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SYNOPSIS: The push for increased transparency in financial reporting and corporate governance serves shareholders only up to a limit. The problem of assessing the value of transparency to shareholders is subtle because both the level and pattern of earnings can convey information. Even when earnings management conceals information, it can be beneficial to shareholders. Distinguishing between ex ante and ex post efficiency underscores the advantages of achieving a balance between transparency and privacy in corporations.

INTRODUCTION

A lack of transparency in financial reports has often been cited as a weakness of capital markets. Numerous revelations of financial reporting shenanigans by publicly held firms have attracted intense political and media attention, of which Enron and WorldCom are two striking examples. Capital markets are alarmed at such news. The scandals in 2002 have attracted the attention of the securities regulators, accounting standard setters, Congress, and even the President to corporate earnings management.

These guardians of shareholder interests can be too zealous, even for the good of their wards. The push for increased transparency in financial reporting and corporate governance serves the shareholders only up to a point. Beyond that, managerial inhibitions induced by a lack of privacy can damage the interests of shareholders. In other words, increasing transparency without limits does not necessarily improve corporate governance. For extreme example, installing monitoring cameras in offices may inhibit, not motivate better performance.

Medical research revealed that cholesterol is not just an artery-hardening villain; it serves a complex and essential physiological function in our bodies. Similarly, accounting research shows that income manipulation is not an unmitigated evil; within limits, it promotes efficient decisions. Our argument, admittedly controversial, is worth airing: earnings management and managerial discretion are intricately linked to serve multiple functions; accounting reform that ignores these interconnections could do more harm than good.

That earnings management reduces transparency is a simplistic idea. A fundamental feature of decentralized organizations is the dispersal of information across people. Different people know different things and nobody knows everything. In such an environment, a managed earnings stream can convey more information than an unmanaged earnings stream. A smooth car ride is not only comfortable; it also reassures the passenger about the driver's expertise. The remainder of the paper elaborates on these ideas.

SELFLESS MANAGER

A simple story of income manipulation is that the manager owes the best possible estimate of permanent income of the firm to its shareholders (Fukui 1997). Permanent income is the periodic income the shareholders can expect in perpetuity; capitalizing this income stream yields the value of the firm. If permanent income is $10 per year and 12 percent is the appropriate discount rate, the value of the firm is $10/0.12 = $83.33.

Actual income of the firm varies from year to year due to transient shocks as well as accounting effects. With their access to more information, managers can isolate the transient from permanent changes better than the shareholders can. If, for example, the permanent income of the firm remains $10 but a transient factor causes its income in a given period to be $11, the shareholders, being less well-informed, may capitalize $11 to arrive at a value of $11/0.12 = $91.67, an error of $8.33 or 10 percent. If, on the other hand, the increase in income to $11 were permanent, and the less well-informed shareholders interpreted it to be transient, they would continue to value the firm at $83.33 instead of $91.67; again committing an error of $8.33 in valuation.

Managers could be asked to report permanent changes in income separately from transient changes to help investors reduce errors in valuation. If transients can be expected to statistically cancel out over time, managers could report only permanent income which will be a smoothed out series of raw income numbers. In this scenario, "manipulation" is not only tolerated, it is encouraged by shareholders for their own interest.

MANAGER WITH PERSONAL GOALS

Suppose, instead of being selfless, managers seek personal goals (e.g., compensation). In this case, a manager's desire to manipulate measures of performance becomes more obvious, but why would shareholders want to allow the manager to mislead them by sending manipulated numbers? This question can be answered in two ways. The easy answer is: in a world of dispersed information and diverse personal goals of managers and shareholders, shareholders have no choice. A more subtle and surprising answer is, even if shareholders had a choice, they may prefer to let managers manipulate the reports about performance.

The *Revelation Principle* helps gain perspective on this apparent paradox. The principle states that if there are no limitations on the three Cs (communication, commitment, and contract), shareholders and managers can be at least as well off under truthful reporting as under income manipulation. In other words, breakdown of one or more of the three Cs is a necessary condition for any degree of income manipulation to be beneficial.

Communicating Expertise

The story in Demski (1998) is one of communicating acquired expertise through earnings smoothing. The key assumption is that a manager who works hard is both better able to run the firm, and better able to predict future earnings. The manager demonstrates his predictive powers, and hence his hard work, to the owner by smoothing earnings. Because earnings smoothing is an informative variable (the manager is better at it if he works than if he shirks), smoothing can reduce the cost of motivating the manager to work. In fact, the owner is better off allowing for earnings smoothing than if she could prevent it with a perfect and costless audit technology.

An accounting structure in Demski’s model is used to ensure that a manager who does not work hard finds it difficult to smooth earnings. In particular, Demski assumes what Sunder (1997) calls the Conservation of Income: the sum of accounting earnings over the firm’s life is not affected by accounting choices (ignoring the effect of taxes and changes in the firm's opportunity set). Manipulation catches up with manager. To smooth earnings well, the manager must be good at forecasting them, and that requires hard work.

A feature of Demski's story is that smoothing is difficult. If the manager can smooth earnings whether or not he works hard, the owner is always better off contracting on unmanaged earnings. The implicit role of regulators is to make earnings management challenging, not impossible. One can view the recent push for increased transparency as an attempt to make earnings management more challenging.

Demski's view also seems consistent with anecdotal evidence about analysts' forecasts. A standard story is that when a firm's earnings fall short of the analyst consensus forecast by even a small amount, there is a large negative stock price reaction (Skinner and Sloan, forthcoming). This disproportionate reaction might reflect reduced market confidence in the manager's expertise. The market may assume only an expert manager can meet the forecast by managing earnings, by managing analysts' expectations, and/or by performing well.

In Demski's model, the *Revelation Principle* is disabled because there is a restriction on communication--the manager is not allowed to report both current earnings and a forecast of future earnings. If he could, he would demonstrate his expertise through his forecast, and unmanaged earnings would be optimal.

Arya and Glover (2001) tell a closely related story. They consider the problem of selective correction that arises when multiple performance measures are used. Managers dispute only those performance measures that are understated ("cherry picking"), much as students dispute the grading of exam questions. The main result in the paper is that cherry picking can be optimal. This happens when the pre-corrected performance measure is sufficiently noisy. The idea is similar to Demski's--cherry picking is itself a variable informative of the manager's efforts and, hence, can ease contracting. In contrast to Demski, the informativeness of performance measure manipulation is endogenous. The extent to which opportunities for performance manipulation arise depend on the manager's endeavors.

Limiting Owner Intervention

Distinguishing between ex ante and ex post efficiency can be helpful. For example, giving students a final exam is ex post inefficient. It imposes the costs of grading time on the professor, and stress on the students without adding to what they have learned already. However, from an ex ante perspective, the anticipation of the exam provides the students with incentives to study hard and learn more. Similarly, earnings management may not be in the best interest of owners ex post when the earnings report is submitted. However, it may be in their best interest ex ante when they are trying to induce the manager to join the firm and exert appropriate effort.

In Arya et al. (1998), earnings management keeps an owner from meddling in decisions normally left to the manager. For example, when short-term performance is poor and this is revealed to the owner (or the board of directors), she may take on a greater role in the day-to-day operations of the firm, participating in decisions normally left to the manager. The owner would be better off under managed earnings because it keeps her from intervening excessively in the running of the firm, which is useful ex ante in motivating the manager. The *Revelation Principle* breaks down in this case because the owner's ability to make binding commitments is limited. A related story is told in Demski and Frimor (1999). In their story, earnings management limits contract renegotiation.

While the expertise and limited owner intervention stories involve earnings management, they present very different perspectives. Under the expertise story, the report distorts current earnings but reveals average earnings and the manager's expertise. Under the limited owner intervention story, earnings are managed only to conceal information. This type of earnings management is, arguably, more consistent with the type of manipulation under attack during 2002.

Posturing

A problem with transparency is that it can encourage a manager to spend his time signaling his ability (posturing), instead of tending to business. As an example, consider the following two-period principal-agent model. The key ingredients of the model are: (1) agents have differing abilities, (2) the principal does not directly observe agents' abilities, (3) a hired agent can take action to signal his ability when a transparent reporting system is installed but not otherwise, and (4) this action may not be in the best interest of the firm.

At the beginning of the first period, the firm's owner (principal) hires a manager (agent) to run the firm. At the beginning of the second period, the owner either retains the existing manager or hires a new manager. No long-term commitments are made.

In each period, the firm operates in one of three equally likely environments (states), s_1, s_2, or s_3. The states are independent across periods. The manager is one of two equally likely types: rigid or flexible. A rigid manager cannot tailor his act to the environment the firm faces. In any state, a rigid manager can produce only one output level, an output of 0. In contrast, a flexible manager can produce two possible output levels in each state. In s_1, he can produce either -2 or -1; in s_2, -1 or 0; in s_3, 1 or 2. Assuming the flexible manager produces the highest output he can, the expected output is 1/3, which is more than that of a rigid manager. The manager alone knows his type and the state.

The output is consumed by the owner at the end of the second period. Employment yields the manager a private benefit per period that exceeds what he can obtain elsewhere.[1]

Suppose the information system in place is transparent in that it reveals each period's output at the end of that period. Assume that the manager, if flexible, acts as the owner would like him to, i.e., the agent produces the maximum output he can. If the manager produces 0 in period one, he will be fired. Upon observing 0, the owner's revised probability (using Bayes Rule) that the existing manager is rigid is 3/4, which is higher than 1/2, her belief that a new manager will be rigid.

Anticipating the owner's firing decision, a flexible manager will posture. That is, when the state is s_2, the flexible manager produces -1 instead of 0. By producing -1, the manager will be retained since he has proven he is flexible at the time the firing/retention decision is made. All that matters to the owner is that the existing flexible manager is better suited to run the firm in the second period than a new manager--the first period is sunk.

Note the goal incongruence: in state s_2, a flexible manager chooses the wrong act. The manager is concerned with making himself look good in order to be retained and not with the firm's actual performance in period one.

Instead, if manipulation were allowed (i.e., manager of either type can claim to have produced any level of output), the period-one manager would have no credible means of communicating his type. Hence, the manager cannot use his first period output to influence the owner's firing/retention decision. This leaves the period-one manager with the right incentives, which makes the less transparent (manipulable) system optimal. Under the less transparent system the owner never fires the manager, and the flexible manager acts as the owner intends–the expected total outcome is 1/3. Under the more transparent system, the owner fires the manager if and only if the period one outcome is 0, and the flexible manager acts as the owner intends, except when the state is s_2--the expected total outcome is 1/4.

In our example, the problem with transparency is it provides the manager with incentives to choose an action that demonstrates his versatility even when such action is detrimental to the firm. By insisting on less transparent reporting, the owner can assure the manager he can "do the right thing" without the fear of being mislabeled.[2] More generally earnings management is one of many ways of aligning incentives, and the optimal mix of instruments may include giving the manager discretion in reporting.

Although perfect transparency (observing the manager's type as well as all other information) is best for the owner, no information is preferred over some information.[3] Also, allowing for reporting manipulation can be a useful way of discouraging real manipulation (choosing the wrong act). When we change accounting we need to be careful to anticipate associated real effects (for example, underinvestment in research and development when the manager is forced to expense all such costs).

In the posturing story, the *Revelation Principle* breaks down because the owner's ability to make binding commitments is limited. This leaves contract restrictions as the only assumption of the *Revelation Principle* we have not discussed in this paper. In Liang's (2001) recent work, earnings management is a means of introducing non linearity into an otherwise linear contract.

CONCLUDING REMARKS

Researchers have devoted much effort in trying to document earnings management in empirical studies. The evidence to date remains weak and inconsistent (Dechow and Skinner 2000; Sunder 1997). Reasons include the inherent endogeneity and unobservability of earnings management, and the focus in most studies on a single instrument of earnings management. Joel Demski wrote in *Accounting Education News* (Spring 2002): "Consider the broad topic of earnings management. Drawing the circle narrowly around the subject, we tend to proceed with the presumption such behavior exists and focus on its documentation. Yet a broader approach would treat the behavior as endogenous and focus on the web of institutional and organizational arrangements that precede any ability to detect that behavior."

In his February 26, 2002 testimony before the US Senate, Walter P. Schuetze (a former Chief Accountant of the SEC) stated "Earnings management is a scourge in this country …We need to put a stop to earnings management." He went on to argue for mark-to-market accounting in order to provide a true picture of firms. Equating the relationship between financial reporting and business to that of a photographer and landscape is inherently problematical. It is more like that of a photographer to a model: the model smiles and poses at the camera even as the photographer changes camera angle and settings in reaction to the model. The state of the firm and its financial reports are reflexive in the sense of being dependent on each other. Debates on financial accounting reforms often focus on making changes to deal with current problems, failing to anticipate problems that may emerge as agents respond strategically to the reforms.

Instead of trying to eliminate earnings management, it might be more useful to emphasize accounting properties that increase the value of managed accruals. We briefly discuss three such properties. First, an often-discussed feature of accounting is its verifiability. (See Ijiri [1975] on the related notion of hardness.) Accounting complements other less verifiable information sources by its ability to discipline them. Arguably, as accounting has become more and more inclusive and focused on market values, its comparative advantage has eroded.

Second, accounting recognizes only select events and the choice of accounting methods effectively locks managers into the future treatment of these select events (see Pacharn 2002). Third, the Law of Conservation of Income ensures accounting earnings are correct in total over the life of the firm. One might take this a step further and argue that a desirable feature of US GAAP is (or should be) that things catch up relatively quickly. Suppose a firm has a bad year, and the CEO adopts aggressive accounting to cover up the bad news in the short run with the expectation that he or she will turn things around next year and be able to make up for the shortfall of the previous year. If instead the next year is also a bad year, things may blow up on the manager in the sense that an even larger overstatement of earnings is needed to maintain the earnings growth the market may have come to expect.

These three properties are examples of the curious blend of rigidity and flexibility that accounting exhibits. Accruals are flexible, yet verifiability, selective recognition, and conservation enforce certain tidiness and keep them from straying too far (see Demski et al. [2002]). A natural focus for policy debates is the optimal mix of rigidity and flexibility, which is unlikely to be a corner solution.

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Endnotes

1. We ignore compensation. Compensation can be incorporated without changing the result as long as the private benefit of employment to the manager is large enough.

2. Our story is closely related to Cremer (1995) in which a principal sometimes finds it optimal to install a coarse information system in order for her to make it self-enforcing for her to fire the manager when poor performance is observed (but the manager is talented). The distinguishing feature of our story is the manager's incentive to posture (signal his type).

3. Under perfect transparency, the owner fires the rigid manager and retains the flexible manager, and the manager acts as the owner intends–the total expected outcome is 5/12.