the accounting leaves off; he gives weight to the accounting and then adds speculation. If the accounting fails to book R&D assets because they are too speculative, then the analyst's job is to add the speculation about the likely success of R&D. The analyst adds value (so to speak) to the accounting. (Accountants can probably do a better job of R&D accounting, particularly in cases where technical feasibility is established.) But if the firm is reporting losses from current sales, the analyst takes note. He is reminded that, during the bubble, the accounting losses of dot.com firms were ridiculed as being the result of out-of-date accounting, a relic of the Industrial Age unfit for the Information Age (more speculation!). As it turns out, those losses were a good predictor of outcomes.

The analyst's speculation involves forecasting the future that (quality) accounting ignores. But the forecasting must be disciplined, and here the accounting also has a role. To do this, the analyst must ask what is to be forecasted in order to capture the value that is not already indicated on financial statements. This question is really a question of how to account for the future. My earlier comparison of cash and accrual accounting supplies an answer: forecast (accrual) earnings, not cash flows. Indeed, analysts do forecast earnings. Discipline is demanded as follows: If speculation about the future is justified, it must be that the speculative scenario forecasts earnings. An analyst might embrace speculation about "knowledge assets," "organizational capital," "internet real estate," "the golden age of technology," or the value of R&D, but these ideas must be submitted to the discipline of earnings forecasting. Stock prices must be justified by earnings, not simply ideas or conjectures: How much earnings will a so-called "value driver" produce? What will be booked in the accounts? Forcing speculative ideas through the discipline of earnings forecasting challenges the speculation.

The Quality of Earnings Forecasts

The quality of equity analysis rides on the quality of the forecasting. The quality of the accounting comes into play, for the quality of the analyst's speculation (about future earnings) is only as good as the quality of the earnings forecasted. We have made the point that earnings forecasts are of better quality than cash flow forecasts, but is the analyst secure in forecasting GAAP earnings?

Omissions from Net Income

GAAP net income and earnings per share misses aspects of a firm's operations that bear upon the valuation of shares.

First, some income bypasses the income statement under dirty-surplus accounting. One effect is that firms can cherry pick realized gains into the income statement and unrealized losses into the equity statement. Comprehensive income reporting requirements have drawn attention to this problem, but have not dealt with it thoroughly.

Second, and more perniciously, GAAP fails to distinguish the financing and operating components of share issues and repurchases. A share issue or repurchase at market value (that is, a zero-net-present-value financing transaction) does not affect per-share value, but share transactions at prices different from market value involve a loss to shareholders. GAAP does not recognize the compensation cost that arises from shares being issued to employees (in exercise of options) at less than market price. GAAP does not recognize losses to the current shareholders from the conversion of bonds, preferred stock and warrants into equity. GAAP does not recognize losses from the repurchase of shares at a price higher than the market price under put option and forward purchase agreements. For employee stock options, grant date accounting is being proposed by both the FASB and the IASB, but the contingent loss so recognized falls short of recognizing realized losses to shareholders on the exercise of the options.

These deficiencies require that the analyst work with comprehensive earnings rather than net income, and to recognize the expenses hidden in GAAP reporting. If one values a share from forecasts of GAAP net income, one will overvalue the firm, for GAAP income misses elements of value. If, for example, the analyst forecasts next year's GAAP earnings, but fails to appreciate an anticipated loss from an (off-balance-sheet) obligation to repurchase shares at less than market value, she will be in error.

Conservative Accounting Generates Earnings Growth that Should Not be Valued

It is sometime argued that conservative accounting is quality accounting (the label sounds like it!). Conservative accounting writes down net assets in the balance sheet; it is the counter to fair value accounting that can write up assets. However, conservative accounting generates earnings growth. Worse, it generates earnings that should not be valued by the equity analyst.

Consider the following earnings forecast made at date 0 when the book value of equity was 100.

	0	1	2	3	4
Earnings	12.00	12.36	12.73	13.11	13.51
Dividends	9.09	9.36	9.64	9.93	10.23
Book value	100.00	103.00	106.09	109.27	112.55
Residual earnings		2.360	2.431	2.504	2.579
Residual earnings _t = Earnings _t - (r x Book value _{t-1})					
Residual earnings ₁ = 12.36 - (0.10 x 100.0) = 2.36 (for a required return of 10%)					

The earnings forecast has been converted to a residual earnings forecast by charging forecasted earnings with a required return (at 10%) on the book value (net assets) that produce the earnings. You can see that residual earnings are forecasted to grow at 3% per year, so a residual earnings valuation is developed as follows:(2)

Value of equity = Book value + Present value of expected residual earnings

$$= 100.00 + \frac{2.36}{0.10 - 0.03}$$

$$= 133.71$$

Suppose, now, that this firm decided to write down inventory in Year 0 by 8 (as an application of conservative accounting), so reducing Year 0 earnings to 4 rather than 12 and reducing book value to 92 from 100. Suppose that the inventory is to be sold in Year 1. The lower inventory in Year 0 becomes lower cost of good sold in Year 1, resulting in higher earnings, so the pro forma is revised as follows (holding all else constant):

	0	1	2	3	4
Earnings	4.00	20.36	12.73	13.11	13.51
Dividends	9.09	9.36	9.64	9.93	10.23
Book value	92.00	103.00	106.09	109.27	112.55
Residual earnings		11.160	2.431	2.504	2.579
Residual earnings _t = Earnings _t - (r × Book value _{t-1})					
Residual earnings ₁ = 20.36 - (0.10 × 92.0) = 11.16 (for a required return of 10%)					

Notice that Year 1 earnings have been created by the Year 0 charge (which could also be due to an over estimate of bad debts, a restructuring charge, or the addition to a deferred revenue cookie jar). The diligent analyst revises his earnings Year 1 earnings forecast accordingly. But the quality analyst also recognizes that the added earnings, created by the accounting, does not add value. The residual earnings valuation now proceeds as follows:

$$\text{Value of equity} = 92.00 + \frac{11.16}{1.10} + \frac{2.431}{0.10 - 0.03} / 1.10$$

$$= 133.71$$

The value of the equity has not changed. The lesson for the analyst is clear. Earnings forecasts must always be converted to a valuation with a valid accrual valuation model. The residual earnings valuation models protects the analyst from paying too much for earnings that are created by the accounting for it imbeds the accrual accounting property that future earnings cannot be created with accounting methods without reducing the book value. Using earnings and book value together cancels the accounting effects. Write-downs add to forecasted earnings, but when those higher earnings are matched with the lower book value than generates them (in a residual earnings valuation), the calculated value is unaffected.

Summary: Quality Accounting and Quality Analysis

The outline of how the analyst deals with the issue of accounting quality is now complete. The analysis insists that the accountant stick to the facts and minimize speculation. She requires unbiased revenue recognition and matching. She recognizes that, because of this demand, financial statements are incomplete for equity valuation. So she proceeds to add speculation with forecasts, but within the discipline of forecasting comprehensive earnings corrected for expenses hidden under GAAP.

Understanding that the ideal of unbiased revenue recognition and matching may not prevail, she investigates the quality of the accounting in the current financial reports with two issues in mind. First, she asks whether speculative income has been booked, for she recognizes that that income may not be sustainable. She is particularly wary of fair

value accounting. Second, she also realizes that bias can be introduced in the other direction with conservative accounting; and while reporting lower current earnings, it creates future earnings. She adjusts her forecast accordingly by using the accrual accounting residual earnings valuation model; she protects herself from adding value for the enhanced earnings.

Endnotes

1 For more discussion, refer to my paper, "The Quality of Financial Statements: Perspectives from the Recent Stock Market Bubble" *Accounting Horizons*, Supplement 2003, pp.77-96.

2 See Chapter 6 of Stephen H. Penman, *Financial Statement Analysis and Security Valuation* (New York; McGraw-Hill Companies, 2001) for an explanation of residual earnings valuation. Chapter 17 has a comprehensive analysis of the effect of conservative accounting on earnings forecasts and equity values.

