

**NOTE: The problems in this chapter are designed primarily as a basis for discussion of the issues covered in this chapter. There are no absolutely right/wrong answers. The solutions that follow should be viewed in that spirit.**

**1.** The FASB view of neutrality is consistent with the classical approach, that takes the position that an "ideal" accounting paradigm can and should be designed disregarding potentially adverse impacts.

Market-based researchers, however, argue that the costs and benefits of accounting policy setting should be subject to economic analysis. Neutrality as defined in the quotation is therefore not a desirable objective. The fact that certain firms would be adversely affected by accounting standards renders the standard non (pareto<sup>1</sup>) optimal. Thus, although the efficacy of an accounting system is measurable by its market impact (information content), that same impact means that it is not possible to use information content to determine accounting policy.

The "positive" approach argues that de facto neutrality is not a feasible objective. The accounting standard setting process is influenced by the impact, favorable or unfavorable, that standards have on firms. Firms lobby (in many cases successfully) for or against certain standards precisely for that reason. This is not necessarily bad. Rather it is a "fact of life" and in this view, accounting standards and the standard setting process cannot be determined exogenously of firms' production-investment decisions.

**2. a.** This question is difficult to answer without knowing the total information set provided by each system in its first report. However, assuming that in other respects they are identical, information system Alpha is a superior system insofar as it provides a better prediction of the second report.

**b.** Since, under the Alpha system, the second report could be forecasted better, at the time of its issuance it would contain fewer "surprises" and show less information content. The Gamma system, however, would contain a greater degree of "surprise" and, therefore, show greater information content.

**c.** The answers to parts a and b point out the problems of focusing only on the market reaction to one report at a specific point in time. Although market

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<sup>1</sup> Pareto optimality is defined as the condition where a change to a new equilibrium leaves nobody worse off and at least one participant is better off.

reaction may tell us something about the information content of that given report, it does not tell the whole story. Accounting reports may contain information that will only be known at a later point in time (outside the "window" examined). Similarly, nonreaction may be due to knowledge generated by previous information provided by the system (alone or in conjunction with external information sources); the better a system predicts, the less "information" content in subsequent reports.

**d.** Ingberman and Sorter viewed accounting systems as part of an overall data base whose purpose is to aid in forecasting the impact on the firm of changes in the firm and the environment. Thus, their view suggests the following "scenario":

Financial statements provide information as to how previous changes in the environment impacted the firm.

A change occurs in the environment. Market participants use their previous knowledge (see #1) to assess the potential impact of that change on the firm. Market reaction occurs at this time.

Subsequent reports update and confirm the extent to which the environmental change affected the firm. A small (or nonexistent) market reaction at the time of issuance of these reports means that most (or all) of the reaction occurred earlier.

The measures of the effects on the firm provided by the subsequent reports are then used to update the database and make projections.

Similar to the situation described by the Alpha and Gamma information systems, Ingberman and Sorter argued that focusing on the specific point in time when a given accounting report is issued may be the wrong way to assess the value of the information provided by accounting reports.

**3. a.** (i)The efficient market hypothesis (EMH) states that a market is efficient if security prices immediately and fully reflect all available relevant information. If the market fully reflects information, the knowledge of that information would not allow anyone to profit from it because stock prices already incorporate the information.

The weak form asserts that stock prices already reflect all information that can be derived by examining market trading data such as the history of past prices and trading volume.

Technical analysis in the form of charting involves the search for recurrent and predictable patterns in stock prices to enhance returns. The EMH implies that this type of analysis is without value. If past prices contain no useful information for predicting future returns, there is no point in following any technical trading rule

for timing the purchases and sales of securities. According to weak-form efficiency, no investor can earn excess returns by developing trading rules based on historical price and return information. A simple policy of buying and holding will be at least as good as any technical procedure. Tests generally show that technical trading rules do not produce superior returns after making adjustments for transactions costs and taxes.

(ii) The semistrong form says that a firm's stock price already reflects all publicly available information about a firm's prospects. Examples of publicly available information are annual reports of companies and investment advisory data. Empirical evidence mostly supports the semistrong form, but occasional studies are inconsistent with this form of market efficiency.

Fundamental analysis uses earnings and dividend prospects of the firm, expectations of future interest rates, and risk evaluation of the firm to determine proper stock prices. The EMH predicts that most fundamental analysis is doomed to failure. According to semistrong-form efficiency, no investor can earn excess returns from trading rules based on any publicly available information. Fundamental analysis is no better than technical analysis in enabling investors to capture above-average returns. Only analysts with unique insight earn superior returns.

The strong form of the EMH holds that market prices incorporate both publicly available and privately held (insider) information. [However, empirical evidence suggests insiders may earn abnormal returns using inside information.] Both technical and fundamental analysis would not be able to earn abnormal returns under the strong form.

In summary, the EMH holds that the market appears to adjust so quickly to information about individual stocks and the economy as a whole that no technique of selecting a portfolio -- using either technical or fundamental analysis-- can consistently outperform a strategy of simply buying and holding a diversified group of securities, such as those making up the popular market averages,

b. Even in perfectly efficient markets, portfolio managers have several roles. Two of these deal with the crux of any investment decision risk and return.

Identify the risk/return objectives for the portfolio given the investor's constraints and develop a well-diversified portfolio with the selected risk level.

In an efficient market, portfolio managers are responsible for tailoring the portfolio to meet the investor's needs rather than to beat the market, which requires identifying the client's requirements and risk tolerance. Although an efficient market prices securities fairly, each security still has firm-specific risk that portfolio managers can eliminate through diversification. Therefore, rational security selection requires selecting a well-diversified portfolio that provides the level of systematic risk that matches the investor's risk tolerance.

Develop capital market expectations for appropriate asset-allocation decisions.

As part of the asset-allocation decision portfolio managers need to consider their expectations for the relative returns of the various capital markets to choose an appropriate asset allocation.

c. The empirical evidence generally supports the weak form and to a great degree the semistrong form. However, the existing anomalies suggest that superior analysis of available information may result in excess or abnormal returns. Furthermore, as market efficiency is often explained as being the product of the plethora of analysts analyzing information, neglected areas such as smaller firms, firms that have fallen "out of favor" or sources of information not readily available to (or used by) all analysts are areas that analysts can most readily exploit. A word of caution - however - if many analysts simultaneously try to exploit these sources, then once again efficiency will prevail.

4. a. Standard research procedures abstract from (i.e. eliminate) general market conditions to test for (market) reaction specific to a firm or sample of firms. If an accounting standard affects all firms equally, then a test looking for firm-specific reaction will not find anything, as the informational impact is (inadvertently) included in "general" market conditions. Even if the standard does not affect all firms, but only a sizable proportion of them, then standard research designs would be unlikely to find (significant) market reaction.

b. Somewhat paradoxically, the more pervasive the impact of an accounting change the less likely that market reaction will be found. Only if studies are designed to measure the differential effect of such changes on particular firms can a market reaction be found.

c. Examples of pervasive accounting standards are:

1. Changing prices (SFAS 33\*)
2. Pension plans (SFAS 87)
3. Income taxes (SFAS 109)
4. Postretirement benefits (SFAS 106)

\* This argument may explain the insignificant results found by studies that examined the impact of SFAS 33 (see Appendix 8-A).

5. This statement is most consistent with the positive approach to accounting

theory. Proponents of the classical and market-based approaches might agree with the descriptive validity of the statement. Classicists, however, view the political process as an undesirable 'fact of life' to be overcome and as irrelevant by the market-based proponents. The positive approach, on the other hand, holds that the ramifications and implications of this political process are an essential element in understanding how accounting standards are developed and the motivation of firms in opting for alternative choices.

**6.** Pharmaceutical companies are often the subject of attack by politicians and consumer groups that drug prices are too high. The political cost hypothesis argues that firms may choose to "artificially" depress earnings if they fear legislative or regulatory actions would be taken against them if it was perceived that their earnings were excessive.

1993, at the beginning of President Clinton's term was the year that his wife Hillary Rodham Clinton headed a committee whose objective was to create a nation-wide health care system. As part of that process, drug prices (and profits) were under extreme scrutiny. This environment may explain why the Pfizer company "managed down earnings."

**7.** Note: Most, if not all, of the items listed have analytical implications that are independent of financial statements, i.e., they would have to be considered whether or not the firm issued financial statements. We focus here only on the implications of these items in the context of financial statements.

(i) To the extent that a firm's labor costs are related to profitability, (e.g. profit sharing plans), management may have an incentive to select accounting policies that dampen reported profits. Lower reported profits may also keep down demands for higher wages and benefits. Thus, the analyst should be prepared to "adjust" the firm's reported performance upwards as the firm may have been too conservative.

Similarly, if a labor contract is coming up for renewal, and the firm's financial statements show strong performance, then one can expect higher demands from labor, increased probability of a strike, and increased labor costs in the future. (Also see iii below)

(ii) Market efficiency is increased by analysts competing to "beat the market." This motivation and the resultant behavior (somewhat paradoxically) leads to information being immediately impounded in prices. If this is true then the degree of efficiency should be (positively) related to the number of analysts covering the firm. Thus, an analyst who wants to uncover and exploit information not recognized by the market should look for firms that are covered by few other

analysts. (Also see iv below)

(iii) The bonus plan hypothesis is that managers will act to enhance their well being even if it may not be in the firm's best interest. For example, managers may opt for financial reporting methods that increase income if their compensation is directly (or indirectly) tied to the firm's income. Analysts need to be aware of this phenomenon to better understand the effect of this behavior on the firm's reported performance. (Also see v below)

More sophisticated manifestations of this behavior include:

(1) taking a "big bath" in a year when performance is below some threshold anyway, thereby increasing the probability that the threshold level will be achieved in the future.

(2) alternatively, if a threshold has been achieved and no further benefit (to managers) accrues from exceeding that threshold, they may engage in income smoothing to "store" income for future years when adverse business conditions make the threshold harder to achieve.

(iv) (1) One of the documented anomalies of the efficient market hypothesis is the small firm effect. Small firms tend to earn abnormal positive returns (even after compensating for risk). This phenomenon may be related to item ii, the number of analysts covering the firm, as larger firms tend to have more of an analyst following. This argues for more emphasis on the analysis of smaller firms.

However, there is a cost-benefit tradeoff. An investor with \$100 million to invest may have to choose between investing in ten larger firms or 100 smaller firms. The additional return earned on the latter may not compensate for the higher research costs (especially time) and lower liquidity. For a given research effort that results in an additional 1% return, the benefits will differ considerably depending on the size of the firm. The 1% additional return for a firm whose capitalization is \$100 million is considerably greater than a 1% return on a firm whose capitalization is only one million dollars. The \$10,000 return earned on the latter may not compensate for the research time and money expended.

(2) On the other hand, the political cost hypothesis argues that larger firms are more sensitive to certain accounting changes and patterns of income. Analysts should be on the lookout to see if large firms have chosen accounting methods that shield them from political costs.

(v) As noted earlier (item iii) managers may have incentives to take actions that enhance their position at the expense of the firm. The incentives for this behavior are reduced when managers are also owners of the firm. Thus, the more a firm is controlled by its owners, the lower the potential effects of agency costs.

(vi) Companies in the same industry tend to choose similar accounting methods. When a company deviates from these policies, in addition to adjusting for the alternative methods the analyst should ask what motivates these divergences and what can be learned about the company's "corporate profile." Do the changes signal a shift in emphasis from one segment (industry) to another?

Additionally, for firms in certain industries (oil and gas, banking) the political cost hypothesis discussed earlier is a relevant consideration.

**10.** a. Negative reaction would be expected at the time of the 8-K filings, with the second filing have a greater effect due to KPMG's negative views of the company's accounting and internal controls. As changing auditors is generally negatively viewed by the market, even the first filing would be expected to have a negative effect.

b. No reaction would be expected at the time Bloomberg reported the 8-K filings as, two weeks later, the information should be widely known and stock prices would have adjusted to it.

c. There was, as expected, (muted) negative reaction at the time of the original 4/20 announcement and the negative reaction continued to 4/24. However following 4/24, the stock price recovered for a day or two. Afterwards, however, there was a steep drop as the stock price lost over 20% of its value. Thus, while the market did react negatively, there seemed to be a "delayed" reaction. The most surprising result is the reaction following the Bloomberg report. As noted in part b., one would not expect any reaction, as by 5/09 the filings were "old" news. If, however, for some reason the news were not widely known, the reaction would be expected to be negative. The actual market reaction, however, was sharply positive, recovering approximately 50% of the previous losses.

D. The delayed negative reaction may be a function of the market "digesting" and analyzing the news. The initial announcement only spoke in generalities about the accounting problems and auditor conflict. The nature or magnitudes were not disclosed then and it may have taken a while for these details to become known.

The surprising price recovery in mid-May may be due to overreaction to the initial news. The initial drop may have reflected increased risk as the market anticipated more bad news. When the Bloomberg report came in without any more bad news, the market may have been relieved and buying offset some of the initial overreaction.

**11.** This question is based on the notion that, as there are market incentives to disclose financial data, market forces will result in rational managers providing such information.

Beaver's approach to this question is based on the concept of information as an economic good and explores three potential reasons why market forces alone will not provide the "sufficient" or "right amount" of information. The reasons offered attempt to explain why market forces by themselves do not result in the "appropriate" amount of information being produced. These reasons, however, do not necessarily mean that levels of disclosure mandated by regulation result in an optimal amount of information production and disclosure. Beaver's three reasons follow:

(1) An economic commodity will be produced so long as the benefits from the commodity outweigh its production cost (marginal cost equal marginal benefits). This holds so long as those who benefit from a good also bear its cost. Information, however, is a public good. Access to it cannot [and perhaps should not (see (2) below)] be limited. Thus, there will be some who benefit from disclosure without having to pay for it. Two examples are given:

(i) Competing firms who obtain information from annual reports without bearing the cost of information production; and

(ii) Investors who, based on the information provided, decide not to invest in the company. They obtain the benefit without paying any of the cost.

This so-called free rider problem reduces the incentive to disclose, as those bearing the cost are not fully compensated.

(2) The second reason is usually couched in terms of equity or fairness. Without regulation, there may be selective disclosure and uneven distribution of information. Some investors will be better informed than others.<sup>2</sup> Regulation is needed to "protect" the uninformed from the informed.

(3) There exists information asymmetry as managers are better informed about the firm than investors. Moreover, managers have incentives to suppress (unfavorable) information. As investors know that some firms suppress information but do not know which firms are doing so, they will treat all firms in some "average" fashion. Hence, poorer performing (below average) firms will be priced "too high" and better (above average) firms will be priced "too low". Poorer (better) performing firms will want to offer more (fewer) shares to investors as a result. To combat this, managers of better performing firms may offer warranties

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<sup>2</sup> One can debate, as does Beaver, whether this is inherently unfair. Presumably, those who are better informed have paid for more information. The only thing stopping others from becoming as well informed is their unwillingness to pay (or lack of funds). This may be unfortunate but, as with any other good, it is a fact of life. Should all goods be distributed equally? Certainly some have put forth this argument. Its ramifications are clearly beyond the scope of this text.

on their information (audited statements) and other guarantees to investors to distinguish themselves. The result may be that managers of "better" firms absorb too much risk leading to an inefficient sharing of risk in the economy. Regulation is designed to mitigate this information asymmetry.

**12.** a. The actual reserve additions should not result in any market reaction, assuming that the market knew about the potential losses. However, the rule change itself could cause market reaction, not so much from the actual requirement to recognize losses, but from the associated requirement that increased the level of required reserves. This tightening up would increase the risk of a firm becoming "technically insolvent".

b. This article would probably not result in any market reaction. Any reaction (as described in part a) would occur at the time of the announcement of the rule change itself.

c. Positive accounting theory views a firm and its environment as consisting of a "nexus of contracts". The terms of these contracts, in many cases, are determined by accounting based numbers. RAP rules are a perfect example of this concept. Regulators set the rules for the contract between the firm and its environment. RAP rules determine not only the amount of profits that regulators (the environment) allow the firm to report but also the terms (net worth requirements) permitting the firm to operate at all.

**13.** The arguments below are summarized from Christopher Farrell "The 'Efficient Market' was a Good Idea - and Then Came the Crash," Business Week (February 22, 1988), page 140.

There is considerable divergence of opinion regarding the implications of that crash for the Efficient Market Theory (EMT). Detractors of the EMT cite the crash as evidence that the theory is not a good description of financial markets. They argue that there was no significant news prior to the crash, certainly not sufficient news to justify a 25% decline in New York Stock Exchange prices. The market reacted, they contend, to sharp declines experienced the previous two days. Thus panic set in, there was no rationality and a herd instinct took over.

Defenders of the EMT, on the other hand, say that the crash does not invalidate the EMT. Market volatility had increased in the weeks prior to the crash. Then when a sell-off began, the exchanges broke down. The computers could not keep up with the flow of orders and specialists panicked. Thus, institutional factors helped turn a normal decline into a panic.

**14.** From a positive accounting perspective, it is consistent for managers to engage in behavior leading to an increase in their compensation. If they perceived that using aggressive accounting techniques would increase share prices (and hence the value of their options), they would certainly do so.

From an efficient markets perspective, however, it should not have been possible for managers to engage in practices that would "fool the market" over an extended period. This view holds that market prices reflect all information, even non-public information, and therefore should not be "misled" by aggressive accounting techniques.

**15.** a. Managers have superior information as to the nature of a firm's operations including the recurring (and nonrecurring) nature of its earnings/cash flows. A proponent of the EMH could view pro forma earnings as a means whereby managers provide additional information to investors. The motivation may be to dampen the volatility (risk) of market returns by "guiding" investors to appropriate valuation decisions.

From a positive accounting perspective, pro forma earnings may be viewed as an example of managers managing expectations as the manager is saying "here is how I really performed" and "ignore the nonrecurring factors." Note that managing expectations, per se, does not necessarily mean that managers are being dishonest;<sup>3</sup> similar to the EMH approach, managers may have superior knowledge that they are conveying to investors. The difference lies in their motivation. Under the EMH, their motivation is not tied to their pecuniary or other rewards.

b. As stated above, it can serve as a mechanism to convey superior information to the market, thereby reducing risk.

c. Managers would probably argue that pro forma data provide superior inputs to the forecasting model envisioned by Ingberman and Sorter. Whether this is the case would be shown as future financial statements are issued and models are updated and revised accordingly.

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<sup>3</sup> At the same time, it does not preclude it.