

Improvements In Audit Report Lag And Reporting Timeliness: A Non-Event For Technology Advances

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Abstract

Technological advances have transformed the professional lives of all accountants. Consequential expectations would include improvements in the timing of the audit report and the reporting of financial information. There is a presumption in the empirical literature that audit report lag is a primary cause of financial reporting delay. This empirical research study finds little or no change in the audit report lag and timeliness of reporting during the period 1996 to 2001. Audit report lag appears to play a questionable role, if any, in financial reporting delays and other factors such as inertia and interest may be the major impediments to timely reporting. Finally, given the financial atmosphere after the Enron-Arthur Andersen debacle, our research finds no difference among auditing firms for the variables examined. While this could be interpreted in a positive manner, it could also indicate that all Big-5 firms potentially have similar problems.

1. Introduction

Technological advances in auditing, financial reporting, and information systems are recurring events that transform the professional lives of all accountants. The duration of the year-end closing processes has been significantly reduced and has been accompanied by improvements in reporting quality. Additionally, the audit function, both external and internal, is more efficient and effective. Future expectations are reflected in the statements of James J. Schiro the chief executive of PricewaterhouseCoopers who noted that:

Firms will have to develop the ability to audit and monitor not only financial results but also the computerized processes that companies will use to report their performance almost immediately. (Glater, 2001, p. C2)

The Y2K problem was addressed during the mid to late nineties. Most organizations making necessary modifications to resolve the Y2K issues inherent in their existing information systems also updated and improved their information systems and processes at this time (May and Dean, 1999; Ichniowski and Winston, 2000). Given the *prima facie* evidence of auditing and financial reporting improvements, then, *ceterus paribus*, the reporting of firms' financial results to external users should occur at earlier dates. Lags in reporting financial results to external users cause information asymmetries in the marketplace that could result in the incorrect pricing of securities (Hakansson 1977; Lev 1988). Given the magnitude of attention and resources expended on information systems, there is a justifiable expectation for more timely reporting as this would significantly reduce, if not largely eliminate, this source of information asymmetries in the marketplace.

However, the empirical evidence presented in this study indicates little or no change in the timeliness of reporting for a sample of 99 *Fortune 500* firms during the period 1996 through 2001, despite the considerable technological advances that had occurred. Audit report lag is commonly characterized as the primary cause of reporting delay. This research study, however, suggests that other factors may be the major impediments to timely reporting.

Readers with comments or questions are encouraged to contact the authors via email.

2. Literature Review

2.1. Background

Our sample in this study is taken from the *Fortune 500*; thus, the firms under analysis are relatively large and complex. Furthermore, these firms rarely experience auditor switches, which is consistent with our experience in deriving the final sample of firms in this research study, and therefore have a lengthy and presumably mutually satisfactory relationship with their external auditors. There are at least three characteristics that are present in an on-going-audit relationship. First, a professional as opposed to an adversarial relationship exists between the reporting firm and the auditing firm. Second, both the reporting firm and the auditing firm benefit from increases in audit efficiency and effectiveness. Third, both the reporting firm and the auditing firm have developed processes and strategies to achieve most of the available efficiencies, within existing technological limitations, to render a favorable opinion on the organization's financial statements.

2.2. Importance of Reporting Timeliness

The Financial Accounting Standards Board characterizes 'timeliness' as an aspect of relevance, which is one of the two primary decision-specific qualities. The FASB (1980) noted that a lack of timeliness can rob information of relevance it might otherwise have. The two principal sources of yearly financial results are the 'earnings announcement' and 10K filings. Delays in either of these create information asymmetries and cause users to search for other information alternatives. Alternative information sources may be costly, erroneous, and ill considered.

Givoly and Palmon (1982) report that the results of their market tests suggest that there is a significant decrease in the information content of annual reports when the reporting lag is lengthy. Additionally, they posit that, as the reporting lag becomes, longer more of the content becomes available through other publicly available channels. Although such a position appears reasonable, the quantity and quality of the information content in other publicly available information channels would be highly dependent upon the scrutiny that both the organization and its industry receive from the financial community. Furthermore, delays in the release of earnings information can result in pricing difficulties in securities and create inequity among market participants, who may not possess equal access to private information (Hakansson, 1977; Lev, 1988).

2.3. Closing Processes

In order for an organization to report financial results to either internal or external users, a process must be in place to gather, summarize, and review the information of interest and concern (i.e., the closing process). The duration of the closing process is a significant factor for both the timing of earnings announcements and audit report dates. This is self-evident as the closing process generates both what is to be audited and what is to be reported. As reported in Potter (2001, p. 53):

According to the Hackett Group, an average finance department needs five days to close a financial period and four days to produce financial reports.

Cisco Systems has achieved what is termed a 'virtual close' that enables managers to receive financial results from the prior day by 2 p.m. (Potter, 2001). The closing cycle of Zenith Insurance has been reduced from 20-to-30 days to about eight days (O'Donnell, 2001). Improvements in the closing process enable more and higher quality analyses, improvements in the accuracy and quality of financial reports, and create the potential to generate earlier earnings announcements, audit reports, and 10K filings.

2.4. Audit Report Lag

Audit report lag is defined in this study and elsewhere in the literature as the number of days elapsing between an organization's fiscal year end and the date of the audit report. An implicit presumption in the literature on audit report lag is that much of the delay associated with earnings reports is attributable to the dating of the audit re-

port (e.g. Ashton et al., 1987; Givoly and Palmon, 1982). As an example, Bamber et al. (1993) report that the majority of firms wait until at least the audit report date to announce earnings. Givoly and Palmon (1982) suggest that some of the improvement in the timeliness of earnings announcements is attributable to the development of data processing devices and the increase in their use in operations and internal controls, as well as auditor involvement during the year.

Much of the existing research on audit report lag includes 'audit structure' as an important variable. However, as noted in Henderson and Kaplan (2000, p. 162):

The customary measure of audit firm structure is based on data that is representative of audit technology in the early 1980's (Kinney 1986). Since that time, . . . accounting firms have changed their audit technologies, rendering the original structure ratings invalid.

Thus, audit structure, at this time, appears to be an ill defined construct and perhaps ill conceived as a variable of interest.

2.5. Other Variables that Affect Reporting Timeliness

Large companies appear to report earlier than small companies (Givoly and Palmon, 1982; Dyer and McHugh, 1975; Ashton et al., 1989; Bamber et al., 1993). Larger companies may be monitored more closely than small companies and thus they may have incentives to report earlier (Newton and Ashton, 1989). Firms in the financial sector appear to report earlier (Ashton et al., 1987, 1989; Bamber et al., 1993). Audits of financial institutions require less labor, have less diverse transactions and they are characterized as having highly centralized systems (Bamber et al., 1993; Stein et al., 1994). Evidence also supports the position that organizations having a December or January fiscal year end experience less audit report lag due to additional staffing being available during these periods (Ashton et al., 1989; Newton and Ashton, 1989). Finally, auditor changes also impact audit report lag and earnings announcements (Schwartz and Soo, 1996).

2.6. Mutual Responsibility for Reporting Timeliness

Auditing firms have developed technologies and processes that enable them to efficiently and effectively complete the work required to render an opinion on the financial statements of their clients (Kaplan et al., 1990; Mutchler and Williams, 1990). The auditor determines when sufficient evidentiary evidence exists to render an opinion and is solely responsible for this decision. Given the long-term relationships that firms have with their external auditing firms, the majority of the significant potential economies associated with auditing a particular client have been realized and the potential for additional efficiencies would appear to be technology dependent.

Reporting firms are aware of the evidentiary materials and other analyses required by their auditing firms for the purposes of rendering an opinion on the financial statements. In their role as information gatekeepers, reporting firm personnel can either hinder or accelerate access to the evidentiary materials and analyses required by the auditing firm. The decision to do so can either be purposeful on the part of reporting firm personnel or the natural consequence of other duties and responsibilities competing for their time and attention. *Fortune 500* firms are characterized by the presence of auditors throughout the fiscal year, which allows the majority of the audit work to be accomplished prior to the fiscal year end. Contentious and/or sensitive issues should be discussed and the accounting treatment resolved with the auditing firm prior to year-end.

3. Hypotheses

Large firms encounter pressure to report earnings quickly (Dyer and McHugh, 1975; Newton and Ashton 1989). Presumably, they have sufficient influence with their auditors to empower them with the ability to demand more-timely audit services, if they chose to do so. However, larger firms tend to be more complex and diverse, which suggests that more audit work is required. On the other hand, much of the audit work can be and is completed prior to the fiscal year end. More importantly, large firms have the resources and incentives to invest in in-

ternal controls and technology and these investments result in fewer errors and more rapid reporting of financial and other information. This suggests that there is a minimal amount of post fiscal year end work required by the auditing firm. These arguments suggest that larger firms experience a shorter audit report lag than smaller firms. Empirical literature on audit report lag implicitly presumes that audit report lag is the major variable in financial reporting delays. Prior research controls for firm size in several ways. Usually, these include the use of the natural log of sales, total assets and some measure of risk. Hypothesis One can be stated (all hypotheses in this study are expressed in the null form):

H1: Firm size will not be a determining factor for: (a) audit report lag, (b) earnings announcement lag, and (c) 10K report lag.

Prior research suggests that audit structure differs among auditing firms (Bamber et al., 1993). In our research, the entire sample is audited by Big-Five firms. If these auditing firms have made differential investments, then there may be explicit differences in audit technologies and audit efficiencies. Furthermore, some audit firms may be more susceptible to timing pressures from the audit client than others. This suggests that there may be a difference in audit report lag among auditing firms, and Hypothesis Two can be stated:

H2: Audit report lag does not differ between audit firms.

Prior research also argues that in the busy season (December and January fiscal year ends) more audit resources are available. This suggests that busy season year-ends may be audited more timely than other fiscal year ends. Given a definitive amount of required total audit person days, more resources result in fewer days being required, and consequently, a smaller audit report lag. Hypothesis Three can be stated:

H3: Audit report lag does not differ between busy season and non-busy season firms.

Some firms have a tradition of reporting earnings prior to the audit report date. We categorize “early announcers” as those firms that have reported earnings prior to the audit report date for four or more of the six years examined in this research. Twenty-two of the 99 firms in our sample are “early announcers”, consisting of sixteen (six) from the top (bottom) segment of the *Fortune 500*. Given the potential embarrassment of reporting earnings that are subsequently corrected by the audit, it seems likely that firms classified as “early announcers” should have superior internal controls and investments in technology that result in more timely and higher quality financial reporting. Consequently, the expectation is that there should be a shorter audit report lag and 10K filings should be more timely for early announcers, and Hypothesis Four can be stated:

H4: There is no difference between early announcers and other firms for: (a) audit report lag and (b) 10K report lag.

Extensive advances in technology over the recent years have enabled the auditing process to be accomplished more efficiently and effectively than in the past. Additionally, technological advances have had at least a similar, if not greater, impact on the financial reporting and closing processes of firms (Givoly and Palmon, 1982; Potter, 2001). Consequently, audit report lag, earnings announcement lag, and 10K reporting lag should be significantly reduced by the combined advances in effectiveness and efficiency for both the reporting firms and the auditing firms, and Hypothesis Five can be stated:

H5: Technology advances do not result in differences in (a) audit report lag, (b) earnings announcement lag, (c) 10K report lag.

4. Research Method

4.1. Sample

The population of interest in this study is the *Fortune 500* (Fortune, 2000). This population is particularly useful in studying reporting timeliness as the firms have a large impact on the U. S. economy, are closely followed by the financial community, generally have a large number of stockholders, and have the resources and incentives to invest in technology. Fifty firms were sequentially selected from the top and bottom segments of the *Fortune 500* listing and this resulted in a total sample size of 99 firms. In order to be selected, a firm was required to have six years of sequential 10K reports on file in the EDGAR database as of 2001 and no audit firm changes during the six years. To demonstrate that there is a fair representation of industries in our sample, we also use the *Value Line Investment Survey* (2001). Our final sample includes 45 of the 98 industries (i.e., 45.9 percent) in the *Value Line Investment Survey*.

The 10K filing dates were obtained from the EDGAR database. The fiscal year end and the audit report dates were obtained by referencing the appropriate 10K report in the EDGAR database. The earnings announcement dates were obtained from multiple sources: *The Wall Street Journal Index*, *Proquest* database, and *Dow Jones Industrial* database.²

4.2. Definitions

Audit report lag is defined as the number of days elapsing between the fiscal year end and the date of the audit report, which is consistent with prior literature. Earnings announcement lag is defined as the number of days elapsing between the fiscal year end and the date of the earnings announcement and 10K lag is defined as the number of days elapsing between the fiscal year end and the date of the 10K filing.

Data observations for audit report lag, earnings announcement lag and 10K report lag were aggregated by year. Additionally, we controlled for size and risk. Firm size was controlled for using the natural log of both sales and total assets. The firms' debt-equity ration were used to control risk.

The research study was initially envisioned as gathering data through the 2000 year-end. We believed the additional external audit and closing procedures associated with Y2K concerns could be possible contaminants to the study and postponed completion of our study until 2001 data became available.

5. Results

5.1. Overview of the Data

The data were analyzed using multiple regression techniques. There is a sample size of 99 for each of the six years encompassed in the research study. The Table 1 data indicate that there are only small differences in means for the audit, earnings announcement, and 10K lags for the period 1996 through 2001. The only noticeable difference was between the early announcers and the other announcers for their audit report lags. For the 2001 year-end, while the early announcers had a mean audit report lag of 42.7 days, the other announcers had a mean audit report lag of only 31.7 days. Additionally, the difference in the mean earnings announcement lag for the same time period was only 4.9 (33.1 – 28.2) days. Consequently, while early announcers, on average, disclose their earnings 14.5 (42.7 – 28.2) days before the end of the audit fieldwork, the difference in fieldwork dates is 11.0 (42.7 – 31.7) days longer for early reporters. The data in Table 1 clearly demonstrate that there has been no significant change in any of the three lags examined in this research for the period 1996 through 2001. Therefore, H5 cannot be rejected.

Table 1
Mean Values For Year-Ends And Lag Types

Panel A: By Fortune 500 Ranking (2000)						
10K Dates:	2001	2000	1999	1998	1997	1996
Top Firms (n = 49)						
Audit Report Lag	32.4	32.6	32.5	32.4	33.3	33.5
Earning Announcement Lag	27.8	29.5	28.3	29.1	30.0	29.9
10K Lag	77.2	80.8	80.7	79.1	79.3	80.5
Bottom Firms (n = 50)						
Audit Report Lag	35.0	34.1	35.1	33.5	33.5	33.8
Earning Announcement Lag	36.1	33.9	33.7	33.3	33.2	34.3
10K Lag	80.0	78.9	79.9	80.6	80.5	80.6
All Firms (n = 99)						
Audit Report Lag	33.7	33.3	33.8	32.9	33.4	33.6
Earning Announcement Lag	31.9	31.7	31.0	31.2	31.6	32.1
10K Lag	78.6	79.8	80.3	79.9	79.9	80.5

Panel B: By Earnings Announcement Category						
	2000	1999	1998	1997	1996	1995
Early Announcers (n = 22)						
Audit Report Lag	40.8	42.7	46.7	44.1	45.2	44.5
Earning Announcement Lag	27.8	28.8	27.0	27.1	27.4	27.5
10K Lag	79.0	80.7	79.5	78.3	80.0	81.5
Other Announcers (n = 77)						
Audit Report Lag	31.7	30.7	30.2	29.8	30.1	30.6
Earning Announcement Lag	33.1	32.5	32.1	32.3	32.8	33.4
10K Lag	78.5	79.6	80.5	80.3	79.9	80.3

The data in Table 2 show the regression model for the audit report lags for 10K fiscal year-ends 2001, 2000, and 1996. This model shows adjusted R^2 s ranging from .160 to .341. While financial (i.e., a control variable for financial institutions) was significant in two years, the only consistently significant variables for all three year-ends are the firms' debt/equity ratio (H1a) and early announcers (H4a). All other hypotheses dealing with audit report lag cannot be rejected. As indicated in Table 1, early announcers consistently have a longer audit report lag than other firms.

The data in Table 3 show the regression model for earnings announcement lags for fiscal year-ends 2001, 2000, and 1996. This model shows an adjusted R^2 ranging from .079 to .153. No variables demonstrate consistent significance during these periods. Financial (i.e., a control variable) was significant in all years. While the firms' debt-equity ratio (the natural log of sales) was significant (was not significant) in the two most recent years, it was not (was) significant for 1996. Consequently, there exists mixed support for the rejection of H1B.

The data in Table 4 show the regression model for 10K lags for fiscal year-ends 2001, 2000, and 1996. This model shows minimal adjusted R^2 s that range from -.033 to .008. None of the variables in the model are significant, at the .05 level, for any of the three time periods. Consequently, we cannot reject any of the hypotheses dealing with 10K lag.

Table 2
Regression Models For Audit Report Lags

	<u>10K Year End 2001</u>				<u>10K Year End 2000</u>				<u>10K Year End 1996</u>			
	SS	MS	F stat	Sig F	SS	MS	F stat	Sig F	SS	MS	F stat	Sig F
Regression	4781.9	478.2	2.9	.0039	8263.3	826.3	6.1	.0001	5933.7	593.4	4.9	.0001
Residual	14674.1	166.8			11999.9	136.4			10645.9	121.0		
Total	19456.0				20263.2				16579.6			
Term	Coef	Error	T stat	P (T)	Coef	Error	T stat	P (T)	Coef	Error	T stat	P (T)
Intercept	59.2	12.7	4.7	.0001	48.5	11.7	4.2	.0001	52.5	10.0	5.2	.0001
Early	-5.7	1.7	3.3	.0013	-6.4	1.5	-4.1	.0001	-7.7	1.5	5.2	.0001
PWC	0.6	2.1	0.3	.7884	1.5	2.0	0.7	.4587	0.7	1.9	-0.4	.6970
D-T	-2.9	2.3	-1.3	.2104	-2.4	2.1	-1.2	.2537	-2.1	2.0	-1.0	.3074
E&Y	-0.8	2.3	-0.4	.7273	1.0	2.1	0.5	.6453	-0.3	2.0	-0.2	.8691
KPMG	0.4	2.6	0.2	.8740	2.5	2.4	1.1	.2889	2.1	2.2	0.9	.3621
Financial	4.9	3.2	1.6	.1250	7.0	2.9	2.4	.0192	5.0	2.6	1.9	.0595
Busy	0.4	2.0	0.2	.8247	-0.4	1.8	-0.2	.8109	0.4	1.7	0.2	.8199
LnSales	-0.8	2.3	-0.4	.7180	-0.5	2.1	-0.2	.8220	-3.7	2.0	-1.9	.0669
LnTA	-2.2	1.9	-1.1	.2579	-2.0	1.8	-1.1	.2658	1.5	1.8	0.9	.3852
Debt/Equity	0.9	0.4	2.2	.0276	1.2	0.2	5.0	.0001	0.2	0.1	1.8	.0722
	n = 99	AdjR ² = .160			n = 99	AdjR ² = .341			n = 99	AdjR ² = .285		

Early
Firms
Financial
Busy
Ln
Debt/Equity

Companies that reported their earnings figures before the audit completion in four of the six years (coded 1).
Four dummy variables for the Big-5 firm that performed the audit where 1 (0) indicates it was (was not) that firm. Arthur Andersen used for comparison.
Financial institutions (coded 1).
Companies whose year-ends were other than December January (coded 1).
Natural log.
Debt-Equity Ratio.

Table 3
Regression Models For Earnings Announcement Lags

	<u>10K Year End 2001</u>				<u>10K Year End 2000</u>				<u>10K Year End 1996</u>			
	SS	MS	F stat	Sig F	SS	MS	F stat	Sig F	SS	MS	F stat	Sig F
Regression	3291.0	329.1	1.9	.0569	4229.3	422.9	2.8	.0051	3266.6	326.7	1.8	.0654
Residual	15316.4	174.1			13454.1	152.9			15639.5	177.7		
Total	18607.4				17683.4				18906.1			
Term	Coef	Error	T stat	P (T)	Coef	Error	T stat	P (T)	Coef	Error	T stat	P (T)
Intercept	62.5	13.0	4.8	.0001	44.9	12.4	3.6	.0001	46.5	12.1	3.8	.0002
Early	1.8	1.8	1.0	.3060	1.7	1.6	1.0	.3000	2.8	1.8	1.5	.1262
PWC	0.1	2.2	0.0	.9785	0.6	2.1	0.3	.7756	-1.0	2.3	-0.4	.6638
D-T	-2.0	2.4	-0.9	.3903	-3.0	2.2	-1.3	.1831	-3.6	2.4	-1.5	.1396
E&Y	-1.2	2.3	-0.5	.6170	0.0	2.2	0.0	.9933	0.4	2.4	0.2	.8738
KPMG	1.0	2.7	0.4	.7050	0.9	2.5	0.3	.7317	3.5	2.7	1.3	.1993
Financial	5.5	3.2	1.6	.0913	6.2	3.1	2.0	.0513	5.3	3.2	1.7	.1007
Busy	-0.4	2.0	-0.2	.8240	0.9	1.9	0.5	.6272	1.3	2.0	0.6	.5341
LnSales	-2.0	2.4	-0.8	.4015	0.1	2.2	-0.0	.9771	-4.2	2.4	-1.7	.0858
LnTA	-1.8	2.0	-0.9	.3536	-2.4	1.9	-1.3	.2031	1.8	2.2	0.8	.4140
Debt/Equity	0.7	0.4	1.7	.0857	1.0	0.2	4.1	.0001	0.0	0.1	0.2	.8369
	n = 99	AdjR ² = .083			n = 99	AdjR ² = .153			n = 99	AdjR ² = .079		

Early Companies that reported their earnings figures before the audit completion in four of the six years (coded 1).
 Firms Four dummy variables for the Big-5 firm that performed the audit where 1 (0) indicates it was (was not) that firm. Arthur Andersen used for comparison.
 Financial Financial institutions (coded 1).
 Busy Companies whose year-ends were other than December January (coded 1).
 Ln Natural log.
 Debt/Equity Debt-Equity Ratio.

Table 4
Regression Models For 10k Report Lags

	<u>10K Year End 2001</u>				<u>10K Year End 2000</u>				<u>10K Year End 1996</u>			
	SS	MS	F stat	Sig F	SS	MS	F stat	Sig F	SS	MS	F stat	Sig F
Regression	1438.7	143.9	0.9	.5162	1398.4	139.8	1.1	.3848	854.8	85.5	0.7	.7342
Residual	13718.0	155.9			11374.3	129.3			10955.9	124.5		
Total	15156.7				12772.7				11810.7			
Term	Coef	Error	T stat	P (T)	Coef	Error	T stat	P (T)	Coef	Error	T stat	P (T)
Intercept	93.6	12.3	7.6	.0001	86.2	11.4	7.6	.0001	77.2	10.2	7.6	.0001
Early	-1.5	1.7	-0.9	.3616	-1.0	1.5	-0.7	.5191	-0.8	1.5	-0.6	.5836
PWC	1.1	2.1	0.6	.5822	0.7	1.9	0.4	.7084	-1.5	1.9	-0.8	.4354
D-T	-0.4	2.2	-0.2	.8502	-2.6	2.0	-1.3	.2154	-2.4	2.0	-1.2	.2426
E&Y	-1.3	2.2	-0.6	.5643	-2.0	2.0	-1.0	.3243	-3.2	2.0	-1.6	.1092
KPMG	1.8	2.5	-0.7	.4769	-2.1	2.3	-0.9	.3600	-2.2	2.3	-1.0	.3457
Financial	-5.8	3.1	-1.9	.0632	-3.1	2.9	-1.1	.2866	-1.4	2.7	-0.5	.6025
Busy	0.4	1.9	0.2	.8274	3.1	1.7	1.8	.0733	0.3	1.7	0.2	.8517
LnSales	2.1	2.2	0.9	.3533	1.5	2.0	0.7	.4597	1.5	2.0	0.7	.4598
LnTA	-2.9	1.9	-1.5	.1269	-1.7	1.7	-1.0	.3235	-0.3	1.8	-0.2	.8580
Debt/Equity	-0.1	0.4	-0.2	.8522	0.0	0.2	0.1	.9166	-0.1	0.1	-0.9	.3632
	n = 99	AdjR ² = -.008			n = 99	AdjR ² = .008			N = 99	AdjR ² = -.033		

Early Companies that reported their earnings figures before the audit completion in four of the six years (coded 1).
 Firms Four dummy variables for the Big-5 firm that performed the audit where 1 (0) indicates it was (was not) that firm. Arthur Andersen used for comparison.
 Financial Financial institutions (coded 1).
 Busy Companies whose year-ends were other than December January (coded 1).
 Ln Natural log.
 Debt/Equity Debt-Equity Ratio.

6. Discussion And Conclusions

Given the technological advances that have occurred between 1996 and 2001, we find it incredulous that there is no significant improvement in either the audit report lag, earnings announcement lag or 10K reporting lag for the *Fortune 500* firms in this study's timeframe. The mean lags for all year-ends (Table 1) are basically identical, giving allowances for weekends, for each of the three reporting lags examined. When commenting on government timely reporting, Canary (1988, p. 19) may have captured the essence of the reporting lag conundrum by noting that:

CPAs are preparing . . . for the year at a bargain basement rate. Further the elected officials see no need for more timely service or the need to pay more for it.

At this time, a theory does not exist to account for or explain reporting lags. Empirical research, however, can provide guidance in the development of such a theory. Scheduling issues occur on both the part of the reporting firm and the external auditing firm. Our research suggests these firms are encountering symptoms of "inertia" (i.e. they are comfortable with the current scheduling of procedures and events) and perceive no economic and/or other incentives for change. On the part of the reporting firm, the explanations may range from "we have always scheduled it for this time" to "the board historically meets on this day and the process is scheduled accordingly". These explanations are consistent with Chen and Mohan's survey (1994) where they reported that fifty-seven percent of the corporations followed a policy of announcing earnings on a regularly scheduled date. Chambers and Penman (1984, p. 26) noted that:

Overall the impression is one of regular, predictable reporting behavior by individual firms. It appears that firms' reporting dates can be predicted in advance within a few days with some precision, on average. (p 26)

On the part of the external auditing firm, the explanations may range from "we have always scheduled it to be completed by this day" to "it is scheduled for this day as the following day we are committed to being at X" and the staffing is scheduled accordingly. The "early announcers" provide compelling evidence to suggest reporting inertia on the part of both the reporting and auditing firms. On average, early announcers report earnings 28 days after year-end, while other firms report earnings 33 (Table 1) days after year-end. This early reporting tradition does not appear to motivate external auditors to complete fieldwork at an earlier date nor does it result in more-timely filing of 10K reports. We were surprised to find that the audit report lag for early announcers (other firms) averages about 44 (30) days. Furthermore, the 10K lag for early announcers (other firms) averages about 80 (80) days. The identical 10K lag for early announcers and other firms is compelling evidence to support inertia as a causal agent.

The interest issues are both difficult to ascertain and perplexing. Reporting firms do not appear to receive any direct economic benefits from providing information early. Indeed, many may have incentives to delay reporting as earlier reporting may provide competitors with information that may be used to the detriment of the reporting firms. Consequently, one could argue that many reporting firms intentionally delay the release of information. This study and prior research documents that the preponderance of reporting firms release their earnings on or about the audit report date (Bamber et al., 1993). Reporting firms would find it difficult to delay the release of earnings beyond the audit report date as the audit report date is incorporated within the annual report and is a glaring pronouncement of when the information became finalized and available for release.

Although information asymmetry that is created by untimely reporting results in the incorrect pricing of securities, it is unclear as to whether the beneficiary is the current or prospective stakeholder. Furthermore, does the reporting firm have a higher obligation to the current or prospective stakeholder? If we assume that the audit report lag does not have a reputation effect, there appears to be a compelling case for a position of indifference on the part of the auditing firm. However, if a large number of an audit firm's clients in a particular office had identical or very similar fiscal year ends, timing could be problematic.


In our opinion, the most discouraging observation is the lack of improvement in the 10K lag and the overall mean 10K lags for the 2001-and-2000 year ends. The present requirement that firms report financial results in nine-

ty days was instituted in 1933 and remains so almost seventy years later. Compare this to the technology effect on the time it takes to cross the Atlantic Ocean. In 1934, the Queen Mary captured the Blue Riband, which is the award for the fastest crossing of the Atlantic by an ocean liner, in 96 hours and 30 minutes (Faith, 1995). In 1980, the British Concorde flew from Heathrow to New York in about three and a half hours.

Given the SEC's primary mission to protect investors and maintain the integrity of the securities markets it appears that there should be some impetus on the part of the SEC to require more-timely reporting. At a minimum, this would improve the information asymmetries currently existing in the marketplace. Our study presents evidence suggesting that, in light of the technological advances that have occurred in the past 67 years, the SEC should reconsider the current reporting deadlines. However, given the recent Enron-Arthur Andersen debacle, we doubt that shortening any reporting lag would be a "politically-correct" option at this time.

Givoly and Palmon (1982) also addressed the issue of reporting capability and suggested that the 90-day requirement may be too loose and should be shortened, at least for the population of large firms. Bethlehem Steel demonstrates the feasibility and practicality of improving the reporting process. Bethlehem Steel had a year end of December 31, 2000, their management signoff date, audit report date, and 10K filing date were all dated January 31, 2001. Their earnings for 2000 were announced on February 1, 2001.

The findings on size of reporting firms, fiscal year end seasonality, and auditing firms are representative of *Fortune 500* firms and Big Five auditing firms. Although both are powerful forces in the U. S. economy, they represent, in terms of numbers, only a small fraction of the total firms in the U.S. economy. Other firms may possess very different characteristics and incentives than the firms in this research study.

Future research directed at assessing the causes of reporting lags is warranted. Field interviews of upper management could ascertain the determinants of the timing of the earnings announcements and 10K filings. Field interviews with public accounting firms could ascertain the variables that dictate the number of days after a reporting firm's year-end to complete the audit fieldwork. Senior SEC officials could be interviewed as to their opinions on the current 90-day reporting requirement and indicate their positions advocating/opposing a shorter reporting period in light of the advancements in technology. 

Endnotes

- ¹ The lead and second authors are involved in several research projects and alternate lead author responsibilities and both authors contribute equally to all of their published works.
- ² All data came from publicly available sources.

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