

## CORPORATE GOVERNANCE AND REPORTING FREQUENCY: HAZARDS OF MORE FREQUENT REPORTING

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### Abstract

There has been little research that has examined any of the possible consequences of frequent financial reporting. In this paper, we discuss and provide theoretical explanations for two negative consequences associated with more frequent reporting. Based on search from psychology and sociology we theorize how more frequent reporting can lead to (1) goal seeking behavior by managers, (2) inaccurate predictions from investors (3) higher dispersion of investor beliefs and (4) higher uncertainty of investor beliefs.

**Keywords:** disclosure frequency; forecasts; corporate governance; audit committee.

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### I. Introduction

An important theme of corporate governance deals with issues of accountability and fiduciary duty, essentially advocating the implementation of policies and mechanisms to ensure good behavior and protect shareholders. One major decision at the discretion of corporate governance officials is financial reporting. Specifically, disclosure of material matters concerning the organization should be timely and balanced to ensure that all investors have access to clear, factual information.

More frequent reporting or timelier reporting is often seen as strictly advantageous to investors, while less frequent reporting is disadvantageous. A former Securities & Exchange Commission Chairman, Harvey Pitt, argues that “quarterly filings produce an out-of-date snap shot rather than a real-time window” (Levitt, 2002). Hunton, Wright, and Wright (2003) find that a sample of 215 financial managers, analysts and investors believes that increasing the reporting frequency of earnings would increase the decision usefulness of financial statements and the quality of earnings.

More frequent reporting can affect management decision making since more frequent reporting will

lead to an increased number of benchmarks. Although interim benchmarks created by more frequent reporting are not likely to have compensation contracts attached to them, research from social psychology suggests that individuals who are intrinsically motivated will aspire to meet or exceed benchmarks established despite the lack of economic benefit.

Additionally, more frequent reporting, can affect financial data in number of ways that are not fully examined in the popular press or academic literature. For some accounts, more frequent reporting will result in more disaggregated data (e.g., weekly rather than quarterly income) while for other accounts, more frequent reporting will result in repetition of unchanged values (e.g., par value of common stock or book value of assets). For still other accounts, more frequent reporting will result in a larger sample of observations (e.g., accounts receivable). Each of these changes not only affects the statistical properties of accounting data but also can affect how investors cognitively process the accounting data and use it to make important judgments and decisions.

The purpose of this study is to discuss the effects of increased (interim) financial reporting on two groups of individuals; managers and investors. Specifically we theorize how more frequent reporting

can lead to (1) goal seeking behavior by managers, (2) inaccurate predictions from investors, (3) higher dispersion of investor beliefs and (4) higher uncertainty of investor beliefs. Consequently this study contributes to the regulatory debate, both in the United States and abroad, about the usefulness of more frequent reporting of earnings.

The remainder of this paper is as follows: Section 2 discusses Corporate Governance and Financial Reporting; Section 3 discusses The effects of more frequent reporting on managers and investors; Section 4 the Conclusions.

## **II. Corporate Governance and Financial Reporting**

A system of corporate governance needs an efficient and effective level of disclosure to minimize information asymmetry between shareholders which may result in arbitrage by more sophisticated investors. The goal of financial disclosure is to provide shareholders with information that accurately portrays the financial health of the firm and permits investors to make an investing decision. It has long been argued that one way to empower investors is to provide them with more frequent reporting. In 1995 a speech by SEC Commissioner Wallman called for consideration of more frequent reporting, stating, “Today, annual and even quarterly reports do not capture and communicate material developments in sufficient time to meet market informational needs” (Wallman 1995).

Interim reporting is viewed as an important way to improve financial reporting (Healy and Palepu, 2001; Schadewitz et al., 2002). For example, Hunton, Wright, and Wright (2003) find that a sample of 215 financial managers, analysts and investors believes that increasing the reporting frequency will help curb earnings management by reducing the window of opportunity that managers have when making discretionary accounting decisions. That is, investors are more likely to be able to discriminate egregious accounting manipulations. However, some believe that more frequent reporting can adversely affect both management and investors. In 2003, a proposal for more frequent reporting of earnings in Europe, motivated by the desire for more transparency, raised concerns that both “short-termism” and earnings management would increase as a result of more frequent reporting (Evans 2003).

## **III. Effects of More Frequent Financial Reporting.**

### ***Effect on Management***

More frequent reporting can lead to an increase in the number of benchmarks or thresholds. A recent survey by Graham, Harvey and Rajgopal (2004) finds that managers seek to meet/exceed a prior year’s benchmark more than to meeting/exceeding analysts’ projections. Although interim reports are not likely to be linked to compensation contracts, managers may

still engage in goal seeking behavior to meet or exceed the new benchmarks. Research from social psychology provides a theoretical basis for understanding why the absence of compensation incentives may not completely eliminate goal seeking behavior.

### ***Intrinsic Motivation***

Although the traditional economic theory of motivation and behavior rests upon the utility of economic rewards, social psychology literature recognizes intrinsic motivation as a central aspect in cognitive behavior (Rawsthorne and Elliot, 1999).

Intrinsic motivation is defined as interest in or pursuit of an activity for its own sake or for personal satisfaction (Deci and Ryan, 1985). The concept has garnered considerable research attention and is widely recognized by social psychologists as a determinant of behavior and achievement (Rawsthorne and Elliot, 1999; Koestner, Zuckerman, and Koestner, 1987; Deci and Ryan, 1985). Because intrinsic motivation is a fuzzy construct that is difficult to measure, researchers have generally focused on the primary sources of intrinsic motivation. Goal identification is theorized to be a primary dimension of the construct (Murdock, 2002) and has been formally developed into broadly defined goal theory.

Goal theory is one of the most widely used and accepted motivational theories in the organizational behavior and psychology literature (Fried and Slowik, 2004). The theory predicts that individual effort and performance behavior will be dictated by the goals assigned to the individual and satisfaction is gained by the pursuit and achievement of challenging goals (Mento, Locke, and Klein, 1992). The objectives for achievement of the goals are independent of external, financial rewards, and instead stem from a desire for the sense of accomplishment, feelings of competence, and achievement of a victory (see Mento, Steel, and Karran, 1987, for a review). Sharar et al. (2006) confirm that those who are internally motivated to reach goals are more likely to perform without incentives. Consequently, it is possible that managers may be internally motivated to reach new thresholds created by more frequent reporting without the offer of external incentives.

### ***Effect on Investors***

More frequent reporting will result in a larger data set for a given time period, which could make pattern identification more difficult and lead to less accurate predictions for multiple reasons. First, larger data sets can increase the cognitive load imposed on nonprofessional investors, thus increasing the use of simple heuristics such as representativeness and recency which can affect the interpretations of data. Second, more frequent reporting also affects perceived volatility of presented information. More frequent reporting can have the same effect as more frequent reviews of a portfolio, which have been linked to perceived higher risk because people judge risk by the

frequency of negative returns (Gneezy and Potters, 1997). For example, more frequently reported earnings are likely to have more reversals (switches between positive and negative earnings changes) within a given time period and so are likely to have more frequent negative changes which may have the same effect on risk perceptions as frequency of negative returns. Because nonprofessional investors have been shown to erroneously use the frequency of past earnings reversals as an indication of the likelihood of future reversals (Bloomfield and Hales 2002) a large number of reversals could lead to a perception of higher uncertainty.

More frequent reporting can affect the accuracy of nonprofessional investors' predictions because of the increase in noise associated with more temporally disaggregated data. This can easily be illustrated visually. Consider, for example, the identical seasonal data (earnings) presented in both weekly and quarterly format (Figures 1 and 2 respectively).

----Insert Figure 1 about here----

The weekly fluctuations in the data in Figure 1 can obscure the 4<sup>th</sup> quarter earnings increase that appears more clearly in Figure 2. If the seasonal (or other) pattern is obscured by weekly fluctuations, less accurate predictions can be expected.

----Insert Figure 2 about here----

More frequent reporting (i.e., Figure 1) could also lead to large cognitive demands, resulting in the use of heuristics and predictable biases. Research suggests that information overload can occur with as little as seven plus or minus two items (Miller 1956). When nonprofessional investors process large quantities of data, they are not likely to focus consistently on the most relevant subset of the data (Bouwman 1982). Faced with high levels of information load, nonprofessional investors are likely to resort to heuristics to aid in the decision making process. One possibility is that they will reduce their information load by using only the most recent data as a basis for their predictions. Recency effects (Tversky and Kahneman 1974) represent an application of the representativeness heuristic, because individuals believe the most recent data best represents current characteristics of the earnings series. Hunton and McEwen (1997) find that recency can partially explain less accurate earnings forecasts by analysts.

The effects of recency will be different in each reporting frequency condition, however. Consider, for example, a scenario in which nonprofessional investors are given three years of reported earnings. Assume that nonprofessional investors can only cognitively process 12 data points. In the case of quarterly reporting, 12 data points provide three years of data, which gives nonprofessional investors an opportunity to identify and use the seasonal properties of earnings. In the weekly reporting condition, in

contrast, the last 12 data points are insufficient as a basis for estimating seasonal properties of earnings. Consequently, recency effects will likely lead to less accurate predictions in a more frequent reporting condition than in a less frequent reporting condition.

#### *Effects of Increased Frequency on Dispersions*

Dispersion of expectations about earnings is important in practice because it can lead to increased trading volume. Earnings predictions are likely to be dispersed even when individuals' subjective predictions are based on the same data, because ability to manage increased cognitive load and strategies for doing so are likely to differ across individual nonprofessional investors. Individual differences are expected to have larger effects with more frequent reporting. When reporting is less frequent, fewer reports are generated over a given period of time. Most nonprofessional investors can then use a large enough data set (e.g., 12 quarterly reports over three years) to identify important patterns in the data, resulting in low dispersion of predictions. Three years of weekly data, however, include 156 earnings reports. Many nonprofessional investors will not use all of this data, and they will differ with respect to how much of it they use and what conclusions they draw from it.

People often tend to see trends or streaks in truly random data series, but they do not all see identical trends or streaks (Andreassen, 1987, 1990; Bloomfield et al., 2002; Lim and O'Connor, 1996 and O'Connor et al., 1993). Similarly, nonprofessional investors often incorrectly identify patterns in nonrandom data series. For example, Maines and Hand (1996) find that nonprofessional investors incorrectly detected autoregressive components in quarterly seasonal random walk data. The larger number of data points and more frequent changes of direction in the more frequent reporting condition offer opportunities for individuals to see a greater variety of nonexistent patterns, as well as obscuring actual patterns in the data. Because of individual differences in cognitive processing, more dispersion in predictions is likely to result in the more frequent reporting condition.

#### *Effects of Increased Frequency on Uncertainty*

Previous experimental studies have documented that investors' risk judgments increase with the variability of earnings (Maines and McDaniel 2000; Lipe 1998). More frequent earnings reporting can increase subjective uncertainty or perceived variability of earnings in nonprofessional investors, because they will not aggregate data temporally to the relevant time horizon and will use short-term fluctuations in earnings as a basis for judging uncertainty for a longer time horizon. If, as is often the case, nonprofessionals are buy-and-hold investors rather than frequent traders, their time horizons are relatively long, but if more frequent reporting is available to them, they may focus on shorter-term fluctuations, like investors who review their retirement portfolio quarterly or annually although their time horizon is twenty years (Benartzi

and Thaler 1995). In the experiment, I ask individuals for predictions and confidence intervals for *quarterly* earnings, regardless of whether they have weekly or quarterly earnings reports. The relevant time horizon in this case is quarterly, and the volatility of quarterly earnings is more relevant to individuals' judgment than the volatility of weekly earnings. It is likely, however, that at least some individuals will not spontaneously aggregate weekly data into quarterly data, and will use weekly fluctuations to judge the uncertainty of quarterly earnings.

Using asset-return data, Gneezy and Potters (1997) demonstrate that more frequent evaluation of investments increases their perceived risk because people judge risk by the frequency of negative returns (more frequent negative returns can be observed over a given period if people examine monthly returns, for example, rather than annual returns). Similarly, Thaler et al. (1997) demonstrated that as the frequency of evaluation increases, investors chose to invest less in risky assets. Like returns, more frequently reported earnings will include more fluctuations (switches between negative and positive changes), and thus more negative earnings changes. The frequency of such changes could lead nonprofessional investors to perceive more frequently reported earnings as more volatile, leading to higher uncertainty about the future earnings. On the other hand, research has often demonstrated that individuals are often overconfident when presented with more observations or data points (Oskamp, 1965; Hoge, 1970; Slovic, 1973). Theory also suggests that this overconfidence exists even when individual performance does not increase. If overconfidence exists this would result in lower uncertainty and consequently narrower confidence intervals generated by individuals. More frequent reporting is likely to have both frequent negative changes and more fluctuations in the data, which will lead nonprofessional investors to state wider

confidence intervals around their quarterly earnings predictions.

#### IV. Conclusions

This research discusses two types of adverse effects-on managers and investors-that can result when financial reporting frequency is increased. Specifically we discuss how more frequent reporting can lead to goal seeking behavior by managers despite the absence of compensation linked incentives. Research from Social Psychology suggests that managers who are intrinsically motivated will seek to meet or beat the newly created benchmarks. Additionally, more frequent reporting will result in a larger data set for a given time period, which could make pattern identification more difficult and lead to less accurate predictions for multiple reasons. For instance, larger data sets can increase the cognitive load imposed on nonprofessional investors, thus increasing the use of simple heuristics such as representativeness and recency which can affect the interpretations of data. Additionally, more frequent reporting also affects perceived volatility of presented information. Finally, more frequently reported data is likely to lead to an increase in reversals (switches between positive and negative earnings changes) which can lead to higher uncertainty among investors.

Corporate governance must exercise caution when making decisions regarding financial reporting. It is not sufficient just to minimize the actions of management. Corporate governance must also anticipate the reactions of shareholders as a result their governance. Failure to do so could subsequently result in catastrophic repercussions. This research outlined two such effects, but there remains countless others that could arise under a more frequent reporting environment.

Figure 1. More Frequent Reporting-Seasonal Data

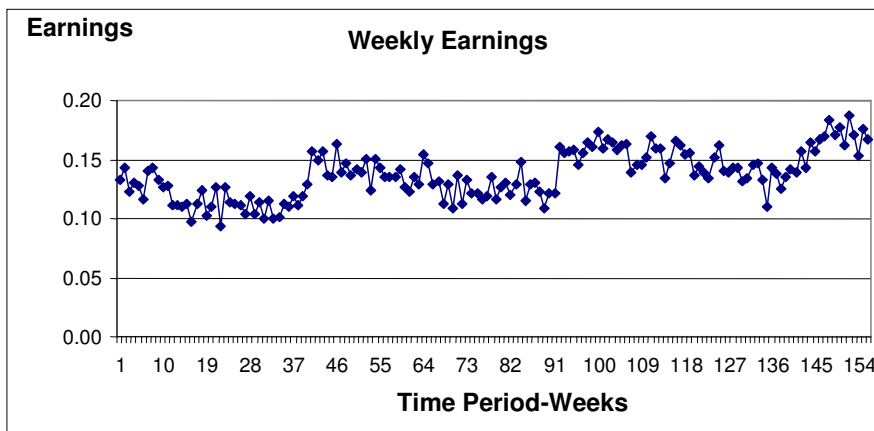
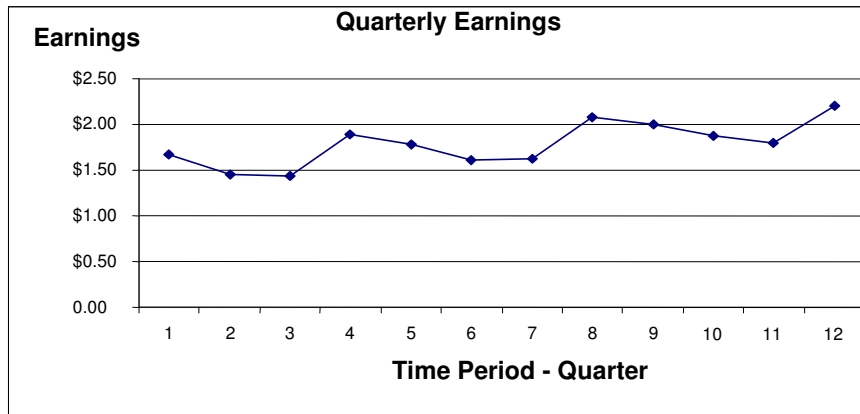


Figure 2. Less Frequent Reporting-Seasonal Data



## References

1. Andreassen, P.B. 1987. On the Social Psychology of the Stock Market: Aggregate
2. Attributional Effects and Regressiveness of Prediction. *Journal of Personality and Social Psychology* 53: 490-496.
3. Benartzi, S. and R. Thaler. 1995. Myopic Loss Aversion and the Equity Premium
4. Puzzle. *Quarterly Journal of Economics* 110 (1): 73-92.
5. Bloomfield, R., and J. Hales. 2002. Predicting the Next Step of a Random Walk:
6. Experimental Evidence of Regime-Shifting Beliefs. *Journal of Financial Economics* 65 (3): 397-414.
7. Bouwman, M. 1982. The Use of Accounting Information: Expert vs. Novice Behavior. In *Decision Making: An Interdisciplinary Inquiry*. ed G. Ungson and D. Braunstein, 134-167 Boston, MA: Kent.
8. Deci, E.L., and Ryan, R.M. (1985). *Intrinsic Motivation and Self-Determination in Human Behavior*. New York: Plenum.
9. Evans, C. 2003. Quarterly Reporting - Companies face quarterly reporting nightmare. *Accountancy* 132 (1322): 36-38.
10. Freid, Y., and Slowik, L.H. (2004). Enriching goal-setting theory with time: An integrated approach. *Academy of Management Review*, 29 (3): 404-422.
11. Graham, J. R, C. R. Harvey, and S. Rajgopal, 2005, The Economic Implications of Corporate Financial Reporting, *Journal of Accounting and Economics*, 40 (2005): 3-73.
12. Gneezy U., and J. Potters. 1997. An Experiment on Risk Taking and Evaluation Periods. *The Quarterly Journal of Economics* 112 (2): 631-645.
13. Healy, P.M. and Palepu, K.G. (2001). Information asymmetry, corporate disclosure and the capital markets: a review of the empirical disclosure literature. *Journal of Accounting and Economics*, 31 (1-3): 405-440.
14. Hoge, R.D. (1970). Confidence and decision as an index of perceived accuracy of information processing. *Psychonomic Science*, 18, 351-353.
15. Hunton J. A., and R.A. McEwen. 1997. An Assessment of the Relation Between Analysts' Earnings Forecast Accuracy, Motivational Incentives and Cognitive Information Search Strategy. *The Accounting Review* 72 (4): 497-515.
16. Hunton, J., E. Wright, and S. Wright. 2003. Assessing the Impact of More Frequent External Financial Statement Reporting and Independent Auditor Assurance of Quality of Earnings and Stock Market Effects. *Working Paper*, Bentley College, Boston University and University of Massachusetts, Boston.
17. Koestner, R. Zuckerman, M., and Koestner, J. (1987). Praise, involvement, and intrinsic motivation. *Journal of Personality and Social Psychology*, 53: 383-390.
18. Lim, J.S., and M. O'Connor. 1996. Judgmental Forecasting with Time Series and Causal Information. *International Journal of Forecasting* 12 (1): 139-153.
19. Lipe, M. 1998. Individual Investors' Risk Judgments and Investment Decisions: The Impact of Accounting and Market Data. *Accounting Organizations and Society* 23 (7): 625-640.
20. Levitt, Author. (2002). *Take on the street: What Wall Street and corporate America don't want you to know. What you can do to fight back*. New York: Random House.
21. Maines, L., & J.R. Hand. 1996. Individuals' Perceptions and Misperceptions of Time Series Properties of Quarterly Earnings. *The Accounting Review* 71 (3): 317-336.
22. Maines, L. & L. S. McDaniel. 2000. Effects of Comprehensive-Income Characteristics on Nonprofessional Investors' Judgments: The Role of Financial Statement Presentation Format. *The Accounting Review* 75 (2): 179-207.
23. Mento, A.J., Locke, E.A., and Klein, H.J. (1992). Relationship of goal level to valence and instrumentality. *Journal of Applied Psychology* 77 (4): 395-405.
24. Mento, A., R. Steel, & R. Karren (1987). A meta-analytic study of the effects of goal-setting on task performance, 1966-1984. *Organization Behavior and Human Decision Processes*, 39 (1): 52-83.
25. Miller, G. 1956. The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information. *The Psychological Review* 63: 81-97.
26. Murdock, K. (2002) Intrinsic motivation and optimum incentive contracts. *Journal of Economics*, 33 (4): 650-671.
27. O'Conner, M. Remus, W., K. Griggs. 1993. Judgmental Forecasting in Times of Change.

- International Journal of Forecasting* 9 (2): 163-172.
28. Oskamp, S. (1965). Overconfidence in case study judgments. *Journal of Consulting Psychology*, 29, 261-265.
  29. Rawsthorne, L.J., and Elliot, A.J. (1999). Achievement goals and intrinsic motivation: A meta-analytic review. *Personality and Social Psychology Review* 3 (4): 326-344.
  30. Schadewitz, H. and Blevin, D.R. (1998). Major determinants of interim disclosures in an emerging market. *American Business Review*, 16(1): 41-55.
  31. Shahar, G., Kalnitzki, E., Shulman, S., Blatt, S. J. (2006). Personality, motivation and the construction of goals during the transition to adulthood. *Personality & Individual Differences*, 40 (1), 53-63.
  32. Slovic, P. (1973). Behavioral problems of adhering to a decision policy. *Working paper*, Oregon Research Institute, Eugene Oregon.
  33. Thaler, T., Tversky, A., D. Kahneman & A. Schwartz. 1997. The Effect of Myopia and Loss Aversion on Risk Taking: An Experimental Test. *The Quarterly Journal of Economics* 112(2): 647-661.
  34. Tversky, A. & D. Kahneman. 1974. *Judgement Under Uncertainty: Heuristics and Biases*. *Science* 185: 1124-1130.
  35. Wallman, S. M. H. 1995. The Future of Accounting and Disclosure in an Evolving World: The need for Dramatic Change. *Accounting Horizons* 9 (3): 81-91.