

HETEROGENITY OF FISCAL YEAR-END CHOICE:
EXPLORING INFLUENCES AND EFFECTS BY
EXAMINING FISCAL YEAR-END CHANGES

by

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ABSTRACT

In my dissertation I explore motivations and effects of the accounting choice of fiscal year-end (FYE). I demonstrate that the choice is neither static nor uniform. A nontrivial number of firms initially choose an FYE that differs from that of the majority of their industry. The majority and nonmajority firms differ along the dimensions of performance, strategy, administrative costs and information environment. I further explore whether these differences are evident in firms that changed their FYE. I find some evidence that firms may select an initial FYE or subsequently change their FYE in an effort to influence their subindustry group membership. I find evidence that firms may make their FYE choice to take advantage of potential savings in administrative costs. I find evidence that the choice may be influenced by information environment factors. I also explore the potential benefits/costs of the differences in comparability that result from differences in FYE choice. My results suggest a positive relationship between the number of firms in an industry sharing an FYE or quarter end and analyst forecast error, dispersion and optimism. I find results consistent with the notion that a firm making a seasoned decision to change FYE can affect its analyst following. I do not find consistent evidence that a seasoned change can affect analyst forecast properties.

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CHAPTER 1

INTRODUCTION

US GAAP provides a framework for financial reporting that includes a number of choices in how to account for various types of transactions. One of the underlying assumptions included in the framework is that of “periodicity,” where economic activities can be divided into artificial time periods. Consistent with this concept, US GAAP requires managers to supply financial reports to users based on a self-selected fiscal year end (FYE). The FYE selected is an overall “accounting method choice” that a manager might use to influence his/her firm’s overall information environment, although the FYE choice has additional implications as well.¹ The choice of an FYE is similar to other choices about accounting assumptions, such as an inventory cost flow assumption (LIFO, FIFO, etc.), in that there is an expectation that managers will use their latitude of choice to increase the transparency of their reporting. In my dissertation I explore possible influences and effects of differences in firm choices of FYE. I focus in particular on differences between firms that choose the same FYE as the majority of firms in their industry and firms that choose a FYE that differs from the majority of firms in their industry.

Financial regulations in the US do not dictate that a firm must select a specific FYE, instead allowing each firm to make that decision based on factors it considers

¹ The U.S. Internal Revenue Code requires firm tax and fiscal years to coincide.

important. In addition, even after selecting an initial FYE, a firm maintains the option to subsequently change that decision. Little prior research examines the heterogeneity of this choice, which implicitly assumes the reporting choice is static. Many studies simply eliminate firms with non-December FYEs.² To fill this gap in the research, I examine possible influences and effects of FYE heterogeneity and present descriptive statistics useful in assessing a self-selection bias when making research design decisions. Specifically, I describe the heterogeneity of the choice by presenting the number of firms adopting each month as an FYE and provide an industry-adjusted analysis of financial measures segregated into firms that have the same FYE as the majority of firms within its industry (industry majority) and firms that have an FYE that differs from the majority of firms within its industry (nonmajority).

My analysis begins in Chapter 2 where I document the heterogeneity of this choice among active, publicly traded firms included in the Compustat database between 1960 and 2007. I show that, while there is a significant clustering of firms that select a December FYE, 35 to 40% of active firms choose a non-December FYE. I also document change in FYE by firms during that period. The FYE change setting provides me with a natural experiment to help isolate influences on the accounting choice.

Next, in Chapter 3, I outline the institutional setting surrounding the initial accounting choice of FYE and the subsequent changes to that choice. The SEC has specific requirements firms must follow if they change their FYE. I find, however, that regulatory compliance is spotty at best. In this chapter I also examine the reasons for FYE

² As I discuss below, only two industries, consisting of 440 firms, have an industry majority FYE month different from December. That month is January.

changes disclosed by firms in press releases surrounding the change. I later use some of these reasons to develop expectations of influences on initial and subsequent decisions on FYE choice.

Following my examination of the parameters surrounding the choice of FYE, in Chapter 4, I review past research that may suggest factors that influence a firm's choice of FYE. Of particular interest is research relating to creating firms groups that are useful to financial statement users.

In Chapter 5, I consider firm-specific characteristics that might influence the accounting choice. I test for differences among four groups of factors between industry majority and nonmajority groups to provide evidence of the importance of these factors in the FYE choice. I then examine changes in FYE as a natural experiment in an attempt to isolate endogenous factors obscuring significant influences on the initial choice.

In Chapter 6, I test for differences in information environments as they relate to the choice of FYE. I begin by describing firms who change their FYE during my sample period. I then classify firm FYE changers into three groups, based on whether the FYE change results in the changing firm increasing, decreasing or not changing the benchmark set of firms directly available to financial statement users. I use this classification along with the role of benchmarks in comparability to develop expectations about the relationship of FYE choice and benefits (costs) of increased (decreased) comparability. To form these expectations, I draw on past empirical and theoretical research on information environment and financial analyst properties, particularly Lang and Lundholm (1996a) and DeFranco, Kothari and Verdi (2008).

Next, also within Chapter 6, I provide tests of my expectations using two sets of firms. The first set of firms includes what I label as nonchangers: firms that have not elected to change their FYE within the sample period, which isolates firms' initial FYE choices. Considering only this set of firms presumes that these firms have selected the "correct" FYE and allows me to make an overall assessment of the benefits (costs) of sharing FYEs with more (fewer) firms in the same industry. The second set includes changers: firms that have changed their FYE. I use this set of firms to explore whether firms gain or lose the benefits of comparability when they adjust the number of firms in their industry that share FYE.

In Chapter 7, I present limitations of my tests along with opportunities for extension of my research and conclude with potential contributions.

CHAPTER 2

FYE AS AN ACCOUNTING CHOICE

2.1 The Initial Choice of FYE

The choice of FYE date is one of the first accounting choices made by a firm. Corporations formed in the United States make the choice when they file their initial charter. While United States tax law mandates that a corporation's financial and tax periods coincide, it allows a corporation latitude in choosing that FYE period. In particular, U.S. corporations are not limited to a calendar year-end as are individuals and most partnerships. Foreign governments often mandate a particular FYE for corporations formed under their jurisdiction (Kamp, 2002),³ however. Consequently, when analyzing the factors that influence changes in FYE (Chapter 5) I excluded foreign firms, but when analyzing the effect of the number of firms sharing FYE (Chapter 6) I included foreign firms. In robustness tests, I estimated my analysis including and excluding foreign firms with substantively similar results.

Figure 2.1, Panel A presents the distribution of the initial FYE choice over the periods of 1960 to 2007 and 1994 to 2007. As the figure illustrates, most firms initially choose a December FYE. The figure also illustrates that the choice has not remained static over time, however, with more firms choosing a December FYE (either through their initial choice or by changing) during the later period. I have included the 1994-2007

³ As discussed below, Kamp finds evidence suggesting country of origin is a significant influence on a firm's choice of FYE.

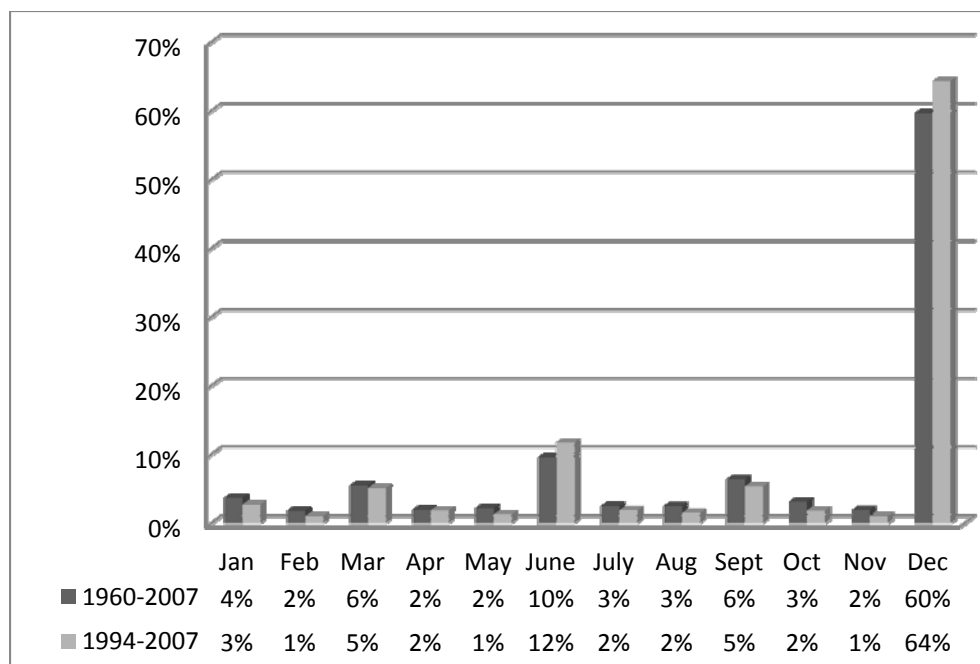
subperiod because I examine that period during the later part of my dissertation. Panel B shows slightly more homogeneity in the choice of fiscal quarter-end, which is at least in part mechanical.

In Figure 2.2, I present FYE data from selected industries to demonstrate differing distributions of FYE choice. As seen in that figure, FYE choice and the firm's industry appear to be related. While the majority of firms within most industries included in the Compustat tapes select December as their FYE, the majority of firms in the multiple line retail and specialty retail industries (GICS 255030 and 255040) choose January. The data in Figure 2.2 suggest that industry plays a role in the accounting choice of FYE. Nevertheless, both Figures 2.1 and 2.2 illustrate heterogeneity in the choice of FYE providing motivation for further investigation into the effects of the choice.

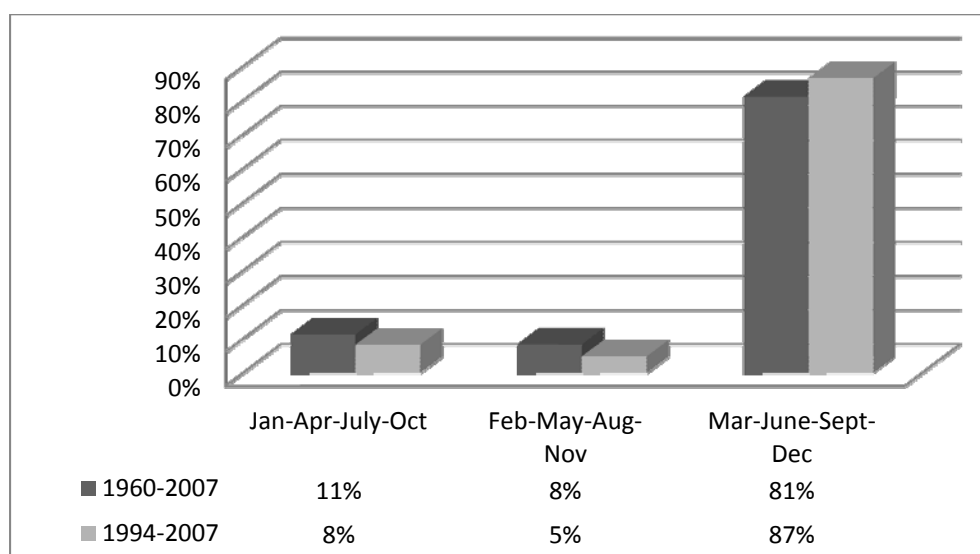
2.2 A Seasoned Change to FYE

United States security laws place only limited restrictions on companies who desire to change their FYE. These restrictions relate primarily to how the company choosing to change must report their decision and how they report the resulting short transition period and prior comparable periods (see Chapter 3: Institutional Setting).

The change is likely not without cost, however. Firms who change FYEs must ultimately report a short (less than 12 months) transition period when they make a change, which will increase audit frequency and ultimately total audit fees. A change also incurs additional administrative costs as management must create comparable prior period financials and adjust the timing of their entire accounting information system to reflect the change and the new reporting year. Depending on the month to which a firm



Panel A: Firm Fiscal Year-End Choices.



Panel B: Firm Quarter-Cycle End Choices.

Figure 2.1 Initial Choices.

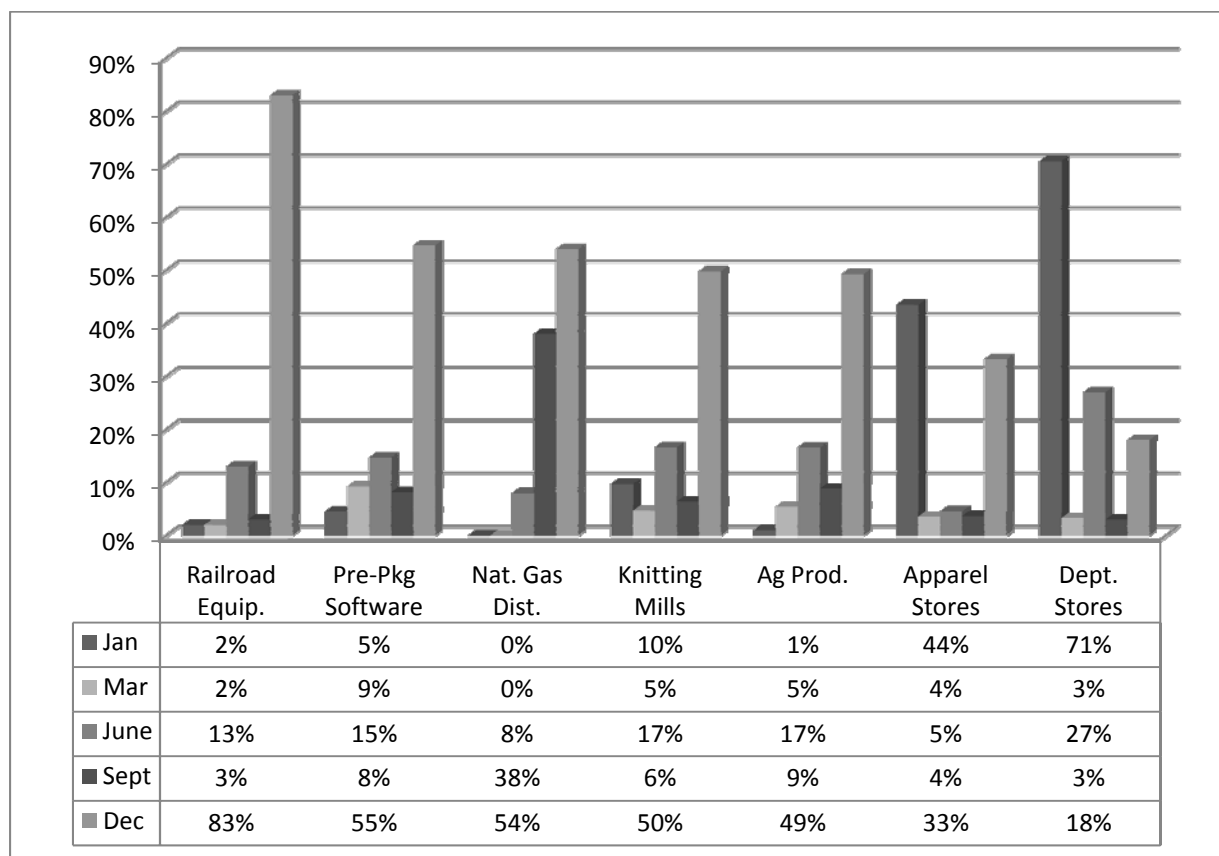


Figure 2.2. Selected Industry Fiscal Year-End Choices.

changes, I also expect the supply and demand of professional services to affect administrative costs (see Chapter 5).

Despite these and other possible costs of the change in accounting choice, over 3,290 firms changed FYE (388 firms changed multiple times) since 1960. Furthermore, of the 3,290 firms that changed FYE, 1,752 also changed their quarter cycle end date. For example, a change from a December FYE to March, June or September maintains the same quarter cycle because each quarter maintains the same end date. A change from

December to any month other than March, June or September causes the quarter cycle to change.

Figure 2.3 illustrates the frequency of FYE changes over the period from 1960 to 2007. While the number of firms changing each year increases over time, the proportion of firms changing each year remains in the range of 0.5 to 1.5%. The figure documents two “spikes” in the proportion of changes over the 37-year period, one in 1987 and another in 1996-1997. The 1987 spike is likely due to changes in the U. S. tax code brought about by the Tax Act of 1986 (see 2.2 Institutional Setting). This year is outside the period I use in my primary tests, so I did not control for the effects of the tax act. The underlying reason for the second spike in FYE changes during the 1996-1997 period is less clear. As a robustness check, I conducted my change tests after eliminating firms changing during that period and found no substantive differences in results.

Figure 2.4 illustrates the percentage of firms adopting each FYE month during the period from 1960 to 2007. As one might expect, firms tend to adopt new FYEs in a similar distribution to the overall choice of FYEs.

In Table 2.1, I tabulated the newly adopted FYE month for all firms changing FYE for each year between 1960 and 2007. This table provides a detailed reference on changes in FYE month over time, including additional detail on the spikes in 1987 and 1996-1997.

In Table 2.2, I provide information on the top 15 GICS (Global Industry Classification System) industries with the most FYE changers over the period from 1960 to 2007. The table provides evidence that a sizeable number of firms within some industries change FYEs. Roughly a third of firms in the cigarette, department store and

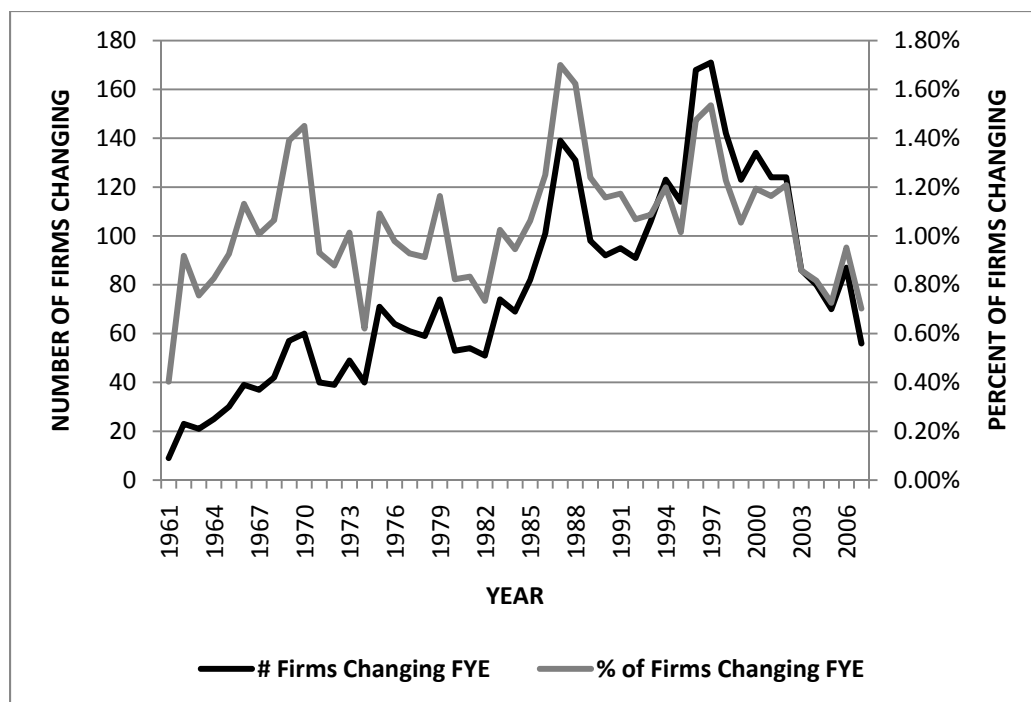


Figure 2.3. Firms Changing Fiscal Year-End (FYE) by Year.

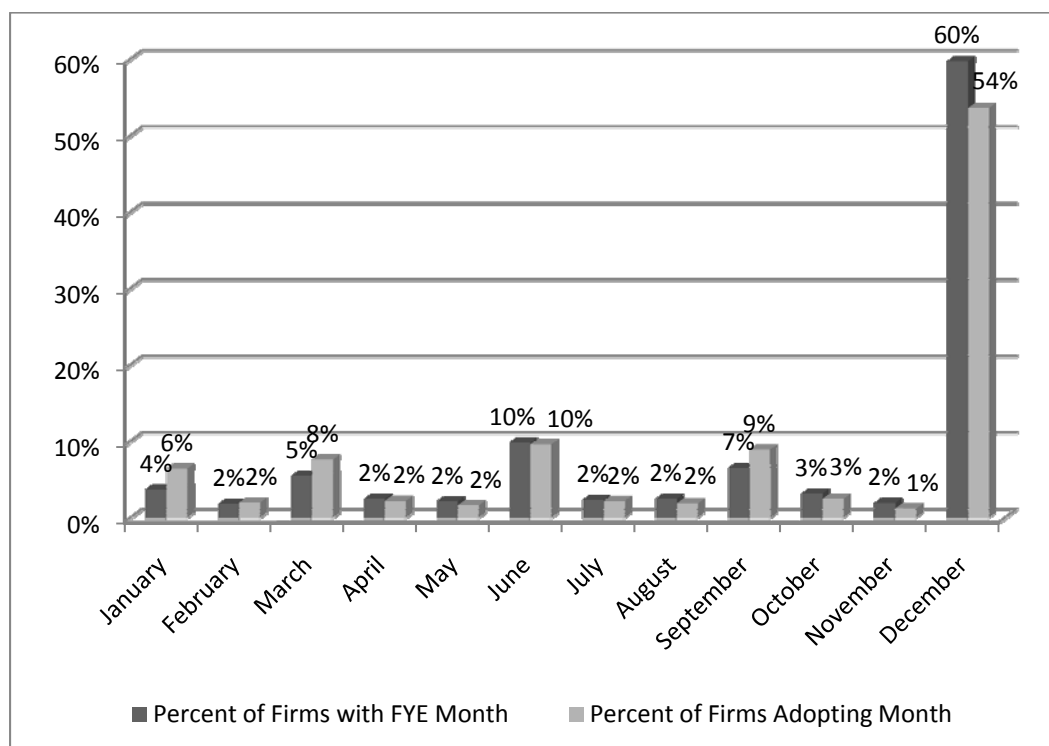


Figure 2.4. Months Adopted by YE Changers.

TABLE 2.1:
Number of Firms Adopting each Year-end Month from 1960 to 2007

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Tota	Pct.
1962	3	0	1	0	0	5	2	0	0	1	0	11	23	0.6%
1963	2	2	0	0	4	0	0	2	3	1	0	7	21	0.6%
1964	4	0	3	1	0	0	1	2	4	0	0	10	25	0.7%
1965	7	0	3	0	0	3	0	1	4	1	1	10	30	0.8%
1966	4	0	3	6	1	4	1	0	8	1	0	11	39	1.1%
1967	4	0	9	1	1	4	0	0	2	4	0	12	37	1.0%
1968	2	1	1	1	4	5	3	3	4	1	1	16	42	1.1%
1969	3	0	4	2	0	4	4	3	3	1	1	32	57	1.6%
1970	7	2	2	4	1	5	0	0	4	3	1	31	60	1.6%
1971	3	1	5	2	0	3	2	2	4	1	2	15	40	1.1%
1972	5	5	3	2	0	4	1	0	4	1	0	14	39	1.1%
1973	9	1	8	1	1	2	4	1	4	4	0	14	49	1.3%
1974	2	2	7	1	1	3	1	1	6	2	0	14	40	1.1%
1975	9	1	12	2	2	7	2	5	5	2	1	23	71	1.9%
1976	7	2	4	2	0	7	1	0	8	0	3	30	64	1.7%
1977	9	1	4	0	2	9	5	2	4	3	1	21	61	1.7%
1978	4	3	4	0	1	7	3	4	10	3	0	20	59	1.6%
1979	11	2	6	1	1	5	1	2	7	5	0	33	74	2.0%
1980	2	1	1	1	1	3	3	1	8	2	1	29	53	1.4%
1981	2	2	1	0	1	5	3	2	3	0	1	34	54	1.5%
1982	1	1	7	2	2	9	0	1	3	2	0	23	51	1.4%
1983	7	0	3	2	3	8	3	0	10	4	1	33	74	2.0%
1984	6	3	5	1	1	9	2	1	5	0	2	34	69	1.9%
1985	8	4	5	2	2	7	1	1	9	2	1	40	82	2.2%
1986	9	5	7	3	2	9	2	0	8	4	0	52	101	2.8%
1987	6	4	16	7	0	13	5	4	12	3	2	67	139	3.8%
1988	5	5	11	2	3	23	3	4	13	3	0	59	131	3.6%
1989	7	2	8	1	2	11	0	1	14	1	2	49	98	2.7%
1990	6	1	4	0	0	14	1	0	3	0	3	60	92	2.5%
1991	4	3	5	1	0	11	2	2	12	2	0	53	95	2.6%
1992	6	2	5	2	1	13	2	2	8	0	1	49	91	2.5%
1993	4	1	7	1	2	10	6	3	11	1	3	57	106	2.9%
1994	4	2	10	2	3	13	2	3	8	4	1	71	123	3.3%
1995	9	2	8	2	1	12	2	4	10	4	1	59	114	3.1%
1996	12	1	14	5	2	13	1	0	14	3	2	101	168	4.6%
1997	8	1	14	1	3	8	1	1	15	3	4	112	171	4.7%
1998	7	0	9	4	1	11	2	1	10	1	0	96	142	3.9%
1999	7	1	9	1	1	13	1	0	8	1	0	81	123	3.3%
2000	3	1	8	3	1	6	1	3	9	2	1	96	134	3.6%
2001	5	2	8	3	2	11	1	0	4	6	0	82	124	3.4%
2002	4	2	7	4	1	12	2	1	9	5	1	76	124	3.4%
2003	2	0	10	1	1	8	1	2	6	2	3	50	86	2.3%
2004	1	1	5	2	1	5	1	2	13	1	0	48	80	2.2%
2005	1	1	5	2	3	4	0	1	4	0	1	48	70	1.9%
2006	0	1	7	1	1	9	0	0	6	1	3	58	87	2.4%
2007	5	1	2	0	0	7	1	0	10	1	1	28	56	1.5%
Total	237	74	281	82	60	354	81	70	329	92	46	1972	3678	100%
Pct.	6%	2%	8%	2%	2%	10%	2%	2%	9%	3%	1%	54%	100	

TABLE 2.2:
Industries (6-Digit GICS) with Most Frequent Changes
in FYE Between 1960 and 2007

A FYE change occurs when a firm changes its FYE month. A quarter-end month (QEM) change occurs when FYE change also changes the firm's quarter-end months.

Industry Name	Number of Firms in Industry	# FYE Changes	% of Industry Changing FYE	# FQE Changes	% of Industry Changing FQE
Cigarettes	28	11	39.3%	3	10.7%
Department Stores	125	43	34.4%	32	25.6%
Natural Gas Distribution	160	50	31.3%	8	5.0%
Conglomerates	38	10	26.3%	6	15.8%
Knitting Mills	396	97	24.5%	57	14.4%
Household Audio & Video Equipment	465	104	22.4%	47	10.1%
Agriculture	400	89	22.3%	33	8.3%
Production-Crops					
Apparel & Accessory Stores	561	121	21.6%	83	14.8%
Integrated System Design	51	11	21.6%	8	15.7%
Drug & Proprietary Stores	262	54	20.6%	40	15.3%
Misc Fabricated Metal Products	249	50	20.1%	26	10.4%
Sporting & Athletic Goods	239	47	19.7%	25	10.5%
Drilling Oil & Gas Wells	304	59	19.4%	28	9.2%
Air Transport, Non-Scheduled	70	13	18.6%	4	5.7%
Malt Beverages	124	23	18.5%	6	4.8%
All Firms	28,179	3,678	11.7%	1,752	5.8%

natural gas distribution industries change FYE during the 37-year period. Furthermore, 11.7% of all active firms from 1960 to 2007 change FYE at some point. Thus, I argue that the FYE change decision is neither rare nor infrequent.

A decision to change FYE results in one of three outcomes with regard to the number of firms in the changing firm's industry that share the same FYE. The change firm may move to share the same FYE as the majority of firms in its industry (MOVETO). Alternatively, it may move from sharing the same FYE as the majority of firms within its industry to an FYE that differs from the majority of firms in its industry (MOVEFROM). Finally, a firm that does not share FYE month with the majority of its industry may change to an FYE month that still differs from the majority of its industry (HORZ).⁴

Table 2.3 documents the number of firms achieving each of these outcomes after changing FYE using four different methods of determining industry. Panels A and B represent the number of each outcome for the periods from 1960 to 2007 and 1994 to 2007, respectively. The numbers vary slightly depending on the industry classification system used to determine the firm's industry group. In general, the majority of FYE changes result in the adoption of an FYE shared by the majority of the changer's industry. Nonetheless, a nontrivial number of firms change to a different FYE from the majority of their industry.

The trichotomy of the three directions of change (MOVETO, MOVEFROM and HORZ) provides an interesting scenario in which to examine the motivations and effects of FYE changes as well as possible explanations for initial FYE choices.

⁴ I also considered the outcomes in terms of sharing the FYE of the group of firms that represents the largest proportion of sales for the industry. With very few exceptions, the group with the largest number of firms did not differ from the group with the largest proportion of industry sales.

TABLE 2.3
Direction of Change by Industry Classification System

Panel A: Changes from 1960 to 2007

Direction Variable	2-Digit SIC (SIC2)	3-Digit NAICS (NAICS3)	Fama/ French (FF)	6-Digit GICS (GICS6)
MOVETO	2,031	2,029	2,035	2,017
MOVEFROM	771	770	743	768
HORZ	876	879	900	893
Total Changers 1960-2007	3,678	3,678	3,678	3,678

Panel B: Changes from 1994 to 2007

Direction Variable	2-Digit SIC (SIC2)	3-Digit NAICS (NAICS3)	Fama/ French (FF)	6-Digit GICS (GICS6)
MOVETO	1,017	1,019	1,017	1,020
MOVEFROM	299	299	297	297
HORZ	286	284	288	285
Total Changers 1994-2007	1,602	1,602	1,602	1,602

MOVETO	Change to a FYE shared by the majority of industry
MOVEFROM	Change from a FYE shared by the majority of industry to a FYE that differs from the majority of industry
HORZ	FYE differs before and after change

Relying on the premise that sharing an FYE creates a subindustry grouping that provides a finer delineation than simply an industry classification, the variation in the outcomes provides a rich data source for examining the influences and effects of the choice.

2.3 Firm-provided Reasons for Changing FYE

I hand-collected explanations for the change from 8-Ks and press releases for firms changing FYE between 1994 and 2007. Due to the time intensive nature of hand-collection, I limited my analysis to those firms that (1) met the analyst following requirements for inclusion in my sample (see sample selection below) and (2) changed during 1999 and 2000. By including information on all of the firms changing during 1999 and 2000, I reduced concerns of a selection bias resulting from my data restrictions. I found no substantive differences in the distributions in the variables I examined or the distribution of reasons reported between the set of all firms changing FYE during 1999 and 2000 and the set of firms changing FYE between 1994 and 2007 that meet my data requirements to be included in my tests of firms changing FYE.

Out of 634 change firms with analyst following for at least one year pre- and postchange, 452 filed an 8-K or press release related to their change in FYE. Firms offer various explanations for their change in FYE. To determine how to classify the reasons, I read 30 random explanations provided by firms and determined the following four categories for changing FYE: (1) merger/acquisition activity, (2) improving administrative efficiencies, (3) customer/supplier alignment and (4) industry alignment to

improve comparability.⁵ I then classified each of the reasons provided by firms into one or more of these groups. While many firms offer multiple explanations for the change, the most common reason disclosed was to improve industry alignment and enhance the comparability of their financial statements. A typical explanation follows:

This change will offer investors more clarity about our annual performance by bringing our business cycle more in line with the seasonal nature of the around-the-home comfort footwear business. We also feel that it will enhance management's ability to accurately plan and forecast the Company's business.
(RG Corp 2005 Annual Report)

I coded the preceding explanation as both an “industry alignment” reason and an “administrative efficiencies” reason. In Appendix A, I provide examples of explanations that meet each of my criteria for classification as a particular reason for changing.

I provide a summary of the explanations I collected in Table 2.4. Many firms provide multiple reasons for their change in FYE. Eighteen percent of firms offering reasons stated that they expected to derive some cost savings from the change. Firms expected cost savings from better business cycle alignment (i.e., counting inventory at low levels), reduced audit fees due to an off-cycle year-end, and reduced costs related to delaying SOX 404 implementation. A large proportion (29%) of firms attributed the change to merger, acquisition or spinoff activity. Some firms (8%) cited customer or supplier alignment as a reason for changing FYE.

An interesting discovery I made while gathering data on FYE changes was the large number of firms with board resolutions to change FYEs that occurred *after* the closing date of the transition period (e.g., the date of the balance sheet presented with the

⁵ There is also some anecdotal evidence of firms explaining the change as at least partially due to an attempt to delay their compliance date for SOX 404 requirements. I classify this explanation as improving administrative efficiencies.

TABLE 2.4:
Reported Reasons for Change of FYE

452 firms filing 8-K notifications announcing a change in FYE

Stated Reasons	# Firms	% Firms
Merger/Acquisition	131	29%
Administrative Efficiencies	81	18%
Customer/Supplier Alignment	36	8%
Industry Alignment to Improve Comparability	145	32%
No Reason Stated or Located	217	48%
Change Resolution Approved After End of Short Year	119	26%

financial statements covering the transition period) indicating that management may have possessed substantial information about the results of the transition period before making the decision about reporting those results. The timing of this decision, therefore, might be a clue to an earnings management motivation. It may be that the accounting choice to change FYE may well result from management's desire to manage earnings by creating or consuming discretionary accruals during a reported transition period.

The reasons firms state for changing FYE provided me with broad categories within which to examine the heterogeneity of FYE choice, whether seasoned or initial. In Chapter 5 I use several of these reasons to help create hypotheses related to potential influences of heterogeneity in the choice of FYE. In particular, I examine differences in administrative costs and information environment.

Regardless of the stated reason for a firm's decision to change FYE, the purpose of Chapter 6 of my dissertation is to gain a better understanding of the effects of the choice, whether seasoned or initial, on the comparability of financial information of firms

based on FYEs. Indeed, many firms allude to comparability as a motivation for FYE change. Regardless of whether increasing comparability is a firm's stated motivation for change, I expect the effects of the change to be evident in a change in comparability. The primary driver of the change in comparability is the change in the available number of potential benchmarks that require no additional analysis to adjust for the difference in accounting period because a firm's FYE aligns with or differs from more firms in the industry. The alternative expectation is that an increase (decrease) in comparability due to a change in FYE has no effect on comparability because the cost to financial statement users of making accurate comparisons between financial statements covering two separate periods is insignificant.

CHAPTER 3

INSTITUTIONAL SETTING

SEC Rules 13a-10 and 15d-10 of the 1934 Act (as amended in April, 2006) pertain to the announcement of a change in FYE, to the reporting of operating results from the transition period, and to the presentation of results from comparable prior periods.⁶ The SEC requires registrants to report the decision to change FYEs within 4 days (15 days prior to August 23, 2004) of that decision on Form 8-K, Form 10-Q or Form 10-K.⁷

Based on the length of the transition period that results from the FYE changes, companies have a choice of how they can report results from the transition period. Transition periods range between less than 30 days and 12 months. For a transition period of 6 months or longer, the firm must file an audited 10-K within the firm's standard required filing period from the close of the new FYE (which is based on firm size in terms of market capitalization). For example, a firm with a market capitalization greater than \$75MM that changes its FYE from March 31 to December 31 must file a 10-K for the 9-month transition period within 60 days of the close of its first December 31 year-end.⁸

⁶ Porter et al. (2000) provide an excellent description of the SEC rules regarding a registrant that makes an FYE change.

⁷ A 10-Q or 10-K can only be used if it will be filed within the 8-K timeline; thus, firms seldom follow that method for notification of the change.

⁸ The SEC classifies firms with market capitalization of greater than \$75MM as "accelerated filers."

A firm has three options for a transition period of 1 to 6 months. It can file a 10-K as above, file an audited 10-Q within its standard required time or file an unaudited 10-Q within its standard required time and then separately present the transition results again in the next audited 10-K filed at the close of the first full fiscal year with the new FYE date. If the transition period is the less than a month, a firm has all of the above options or it may simply include the transition period as part of the period covered by the next 10-Q or 10-K, thereby lengthening the period that those filings would normally cover.⁹

The SEC also requires firms to provide “comparable period” data for transition periods. Again, the requirements vary based on the length of the transition period. For periods greater than 6 months, firms must present information (audited or unaudited) for the corresponding months from the prior year. For transition periods of less than 6 months, firms have a choice to present data from the corresponding months of the prior year or from the quarters that most nearly approximate the transition period along with a discussion of seasonal or business factors that might affect the comparability of the time periods presented and why it is not practicable to undertake to present the exact corresponding time period. Table 3.1, adapted from Table 1 in Porter et al. (2000), summarizes the filing requirements related to the change in FYE.

In Table 3.2, I summarize data related to SEC filings in conjunction with a decision to change FYE. The sample coincides with the sample I examined to determine stated reasons for changing fiscal year (634 firms from 1994 to 2007 that met my analyst following criteria and all firms from 1999 and 2000). I found that 443 (70%) of firms that

⁹ The required time for filing 10-Qs and 10-Ks varies historically and upon whether the firm is an accelerated filer. (Generally, a firm with market value exceeding \$75MM is an accelerated filer, although other rules may require accelerated filing; see CFR 240.12b.) Currently, accelerated filers must file 10-Qs and 10-Ks within 35 and 60 days, respectively. All other issuers must file 10-Qs and 10-Ks in 90 and 45 days, respectively.

TABLE 3.1:
Summary of SEC Reporting Requirements for Short Years
Resulting from a Change in FYE

Length of short year (transition period)	Short year reported on form:	Audited:	Deadline based on total market capitalization:		
			Large Accelerated Filers ¹	Accelerated Filers ²	Non-accelerated Filers ³
Greater than 6 months	10-K	Yes	60	75	90
Greater than 1 month but less than 6 months	10-K	Yes	60	75	90
	10-Q	Yes	40	40	45
	10-Q	No ⁴	40	40	45
One month or less	-Same as 1 to 6 month short year above				
	-Include with first 10-K with new period end date ⁵	Yes	60	75	90
	-Include with first 10-Q with new period end date ⁵	No ⁴	40	40	45

¹Defined as total market capitalization greater than \$700MM.

²Defined as total market capitalization greater than \$75MM but less than \$700MM.

³Defined as total market capitalization less than \$75MM.

⁴The short year results must also appear in the next audited 10-K.

⁵Under these options the firm may delay the reporting of a period beyond what would otherwise be required.

TABLE 3.2:
Filings Related to Change of FYE

Panel A: Notification	# Firms	% Firms
Filed 8-K	443	70%
Foreign 6-K	100	16%
10-K or Q	9	1%
No Notice Found	82	13%
Total Firms	634	100%
Panel B: Transition Report	# Firms	% Firms
10-K	325	72%
10-Q	127	28%
Total Firms Providing Notification	452	100%
Panel C: Short Year Length	# Firms	% Firms
1 Month	76	12%
2 to 5 Months	190	30%
6 Months or Longer	368	58%
Total Firms	634	100%

change FYEs file a Form 8-K to report the corporate event. Nine firms file notification on a Form 10-K or 10-Q. Firms who are foreign filers and must file notice on a 6-K rather than an 8-K represent 16% of the sample.

I am unable to locate a formal notification filed with the SEC for 13% of the firms. There are a number of possible explanations for the missing notification. Additional foreign filers might have filed a 6-K not included in electronic form in EDGAR until a period after 1994. In addition, the SEC did not require electronic filing of 8-Ks for some small business filers until after 1994. Porter et al. (2000) document a similar rate of noncompliance. They find that 14% of firms electing to change FYE in 1995 do not file a change announcement. Seventy-two percent of the firms that filed a formal notification of their FYE with the SEC stated that they intended to report the transition period on a Form 10-K and 28% plan on filing a 10-Q with the transition results. I found only one firm that stated its intention to file transition results on a Form 8-K.

3.1 Tax Reform Act of 1986

In 1986 the United States enacted legislation that might have had an effect on US-domiciled firms' choice of FYE. Prior to the act, the IRS allowed partnership entities in the U.S. to elect a noncalendar FYE. The 1986 act requires most partnerships to adopt a calendar year-end. While this change did not directly require any C-corporations to change their FYE, it might indirectly influence many publicly traded C-corporations with substantial holdings in partnership entities. The act offers a possible explanation in the significant increase in FYE changes observed for in 1987, which are also disproportionately moves to a December FYE.

All publicly traded firms in the United States select an accounting reporting period in terms of a FYE. In subsequent years firms may choose to change their reporting period end date. When a firm chooses not to change its fiscal period end date, it is making an implicit choice about its accounting period. Thus, every period, managers make an explicit or implicit choice of accounting period whether or not they change period. Managers will benefit from understanding the effects the choice has on increased or decreased comparability by effectively weighing the costs and benefits of that choice. While this accounting choice is not infrequent and may affect the ability of investors to use benchmarks and other tools to better understand a firm, little research examines the effects of the accounting period choice.

CHAPTER 4

BACKGROUND RESEARCH

In this chapter, I review past research in the use of benchmarks to evaluate past performance and predict future results in accounting and finance research as well as research in other social sciences related to benchmarking. Next, I review the past research on comparability and the limited past research on FYE. I then describe the institutional setting surrounding the choice.

While accounting research directly related to a firm's choice of FYE is very limited, research related to the selection of comparable firms or groups of firms and the information transfer among those firms is more extensive. In the next section, I explore the concept of using benchmarks to make and evaluate decisions. I then shift to reviewing accounting research related to identifying comparable firms and groups of firms and the information transfer among those firms. In the final section of this chapter, I review the limited research directly related to my experimental setting of accounting choice of FYE.

4.1 Benchmarks and Financial Decisions

As referenced in the opening of my dissertation, comparability is a cornerstone objective of financial accounting. The FASB acknowledges the importance of relevant benchmarks in its Statement of Financial Concepts Number 2. The word "benchmark" has come to convey two distinct meanings in financial accounting practice and research. The first meaning follows more directly from the origins of the word as used in

surveying. That meaning of “benchmark” is as a point of measurement reference.

According to the Oxford English Dictionary, the original use of the word was to describe a point of original measure or ultimate reference in a land survey (OED Online, 2009).

Any single piece of accounting information is virtually useless without some type of reference point for comparison. In a simple analysis of whether earnings are positive or negative, a financial statement user uses zero as a benchmark or point of reference in ascribing meaning to the simple piece of financial information. Whenever an analyst or researcher “normalizes” information by scaling, he or she uses a particular measurement reference to make data more comparable among firms.

The second use of the term “benchmark” might have evolved from the use employed in operations management. This meaning refers to a target or goal. In operations management research and practice, the term has come to describe a target or “best-practice” example that a firm seeks to achieve or emulate (Campbell, 1989 and 1997; Alstete, 2008).¹⁰ This use in finance and accounting is exemplified in the concept of earnings benchmarks. Researchers and firm managers refer to various earnings benchmarks or targets when evaluating performance (Graham, Harvey and Rajgopal, 2005; Barth, Elliott and Finn, 1999; Bartov, Givoly and Hayn, 2002; Brown and Caylor, 2005; Kaznik and McNichols, 2002; Lopez and Rees, 2002; Skinner and Sloan, 2002; Jiang, 2008). Examples of earnings benchmarks include fourth preceding quarter’s earnings when the target is exceeding the earnings from the same quarter the previous year or analyst consensus earnings forecasts when the target is meeting or beating the

¹⁰ The operations management literature further delineates and difference between the verb “benchmark” and the present participle “benchmarking.” The former refers to performance measurement and the latter to performance measurement followed by identification of best practices for improvement (Alstete, 2008).

average analyst forecast for the period in question. Financial information users use these benchmarks in evaluating decision options, such as whether to purchase or sell equity securities. Another common set of benchmarks uses groups of similar firms, such as industry groupings, to derive expectations, targets or points of reference.

4.2 Research on Creating Comparable Groups

The focus of my dissertation relates to the relevancy of benchmarks constructed from information about a particular firm or groups of firms. Selecting or creating groups of comparable firms can be very useful. When engaging in fundamental analysis, predicting or forecasting accounting measures such as revenue, earnings and liquidity ratios, financial information users often use industry groupings to help guide expectations. In valuation analysis, financial information users often use valuation-multiples based on comparable groups of firms. Finally, empirical researchers often have the need to create groups of similar firms in devising experimental conditions to test a particular hypothesis. The goal of identifying comparable firms is to understand how firms that are similar along a number of dimensions will react similarly to exogenous factors. According to Clarke (1989) the intuition follows from Bain's (1956) paradigm of structure-conduct-performance. Under this paradigm one expects that the characteristics of a firm's structure influence how it conducts business which, combined with its structure, influence its economic performance. Thus, one might expect that firms with similar structure and conduct will exhibit similar economic performance. Many attempts have been made to create and improve groupings of similar firms.

One popular grouping of comparable firms that financial information users and researchers use is industry classification. Bhojraj, Lee and Oler (2003) surveyed seven

major accounting and finance journals from 2000 and 2001 and found 116 studies used some sort of industry classification system to group similar firms for use in their research design. They state that more than half of those studies used industry groups to identify control firms. Ninety percent of those studies use the SIC (Standard Industry Classification) system.

The SIC partitions were developed in 1939 when the US economy was dominated by manufacturing firms (Kile and Phillips, 2009). The classification system has been updated over the years but remains primarily based on firm production technology or process rather than on product market sector, financial strategy or other key structural differences in business models (Clarke, 1989; Kile and Phillips, 2009; Bhojraj, Lee and Oler, 2002 and 2003). A number of studies have identified weaknesses to research designs that rely on SIC codes to identify comparable groups.

Clarke (1989) examines how well SIC codes partition firms into groups with similar quarterly sales growth, profit margins, and returns. He finds evidence suggesting that grouping firms into 1- or 2-digit groups provides some similarity but that further segmenting firms into 3- or 4-digit groups adds no explanatory similarity for sales growth, profit margin or returns. Clarke wrote his paper as the Bureau of Census was developing NAICS, but he predicted that NAICS would do little to improve the groupings as it simply was adding newer product categories.

Walker and Murphy (2001) discuss the development of the NAICS and its superiority to SIC groupings. The NAICS added new and emerging industries, particularly related to information technology and communications. It also added new

industries reflecting changes in how companies were changing the way they work by adding new services sectors related to the outsourcing of various business functions.

Amit and Livnat (1990) criticize SIC groupings based on how the classification system treats conglomerates. The SIC system assigns a code to multi-industry segment firms based on the segment with the largest percentage of revenues with no regard to the size of that proportion. The result is the possibility of grouping firms with significant differences in operations together based on only one aspect of their business structure. For example, one firm with 70% of its revenue from oil exploration and production and 30% from oil field services might become grouped with another firm with 40% of its revenue from oil exploration and production, 35% from retail gasoline sales and 25% from retail grocery sales. In this example, we might expect changes in oil commodity prices to have a significantly different effect on the economic performance of each firm. Amit and Livnat go on to develop a grouping system based on the economic sector that each conglomerate sells its product to, such as the services sector or the business fixed-investment sector. That system shows some promise for certain conglomerates but would become more problematic with 21st century conglomerates that span sectors, such as General Electric, which has holdings in sectors ranging from business fixed investment to the financial sector to the services sector.

Similar to Amit and Livnat (1990), Fan and Lang (2000) find that SIC codes ignore any vertical relatedness between firms. Fan and Lang use commodity flow data to classify firms as related and/or complementary and then compare their groupings to SIC groupings. They find that their relatedness measure outperforms SIC groupings in explaining price/book ratios and excess value measures.

Guenther and Rosman (1994) find inconsistencies in what SIC codes data providers COMPUSTAT and CRSP assign to identical firms. The differences are most pronounced for 2-, 3- and 4-digit codes. They find that the codes that COMPUSTAT assigns produce higher returns correlations and smaller financial ratio variances. They replicate a prior study (Freeman and Tse, 1992) and find significant results using COMPUSTAT's SIC coding but not using CRSP's coding.

In 1999, the statistical agencies of Canada, Mexico and the United States introduced the North American Industry Classification System (NAICS). Their goal was to update the SIC with a production-based framework that includes new industries and reorganizes old industries to reflect significant changes in the modern economy (Bhojraj, Lee and Oler, 2003). The SIC and NAICS systems share many characteristics. Government statistical agencies developed both systems to track broad industrial indicators. Neither system was designed with the primary goal of grouping firms along primarily financial similarities.

Krishnan and Press (2003) test the improvements that NAICS makes over the SIC system. They use a similar method to Guenther and Rosman (1994) and find some incremental improvement from the NAICS system over the SIC system. They also replicate Lang and Lundholm (1996b) and find similar results using NAICS partitions but observe smaller intra-industry dispersion among security returns and earnings.

Many researchers use the industry classification developed in Fama and French (1997). Fama and French group firms into 48 categories based on 4-digit SIC codes. They created the groupings to help study industry costs of capital. They created their categories based upon firms that share common risk characteristics. They found that standard SIC

groupings resulted in imprecise industry cost of capital estimates whether using a CAPM (Sharpe, 1964; Lintner, 1965) framework or a three-factor model developed in Fama and French (1993, 1995). Using their new groupings, they found an increase in the precision of estimates of cost of capital.

Another system developed with financial similarities in mind is the Global Industry Classification Standard (GICS). Morgan Stanley Capital International and Standard and Poor's jointly developed the GICS (Bhojraj, Lee and Oler, 2003). The system classifies companies on the basis of their principal business activity. Financial statement information and annual report information, particularly revenue sources and earnings, guide the grouping of firms. Market perceptions from investment research reports also influence the groupings (Bhojraj, Lee and Oler, 2003). The GICS system also creates a separate conglomerate category for companies with significant diversification across three or more sectors. Also, when a company engaged in two or more categories which each represent less than 60% of revenues and earnings, that company is coded into the category that represents the majority of revenue and earnings unless no one segment represents a majority. If no segment represents a majority, then further research guides the grouping (S&P MSCI, 2002).

Bhojraj, Lee and Oler (2003) (BLO) compared the SIC, NAICS, Fama/French and GICS classification systems as they relate to grouping firms upon financial characteristics. The three primary areas of economic relatedness they test are stock return correlation, variation in valuation multiples and variation in operating characteristics. To test how well each classification system groups similar firms, BLO formed portfolios of firms based on 2-digit SIC, 3-digit NAICS, 6-digit GICS and Fama/French industry

classifications. They then examined the explanatory power (R-squareds) that each portfolio membership provides in estimating economic-relatedness characteristics. The first characteristic they examined was monthly stock return correlations. They found that the GICS industry portfolios explain significantly more of the cross-sectional variation in firm-level returns. They then examined valuation multiples based on three key accounting measures: earnings, book-value of equity and revenue. Again the GICS industry portfolios significantly outperformed the SIC, NAICS and Fama/French industry portfolios with R-squared estimates ranging from 10 to 30 percentage points higher. Finally, BLO tested the relatedness of the portfolios at explaining cross-sectional variation in five accounting-based measures of operations: return on net operating assets, return on equity, asset-turnover, net profit margin and leverage. GICS industry portfolios significantly outperform the other classification systems on each measure except for leverage. They posit that SIC, NAICS and Fama/French might outperform GICS in that area because those systems are based on production technology similarities that better capture the relationship of capital intensity and debt (Bhojraj, Lee and Oler, 2003).

BLO also examined analyst forecasted long-term growth, one-year ahead sales growth and R&D scaled by sales. In all three cases, GICS again outperformed the other three classification systems.

Chan, Lakonishok and Swaminathan (2007) continued the work of BLO in further analyzing differences between GICS and Fama/French classification schemes. They found similar superiority using the GICS system with the differences being more pronounced for larger firms. They also found that improving explanatory power for GICS codes when using finer levels of disaggregation going from 8-digit to 6-digit GICS codes.

But, they found that finer levels of granularity beyond 6 digits provide no additional improvements in explanatory power. Finally, they also found that both SICS and Fama/French groupings exhibit more return homogeneity than groupings formed using statistical cluster analysis of returns.

Considerable research examines the effectiveness of different grouping systems at creating groups of firms that are economically related. Identifying groups of similar firms can help researchers and financial decision makers understand how firms that are similar along a number of dimensions will react similarly to exogenous factors. A stream of accounting research finds evidence that information about firms within groups of similar firms (industries) transfers among members of those groups.

4.3 Research on Information Transfers Within Groups of Similar Firms (Intra-Industry Information Transfers)

My study examined the information environment effect of differences in the quantity and quality of comparable firms within a group of similar firms. An important link in developing my expectations was evidence that information about a firm does indeed transfer to other similar firms. Accounting research on intra-industry information transfer provides evidence that information transfers among firms within groups of similar firms.

Freeman and Tse (1992) examined intercompany information transfers resulting from prior earnings announcements of firms within similar industries. They divided earnings announcements into good news and bad news based on four quarters of prior earnings. Then they determined the 2- and 4-day returns surrounding those announcements for firms that announced earnings for that quarter at a later date

controlling for new information generated about the firm itself. They found a significant difference in means between the two groups for industries in which earnings tend to be highly correlated and in examining the group of all industries. They found evidence consistent with the greatest information transfer occurring with the first earnings announcement in the industry.

In his 2002 paper, Ramnath examined intra-industry information transfer as exhibited in revisions to analyst forecasts of earnings resulting from the first earnings announcement in an industry. He found evidence that the errors in the earnings forecasts for the first earnings announcer in an industry are informative about the errors in the forecast errors of subsequent announcing firms. But he also found evidence that forecast revisions subsequent to the first announcer's news do not adequately incorporate the information from the initial forecast error. Ramnath incorporated two interesting innovations in his research. First, he examined forecast revisions rather than short-term price responses. This innovation provided more compelling evidence because it relied on information users that we widely regard as informed market participants. Ramnath also relied on an innovative industry grouping methodology. Rather than rely on SIC codes to segregate firms into industry, he developed an analyst-driven industry grouping based on firms sharing at least five analysts in common. Unfortunately, he did not go into much detail as to how the grouping requirement affected his sample selection except to mention the number of firms lost in requiring sample firms to possess five analysts. Ramnath (2002) found significant abnormal returns to a trading strategy employing the intuition developed in his study.

In contrast to the Ramnath (2002) results, Thomas and Zhang (2008) found that firms that announced equity prices earnings later overreact to earnings innovations from firms that announced earnings earlier. Thomas and Zhang (2008) did not attempt to reconcile the differences in results but did note that the Ramnath (2002) study considered only first-announcement firms and limited its sample to firms with an analyst following of five or more. Thomas and Zhang (2008) also offered that their findings may have resulted from the market incorporating the same “news” with each subsequent earnings announcement ultimately resulting in a need for a correction when the later announcing firm finally revealed its earnings.

Lang and Lundholm (1996b) contributed to the intraindustry stream by allowing the transfer of information between firms within an industry to resolve two types of uncertainty: industry-wide value and competitive structure that dictates the division of that value. Additionally, they found evidence that intra-industry information is incremental to information provided by a firm’s own earnings by examining announcement period returns that include a firm’s own earnings announcement. They found significant differences in nature and magnitude of the effect of the transfer of information depending on the particular industry and on the information available about an industry prior to the earnings announcement period. They limited their study to firms with December year-ends and conjectured that one “obvious” source of information about an industry that is available prior to the earnings announcement period is information from other firms in the industry with earlier earnings announcement periods.

4.4 Research on FYE Choice

Accounting research related to a firm's choice of FYE is limited. Smith and Pourciau (1988) investigated potential biases in research that eliminates firms with non-December FYEs. They found evidence that December year-end firms tend to be larger and have smaller market betas than non-December year-end firms. Their findings caution against generalizing results from studies that exclude non-December firms to the market as a whole. Smith and Pourciau (1988) examined only the years 1978 and 1982. They cited that contiguous years do not provide independent cross-sections of data. They looked at systematic differences in size (as measured by total assets and by market value), market beta, and leverage (as measured by debt to market value of equity). They found evidence of systematic difference between December and non-December year-end firms for size and market beta but not for leverage when they tested for differences in means and medians using two sample t-tests and Wilcoxon signed-rank tests, respectively. They found no statistically significant difference in means or medians of the two groups on the dimension of leverage. Smith and Pourciau (1988) also examined industry concentrations with December and non-December year-ends. They reported that industries in 1982 in which 90% or more of the firms have December year-ends tend to be regulated industries or industries which were recently deregulated (e.g., banks, utilities, insurance and transportation). The only industries they found with a significant concentration (>90%) of non-December year-ends are certain retail industries: retail stores (SIC 53), retail auto and gas (SIC 55) and retail furniture (SIC 57).

Porter, Swanson, Wilkins and Holder-Webb (2000) examined the disclosure of the choice to change FYE. From a search of sources of GAAP including FASB, AICPA

and Big-6 firm databases, they concluded that GAAP does not address the issue of FYE change. Their paper provides a comprehensive description of the regulations regarding an FYE for firms regulated by the SEC. Porter et al. examined 79 firms that change FYE in 1995 and found that 25% of firms filed the required 8-K beyond the deadline, 14% of firms did not file the 8-K and roughly half of the firms did not include operating results or comparative results in the subsequent 10-K despite SEC rules requiring such disclosures. They found that auditor quality slightly mitigates this noncompliance. Roughly, a fourth of the 79 firms in the Porter et al. sample were involved in merger and acquisition activity. Porter et al. also found evidence of varied levels of regulatory compliance with respect to filings related to an FYE change. Porter et al. also provided details on the interesting case of SafeCard Services, Inc. which reported a significant write-off to an asset impairment in a short year that resulted in the company reporting profits in both full-year reporting periods before and after their FYE change.

Kamp (2002) examined the determinants and dynamics of FYE choice. He looked at changes in FYE from 1990 to 1998 and noted a slight drift towards December. He concluded that country of origin influences a firm's choice of FYE more than the underlying seasonality of the firm's business by comparing FYE choice of companies in all industries across 13 countries in the year 1999. To determine if there was an industry influence, Kamp examined the retail industry in the US, UK and continental Europe and concluded that underlying seasonality associated with a firm's industry only influences FYE choice in the U.S.

CHAPTER 5

USING FYE CHANGE TO EXPLORE FYE CHOICE

As discussed in the previous chapter, the SEC and US GAAP allow firms the latitude to choose their FYEs. I also documented the substantial number of firms that have FYEs that differ from their industry majority. While the existence of heterogeneity in the accounting choice of FYE can be documented, why a firm might choose to share the same FYE as the majority of its industry versus choosing a FYE that differs is less clear. Ideally, tests that examine the choice to be either a majority or a nonmajority firm within an industry would use data from each firm's first year of existence. Unfortunately, these data are not readily available. Beyond a firm's initial choice of FYE, each firm has the choice to subsequently change FYE, however. Specifically, as reported earlier, 11% of active firms (between 1960 and 2007) and 12% of active firms (between 1994 and 2007 with the necessary data to be included in my sample below) have changed their FYE from the year-end they chose when initially filing with the SEC to a different FYE. I exploited this decision to change FYE and explored the link between firm characteristics and firm changes in FYE choice. This section of my dissertation focuses on two aspects of this choice: factors that are associated with a firm's decision to change its FYE and factors that explain why a given firm selects a particular point in its life to change FYE. By examining these two questions, I increase our understanding behind the initial FYE choice.

Firms in my sample that change FYEs do so in a public venue, and some of them offer a reason(s) for doing so. I examined the public announcements of the decision to change FYEs for all the firms that changed their FYEs during a two-year period (1999 to 2000). Of the 452 FYE-changing firms (CHANGERS) that I sampled, approximately 48% either offered no reason for the change or did not post a press release regarding the change. For the remaining firms, the four most frequently cited reasons for changing FYE include (1) mergers/acquisitions, (2) customer/supplier alignment, (3) improved administrative efficiencies and (4) industry alignment to enhance comparability. In my analysis, I eliminated all firms that were involved in a merger/acquisition and did not consider that reason in my analysis. Firm customer/supplier alignment motivation descriptions seem to imply savings in administrative costs of managing supply chain relationships, so I grouped those two reasons together. In the next section, however, I used the information drawn from firm disclosures surrounding FYE changes and other economic rationale to structure my discussion of motivations for FYE choices made by firms.

5.1 Motivations for the Choice of FYE

I discuss the motivations for FYE choice in the sections below. Based on those motivations, I provide three sets of hypotheses. The first concerns a firm's initial choice of FYE. It applies to firms that do not or have not changed their FYEs (NONCHANGERS). Implicit in examining this set of firms is the assumption that these firms have selected the optimal FYE. The second set of hypotheses applies to firms that change their FYE (CHANGERS) and NONCHANGERS. This set of hypotheses compares the set of firms that selected the optimal FYE to the set of firms that either did

not select the optimal FYE or that the fundamentals that are important in the selection of FYE have changed. In the second set of hypotheses, I am interested in how CHANGERS compare to the FYE subindustry groups they belong to before and after the change. The third set of hypotheses applies to NONCHANGERS. The third set of hypotheses is focused on understanding the timing of the FYE change—what factors predict when a firm changes its FYE.

5.1.1 Strategic benchmarks: Influencing comparisons by strategically choosing a set of benchmark firms

As discussed in Section 4.1 (Background Research: Benchmarks and Financial Decisions), the use of information in making financial decisions is affected by the use of benchmarks that provide baselines or help establish “targets” used to evaluate past performance or predict future results. The goal of identifying benchmark firms is to understand how firms that are similar along a number of dimensions will react similarly to exogenous factors. According to Clarke (1989), this intuition follows from Bain’s (1956) paradigm of structure-conduct-performance. Under this paradigm one expects that the characteristics of a firm’s structure influence how it conducts business which, combined with its structure, influence its economic performance. Thus, one might expect that firms with similar structure and conduct will exhibit similar economic performance. A common grouping of firms used by researchers and financial information users is industry classification (Bhojraj, Lee and Oler, 2003). Bhojraj, Lee and Oler (2003) surveyed seven major accounting and finance journals from 2000 and 2001 and found 116 studies used some sort of industry classification system to group similar firms for use in their research design, with 90% of those studies employing the SIC (Standard Industry

Classification) system. A number of studies identify weaknesses in SIC, NAICS, and Fama/French classification systems (Clarke, 1989; Walker and Murphy, 2001; Amit and Livnat, 1990; Fan and Lang, 2000; Guenther and Rosman, 1994; Krishnan and Press, 2003; Bhojraj, Lee and Oler, 2003). To address these and other concerns, Bhojraj, Lee and Oler (2003) and Chan, Lakonishok and Swaminathan (2007) evaluate the grouping effectiveness (based on correlations of market returns, ROA, ROE, asset turnover, net profit margin and leverage) of the three systems listed above and Standard and Poor's proprietary GICS (Global Industry Classification System). Both studies suggest that GICS is a superior classification system. GICS is the only system of the four that appears to be entirely externally derived (Standard and Poor's 2002). My study extends industry classification to include whether a firm has the same FYE as the majority of its GICS industry or not. FYE choice might be an additional low-cost, informative means of grouping firms.

An important aspect of FYE choice is a firm's ability to strategically select it. Prior research documents a firm's behavior consistent with it strategically selecting benchmarks in terms of industry classification, compensation, and earnings. For example, a firm has some opportunity to influence its SIC and NAICS (and therefore indirectly its Fama/French) classifications by self-reporting its primary and sub-sector industries; prior research provides evidence that firms act opportunistically in this self-reporting (Stanford Harris, 1998; Botosan and Harris, 2000; Botosan and Stanford, 2005). Related research explores the opportunistic selection of benchmarks for compensation purposes. Several studies find at least some evidence of the possible opportunistic selection of firms with the goal of justifying higher CEO pay (Albuquerque, DeFranco and Verdi, 2009; Bizjak,

Lemmon, and Naveen, 2008; Bizjak, Lemmon and Nguyen, 2010; Cadman and Carter, 2009; Faulkender and Yang, 2009). Furthermore, the studies also find evidence that the benchmarking processes assist in efficient contracting by describing the parameters of the de facto labor market for CEOs. Generally, the benchmark firms selected in compensation benchmarks exhibit superior performance to the peer-selecting firms (Bizjak, Lemmon, and Nguyen, 2010). The studies do not provide conclusive evidence on whether the peer-selection process results from seeking ex ante efficiency in contracting or from seeking justification for opportunistic behavior, although it might be difficult to theoretically justify the latter case. Finally, Schrand and Walther (2000) document that firms strategically select the prior-period earnings amount that is used as a benchmark to evaluate current-period earnings in quarterly earnings announcements. My study extends these streams of research by examining a situation where managers might be opportunistically benchmarking in a more general sense in order to influence perceptions of their firm's performance.

Past research on firms meeting or beating analyst earnings forecasts provides evidence that the market reacts to performance relative to a benchmark (Bartov, Givoly and Hayn, 2002; Kaznik and McNichols, 2002). Firms may also expect a similar reaction to their performance relative to a benchmark set by industry peer firms. In this study I consider whether a firm considers FYE in influencing the selection of subindustry peer firms. Firms might have two goals in strategically influencing subindustry benchmark groups. On the one hand, a firm might seek to “lower the bar” by attempting to match itself with a subindustry group with performance that is inferior to its own performance. I consider this to be similar to a firm guiding analysts expectations such that an analyst

earnings forecast is low enough for the firm to avoid adverse market reaction. On the other hand, a firm might prefer to obscure its successful performance or strategic approach by being grouped with superior performing or strategically different firms. The latter explanation follows from a proprietary cost framework, as modeled in Wagenhofer (1990) and Hayes and Lundholm (1996) and documented in Botosan and Harris (2000) and Botosan and Stanford (2005).

To examine the role of benchmarks in explaining why firms select a given FYE, I classify firms into one of two subindustry groups, based on whether the firm's FYE is the same as the majority of firms within its GICS industry (MAJORITY) or its FYE differs from the majority of firms within its GICS industry (NONMAJORITY).¹¹ In my analysis, I employ these subindustry groups in calculating industry-adjusted values.

I posit three primary motives for firms to strategically select their subindustry group of firms by aligning their FYEs. First, a manager might believe that its operations (business model, market opportunities, etc.) are better compared to one subindustry group than the other (MAJORITY/NONMAJORITY). By selecting a specific FYE, a firm influences the subindustry group of firms employed by users to benchmark its performance by forcing users to incur additional processing costs if they attempt to compare the firm to the other subindustry groups (whether other MAJORITY FYE firms or other NONMAJORITY FYE firms). When initially selecting an FYE, a firm self-selects into the subindustry it prefers. If, over time, a firm determines that its current subindustry no longer represents the optimal benchmarks for comparison purposes, the

¹¹ Alternatively I could chose to bifurcate the group based on whether they adopted a December versus a non-December FYE. As I discuss below, this results in substantially altering the groupings. The fact that the NONMAJORITY firm FYEs are spread among 11 months may create noise in my study. In future research I plan to limit my sample to firms with June and December FYEs.

firm might change its FYE as a means of changing its benchmark subindustry. Changing an FYE, however, is not costless (see section 5.1.2: Administrative Efficiencies below). Thus, when a manager believes that the benefits of the change, in terms of benchmarks, outweigh other costs, a firm will decide to change its FYE.

In my analysis I consider two types of firm characteristics that might affect a firm's selection of benchmarks—performance measures and strategic characteristics. I consider these characteristics separately since a firm that selects a strategic benchmark for a performance (strategic) reason will select a subindustry where its performance is below (above) the subindustry. The three hypotheses below relate to the firm characteristics that I expect to be associated with firm benchmarks. Each hypothesis is designed to consider the research question(s) across three different groups, which allows me to examine the issues from different perspectives.

Hypothesis 1a (NONCHANGERS) –MAJORITY and NONMAJORITY subgroup performance and strategic measures differ.

Hypothesis 1b (CHANGERS) – The difference in Compustat industry-adjusted performance and strategic measures between CHANGERS and NONCHANGERS is less pronounced in the prechange years

Hypothesis 1c (CHANGERS) – The relative performance of firms (based on FYE subgroup industry measures) that change FYEs differs before and after changing FYE.

5.1.2 Administrative efficiencies: Affecting costs through alignment or misalignment

Another reason firms state to motivate their change in FYE is to reduce administrative costs. Twenty-six percent of the 452 firms I sampled for explanations for changing FYE provided increased administrative efficiencies through customer/supplier alignment or reduced or reducing professional fees as reasons for changing. There are two ways firms might affect administrative costs. First, selecting a nonindustry MAJORITY FYE might allow a firm to reduce its annual audit or tax preparation fees since it acquires services at off-peak demand times. Furthermore, aligning FYEs with supply chain partners (customers or suppliers) allows firms to affect inventory management or carrying costs thus creating other administrative efficiencies. I make no prediction about the relationship of FYE subgroups (MAJORITY versus NONMAJORITY) and reduced administrative costs due to supply chain alignment because I cannot substantiate whether, ex ante, one particular direction would lead to improved alignment with other members of a firm's supply chain. I do, however, predict a relationship between FYE subgroup and the demand for professional services. The demand cycle for professional services is more predictable given that firms demand audit and tax services during common industry FYE periods (Francis, 1984). For NONCHANGERS, therefore, I expect to see lower administrative costs for NONMAJORITY FYE firms than MAJORITY FYE firms. For CHANGERS I expect firms with lower administrative costs are less affected by the cost of changing to a MAJORITY FYE while firms with abnormally high costs are more motivated to gain the benefits of a NONMAJORITY FYE.

Hypothesis 2a (NONCHANGERS) - MAJORITY subindustry groups experience higher administrative costs than NONMAJORITY subindustry groups.

Hypothesis 2b (CHANGERS) - Differences in Compustat industry-adjusted

administrative cost measures between CHANGERS and NONCHANGERS is smaller (larger) in the prechange years for MOVETO (MOVEFROM) firms.

5.1.3 Information environment: Affecting firm comparability

Thirty-two percent of the firms changing FYE during the 1999 and 2000 period¹² cited improving industry comparisons as a reason for making the change. A difference in FYE between a firm of interest and a similar, potential comparison firm represents a situation where an information user must incur additional costs to make a firm's reported information more useful. Financial statement users must expend additional costs to address a number of potential confounding issues and make the information more comparable. Consistent with this, analysts report that they spend over a third of their time analyzing the financial statements of other firms in the same industry of a subject firm (SEC 1977). Prior research (e.g., Davis and Peles, 1993) and textbooks (e.g., Palepu, Bernard and Healy, 1997; White, Sondhi and Fried, 2003) suggest that the existence of relevant benchmarks enhances the information environment of the reporting firm. Ultimately, selecting appropriate comparable firms to use in evaluating the reporting firm is an essential but often difficult task (Barber and Lyons, 1996 and 1997; Bhojraj and Lee, 2001). Based on this motivation, I hypothesize that the FYE accounting choice will affect a firm's information environment. Firms making an initial suboptimal FYE choice have significant differences before changing to the optimal, when they expect to become optimal and therefore more like the whole industry. Firms with FYE choices that have

¹² As discussed earlier, this is the period for which I hand collected the press reports provided by FYE changers.

become suboptimal exhibit significant differences before changing to the optimal; after the change they expect to become more like the whole industry.

Hypothesis 3a (NONCHANGERS) - MAJORITY and NONMAJORITY subgroup information environments differ.

Hypothesis 3b (CHANGERS) – The **levels** of Compustat industry-adjusted information environment measures differ between CHANGERS and NONCHANGERS in the prechange years.

Hypothesis 3b (CHANGERS) – Firms that change FYE (CHANGERS) exhibit significant **changes** in Compustat industry-adjusted information environment measures prior to making the decision to change FYE.

Whereas a strategic benchmarking motivation represents an opportunistic attempt to influence the outcome of analysis of a firm, an information environment motivation represents a nonopportunistic attempt to reduce cost of capital through increased transparency.

5.1.4 A confounding factor: Earnings management

In my analysis of CHANGER firms there exists a potential confounding motivation for firms to change FYE. A firm that changes FYE may be employing the unique reporting requirements related to the change as an earnings management strategy. As such, earnings management is not related to a firm's decision to *select* an FYE. Instead it is related to a firm's decision to *change* its FYE. When a firm chooses to change FYE, it must report the results of a transition period that represents less than a standard 12-month period. This “short-year” report might provide the opportunity for firms to engage in earnings management. I considered two specific earnings management

behaviors a firm might engage in using short-year earnings: managing reported earnings to “hide” poor results or to restock discretionary reserves. I expected earnings management to be a possible confounding factor in using FYE changes to explore firm motives for FYE selection, since firms changing FYE to manage earnings may not be motivated by any of the previous explanations in this chapter. However, to the extent that the three previous explanations hold true, a firm changing FYE would/should consider the costs/benefits of other effects of the choice.

5.2 Motivation Proxies

5.2.1 Strategic benchmark proxies

In choosing an FYE, a firm might be attempting to influence the set of benchmark firms that financial statement users consider when users compare the firm’s financial results. In general, a firm might seek to influence its comparisons for performance or strategic purposes. Propriety incentives frequently induce a firm to conceal its positive performance while performance incentives, such as a reduced cost of capital, induce a firm to highlight specific areas of performance. To capture these effects, I examined several firm accounting measures associated with either performance or strategic motivations.

5.2.1.1 Performance characteristics. I considered seven measures to capture firm performance. On the one hand, a firm might wish for its financial performance to appear superior to its benchmark set of firms and strategically set that set of firms by selecting its FYE to achieve an opportunistic goal. On the other hand, a firm might prefer to hide its market opportunities by creating unfavorable comparisons or by being included in a less-followed set of firms. My proxies for market opportunity were three growth measures:

sales growth (SALESGROW), earnings per share growth (EPSGROW), and return on net operating assets growth (RNOAGROW). These three proxies capture overall growth as well as differences in strategies.

I also considered strategic differences by examining measures of industry competition: the Herfindahl index (HERF) and a speed of profit adjustment (SPEED) (Harris, 1998). I formed HERF consistent with Harris (1998) by summing the squared market share of all companies within an industry. A higher value indicates that there is a lower concentration of sales among the firms in the industry and is indicative of greater general competition in the industry (Harris, 1998). Harris (1998) introduced a measure of the speed with which abnormal profits in the industry revert to the industry mean (SPEED), where a higher values indicates shorter-lived abnormal returns relative to lower values of SPEED. I estimated SPEED as the coefficient on positive differences between individual firm RNOA and industry median RNOA in a regression of individual firm RNOA on industry median RNOA. I only estimated the coefficient for each firm's industry once using all data available for the firm between 1994 and 2007.¹³ I employed two measures of industry competition as each captures different aspects of industry competition. The first measure (HERF) focuses on competition between large and small firms, while the speed of profit adjustment measure (SPEED) captures the degree of competition among all the firms in the industry (Harris, 1998). Neither of these measures varies by industry, and SPEED does not vary over time. Care must be taken in interpreting results pertaining to these measures.

¹³ I make a slight adjustment to the Harris measure by employing return on net operating assets rather than total assets. The numerator in RNOA, as in Harris, includes income from continuing operations, which eliminates leverage effects.

5.2.1.2 Strategic characteristics. A firm may seek to conceal or differentiate its strategic approach to its business. I explored similarities or differences in strategic approach by disaggregating a firm's profitability along the dimensions of the DuPont model. I examine operating profit (OPPROFIT), net operating asset turnover (NOATURN), gross profit percentage (GP), and inventory turnover (INVTURN).

5.2.2 Administrative efficiency proxies

To explore differences and similarities in administrative costs associated with FYE choice, I examined four measures: (1) selling, general and administrative expenses (SGA), (2) audit fees (AUDIT), (3) nonaudit professional accounting fees (NONAUDIT) and (4) tax fees (TAX). I scaled each of these expense areas by firm sales. SGA expenses might be affected by alignments or misalignments of a firm's FYE with its suppliers and/or customers. With a misalignment, the management of one firm might have difficulty forecasting future demand or supply of its partners in the supply chain. Furthermore, predicting general financial strength of current or potential supply chain partners might be hampered. The results of the misinterpretation might come in the form of increased costs associated with finding new suppliers or customers and thus increased selling expenses or administrative costs associated with the changes.

Professional accounting firms typically experience a "busy season" surrounding the end of the calendar year. Demand for professional accounting services, such as annual audits and tax services, is highest surrounding the times when a majority of firms experience their FYE. Firms with NONMAJORITY or non December year-ends might be able to realize some savings by demanding these services at nonpeak times of the year. Furthermore, nonaudit professional services fees typically are incurred by firms during

nonpeak times of the year. I expected firms with atypical FYEs to realize savings on audit and tax fees, while experiencing higher nonaudit professional services fees.

5.2.3 Information environment proxies

I included four analyst forecast properties to capture a firm's information environment: (1) the number analysts, (2) analysts' forecast error, (3) the absolute value of the forecast error, and (4) the standard deviation of analysts forecasts. My first proxy, $ANALYST_{it}$, the industry-adjusted number of analysts issuing an annual forecast for firm i in year t , captured the costs and benefits that analysts face in covering a particular firm (Bhushan, 1989; Lang and Lundholm, 1996a). Analyst following has been used in the past to proxy for costs of supplying forecasts for a particular firm. The intuition is that if the cost of supplying forecasts for a firm is sufficiently low, more analysts will supply a forecast (Lang and Lundholm, 1996a).¹⁴ As the number of analysts within and between industries varies greatly, I industry-adjusted the number of analysts.

My second proxy for the information environment was the absolute value of the forecast error. Analyst earnings forecast bias (OPTIMISM) represents the signed analysts forecast error calculated as the difference between the mean or median consensus forecast and the firm's actual earnings. Prior analyst literature (e.g., Francis and Philbrick, 1993; Das, Levine and Sivaramakrishnan, 1998; and Lim, 2001) suggests that OPTIMISM may be due to analyst desire to gain greater access to management information. To the extent that comparable firm information can substitute for information gained by providing biased forecasts, analysts should have less incentive to bias forecasts. A positive value for

¹⁴ An alternative economic argument can also be made that the higher cost of information gathering can create greater demand for analyst forecast thus resulting in an opposite interpretation of the relationship between analyst following and information environment (Lang and Lundholm, 1996a).

the variable OPTIMISM indicates an earnings estimate that exceeds the firm's actual earnings.¹⁵ Abarbanell and Lehavy (2003) warn that the asymmetric distribution of analyst forecast errors around zero can lead to incorrect inferences about forecast bias if a researcher uses only one measure (based on mean or median of the analyst forecast errors) to represent the distribution. As results based on median values are substantively similar to the mean results, I reported only the measure derived from the mean.

My third proxy, $FCSTERR_{it}$, is the absolute value of the forecast error for period t scaled by price at time $t-1$. This measure captures how effectively users incorporate the financial information available about a particular firm. This measure is the absolute value of OPTIMISM. I used the median value in my analysis to reduce the effects of outlier observations that result from data errors or extremely low quality analyst predictions.

My final proxy, $STDFCST_{it}$, is the standard deviation of individual final annual earnings forecasts scaled by price at time $t-1$. Under the assumption that analysts are using common forecasting models, this measure indicates the level of common information available about a firm (Bhushan, 1989; Waymire, 1986; Brennan and Hughes, 1991; Lang and Lundholm, 1996a; Barron, Kim, Lim and Stevens, 1998). A lower standard deviation of forecasts provides evidence that financial information users are receiving and relying on common information about the economic reality of a firm given the number of quality benchmark firms available. Differences or changes in this measure indicate differences or changes in the firm's information environment.

I derived all of the forecast measures using earnings per share amounts. I calculated the forecast and actual measures using per share amounts and then scaled the

¹⁵ The expectation is somewhat counter-intuitive in the short-run, given research on positive reactions to beating analyst forecasts (Ramnath, Rock and Shane 2005).

measures by price at the end of the previous period to allow for differences in share numbers across firms.

5.2.4 Earnings management (short-year firms)

To examine whether firms that change FYE are using the choice to “dump” underperforming assets or hide poor performance, I examined financial statement variables from firms’ short-year reports (periods of less than 12 months associated with their change in fiscal year-end). In particular I look at return on net operating assets (RNOA), special items (SPECIAL) and earnings per share (EPS). If a firm is using the change to obscure performance, I expected to see significant differences in these annualized measures compared to not only the firm’s industry but also compared to the firm’s own performance before and after the change.

5.3 Research Design

To test my hypotheses, I began by examining median and mean differences among the various proxies along with some general descriptive measures. I calculated the industry adjusted median (mean) values of the variables by subtracting the industry median (mean) (where industry is defined by the firm’s 6-digit GICS industry for that Compustat year¹⁶) from the individual firm’s value for that year. I compared these industry median (mean) along three divisions: (1) between December and non-December firms, (2) between firms sharing FYE with a majority of industry firms and those not sharing the industry majority, and (3) between firms that never changed FYE and those who changed FYE. In addition, I divided the change firms into three groups based on the direction of the FYE change. I designated firms that change from a nonindustry

¹⁶ For example, the Compustat year 2001 consists of all FYEs from June 2001 through May 2002.

MAJORITY FYE to an industry majority FYE as MOVETO firms, firms that change from an industry majority FYE to a nonindustry majority FYE as MOVEFROM firms, and firms that change from a nonindustry majority FYE to another nonindustry majority FYE as HORZ firms. I compared each to the group (majority or nonmajority) to which they belong before their change as well as their medians (means) before and after the change.

5.3.1 Sample selection

My sample consisted of firms included in the Compustat database from 1994 to 2007. I began my sample at 1994 because the SEC's EDGAR reporting system came online that year enhancing the distribution of financial statement data. I deleted a firm-year observation if its sales, assets, market value, RNOA or RNOA growth are less than (greater than) the 1st (99th) percentile. The resulting sample consisted of 87,658 firm-years from 13,409 firms.

I defined industry groups based on the Global Industry Classification System (GICS) 6-digit codes. I calculated the industry-adjusted variables by subtracting industry medians from the firm's firm-year value. I used medians, which reduces the effects of outliers; my results are not sensitive to the use of means, however. As part of my analysis, I calculated two industry-adjusted values: one based on the full industry median and one based on a fiscal-year-industry median. The first, which I refer to as Compustat year industry, I based on including *all* firms that share the same 6-digit GICS during the period from June of year t to May of year $t+1$. The second, which I refer to as fiscal-year-industry, I calculated in the same manner as the industry adjusted value, but included only firms that either share the same FYE as the majority of the firms in industry or the

firms with nonmajority FYEs. I employed this second measure of industry adjustment when exploring motivations related to influencing benchmark groups.

5.3.2 Univariate analysis

Table 5.1, Panels A through D, presents medians of unadjusted values for all the variables I included in my analysis. Panel A includes the values for the full sample, and for firms that do not change FYEs (NONCHANGERS) divided into December year-end firms and non-December year end firms. Panel B also includes values for all firms, and NONCHANGERS divided into majority and nonmajority year-ends. Panel C includes all firms and all FYE changing firms (CHANGERS). Finally, Panel D includes CHANGERS sorted into three groups: firms that moved from the nonmajority to the majority FYEs (MOVETO), firms that moved from the majority to the nonmajority FYEs (MOVEFROM), and firms that changed their FYE but continue to be in the nonmajority FYEs (HORZ).

I did not conduct any statistical tests of differences of the unadjusted variables in Table 5.1. I include comparisons of December and non-December firms with majority and nonmajority firms to illustrate the similarities when the sample is bifurcated utilizing those criteria. The majority FYE for most industries is December, although two industries (the multiple line retail and specialty retail industries (GICS 255030 and 255040)) choose January. Later in my study, I limited my analysis to include majority versus nonmajority groupings because of these similarities.

Eight thousand one hundred forty-four NONCHANGER firms have December year-ends while 3,686 have non-December year-ends. Similarly, 8,188 NONCHANGER firms have the same FYE as the majority of firms in their industry while 3,642 have

TABLE 5.1: Descriptive Statistics Grouped by FYE Groups**Panel A: All Firms and NONCHANGERS with December and Non-December FYEs**

		All Firms 13,409 Firms			December FYEs 8,144 Firms			Non-December FYEs 3,686 Firms		
		N	MEDIAN	STDDEV	N	MEDIAN	STDDEV	N	MEDIAN	STDDEV
GENERAL	SALES	87,658	74.392	1,983.50	50,528	76.534	2,029.05	24,997	70.029	1,789.43
	ASSETS	87,658	92.650	2,863.72	50,528	111.429	3,360.73	24,997	65.986	1,932.96
	MKTVAL	76,813	96.278	5,364.18	43,229	121.695	4,835.78	22,224	67.490	6,996.39
	EPS	87,658	0.130	1.60	50,528	0.120	1.72	24,997	0.160	1.37
	AGE	87,658	8.000	11.30	50,528	6.000	11.23	24,997	9.000	10.75
	SPECIAL	87,651	0.000	3.79	50,522	0.000	4.83	24,997	0.000	1.63
PERFORMANCE	SALESGROW	81,544	0.114	96.69	46,360	0.127	123.03	23,574	0.102	25.41
	EPSGROW	80,019	0.071	12.57	45,533	0.071	13.10	22,980	0.073	10.86
	RNOAGROW	79,539	(0.015)	225.49	45,148	(0.009)	190.30	22,943	(0.025)	106.27
	MKT	87,658	0.001	0.03	50,528	0.001	0.04	24,997	0.001	0.03
	HERF	87,658	0.053	0.07	50,528	0.054	0.08	24,997	0.052	0.06
	SPEED	87,658	0.113	0.11	50,528	0.128	0.12	24,997	0.113	0.10
	RNOA	87,658	0.041	2.09	50,528	0.038	2.21	24,997	0.050	1.93
STRATEGY	OPPROFIT	87,651	0.020	27.85	50,522	0.021	35.15	24,997	0.021	12.13
	NOATURN	87,658	1.550	14.66	50,528	1.340	14.05	24,997	1.934	13.76
	GP	87,649	0.340	10.36	50,521	0.347	12.33	24,997	0.342	4.54
	INVTURN	63,517	5.410	1,109.92	33,887	5.913	1,510.00	20,297	4.813	110.60
ADMIN EFFICIENCIES	SGA	73,288	0.273	11.43	40,475	0.269	14.48	22,363	0.283	5.14
	AUDIT	20,539	0.002	0.16	12,710	0.002	0.19	5,044	0.002	0.05
	NONAUDIT	20,539	0.000	0.21	12,710	0.001	0.26	5,044	0.000	0.02
	TAX	20,539	0.000	0.03	12,710	0.000	0.04	5,044	0.000	0.01
INFORMATION ENVIRONMENT	ANALYST	40,864	4.000	5.65	24,355	4.000	5.60	11,474	3.000	5.59
	FCSTERR	39,383	0.003	6.71	23,474	0.003	8.69	11,059	0.002	0.43
	STDFCST	32,039	0.001	0.08	19,206	0.002	0.08	8,867	0.001	0.06
	OPTIMISM	39,383	0.000	6.71	23,474	0.000	8.69	11,059	0.000	0.43

TABLE 5.1: Continued

Panel B: All Firms and NONCHANGERS MAJORITY and NONMAJORITY FYEs

		All Firms 13,409 Firms			Majority FYEs 8,188 Firms			NonMajority FYEs 3,642 Firms		
		N	MEDIAN	STDDEV	N	MEDIAN	STDDEV	N	MEDIAN	STDDEV
GENERAL	SALES	87,658	74.392	1,983.50	50,906	79.741	2,054.75	24,619	65.130	1,721.14
	ASSETS	87,658	92.650	2,863.72	50,906	115.065	3,365.35	24,619	61.421	1,881.24
	MKTVAL	76,813	96.278	5,364.18	43,602	123.972	4,833.42	21,851	64.095	7,030.24
	EPS	87,658	0.130	1.60	50,906	0.130	1.72	24,619	0.150	1.36
	AGE	87,658	8.000	11.30	50,906	6.000	11.26	24,619	9.000	10.69
	SPECIAL	87,651	0.000	3.79	50,900	0.000	4.82	24,619	0.000	1.65
PERFORMANCE	SALESGROW	81,544	0.114	96.69	46,751	0.125	122.51	23,183	0.103	25.64
	EPSGROW	80,019	0.071	12.57	45,925	0.071	13.08	22,588	0.073	10.86
	RNOAGROW	79,539	(0.015)	225.49	45,535	(0.009)	189.47	22,556	(0.027)	107.26
	MKT	87,658	0.001	0.03	50,906	0.001	0.04	24,619	0.001	0.02
	HERF	87,658	0.053	0.07	50,906	0.054	0.08	24,619	0.052	0.06
	SPEED	87,658	0.113	0.11	50,906	0.128	0.12	24,619	0.113	0.10
	RNOA	87,658	0.041	2.09	50,906	0.038	2.20	24,619	0.049	1.95
STRATEGY	OPPROFIT	87,651	0.020	27.85	50,900	0.021	35.01	24,619	0.021	12.24
	NOATURN	87,658	1.550	14.66	50,906	1.357	14.02	24,619	1.899	13.81
	GP	87,649	0.340	10.36	50,899	0.346	12.29	24,619	0.342	4.58
	INVTURN	63,517	5.410	1,109.92	34,302	5.770	1,500.82	19,882	4.954	112.26
ADMIN EFFICIENCIES	SGA	73,288	0.273	11.43	40,834	0.268	14.42	22,004	0.285	5.19
	AUDIT	20,539	0.002	0.16	12,767	0.002	0.19	4,987	0.002	0.05
	NONAUDIT	20,539	0.000	0.21	12,767	0.001	0.26	4,987	0.000	0.02
	TAX	20,539	0.000	0.03	12,767	0.000	0.04	4,987	0.000	0.01
INFORMATION ENVIRONMENT	ANALYST	40,864	4.000	5.65	24,762	4.000	5.66	11,067	3.000	5.43
	FCSTERR	39,383	0.003	6.71	23,867	0.003	8.62	10,666	0.003	0.43
	STDFCST	32,039	0.001	0.08	19,586	0.002	0.08	8,487	0.001	0.06
	OPTIMISM	39,383	0.000	6.71	23,867	0.000	8.62	10,666	0.000	0.43

TABLE 5.1: Continued

Panel C: All Firms and All CHANGERS

		All Firms 13,409 Firms			All CHANGERS 1,579 Firms		
		N	MEDIAN	STDDEV	N	MEDIAN	STDDEV
GENERAL	SALES	87,658	74.392	1,983.50	12,133	75.501	2,156.90
	ASSETS	87,658	92.650	2,863.72	12,133	85.271	2,031.54
	MKTVAL	76,813	96.278	5,364.18	11,360	80.097	3,117.58
	EPS	87,658	0.130	1.60	12,133	0.080	1.52
	AGE	87,658	8.000	11.30	12,133	13.000	11.68
	SPECIAL	87,651	0.000	3.79	12,132	0.000	0.97
PERFORMANCE	SALESGROW	81,544	0.114	96.69	11,610	0.099	62.50
	EPSGROW	80,019	0.071	12.57	11,506	0.065	13.57
	RNOAGROW	79,539	(0.015)	225.49	11,448	(0.022)	433.38
	MKT	87,658	0.001	0.03	12,133	0.001	0.03
	HERF	87,658	0.053	0.07	12,133	0.054	0.08
	SPEED	87,658	0.113	0.11	12,133	0.095	0.12
STRATEGY	RNOA	87,658	0.041	2.09	12,133	0.034	1.88
	OPPROFIT	87,651	0.020	27.85	12,132	0.014	12.38
	NOATURN	87,658	1.550	14.66	12,133	1.580	18.48
	GP	87,649	0.340	10.36	12,131	0.317	9.95
ADMIN EFFICIENCIES	INVTURN	63,517	5.410	1,109.92	9,333	5.303	279.63
	SGA	73,288	0.273	11.43	10,450	0.263	6.81
	AUDIT	20,539	0.002	0.16	2,785	0.002	0.08
	NONAUDIT	20,539	0.000	0.21	2,785	0.000	0.03
INFORMATION ENVIRONMENT	TAX	20,539	0.000	0.03	2,785	0.000	0.01
	ANALYST	40,864	4.000	5.65	5,035	4.000	5.94
	FCSTERR	39,383	0.003	6.71	4,850	0.003	0.26
	STDFCST	32,039	0.001	0.08	3,966	0.001	0.10
	OPTIMISM	39,383	0.000	6.71	4,850	0.000	0.26

TABLE 5.1: Continued

Panel D: Firms Grouped by Direction of Change

		MOVETO 1,029 Firms			MOVEFROM 281 Firms			HORZ 269 Firms		
		N	MEDIAN	STDDEV	N	MEDIAN	STDDEV	N	MEDIAN	STDDEV
GENERAL	SALES	8,166	82.093	2,023.91	1,982	60.286	2,320.23	1,985	72.240	2,488.28
	ASSETS	8,166	103.348	2,266.55	1,982	56.865	1,564.17	1,985	64.823	1,252.26
	MKTVAL	7,680	93.351	3,599.84	1,838	52.484	1,288.24	1,842	64.992	2,030.03
	EPS	8,166	0.080	1.55	1,982	0.060	1.51	1,985	0.120	1.41
	AGE	8,166	12.000	11.47	1,982	11.000	12.46	1,985	15.000	11.61
	SPECIAL	8,165	0.000	1.05	1,982	0.000	0.80	1,985	0.000	0.79
PERFORMANCE	SALESGROW	7,826	0.108	33.12	1,885	0.076	137.22	1,899	0.091	25.87
	EPSGROW	7,748	0.067	15.33	1,870	0.057	7.39	1,888	0.067	10.20
	RNOAGROW	7,727	(0.017)	120.92	1,859	(0.027)	1,046.62	1,862	(0.032)	22.60
	MKT	8,166	0.001	0.03	1,982	0.001	0.02	1,985	0.001	0.03
	HERF	8,166	0.055	0.08	1,982	0.056	0.07	1,985	0.048	0.07
	SPEED	8,166	0.095	0.13	1,982	0.088	0.12	1,985	0.079	0.10
STRATEGY	RNOA	8,166	0.032	1.88	1,982	0.033	2.19	1,985	0.044	1.46
	OPPROFIT	8,165	0.015	11.77	1,982	0.009	14.48	1,985	0.014	12.55
	NOATURN	8,166	1.387	21.41	1,982	1.858	12.43	1,985	2.146	6.82
	GP	8,164	0.321	10.40	1,982	0.299	6.65	1,985	0.312	10.75
	INVTURN	6,017	5.251	103.43	1,662	5.752	626.56	1,654	5.104	87.29
ADMIN EFFICIENCIES	SGA	6,971	0.249	5.77	1,654	0.317	12.24	1,825	0.270	1.59
	AUDIT	2,004	0.002	0.09	417	0.002	0.01	364	0.002	0.01
	NONAUDIT	2,004	0.000	0.03	417	0.001	0.00	364	0.000	0.00
	TAX	2,004	0.000	0.01	417	0.000	0.00	364	0.000	0.00
INFORMATION ENVIRONMENT	ANALYST	3,559	4.000	6.08	726	4.000	5.09	750	5.000	6.01
	FCSTERR	3,446	0.003	0.28	688	0.003	0.20	716	0.003	0.19
	STDFCST	2,830	0.002	0.06	544	0.001	0.22	592	0.001	0.03
	OPTIMISM	3,446	0.000	0.28	688	0.000	0.20	716	0.000	0.19

chosen a FYE that differs from the majority of firms in their industry. The December/majority firms are larger (SALES, ASSETS, MKTVAL) than non-December/nonmajority firms but are fairly similar in other measures. My sample includes 1,578 CHANGER firms, which differs from the number reported in earlier chapters of my dissertation because of the data restrictions detailed in Section 5.3.1 Sample selection.

In Table 5.2, Panels A and B, I present correlations of the variables from the descriptive tables. Not surprisingly, I documented large correlations among the size variables: SALES, ASSETS, MKTVAL, EPS and MKTSHARE. Analyst following (ANALYST) is also highly correlated with the other size variables. In conducting multivariate analysis, I included only one proxy for size (industry-adjusted sales) due to the high correlations, although I also included ANALYST. Including ANALYST along with a proxy for size allowed me to capture differences across firms in terms of the number of analysts, after controlling for firm size. Return on net operating assets (RNOA) and operating profit margin (OPPROFIT), two proxies for performance and strategy, are also highly correlated. Thus, I limited my multivariate analysis to include only RNOA. Finally, selling, general and administrative expenses (SGA) and professional fees (AUDIT, NONAUDIT and TAX) are expectedly correlated. Firm years with reported values for professional services fees are also limited. Thus, in multivariate analysis, I included only SGA to proxy for administrative costs.

TABLE 5.2: Correlations for All Firms

Panel A: Spearman Correlations												
	SALES	ASSETS	MKTVAL	EPS	ANALYST	AGE	SPECIAL	SALES	EPSGR	RNOAG	MKT	HERF
			L					GROW	OW	ROW		
SALES	1											
ASSETS	0.90	1										
MKTVAL	0.74	0.83	1									
EPS	0.49	0.43	0.39	1								
ANALYST	0.56	0.63	0.73	0.30	1							
AGE	0.31	0.26	0.17	0.26	0.19	1						
SPECIAL	(0.06)	(0.06)	(0.03)	0.10	(0.00)	0.02	1					
SALESGROW	0.02	0.05	0.12	0.12	0.09	(0.26)	0.00	1				
EPSGROW	0.05	0.03	(0.03)	0.40	0.04	0.02	0.10	0.20	1			
RNOAGROW	0.07	0.05	0.01	0.33	0.05	0.03	(0.00)	0.18	0.70	1		
MKT	0.90	0.83	0.69	0.44	0.50	0.27	(0.05)	0.03	0.05	0.06	1	
HERF	(0.04)	(0.03)	(0.01)	(0.04)	(0.04)	0.05	0.02	(0.03)	(0.01)	(0.00)	0.17	1
SPEED	(0.24)	(0.20)	(0.05)	(0.20)	(0.02)	(0.12)	0.03	0.07	(0.00)	(0.01)	(0.24)	(0.10)
RNOA	0.26	0.18	0.21	0.63	0.19	0.11	0.02	0.13	0.33	0.46	0.23	(0.01)
OPPROFIT	0.39	0.36	0.32	0.80	0.24	0.17	0.00	0.16	0.36	0.33	0.36	(0.05)
NOATURN	0.23	(0.06)	(0.05)	0.12	(0.05)	0.07	0.00	(0.02)	0.06	0.01	0.20	(0.01)
GP	(0.06)	(0.01)	0.09	0.13	0.09	(0.06)	0.02	0.10	0.09	0.08	(0.06)	(0.10)
INVTURN	0.17	0.12	0.08	0.06	0.06	0.02	(0.02)	0.01	0.01	0.02	0.14	(0.09)
SGA	(0.53)	(0.44)	(0.22)	(0.43)	(0.12)	(0.19)	0.04	(0.04)	(0.10)	(0.11)	(0.42)	0.05
AUDIT	(0.73)	(0.58)	(0.46)	(0.48)	(0.34)	(0.27)	0.06	0.03	(0.02)	(0.05)	(0.64)	0.13
NONAUDIT	(0.38)	(0.26)	(0.20)	(0.30)	(0.17)	(0.18)	(0.00)	0.01	(0.04)	(0.05)	(0.30)	0.06
TAX	(0.09)	(0.03)	0.00	(0.06)	(0.02)	(0.02)	0.03	0.02	0.03	0.02	(0.07)	0.04
FCSTERR	(0.32)	(0.30)	(0.42)	(0.44)	(0.43)	(0.14)	(0.02)	(0.15)	(0.18)	(0.18)	(0.31)	0.01
STDFCST	(0.23)	(0.15)	(0.28)	(0.41)	(0.20)	(0.11)	(0.01)	(0.14)	(0.16)	(0.16)	(0.24)	0.00
OPTIMISM	(0.11)	(0.11)	(0.13)	(0.22)	(0.13)	(0.05)	(0.02)	(0.09)	(0.24)	(0.23)	(0.12)	(0.01)

TABLE 5.2: Continued

Panel B: Spearman Correlations-Continued

	SPEED	RNOA	OP- PROFIT	NOA TURN	GP	INV TURN	SGA	AUDIT	NON- AUDIT	TAX	FCST ERR	STD FCST	OPTI- MISM
SPEED	1												
RNOA	(0.07)	1											
OPPROFIT	(0.15)	0.67	1										
NOATURN	(0.05)	0.09	0.08	1									
GP	0.17	0.17	0.32	(0.09)	1								
INVTURN	(0.02)	0.04	0.02	0.08	(0.32)	1							
SGA	0.23	(0.27)	(0.45)	(0.10)	0.46	(0.36)	1						
AUDIT	0.28	(0.24)	(0.32)	(0.26)	0.15	(0.21)	0.51	1					
NONAUDIT	0.19	(0.17)	(0.21)	(0.21)	0.09	(0.16)	0.34	0.39	1				
TAX	0.09	(0.00)	(0.03)	(0.08)	0.07	(0.08)	0.14	0.24	0.49	1			
FCSTERR	0.01	(0.37)	(0.40)	(0.08)	(0.15)	(0.01)	0.06	0.27	0.10	0.03	1		
STDFCST	0.03	(0.39)	(0.37)	(0.20)	(0.15)	0.03	(0.05)	0.24	0.07	0.01	0.60	1	
OPTIMISM	(0.03)	(0.23)	(0.20)	(0.06)	(0.07)	(0.02)	0.02	0.05	0.04	(0.02)	0.21	0.16	1

Table 5.3, Panel A reports medians and standard deviations of Compustat industry adjusted variables for all NONCHANGER firms segregated into December FYE firms and non-December FYE firms. Panel B reports NONCHANGERS segregated into industry majority or industry nonmajority FYEs. The center columns between groups in both tables represent results of Wilcoxon signed rank tests approximating differences in medians. The > and < signs indicate the direction of significant differences in magnitude. Significance is denoted at the 10, 5 and 1% levels by *, ** and ***, respectively. The test of differences indicates that the differences between December and non-December FYE firms is very similar to the differences between MAJORITY and NONMAJORITY firms. Only 440 firms/two GICS 6-digit industry codes have an industry MAJORITY FYE that differs from December. I documented only minor differences between EPSGROW and OPPROFIT. The December/non-December groupings showed no significant differences in the medians of earnings per share growth (EPSGROW) while the MAJORITY/NONMAJORITY groupings show no significant differences in operating profit (OPPROFIT). In the interest of parsimony, from this point forward I focused on MAJORITY and NONMAJORITY differences.¹⁷

I documented that MAJORITY firms are larger than NONMAJORITY firms, in terms of sales, total assets market share and market value (SALES ASSETS, MKTSHARE, MKTVAL). MAJORITY firms are also younger (AGE). Combined with earlier evidence of a general trend toward adopting December as a FYE, this might suggest costs associated with a change in FYE where older firms dominate the group because they have not made the choice to incur these costs. MAJORITY firms also

¹⁷ I also analyzed differences between firms with differing quarter cycles from the MAJORITY with the expectation that the differences would be more pronounced (not tabulated). I found identical directional differences based on differences in FYE and fiscal quarter cycle end.

TABLE 5.3: Compustat Industry Adjusted Measures

Panel A: NONCHANGERS Grouped by Non-December and December FYEs

		Non-December 3,686 Firms					December 8,144 Firms		
		N	MEDIAN	STDDEV			N	MEDIAN	STDDEV
GENERAL	SALES	24,997	(4.477)	1,727.74	<	***	50,528	2.415	1,972.54
	ASSETS	24,997	(10.774)	1,918.23	<	***	50,528	8.877	3,208.07
	MKTVAL	22,224	(12.431)	6,992.13	<	***	43,229	12.054	4,814.07
	EPS	24,997	0.020	1.31	>	***	50,528	0.000	1.60
	AGE	24,997	1.000	10.21	>	***	50,528	(1.000)	10.04
	SPECIAL	24,997	0.000	1.63	>	***	50,522	0.000	4.83
PERFORMANCE	SALESGROW	23,574	(0.008)	25.40	<	***	46,360	0.006	123.03
	EPSGROW	22,980	0.000	10.84			45,533	0.000	13.09
	RNOAGROW	22,943	0.000	106.27			45,148	0.000	190.30
	MKT	24,997	0.001	0.03	<	***	50,528	0.001	0.04
	HERF	24,997	0.052	0.06	<	***	50,528	0.054	0.08
	SPEED	24,997	0.113	0.10	<	***	50,528	0.128	0.12
	RNOA	24,997	0.006	1.92	>	***	50,528	(0.000)	2.19
STRATEGY	OPPROFIT	24,997	0.002	12.11	>	**	50,522	0.000	35.11
	NOATURN	24,997	0.090	13.74	>	***	50,528	(0.021)	14.02
	GP	24,997	(0.003)	4.51	<	***	50,521	0.005	12.29
	INVTURN	20,297	(0.030)	109.63	<	***	33,887	0.002	1,509.83
ADMIN EFFICIENCIES	SGA	22,363	(0.001)	5.12	<	***	40,475	0.000	14.47
	AUDIT	5,044	(0.000)	0.05	<	***	12,710	0.000	0.19
	NONAUDIT	5,044	0.000	0.02	<	**	12,710	0.000	0.26
	TAX	5,044	0.000	0.01	<	***	12,710	0.000	0.04
INFORMATION ENVIRONMENT	ANALYST	11,474	0.000	5.47	<	***	24,355	0.000	5.39
	FSCTERR	11,059	0.000	0.43	>	***	23,474	0.000	8.69
	STDFCST	8,867	(0.000)	0.06			19,206	0.000	0.08
	OPTIMISM	11,059	0.000	0.43	>	***	23,474	0.000	8.69

TABLE 5.3: Continued

Panel B: NONCHANGERS Grouped by Nonmajority and Majority FYEs

		NonMajority 3,642 Firms				Majority 8,188 Firms		
		N	MEDIAN	STDDEV		N	MEDIAN	STDDEV
GENERAL	SALES	24,619	(5.242)	1,678.73	< ***	50,906	2.860	1,990.65
	ASSETS	24,619	(11.699)	1,874.65	< ***	50,906	9.524	3,212.16
	MKTVAL	21,851	(14.075)	7,027.00	< ***	43,602	13.428	4,811.26
	EPS	24,619	0.020	1.31	> ***	50,906	0.000	1.60
	AGE	24,619	1.000	10.17	> ***	50,906	(1.000)	10.07
	SPECIAL	24,619	0.000	1.65	> ***	50,900	0.000	4.82
PERFORMANCE	SALESGROW	23,183	(0.007)	25.63	< ***	46,751	0.005	122.51
	EPSGROW	22,588	0.000	10.84	< *	45,925	0.000	13.07
	RNOAGROW	22,556	0.000	107.25		45,535	0.000	189.47
	MKT	24,619	0.001	0.02	< ***	50,906	0.001	0.04
	HERF	24,619	0.052	0.06	< ***	50,906	0.054	0.08
	SPEED	24,619	0.113	0.10	< **	50,906	0.128	0.12
	RNOA	24,619	0.005	1.94	> ***	50,906	0.000	2.18
STRATEGY	OPPROFIT	24,619	0.002	12.21		50,900	0.000	34.98
	NOATURN	24,619	0.088	13.79	> ***	50,906	(0.019)	13.99
	GP	24,619	(0.003)	4.55	< ***	50,899	0.004	12.25
	INVTURN	19,882	(0.005)	111.31	< ***	34,302	0.000	1,500.65
ADMIN EFFICIENCIES	SGA	22,004	(0.001)	5.18	< ***	40,834	0.000	14.41
	AUDIT	4,987	(0.000)	0.05	< ***	12,767	0.000	0.19
	NONAUDIT	4,987	(0.000)	0.02	< ***	12,767	0.000	0.26
	TAX	4,987	0.000	0.01	< ***	12,767	0.000	0.04
INFORMATION ENVIRONMENT	ANALYST	11,067	0.000	5.35	< ***	24,762	0.000	5.44
	FSCTERR	10,666	0.000	0.43	> ***	23,867	0.000	8.62
	STDFCST	8,487	(0.000)	0.06		19,586	0.000	0.08
	OPTIMISM	10,666	0.000	0.43	> ***	23,867	0.000	8.62

exhibit higher growth rates, which might relate to the age of the firms in that group.

When examining the strategic proxies, I documented that the NONMAJORITY firms are higher turnover/lower margin firms as evidenced by a DuPont disaggregation of return on assets (NOATURN GP). MAJORITY firms have significantly greater administrative costs (SGA AUDIT NONAUDIT TAX). The direction of this relationship follows the reasoning that professional fees for MAJORITY firms are higher due to increased seasonal demand for year-end services. Finally, I documented differences between MAJORITY and NONMAJORITY firms in terms of information environment:

MAJORITY firms have higher analyst following (ANALYST), lower forecast errors (FCSTERR), and lower analyst forecast optimism (OPTIMISM) than NONMAJORITY firms. In sum, the analysis I present provides initial support for Hypotheses 1a, 2a and 3a.

In Table 5.4 I report medians of Compustat industry adjusted values segregated into the following groups: All NONCHANGERS, all CHANGERS prechange, and all CHANGERS postchange. Again the comparison signs (< and >) show direction of magnitude followed by significance levels from Wilcoxon signed rank tests estimating differences in the median values. The first comparison column tests differences in medians between all NONCHANGERS and all CHANGERS before the change in FYE. The center comparison column tests for differences before and after the change in FYE. The final comparison column tests differences in medians between all CHANGERS and all NONCHANGERS following the change in FYE. Because Table 5.4 pertains to firms changing in all three possible categories of change (MOVETO, MOVEFROM, HORZ), it is difficult to create expectations for the existence or direction of differences. To the extent that the MOVETO firms dominate the firms changing FYE, the differences mimic

TABLE 5.4: Differences in Compustat Industry Adjusted Medians-All CHANGERS

		All NONCHANGERS					All CHANGERS PRE-CHANGE					All CHANGERS POST-CHANGE					All NON
		# of Firms=13,409					# of Firms=766					# of Firms=1,579					
		N	MED				N	MED				N	MED				MED
GENERAL	SALES	75,525	0.000	>	***		2,886	(11.783)	<	***		9,247	4.570	>	***		0.000
	ASSETS	75,525	0.278	>	***		2,886	(17.286)	<	***		9,247	1.935	>	**		0.278
	MKTVAL	65,453	0.834	>	***		2,422	(15.727)	<	***		8,938	(5.586)	<	***		0.834
	EPS	75,525	0.000	>	***		2,886	(0.100)	<	***		9,247	(0.020)				0.000
	AGE	75,525	0.000	>	*		2,886	(1.000)	<	***		9,247	6.000	>	***		0.000
	SPECIAL	75,519	0.000				2,886	0.000	>	*		9,246	0.000	<	*		0.000
PERFORMANCE	SALESGROW	69,934	0.000				2,560	0.003	>	***		9,050	(0.012)	<	***		0.000
	EPSGROW	68,513	0.000	>	***		2,500	(0.041)	<	***		9,006	0.000				0.000
	RNOAGROW	68,091	0.000	>	***		2,484	(0.060)	<	***		8,964	0.000				0.000
	MKT	75,525	0.001	>	***		2,886	0.001	<	***		9,247	0.001	>	***		0.001
	HERF	75,525	0.053	>	***		2,886	0.052				9,247	0.054	>	***		0.053
	SPEED	75,525	0.127	>	*		2,886	0.113	>	***		9,247	0.092	<	***		0.127
	RNOA	75,525	0.001	>	***		2,886	(0.014)	<	***		9,247	(0.005)	<	***		0.001
STRATEGY	OPPROFIT	75,519	0.001	>	***		2,886	(0.014)	<	***		9,246	(0.005)	<	***		0.001
	NOATURN	75,525	0.000	>	*		2,886	(0.022)	<	***		9,247	0.010	>	***		0.000
	GP	75,518	0.001	>	***		2,886	(0.014)				9,245	(0.012)	<	***		0.001
	INVTURN	54,184	0.000	>	***		2,106	(0.112)	<	**		7,227	0.006				0.000
ADMIN EFFICIENCIES	SGA	62,838	0.000	<	***		2,445	0.028	>	***		8,005	(0.001)	<	*		0.000
	AUDIT	17,754	0.000				217	0.000				2,568	(0.000)	<	**		0.000
	NONAUDIT	17,754	0.000				217	0.000				2,568	0.000				0.000
	TAX	17,754	0.000				217	0.000				2,568	0.000				0.000
INFORMATION ENVIRONMENT	ANALYST	35,829	0.000	>	*		782	0.000	<	***		4,253	0.000	>	***		0.000
	FCSTERR	34,533	0.000	<	**		740	0.001				4,110	0.000				0.000
	STDFCST	28,073	0.000	<	**		584	0.000	>	*		3,382	0.000				0.000
	OPTIMISM	34,533	0.000	<	***		740	0.000	>	**		4,110	0.000				0.000

the differences seen when isolating that group. In general CHANGERS before the change in FYE are smaller and younger than NONCHANGERS. With regard to performance, the prechange CHANGERS appear to have lower growth rates and less profitability. It also appears that lower profitability swamps any strategic differences that might appear in divergent directions among the strategy variables in prechange CHANGERS. There do not appear to be significant differences between the prechange CHANGERS and NONCHANGERS with respect to administrative costs. Finally, the information environment for prechange CHANGERS appears to be inferior to that of NONCHANGERS with lower analyst following, higher forecast errors and higher forecast optimism.

Postchange CHANGERS appear larger. This may be due to a type of survivorship bias that cannot be eliminated with industry adjustment. Only surviving firms continue to report variable values that grow; nonsurviving firms report values that do not subsequently grow. This exhibits a short-coming of my research design which I plan to address in the future. Currently the pre/post panels are unbalanced. To address the issue, I plan to instead take the median of all individual firm Compustat industry adjusted values pre (post) change, then take a median of those medians. This will result in a balance of observations both pre and post change. The postchange CHANGERS exhibit a higher turnover/lower gross margin strategy than the NONCHANGERS. Differences in selling general and administrative expenses and audit fees also suggest that postchange CHANGERS experience lower administrative fees than NONCHANGERS. Finally, postchange CHANGERS appear to have greater analyst following than NONCHANGERS.

The middle comparison column in Table 5.4 compares the medians of all CHANGERS before and after their FYE change. Postchange firms are larger and exhibit higher growth rates and higher profitability. Their turnover and operating margins appear to increase, suggesting a possible strategy adjustment. Finally, they appear to experience an improvement in information environment with increased analyst following and decreased forecast errors and optimism.

In Tables 5.5 through 5.7, I report the results of similar analysis to Table 5.4, but I segregate the CHANGERS into three groups based on the direction of the change in FYE. In Table 5.5 I report medians of Compustat industry adjusted values segregated into the following groups: NONMAJORITY NONCHANGERS, MOVETO firms prechange, and MOVETO firms postchange. The NONMAJORITY NONCHANGERS column is repeated on the right to facilitate comparison to the postchange values. I compared the MOVETO firms to the nonmajority NONCHANGERS to investigate differences that may motivate a change from the NONMAJORITY group. Again the comparison signs (< and >) show direction of magnitude followed by significance levels from Wilcoxon signed rank tests estimating differences in the median values. The first comparison column tests differences in medians between NONMAJORITY NONCHANGERS and MOVETO firms before the change in FYE. The center comparison column tests for differences before and after the change in FYE. The final comparison column tests differences in medians between NONMAJORITY NONCHANGERS and MOVETO firms following the change in FYE.

Prechange MOVETO firms exhibit lower profitability and growth than NONCHANGER NONMAJORITY firms. The significantly lower profitability likely

TABLE 5.5: Differences in Compustat Industry Adjusted Medians-MOVETO Firms

		All NONMAJORITY NONCHANGERS # of Firms=3,642				MOVETO Firms PRE- CHANGE # of Firms=522				MOVETO Firms POST- CHANGE # of Firms=1,029				All NON
		N	MED			N	MED			N	MED			MED
GENERAL	SALES	24,619	(5.242)			1,968	(10.674)	<	***	6,198	10.276	>	***	(5.242)
	ASSETS	24,619	(11.699)			1,968	(15.454)	<	***	6,198	12.286	>	***	(11.699)
	MKTVAL	21,851	(14.075)			1,658	(15.978)	<	***	6,022	1.193	>	***	(14.075)
	EPS	24,619	0.020	>	***	1,968	(0.080)	<	***	6,198	(0.020)	<	**	0.020
	AGE	24,619	1.000	>	***	1,968	0.000	<	***	6,198	6.000	>	***	1.000
	SPECIAL	24,619	0.000			1,968	0.000			6,197	0.000	<	***	0.000
PERFORMANCE	SALESGROW	23,183	(0.007)			1,751	(0.001)			6,075	(0.007)			(0.007)
	EPSGROW	22,588	0.000	>	***	1,701	(0.050)	<	***	6,047	0.000			0.000
	RNOAGROW	22,556	0.000	>	***	1,694	(0.070)	<	***	6,033	0.000			0.000
	MKT	24,619	0.001	>	***	1,968	0.001	<	***	6,198	0.002	>	***	0.001
	HERF	24,619	0.052	<	***	1,968	0.054			6,198	0.055	>	***	0.052
	SPEED	24,619	0.113	>	**	1,968	0.100	>	***	6,198	0.095	<	***	0.113
	RNOA	24,619	0.005	>	***	1,968	(0.009)	<	***	6,198	(0.005)	<	***	0.005
STRATEGY	OPPROFIT	24,619	0.002	>	***	1,968	(0.011)	<	***	6,197	(0.004)	<	***	0.002
	NOATURN	24,619	0.088	>	***	1,968	(0.045)			6,198	(0.031)	<	***	0.088
	GP	24,619	(0.003)	>	*	1,968	(0.006)			6,196	(0.009)	<	**	(0.003)
	INVTURN	19,882	(0.005)	>	***	1,385	(0.261)	<	***	4,632	0.090	>	**	(0.005)
ADMIN EFFICIENCIES	SGA	22,004	(0.001)	<	***	1,632	0.024	>	***	5,339	(0.007)			(0.001)
	AUDIT	4,987	(0.000)			138	(0.000)			1,866	(0.000)			(0.000)
	NONAUDIT	4,987	(0.000)	<	*	138	0.000			1,866	0.000			(0.000)
	TAX	4,987	0.000			138	0.000			1,866	0.000	>	***	0.000
INFORMATION ENVIRONMENT	ANALYST	11,067	0.000			556	0.000	<	***	3,003	0.000	>	***	0.000
	FCSTERR	10,666	0.000			529	0.000			2,917	0.000			0.000
	STDFCST	8,487	(0.000)			425	0.000			2,405	0.000			(0.000)
	OPTIMISM	10,666	0.000			529	0.000	>	*	2,917	0.000			0.000

TABLE 5.6: Differences in Compustat Industry Adjusted Medians-MOVEFROM Firms

		All MAJORITY NONCHANGERS # of Firms=8,188				MOVEFROM Firms PRE- CHANGE # of Firms=130				MOVEFROM Firms POST- CHANGE # of Firms=281				All NON
		N	MED			N	MED			N	MED			MED
GENERAL	SALES	50,906	2.860	>	***	493	(15.955)	<	***	1,489	(6.732)	<	***	2.860
	ASSETS	50,906	9.524	>	***	493	(24.443)	<	**	1,489	(17.712)	<	***	9.524
	MKTVAL	43,602	13.428	>	***	410	(23.245)			1,428	(26.931)	<	***	13.428
	EPS	50,906	0.000	>	***	493	(0.240)	<	***	1,489	(0.040)			0.000
	AGE	50,906	(1.000)	>	***	493	(1.000)	<	***	1,489	4.000	>	***	(1.000)
	SPECIAL	50,900	0.000	<	*	493	0.000			1,489	0.000			0.000
PERFORMANCE	SALESGROW	46,751	0.005			433	0.018	>	**	1,452	(0.022)	<	***	0.005
	EPSGROW	45,925	0.000			426	(0.051)			1,444	0.000			0.000
	RNOAGROW	45,535	0.000	>	**	421	(0.153)	<	*	1,438	(0.000)			0.000
	MKT	50,906	0.001	>	***	493	0.000	<	***	1,489	0.001			0.001
	HERF	50,906	0.054			493	0.052	<	***	1,489	0.056	>	***	0.054
	SPEED	50,906	0.128	<	***	493	0.140	>	***	1,489	0.077	<	***	0.128
	RNOA	50,906	0.000	>	***	493	(0.063)	<	***	1,489	(0.008)	<	***	0.000
STRATEGY	OPPROFIT	50,900	0.000	>	***	493	(0.031)	<	***	1,489	(0.009)	<	***	0.000
	NOATURN	50,906	(0.019)			493	0.038	<	***	1,489	0.179	>	***	(0.019)
	GP	50,899	0.004			493	0.007	>	**	1,489	(0.024)	<	***	0.004
	INVTURN	34,302	0.000			379	(0.180)			1,283	0.039			0.000
ADMIN EFFICIENCIES	SGA	40,834	0.000	<	***	438	0.090	>	***	1,216	0.017			0.000
	AUDIT	12,767	0.000			41	0.001			376	(0.000)	<	***	0.000
	NONAUDIT	12,767	0.000			41	0.000			376	0.000			0.000
	TAX	12,767	0.000			41	0.000			376	0.000			0.000
INFORMATION ENVIRONMENT	ANALYST	24,762	0.000	>	**	117	0.000			609	0.000			0.000
	FCSTERR	23,867	0.000	<	***	104	0.004	>	***	584	0.000	>	*	0.000
	STDFCST	19,586	0.000	<	***	82	0.001	>	***	462	0.000			0.000
	OPTIMISM	23,867	0.000			104	0.000			584	0.000			0.000

TABLE 5.7: Differences in Compustat Industry Adjusted Medians-HORZ Firms

		All NONMAJORITY NONCHANGERS # of Firms=3,642			HORZ Firms PRECHANGE # of Firms=114			HORZ Firms POSTCHANGE # of Firms=269			All NON
		N	MED		N	MED		N	MED		MED
GENERAL	SALES	24,619	(5.242)		425	(9.361)	< *	1,560	(3.047)	> ***	(5.242)
	ASSETS	24,619	(11.699)		425	(17.620)		1,560	(12.628)	> ***	(11.699)
	MKTVAL	21,851	(14.075)		354	(8.141)		1,488	(13.142)		(14.075)
	EPS	24,619	0.020	> **	425	(0.020)	< *	1,560	0.000		0.020
	AGE	24,619	1.000	> ***	425	0.000	< ***	1,560	9.000	> ***	1.000
	SPECIAL	24,619	0.000		425	0.000		1,560	0.000	< **	0.000
PERFORMANCE	SALESGROW	23,183	(0.007)	< **	376	0.015	> ***	1,523	(0.021)	< **	(0.007)
	EPSGROW	22,588	0.000		373	0.001		1,515	(0.023)		0.000
	RNOAGROW	22,556	0.000		369	0.018		1,493	(0.002)		0.000
	MKT	24,619	0.001		425	0.001	< ***	1,560	0.001	> ***	0.001
	HERF	24,619	0.052		425	0.049	> **	1,560	0.047	< ***	0.052
	SPEED	24,619	0.113	> ***	425	0.088		1,560	0.079	< ***	0.113
	RNOA	24,619	0.005		425	(0.003)		1,560	(0.003)	< **	0.005
STRATEGY	OPPROFIT	24,619	0.002	> ***	425	(0.007)	< *	1,560	(0.002)	< *	0.002
	NOATURN	24,619	0.088		425	0.001	< *	1,560	0.180	> **	0.088
	GP	24,619	(0.003)	> ***	425	(0.045)	< ***	1,560	(0.011)		(0.003)
	INVTURN	19,882	(0.005)	< *	342	0.535	> ***	1,312	(0.278)	< ***	(0.005)
ADMIN EFFICIENCIES	SGA	22,004	(0.001)	> **	375	(0.025)	< ***	1,450	0.001		(0.001)
	AUDIT	4,987	(0.000)		38	0.000		326	(0.000)		(0.000)
	NONAUDIT	4,987	(0.000)		38	(0.000)		326	0.000		(0.000)
	TAX	4,987	0.000		38	0.000		326	0.000		0.000
INFORMATION ENVIRONMENT	ANALYST	11,067	0.000		109	(1.000)	< ***	641	1.000	> ***	0.000
	FCSTERR	10,666	0.000	< **	107	0.002	> **	609	(0.000)		0.000
	STDFCST	8,487	(0.000)	< **	77	0.000		515	0.000	> *	(0.000)
	OPTIMISM	10,666	0.000	< ***	107	0.002	> **	609	0.000		0.000

carries into lower values for all four strategy measures. The prechange MOVETO firms also do not appear to differ on administrative costs or information environment measures. While postchange MOVETO firms appear larger than the NONCHANGER firms, they do not differ substantially on other measures from the differences shown in the prechange medians. The comparison column of MOVETO firms pre and post change shows the postchange firms become larger, faster growing and more profitable. There is no evidence that the change affects professional service fees, but it does appear that selling, general and administrative costs decline. Finally, it appears that the change may lead to an increase in analyst following. We might expect this as analysts might find that the cost of adding a firm with an identical FYE to other firms they are already following is lower than adding a firm with a differing FYE.

In Table 5.6 I report medians of Compustat industry adjusted values segregated into the following groups: MAJORITY NONCHANGERS, MOVEFROM firms prechange and MOVEFROM firms postchange. The MAJORITY NONCHANGERS column is repeated on the right to facilitate comparison to the postchange values. I compared the MOVEFROM firms to the NONMAJORITY NONCHANGERS to investigate differences that may motivate a change from the NONMAJORITY group. The comparison signs and significance columns are the same as the previous tables. The first comparison column tests differences in medians between MAJORITY NONCHANGERS and MOVEFROM firms before the change in FYE. The center comparison column tests for differences before and after the change in FYE. The final comparison column tests differences in medians between majority NONCHANGERS and MOVEFROM firms following the change in FYE.

The MOVEFROM firms are smaller and less profitable than NONCHANGER MAJORITY firms both before and after their change in FYE. They do, however, appear to increase in both size and profitability following the change. As with the MOVETO firms, there also appears to be a change in strategic direction after the change in FYE. The postchange MOVEFROM firms exhibit an increase in turnover and decrease in gross margin. Following the change the MOVEFROM firms then appear to have higher turnover and lower gross margins to the NONCHANGER MAJORITY group. SGA costs appear to decrease after the change both in comparing the pre and post medians and in the fact that the SGA variable becomes insignificantly different than the NONCHANGER group following the change.

In Table 5.7 I report medians of Compustat industry adjusted values segregated into the following groups: NONMAJORITY NONCHANGERS, HORZ firms prechange and HORZ firms postchange. The column order and the significance measures are the same as the previous three tables. I compared the HORZ firms to the nonmajority NONCHANGERS because they are members of the NONMAJORITY group both pre and post change.

Prechange HORZ firms do not exhibit many differences compared to other NONCHANGER NONMAJORITY firms. They have slightly higher sales growth, lower margins and slightly higher turnover. They do exhibit inferior information environment measures with higher forecast error, standard deviation and optimism. Following the change to another NONMAJORITY FYE, they seem to improve on forecast errors and optimism as the medians in those measures decline compared to both prechange and to NONCHANGERS. HORZ firms may be selecting different, more comparable groups, or

they may be selecting FYEs that require analysts to undertake a more detailed analysis of the individual firms because no low-cost comparable firms are readily available.

By using Compustat industry year medians to create industry-adjusted variables in Tables 5.4 through 5.7, I am, in a sense, benchmarking those firms by their entire industries. To investigate influencing benchmark type motivations, in Tables 5.8 through 5.10, I based the industry adjustment on membership in MAJORITY or NONMAJORITY FYE industry groups. The prechange column represents medians of industry-adjusted variables where I made the industry adjustment using NONMAJORITY firms or MAJORITY firms depending on which group the change firm belongs to before changing FYE. The postchange columns represent industry adjustments based on the MAJORITY or NONMAJORITY group that the change firm belongs to following the change. Differences between the measures represent differences between the firms and their potential FYE groups. The differences also reflect differences in the firm before and after the change. In future research I plan to examine differences in the pre (post) groups between the two possible industry adjustments. I also plan to balance the panels by including only one year pre and one year post change from each change firm. Tables 5.8 through 5.10 report differences within each group of changers: MOVETO, MOVEFROM and HORZ, respectively.

In Table 5.8 I tabulate the comparisons for MOVETO firms. Compared to their former NONMAJORITY FYE group, the post MOVETO firms appear smaller but more profitable. There is also a clearer sense that they have a lower margin/higher turnover strategy compared to the new MAJORITY FYE group. The design of the comparison does not preclude that the difference is due to a change in the firm. The MOVETO firms

**TABLE 5.8: Differences in FYE Group Industry
Adjusted Medians-MOVETO Firms**

		MOVETO Firms PRE- CHANGE # of Firms=522			MOVETO Firms POST- CHANGE # of Firms=1,029		
		N	MED			N	MED
GENERAL	SALES	1,968	(1.0930)			6,198	4.6730
	ASSETS	1,968	0.3045	>	***	6,198	0.0000
	MKTVAL	1,658	4.2001	>	***	6,022	(6.3053)
	EPS	1,968	(0.0600)	<	***	6,198	(0.0050)
	AGE	1,968	(1.0000)	<	***	6,198	6.0000
	SPECIAL	1,968	0.0000			6,197	0.0000
PERFORMANCE	SALESGROW	1,751	0.0085	>	***	6,075	(0.0091)
	EPSGROW	1,701	(0.0127)	<	*	6,047	0.0000
	RNOAGROW	1,694	(0.0201)			6,033	0.0000
	MKT	1,968	0.0032	>	***	6,198	0.0024
	HERF	1,968	0.1159	>	***	6,198	0.0738
	SPEED	1,968	0.1242			6,198	0.0989
	RNOA	1,968	(0.0072)	<	***	6,198	(0.0030)
STRATEGY	OPPROFIT	1,968	(0.0069)	<	***	6,197	(0.0033)
	NOATURN	1,968	(0.1182)	<	***	6,198	(0.0006)
	GP	1,968	0.0007	>	***	6,196	(0.0118)
	INVTURN	1,385	(0.0008)			4,632	0.0390
ADMIN EFFICIENCIES	SGA	1,632	0.0101	>	***	5,339	(0.0040)
	AUDIT	138	0.0000			1,866	(0.0001)
	NONAUDIT	138	0.0002	>	**	1,866	0.0000
	TAX	138	0.0000	>	**	1,866	0.0000
INFORMATION ENVIRONMENT	ANALYST	556	0.0000			3,003	0.0000
	FCSTERR	529	0.0000			2,917	0.0000
	STDFCST	425	0.0000			2,405	0.0000
	OPTIMISM	529	0.0000			2,917	0.0000

**TABLE 5.9: Differences in FYE Group Industry
Adjusted Medians-MOVEFROM Firms**

		MOVEFROM Firms PRE- CHANGE # of Firms=130			MOVEFROM Firms POST- CHANGE # of Firms=281		
		N	MED			N	MED
GENERAL	SALES	493	(17.1860)	< ***		1,489	0.0000
	ASSETS	493	(27.6325)	< ***		1,489	0.0000
	MKTVAL	410	(29.1701)	< ***		1,428	(6.8172)
	EPS	493	(0.2100)	< ***		1,489	(0.0400)
	AGE	493	(1.0000)	< ***		1,489	2.5000
	SPECIAL	493	0.0000			1,489	0.0000
PERFORMANCE	SALESGROW	433	0.0011			1,452	(0.0106)
	EPSGROW	426	(0.0159)			1,444	0.0000
	RNOAGROW	421	(0.1367)	< *		1,438	(0.0010)
	MKT	493	0.0008	< ***		1,489	0.0043
	HERF	493	0.0773	< ***		1,489	0.1053
	SPEED	493	0.1580	> ***		1,489	0.0989
	RNOA	493	(0.0578)	< ***		1,489	(0.0087)
STRATEGY	OPPROFIT	493	(0.0268)	< ***		1,489	(0.0067)
	NOATURN	493	0.0722			1,489	0.0413
	GP	493	(0.0007)			1,489	(0.0135)
	INVTURN	379	(0.2187)			1,283	0.0352
ADMIN EFFICIENCIES	SGA	438	0.0844	> ***		1,216	0.0194
	AUDIT	41	0.0007			376	(0.0000)
	NONAUDIT	41	0.0008	> *		376	0.0000
	TAX	41	0.0000			376	0.0000
INFORMATION ENVIRONMENT	ANALYST	117	0.0000	< *		609	0.0000
	FCSTERR	104	0.0031	> ***		584	0.0000
	STDFCST	82	0.0008	> ***		462	0.0000
	OPTIMISM	104	0.0000			584	0.0000

TABLE 5.10: Differences in FYE Group Industry Adjusted Medians-HORZ Firms

		HORZ Firms PRE- CHANGE # of Firms=114		MOVEFROM Firms POST- CHANGE # of Firms=269			
		N	MED			N	MED
GENERAL	SALES	425	(5.563)			1,560	0.000
	ASSETS	425	(2.609)			1,560	0.281
	MKTVAL	354	1.813			1,488	0.000
	EPS	425	(0.030)	<	**	1,560	0.000
	AGE	425	(1.500)	<	***	1,560	6.000
	SPECIAL	425	0.000			1,560	0.000
PERFORMANCE	SALESGROW	376	0.017	>	***	1,523	(0.007)
	EPSGROW	373	0.003			1,515	(0.011)
	RNOAGROW	369	0.000			1,493	0.000
	MKT	425	0.003	<	***	1,560	0.004
	HERF	425	0.102	<	**	1,560	0.106
	SPEED	425	0.136	>	*	1,560	0.099
	RNOA	425	(0.005)			1,560	(0.002)
STRATEGY	OPPROFIT	425	(0.008)	<	*	1,560	(0.001)
	NOATURN	425	(0.088)	<	**	1,560	0.075
	GP	425	(0.047)	<	***	1,560	(0.003)
	INVTURN	342	0.527	>	***	1,312	(0.167)
ADMIN EFFICIENCIES	SGA	375	(0.024)	<	**	1,450	0.000
	AUDIT	38	0.000			326	(0.000)
	NONAUDIT	38	0.000			326	0.000
	TAX	38	0.000			326	0.000
INFORMATION ENVIRONMENT	ANALYST	109	0.000	<	***	641	1.000
	FCSTERR	107	0.001			609	0.000
	STDFCST	77	0.000	>	**	515	0.000
	OPTIMISM	107	0.001	>	**	609	0.000

also have significantly lower administrative costs compared to their new grouping. It may be that firms with ex ante lower administrative costs face less increase in professional services fees from an increase in “busy” season demand. The information environment variables do not appear different, but I had no expectation that they would. My expectations in this analysis were to see differences in how a firm compares to others on performance and strategic measures.

In Table 5.9 I tabulate the comparisons for MOVEFROM firms. Compared to their former MAJORITY FYE group, the post MOVEFROM firms appear larger and more profitable than firms in their new grouping. Similar to MOVETO firms, they also show a clearer lower margin/higher turnover strategy. The MOVEFROM firms exhibit lower administrative costs in comparison to their new FYE group.

In Table 5.10 I tabulate the comparisons for HORZ firms. Again for the HORZ firms compared to their former industry adjusted FYE group, the postchange firms appear larger and more profitable. Administrative costs and information environment improve. Although administrative costs are not the focus of this analysis, it is not entirely unexpected that the costs change, following from Hypothesis 2c.

In conclusion, Tables 5.8, 5.9 and 5.10 provide some evidence that firm performance and strategy appear different with respect to the new industry FYE-adjusted groups. This provides initial support for strategic benchmarking of performance and strategy hypothesis (hypothesis 1c).

To investigate expectations related to an earnings management motivation, I examined results from the short years reported by firms changing FYE. As explained in Chapter 4, the SEC requires firms changing FYE to report results from a short year when

changing FYE. Not all short years must be reported on form 10-K. Some firms report short years on 8-Ks or on prior or subsequent years' 10-Ks. That variability and other inconsistencies in the data collection methods used by Compustat leave me with only 350 short years out of the 1,579 firms that change FYE in my sample from 1994-2007.

In Table 5.11 I report comparisons of Compustat industry year adjusted values of short years to all NONCHANGER medians (Panel A) and to medians from the CHANGER firms pre and post change (Panel B). In Panel C I limit the change firms to HORZ firms only, expecting that this is the most likely candidate for earnings management because no other explanations for this direction of change are very compelling. Data for the short years are annualized based on the length of the short period in months. Seasonal variation in operations may result in significant noise in these variables.

In Table 5.11, Panel A, firms reporting short years appear generally smaller, slower growing and less profitable compared to firm years of NONCHANGER firms. Firms attempting to hide a poor performance year fit this description. Contrary to expectations, special items (SPECIAL) for short years are not significantly different than for the NONCHANGER population, thus refuting any expectation that firms might be using the odd length period to “clean house.”

In Panel B, one can see evidence of lower profitability and growth in the short year compared to profitability and growth before and after the firm changes of FYE. Again this suggests that firms may be using the short year to “park” poor performance in a period that may have less impact on market participants because of difficulty of

TABLE 5.11: Firm Short Years Comparison

Panel A: All NONCHANGERS and All Short Years							
		All NONCHANGERS			All Short Years		
		N	MED			N	MED
GENERAL	SALES	75,525	0.000	>	***	615	(13.409)
	ASSETS	75,525	0.278	>	***	730	(25.312)
	MKTVAL	65,453	0.834	>	***	618	(24.476)
	EPS	75,525	0.000	>	***	588	(0.284)
	AGE	35,829	0.000			30	1.000
	SPECIAL	75,525	0.000	>	***	750	(1.000)
PERFORMANCE	SALESGROW	75,519	0.000			552	0.000
	EPSGROW	69,934	0.000	>	***	490	(0.059)
	RNOAGROW	68,513	0.000	>	***	494	(0.317)
	MKT	68,091	0.000	>	***	477	(0.354)
	HERF	75,525	0.001	>	***	615	0.001
	SPEED	75,525	0.053			750	0.052
	RNOA	75,525	0.127			750	0.100
STRATEGY	OPPROFIT	75,525	0.001	>	***	560	(0.061)
	NOATURN	75,519	0.001	>	***	552	(0.046)
	GP	75,525	0.000			560	(0.039)
	INVTURN	75,518	0.001	>	**	552	(0.008)
ADMIN EFFICIENCIES	SGA	54,184	0.000	<	**	414	0.810
	AUDIT	62,838	0.000	<	***	467	0.036
	NONAUDIT	17,754	0.000			51	0.000
	TAX	17,754	0.000			51	0.000
INFORMATION ENVIRONMENT	ANALYST	17,754	0.000			51	0.000
	FCSTERR	34,533	0.000			24	0.000
	STDFCST	28,073	0.000			21	0.001
	OPTIMISM	34,533	0.000			24	(0.000)

TABLE 5.11: Continued

Panel B: All CHANGERS with Short Years

		All PRECHANGE				SHORT YEARS				All POST CHANGE	
		N	MED			N	MED			N	MED
GENERAL	SALES	1,102	(19.041)	<	*	615	(13.409)	<	***	2,904	(4.492)
	ASSETS	1,102	(28.165)			730	(25.312)	<	***	2,904	(11.946)
	MKTVAL	903	(24.127)			618	(24.476)	<	**	2,802	(19.589)
	EPS	1,102	(0.140)	>	***	588	(0.284)	<	***	2,904	(0.080)
	AGE	1,102	(1.000)			750	(1.000)	<	***	2,904	3.000
	SPECIAL	1,102	0.000			552	0.000			2,903	0.000
PERFORMANCE	SALESGROW	965	0.004	>	***	490	(0.059)	<	***	2,794	0.000
	EPSGROW	937	(0.036)	>	***	494	(0.317)	<	***	2,784	0.000
	RNOAGROW	931	(0.018)	>	**	477	(0.354)	<	***	2,790	0.000
	MKT	1,102	0.000	<	**	615	0.001	<	***	2,904	0.001
	HERF	1,102	0.048			750	0.052			2,904	0.055
	SPEED	1,102	0.113			750	0.100	<	**	2,904	0.113
	RNOA	1,102	(0.030)	>	***	560	(0.061)	<	***	2,904	(0.016)
STRATEGY	OPPROFIT	1,102	(0.021)	>	***	552	(0.046)	<	***	2,903	(0.011)
	NOATURN	1,102	(0.047)			560	(0.039)			2,904	0.000
	GP	1,102	(0.012)			552	(0.008)			2,903	(0.017)
	INVTURN	795	(0.322)	<	***	414	0.810	>	***	2,192	0.151
ADMIN EFFICIENCIES	SGA	970	0.038			467	0.036	>	***	2,479	0.000
	AUDIT	48	0.001			51	0.000			776	0.000
	NONAUDIT	48	0.001			51	0.000			776	0.000
	TAX	48	0.000			51	0.000			776	0.000
INFORMATION ENVIRONMENT	ANALYST	212	(1.000)			30	1.000			1,225	0.000
	FCSTERR	195	0.002			24	0.000			1,179	0.000
	STDFCST	139	0.000			21	0.001			965	0.000
	OPTIMISM	195	0.001			24	(0.000)	<	*	1,179	0.000

TABLE 5.11: Continued

Panel C: HORZ firms with Short Years

		PRECHANGE HORZ		SHORT YEARS		POST CHANGE HORZ	
		N	MED		N	MED	
GENERAL	SALES	195	(18.010)		88	(13.751)	
	ASSETS	195	(29.946)		113	(29.340)	
	MKTVAL	154	(22.922)		98	(20.961)	
	EPS	195	0.010	> ***	88	(0.316)	< ***
	AGE	195	(2.000)		123	(1.000)	< ***
	SPECIAL	195	0.000		81	0.000	
PERFORMANCE	SALESGROW	168	0.038		66	0.044	
	EPSGROW	166	0.055	> ***	72	(1.180)	< ***
	RNOAGROW	165	(0.000)	> *	63	(1.129)	< **
	MKT	195	0.000		88	0.001	
	HERF	195	0.043		123	0.043	
	SPEED	195	0.095		123	0.140	
	RNOA	195	0.000	> ***	82	(0.120)	< ***
STRATEGY	OPPROFIT	195	0.001	> ***	81	(0.080)	< ***
	NOATURN	195	0.219		82	(0.237)	
	GP	195	(0.023)		81	0.009	
	INVTURN	154	0.514		64	0.307	
ADMIN EFFICIENCIES	SGA	179	(0.008)	< **	69	0.067	> **
	AUDIT	11	(0.002)		6	(0.001)	
	NONAUDIT	11	(0.001)		6	(0.000)	< **
	TAX	11	0.000		6	0.000	
INFORMATION ENVIRONMENT	ANALYST	24	(1.000)	< *	4	0.750	
	FCSTERR	24	0.001		4	(0.000)	
	STDFCST	16	0.000		3	0.001	
	OPTIMISM	24	0.001		4	0.000	

benchmarking the results. However, that suggestion is countered by a lack of differences in the information environment variables. They suggest that the market (proxied by analysts) is not having any increased difficulty in interpreting the results of the change firms during the odd-length period.

The results in Panel C are substantially similar to Panel B. My impetus in isolating the HORZ was an expectation that those firms were more specifically motivated by an earnings management goal. The lack of significant differences between Panels B and C suggests that this expectation is false.

My analysis to this point suggested that firms may have specific motivations for selecting a particular FYE. If firms can gain from selecting a particular FYE, why do they not select that FYE from the beginning of the time they are public? To shed light on this question and to provide possible evidence on a causal direction, I next examined changes in firm measures in the periods leading up to a firm's decision to change FYE. I defined the last year of a firm's reporting on its original FYE as year t . In Tables 5.12 through 5.14, I report the differences between years $t-1$, $t-2$ and $t-3$ and year t . The results indicate whether the changes in Compustat industry year adjusted values differ from zero in the one-, two- or three-year periods leading up to the decision to change FYE. Significance denotes whether the median difference in industry adjusted measures differs from zero. I examined the change by FYE change direction groups: MOVETO, MOVEFROM and HORZ. The asterisks, *, ** and ***, represent whether the median is significantly different from zero at the 10%, 5% and 1% levels, respectively.

I report the one-, two- and three-year changes for MOVETO firms in Table 5.12. MOVETO firms primarily show increases in sales and decreases in growth rates. I

TABLE 5.12: MOVETO Firms 1-year, 2-year and 3-year Changes PRE FYE Change

		MOVETO 1-year Change # Firms=443				MOVETO 2-year Change # Firms=367				MOVETO 3-year Change # Firms=285			
		N	MED			N	MED			N	MED		
GENERAL	SALES	1,612	1.190	+	***	1,332	1.517	+	*	1,090	1.177		
	ASSETS	1,612	0.656			1,332	0.603			1,090	0.301		
	MKTVAL	1,408	0.983			1,200	(1.981)			1,020	(0.423)		
	EPS	1,612	0.005			1,332	(0.010)			1,090	(0.020)		
	AGE	1,612	1.000	+	***	1,332	1.000	+	***	1,090	2.000	+	***
	SPECIAL	1,612	0.000			1,332	0.000	+	***	1,090	0.000	+	**
PERFORMANCE	SALESGROW	1,603	(0.026)	-	**	1,325	(0.013)			1,088	(0.014)		
	EPSGROW	1,485	(0.096)	-	**	1,281	(0.025)			1,058	(0.162)	-	***
	RNOAGROW	1,502	(0.131)	-	***	1,321	(0.040)			1,083	(0.151)	-	**
	MKT	1,612	0.000			1,332	0.000			1,090	(0.000)		
	HERF	1,612	(0.000)			1,332	(0.002)	-	***	1,090	(0.002)	-	**
	SPEED	1,612	0.000			1,332	0.000	+	***	1,090	0.000	+	***
	RNOA	1,612	(0.011)	-	***	1,332	(0.009)	-	**	1,090	(0.018)	-	***
STRATEGY	OPPROFIT	1,612	(0.001)			1,332	(0.001)			1,090	(0.005)		
	NOATURN	1,612	0.009			1,332	0.013			1,090	(0.034)		
	GP	1,612	(0.002)	-	*	1,332	(0.002)			1,090	(0.003)		
	INVTURN	1,099	(0.019)			872	(0.023)			677	(0.203)		
ADMIN EFFICIENCIES	SGA	1,289	(0.001)			1,048	(0.004)	-	**	839	(0.004)		
	AUDIT	73	(0.000)			40	(0.000)			22	(0.001)		
	NONAUDIT	73	0.000			40	0.000			22	0.001		
	TAX	73	(0.000)			40	0.000			22	0.000		
INFORMATION ENVIRONMENT	ANALYST	433	0.000			358	0.000			274	0.000		
	FCSTERR	411	0.000			335	0.000			256	(0.000)		
	STDFCST	313	0.000			251	0.000			189	(0.000)		
	OPTIMISM	411	0.000			335	0.000			256	0.000		

TABLE 5.13: MOVEFROM Firms 1-year, 2-year and 3-year Changes PRE FYE Change

		MOVEFROM 1-year Change # Firms=111			MOVEFROM 2-year Change # Firms=93			MOVEFROM 3-year Change # Firms=75		
		N	MED		N	MED		N	MED	
GENERAL	SALES	404	0.040		328	(1.773)		265	(2.308)	
	ASSETS	404	(1.733)	- **	328	(3.775)		265	(4.665)	
	MKTVAL	357	(3.220)		304	(7.428)		251	1.037	
	EPS	404	0.010		328	0.010		265	(0.030)	
	AGE	404	0.000	+ ***	328	1.000	+ ***	265	1.000	+ ***
	SPECIAL	404	0.000		328	0.000		265	0.000	
PERFORMANCE	SALESGROW	404	(0.013)		328	(0.005)		265	(0.033)	
	EPSGROW	382	(0.080)		322	(0.108)		260	(0.133)	
	RNOAGROW	385	(0.155)		326	(0.211)		264	(0.188)	
	MKT	404	0.000		328	(0.000)		265	(0.000)	
	HERF	404	0.001		328	(0.001)		265	0.001	
	SPEED	404	0.000		328	0.000	+ ***	265	0.000	+ ***
	RNOA	404	(0.014)		328	(0.036)	- *	265	(0.088)	
STRATEGY	OPPROFIT	404	(0.005)		328	0.001		265	(0.015)	
	NOATURN	404	0.047		328	0.075		265	(0.003)	
	GP	404	(0.004)		328	(0.002)		265	(0.009)	
	INVTURN	300	(0.040)		240	(0.005)		193	0.199	
ADMIN EFFICIENCIES	SGA	344	0.003		271	(0.005)		208	0.014	
	AUDIT	26	(0.000)		18	(0.000)		9	(0.006)	
	NONAUDIT	26	(0.000)		18	(0.000)		9	0.000	
	TAX	26	(0.000)		18	(0.000)		9	0.000	
INFORMATION ENVIRONMENT	ANALYST	91	0.000		63	0.000		42	0.000	
	FCSTERR	81	0.001		56	0.001	+ **	36	0.000	
	STDFCST	63	(0.000)		45	(0.000)		28	(0.000)	
	OPTIMISM	81	0.000		56	0.002		36	0.000	

TABLE 5.14: HORZ Firms 1-year, 2-year and 3-year Changes PRE FYE Change

		HORZ 1-year Change # Firms=100		HORZ 2-year Change # Firms=90		HORZ 3-year Change # Firms=79			
		N	MED	N	MED	N	MED		
GENERAL	SALES	359	2.259	299	2.740	251	10.529	+	*
	ASSETS	359	0.000	299	(0.891)	251	(0.187)		
	MKTVAL	319	1.190	265	1.969	225	2.550		
	EPS	359	0.045	299	0.010	251	(0.045)		
	AGE	359	0.500	299	1.000	251	1.500	+	***
	SPECIAL	359	0.000	299	0.000	251	0.000		
PERFORMANCE	SALESGROW	356	(0.012)	298	0.010	250	0.004		
	EPSGROW	342	(0.048)	294	(0.021)	249	0.125		
	RNOAGROW	340	(0.128)	298	(0.042)	251	0.062		
	MKT	359	0.000	299	0.000	251	(0.000)		
	HERF	359	0.000	299	(0.001)	251	(0.003)	-	*
	SPEED	359	0.000	299	0.000	251	0.000	+	***
	RNOA	359	(0.002)	299	(0.005)	251	(0.011)		
STRATEGY	OPPROFIT	359	(0.000)	299	(0.000)	251	0.000		
	NOATURN	359	0.031	299	(0.052)	251	0.021		
	GP	359	(0.001)	299	0.002	251	(0.005)		
	INVTURN	286	0.027	242	0.204	184	0.069		
ADMIN EFFICIENCIES	SGA	318	(0.001)	268	(0.002)	213	(0.006)		
	AUDIT	25	(0.000)	15	0.000	7	0.001		
	NONAUDIT	25	0.000	15	(0.000)	7	0.000		
	TAX	25	0.000	15	0.000	7	0.000		
INFORMATION ENVIRONMENT	ANALYST	87	0.000	75	0.000	57	(0.500)		
	FCSTERR	85	0.001	73	0.001	55	0.001		
	STDFCST	56	(0.000)	43	0.000	29	0.001		
	OPTIMISM	85	0.002	73	0.003	55	0.001	+	*

expected to see such changes in any surviving firm and thus did not attribute any of these changes as significant motivations for a change in FYE. The MOVETO firms do not exhibit many consistent differences in any other categories.

The one-, two- and three-year changes I report in Table 5.13 for MOVEFROM firms and in Table 5.14 for HORZ firms show no consistent change trends for either group. In general, I did not find any evidence of significant firm changes leading up to the decision to change FYE.

To this point in my analysis, I considered FYE effects on variables in isolation. In this section of my study, I examined possible multivariate effects.

I began my multivariate analysis by examining differences in a firm's initial choice of FYE. In my model the dependent variable assumes a value of 1 if a firm chooses an industry-majority FYE and a 0 if it chooses a nonindustry majority FYE. The sample for my first estimation consisted of all firms that do not change FYE (NONCHANGERS). I used a logistical estimator because I estimated that the decision to select a FYE is distributed as binary, industry MAJORITY or NONMAJORITY. The model I used for estimation on this sample and in the cases below follows:

Model 5.1

$$\log \frac{Majority_{it}}{1-Majority_{it}} = \alpha + b_1 * SALES_{it} + b_2 * HERF_{it} + b_3 * SPEED_{it} + b_4 * SALES_{it} + b_5 * RNOA_{it} + b_6 * NOATURN_{it} + b_7 * GP_{it} + b_8 * SGA_{it} + b_9 * ANALYST_{it} + b_{10} * FCSTERR_{it} + b_{11} * OPTIMISM_{it}$$

Next I conducted multivariate analysis exploring the decision to change FYE. Again I used a logistical estimator because I estimated that the decision to change FYE is distributed as binary, to change or not to change. I began with a binomial model where the dependent variable (CHANGE) takes the value 0 if the firm does not change FYE following the firm-year and takes the value 1 if the firm changes FYE. I estimated the regression on two separate samples. The first sample consisted of all firms sharing FYEs with the majority of firms in their industry (MAJORITY) including both CHANGERS and NONCHANGERS, but I eliminated short years and firm years post change for the CHANGERS. In the second set of estimations, the sample included all firms with FYEs that differ from their industry majority (NONMAJORITY), including both CHANGERS and NONCHANGERS, but I eliminated short years, firm years post change, and any firm years for firms that changed FYE from a nonmajority to another nonmajority FYE. I created the two distinct subsamples because each firm faces an accounting choice with regard to FYE every period. Each firm can choose to maintain its current period assumption, or it can change that assumption. The choice for a MAJORITY firm is between maintaining a majority FYE and changing to a NONMAJORITY. The choice for a NONMAJORITY firm is to maintain a nonmajority FYE or change from a nonmajority FYE to a majority FYE. I assumed that NONMAJORITY firms that change to another nonmajority FYE are choosing to maintain a nonmajority FYE. To the extent these firms are, in fact, motivated by similar factors as the firms changing to majority FYE's, a bias exists against finding results.

Model 5.2

$$\log \frac{CHANGE_{it}}{1-CHANGE_{it}} = \alpha + b_1 * SALES_{it} + b_2 * HERF_{it} + b_3 * SPEED_{it} + b_4 * SALES_{it} + b_5 * RNOA_{it} + b_6 * NOATURN_{it} + b_7 * GP_{it} + b_8 * SGA_{it} + b_9 * ANALYST_{it} + b_{10} * FCSTERR_{it} + b_{11} * OPTIMISM_{it}$$

I estimated Model 5.2 for each of the two samples. In each sample I estimated the regression four separate times using independent variables consisting of the value of the level of the measure as well as one-, two- and three-year changes in each of the measures. I explored a levels specification of the model because a firm's decision to change FYE may result from attaining a particular threshold of some firm characteristic before a change is made. I was also interested in whether significant changes in specific characteristics influence the decision. I report results separately for the levels analysis and for each length of the change in independent measure. I report results for each sample in separate tables.

In Table 5.15 I report the results of estimating the equation on the full sample of NONCHANGERS. The resulting odds ratios helped describe the interactive characteristics of firms who ex ante selected an industry majority versus a nonindustry majority FYE. Because these firms have not subsequently chosen to change FYE (again, the sample is limited to only firms that do not change FYEs), the odds ratios helped describe firms who have made an optimal choice of FYE. An odds ratio of greater than one indicates that the odds of a firm being an industry majority FYE holder increase by the odds ratio amount for an increase of 1 in the independent variable value.

TABLE 5.15: Multivariate Analysis-NONCHANGERS

Majority=1 if firm shares FYE with a majority of firms in its industry, 0 otherwise.

		Odds Ratio /	
PERFORMANCE	SALES	1.000	***
		<i>0.005</i>	
	HERF	6.153	***
		<i><.001</i>	
	SPEED	2.436	***
		<i><.001</i>	
	SALESGROW	1.016	**
STRATEGY		<i>0.022</i>	
	RNOA	0.989	
		<i>0.266</i>	
	NOATURN	0.998	
		<i>0.261</i>	
	GP	1.085	***
		<i>0.002</i>	
ADMIN	SGA	1.112	***
EFFICIENCIES		<i><.001</i>	
INFORMATION ENVIRONMENT	ANALYST	1.015	***
		<i><.001</i>	
	FCSTERR	1.475	**
		<i>0.041</i>	
	OPTIMISM	0.681	**
		<i>0.043</i>	
	CONSTANT	1.489	***
<i>Pseudo-R²</i>		0.0002	
<i>N</i>		29,317	
<i>Model p-value</i>		<i><.001</i>	

The results indicate that MAJORITY firms are larger (SALES). The odds ratios for both of the competition measures, HERF and SPEED, are significantly greater than 1. This indicates that firms with a MAJORITY FYE face greater competition in terms of less industry concentration and speed of adjustment of abnormal profits. MAJORITY firms also exhibit higher sales growth, gross margin and selling, general and administrative expenses. The differences in these areas support my hypotheses that

MAJORITY and NONMAJORITY firms differ in performance, strategic and administrative cost measures.

The information environment measures of ANALYST, FCSTERR and OPTIMISM are also significantly different from 1. The odds ratios indicate that analyst following and analyst forecast error both are larger in industry majority firms, while analyst forecast bias is lower. Together the odds ratios suggest differences in the information environment of industry majority firms, in support of hypothesis 3a. The direction of the analyst following and bias measures suggests a higher quality information environment. The higher forecast error, however, may suggest that the lower information gathering costs indicated by the ANALYST variable result in lower quality forecasts.

In Table 5.16 I report results of estimating the equation on a sample consisting of MAJORITY firms. Each of these firms is faced with a choice each year to maintain the same FYE or change to a NONMAJORITY FYE. If the firm changes FYE in the following year, the CHANGE variable takes a value of 1. If the firm maintains a MAJORITY FYE then the variable takes a value of zero. Once a firm changes to a NONMAJORITY FYE, it is no longer included in the sample.

In the levels estimation, two variables showed statistically significant odds ratios: SALES and ANALYSTS. The odds ratio on SALES is 0.999. An odds ratio of less than one indicates that a one unit increase in the dependent variable, SALES, reduced the odds of changing FYE very slightly away from even odds of 1. An odds ratio very close to one that is statistically significant indicates that only a very large difference in SALES had any economic significance in the odds of choosing to change FYE from MAJORITY to NONMAJORITY.

TABLE 5.16: Multivariate Analysis-MOVEFROM CHANGERS

		Odds Ratio /p-value	
PERFORMANCE	SALES	0.999	***
		0.008	
	HERF	0.096	
		0.567	
	SPEED	2.043	
		0.707	
	SALESGROW	1.001	
		0.87	
	RNOA	1.008	
		0.951	
STRATEGY	NOATURN	1.005	
		0.834	
	GP	0.987	
		0.756	
ADMIN	SGA	1.01	
EFFICIENCIES		0.212	
INFORMATION ENVIRONMENT	ANALYST	1.07	*
		0.085	
	FCSTERR	0.71	
		0.809	
	OPTIMISM	0.734	
		0.825	
	CONSTANT	0.002	***
	Pseudo-R ²	0.034	
	N	19,162	
	Model p-value	0.307	

The odds ratio on ANALYSTS was greater than one for both the levels and the three-year change specifications. I interpreted these statistically significant ratios as indicating that firms with ex ante greater analyst following are more likely to change FYE from a MAJORITY FYE to a NONMAJORITY FYE. Earlier I reported that NONMAJORITY firms tend to have lower analyst following than MAJORITY firms. The result here suggests that firms with ex ante higher analyst following may view the

risk of losing analysts as less significant in changing to a NONMAJORITY FYE. They may expect to maintain a reasonable number of analysts.

In Table 5.17 I report the results of estimating the regressions on a sample of NONMAJORITY firms. Here the NONMAJORITY firm has the choice to maintain a NONMAJORITY FYE or change to a MAJORITY FYE. I did not include firms that chose to change to another NONMAJORITY FYE in the sample because they are choosing to maintain a NONMAJORITY FYE. Another approach might be to include all years of the HORZ firms.

The results of estimating the regressions on that sample are substantially similar to those reported. The first factor that appeared to influence the choice to change FYE in this subsample is the measure of industry consolidation, HERF. The odds ratio is significant and greater than one indicating that the higher the Herfindahl index, the higher the likelihood a firm will change FYE. A higher Herfindahl index indicates less industry concentration among a few larger firms. The odds ratio can therefore be interpreted as suggesting that firms in less concentrated industries are more likely to make a change in FYE. Interestingly, the other measure of industry competition, SPEED, has a significant odds ratio of less than one, indicating that firms in industries with rapid deterioration of abnormal profits are less likely to change FYEs. It appears that firms in concentrated industries with rapidly mean-reverting abnormal returns are less likely to change to a MAJORITY FYE. An interesting follow up would be to determine if the firms with a concentration of sales maintain a MAJORITY or NONMAJORITY FYE.

The odds ratios for the information environment measures of STDFCST and OPTIMISM are also statistically significant. Firms with higher analyst forecast errors are

TABLE 5.17: Multivariate Analysis-MOVETO CHANGERS

		Odds Ratio / p-value	
PERFORMANCE	SALES	1.000 <i>0.259</i>	
	HERF	32.449 <i>0.018</i>	**
	SPEED	0.114 <i>0.03</i>	**
	SALESGROW	1.009 <i>0.013</i>	**
	RNOA	1.116 <i>0.143</i>	
STRATEGY	NOATURN	0.997 <i>0.861</i>	
	GP	0.966 <i>0.521</i>	
ADMIN EFFICIENCIES	SGA	0.936 <i>0.737</i>	
INFORMATION ENVIRONMENT	ANALYST	0.986 <i>0.59</i>	
	FCSTERR	1.499 <i>0.084</i>	*
	OPTIMISM	0.648 <i>0.063</i>	*
	<i>CONSTANT</i>	0.011	***
	<i>Pseudo-R²</i>	0.024	
	<i>N</i>	10155	
	<i>Model p-value</i>	0.003	

more likely to change FYE to match the MAJORITY FYE. This follows the line of reasoning presented earlier that the existence of more readily applicable comparable firms improves a firm's information environment. Interestingly, the odds ratio for OPTIMISM suggests that firms with generally optimistic average forecasts are less likely to change FYE. Considered together, I concluded that firms may attempt to reduce forecast errors by changing FYE, unless those errors are generally positive.

In conclusion, I found support for my hypotheses related to differences in measures of performance, administrative costs and information environment between firms that share the same FYE with a majority of firms in their industry and firms with a

nonmajority FYE (Hypotheses 1a, 2a and 3a) in both univariate and multivariate analysis. I found mixed support for my hypotheses regarding diminished differences in the levels of measures of performance, administrative costs and information environment between firms changing FYE and their industries (Hypotheses 1b, 2b and 3b). I found little support, in both univariate and multivariate analysis, for my hypotheses related to changes in performance measures, administrative costs and information environment in the one-, two- and three-year periods prior to a change in FYE (Hypotheses 1c, 2c and 3c). In Chapter 6, I investigate the effects of differing FYEs on a firm's information environment.

CHAPTER 6

INFORMATION ENVIRONMENT EFFECTS OF FYE CHOICE

6.1 Development of Expectations

Every firm must select an FYE at least once during its life cycle. As seen above, a significant number of firms also make seasoned changes to their FYEs. The choice of an FYE directly relates to the baseline accounting assumption regarding periodicity. I examined the FYE choice in the context of its relationship to comparability (by way of a difference in the number of potential benchmark firms) and the possible benefits or costs of increased or decreased comparability (because of an increase or decrease in the number of potential benchmark firms).

DeFranco, Kothari and Verdi (2008) (DFKV) developed and tested a measure of firm comparability in the context of the capital market consequences of differences in comparability. They explored the effects of comparability on analyst following and analyst forecast error, forecast bias and forecast dispersion. Their paper presents evidence consistent with their expectations that comparability is positively associated with analyst following and negatively associated with analyst forecast error, bias and dispersion.

DFKV predicted that analyst coverage was increasing in firm comparability, relying on prior research that suggested that analyst coverage increases costs to the analyst of providing coverage decreases. (Bhushan, 1989; Lang and Lundholm, 1996a; Francis, Schipper and Vincent, 2002; Frankel, Kothari and Weber, 2006). In essence,

DFKV expected that the lower cost of gathering information on a firm with more comparable firms increased analyst following. An alternative intuition suggests that less comparable firms (firms with fewer potential benchmarks) create greater demand for information intermediaries and therefore the equilibrium demand for analyst forecasts would increase the number of analyst following a particular firm.

DFKV made three predictions regarding the relationship between comparability and properties of analyst earnings forecasts. First, they expected that firms with more industry comparable firms (better/more benchmarks) would have a higher quality information set than firms with fewer industry comparable firms. The higher quality information set facilitates improved forecasting ability as analysts have additional relevant inputs to model earnings because they have benchmark firms that better resemble the firm they are analyzing. In their 1998 paper, Barron, Kim, Lim and Stevens (BKLS) suggested a counter intuition that leads to an opposite prediction. BKLS suggested that forecast errors might increase if analysts rely more on less costly public information and less on more costly private information because the mean forecast loses a diversification effect that results from multiple information sources. That intuition seems to assume some base level of quality in analyst information gathering and forecasting ability.

Second, DFKV predicted that “comparable firm” information substitutes for management-provided information. Prior analyst literature (e.g., Francis and Philbrick, 1993; Das, Levine and Sivaramakrishnan, 1998; Lim, 2001) suggests that analyst earnings forecast bias may be due to analyst desire to gain greater access to management information. To the extent that comparable firm information can substitute for

information gained by providing biased forecasts, analysts should have less incentive to bias forecasts. This is a somewhat puzzling intuition; given that researchers have also found evidence of managers “walking down” expectations with the goal of lowering earnings forecasts to a level they can bear (Burgstahler and Eames, 2006; Bartov, Givoly and Hayne, 2002; Matsumoto, 2002). Finally, DFKV predicted that higher comparability implies a higher quality public information set. Assuming analysts use similar prediction models, to the extent that higher quality information substitutes for private information, they expect forecast dispersion to decrease. BKLS supported this prediction by suggesting that if more analysts rely on a less-costly public information set, then analysts are less likely to rely on or gather more costly private information and thus are more likely to arrive at common estimates.

While DFKV documented support for their predictions, there are theoretical arguments that suggest the relationship between comparability and the properties of analyst earnings forecasts may differ from DFKV’s expectations. First, with regard to accuracy and optimism, if the information environment surrounding comparable firms is inherently noisy or biased, then it is likely that the forecasts about a particular firm will also be noisy and biased (DeFranco et al., 2008). In other words, if the information environment of likely benchmark firms produces biased or inaccurate forecasts, then it is possible that forecasts based on information from those benchmark firms might also prove to be biased or inaccurate.

Second, with respect to forecast dispersion, some theoretical research suggests that if each analyst employs a model with some unique aspect relative to other models to process the public information set, an increase in public information can increase private

information leading to an *increase* in forecast dispersion (Kim and Verrechia, 1994; Harris and Raviv, 1993; Kandel and Pearson, 1995). Barron, Harris and Stanford (2005) found empirical evidence supporting this prediction in their study of private information surrounding earnings announcements. This issue is firmly entrenched in the public/private information “substitute versus complement” debate. While DFKV findings may be evidence in support for the “substitute argument,” the “complement argument” may explain why they fail to find support for their earnings comparability measure and forecast dispersion prediction.

The development of DFKV’s predictions consistently relies on the concept of utilizing a relevant benchmark and the relationship between comparability and the cost to financial statement users of gathering relevant financial information. As suggested by the FASB (FASB Concept No. 2 1980) and prior research (Davis and Peles, 1993; Palepu, Bernard and Healy, 1997; White, Sondhi and Fried, 2003), the existence of relevant benchmarks enhances the information environment of the reporting firm. Ultimately, selecting appropriate benchmarks to compare to the reporting firm is an essential but often difficult task (Barber and Lyons, 1996 and 1997; Bhojraj and Lee, 2001). This process may require financial statement users (i.e., analysts) to expend resources in gathering and/or processing additional information in order to “recast” available information about a potential benchmark or set of benchmarks (Bhojraj and Lee, 2001) and make it more directly comparable to the reporting firm. Furthermore, the time spent on analyzing relevant benchmarks represents a significant portion of the resources analysts expend when evaluating a company. Analysts report that they spend over a third of their time analyzing the financial statements of other firms in the same industry of a

subject firm (SEC 1977). A difference in FYE between a firm of interest and its potential benchmarks represents a situation where an information user must incur some additional costs to make a firm's reported information more useful. Financial statement users must expend additional costs to address a number of potential confounding issues and make the information more comparable.

Firms that share quarter-end dates but have different FYEs may suffer from a lack of comparability because their annual financials cover different periods. Comparisons of "flow" financials (i.e., P&L, Statement of Cash Flows) can suffer because they pertain to periods with different economic environments. Significant economic events occurring during the nonoverlapping period diminish the comparability of the financial information. Comparisons of point-in-time financials (i.e., Balance Sheets) can suffer because the account balances reported capture levels at different times in the seasonal business cycle.

In Table 6.1, I illustrate the potential comparability effects that seasonal variation in a firm's business cycle may have on several measures used in fundamental analysis. Table 6.1, Panel A, presents the median of various accounting measures by quarter for the calendar year 1998 for the entire Compustat database. I calculated measures using the trailing three quarters to arrive at financials that would be created if the FYE cut-off were shifted one quarter.¹⁸ Panels B and C show the same values for the oil and gas industry and the retail department store trade, respectively (I based the retail department store data on a January year-end and shift accordingly).

¹⁸ Most of the FYE changes I observed involve changing quarter-end but maintaining the same quarter cycle. For example, a firm changing from December to March, June or September maintains the same quarter end dates. These changes are not necessarily always changes to the quarter-end date immediately preceding the former quarter; such as a change from June to March.

TABLE 6.1: Quarterly Seasonal Variation**Panel A: Medians by Quarter: All Firms 1998**

Significances indicated in the Q1 through Q3 column refer to the difference in median between the respective quarter and Q4. *, ** and *** indicate significance differences in median at the 5%, 1% and .1% level respectively.

The Kruskal-Wallis Test column reports p-values for tests of the null hypothesis that all 4 quarters medians are equal.

					Kruskal-Wallis Test
	Q1	Q2	Q3	Q4	
Accounting Measure	N=2829	N=2829	N=2829	N=2829	P-Values
SALES	126.6	134.4	137.7	141.0	0.540
OPER. INC.	19.0	19.5	19.5	19.0	0.962
ROA	11.7%***	11.4%***	11.0%***	10.5%	0.001
ROIC	19.9%***	19.4%***	18.8%***	17.9%	0.000
ROE	31.6%***	31.4%***	30.2%***	29.2%	0.001
DAYS AR	58.8	60.0	60.8	60.2	0.224
DAYS INV	32.0	32.1	33.0	33.8	0.930
DAYS AP	44.2	44.5	43.8	43.9	0.619

TABLE 6.1: Continued**Panel B: Medians by Quarter: Industry 1-Oil and Gas 1998**

Significances indicated in the Q1 through Q3 column refer to the difference in median between the respective quarter and Q4. *, ** and *** indicate significance differences in median at the 5%, 1% and .1% level respectively.

The Kruskal-Wallis Test column reports p-values for tests of the null hypothesis that all 4 quarters medians are equal.

	Kruskal-Wallis Test				
	Q1	Q2	Q3	Q4	
Accounting Measure	N=116	N=116	N=116	N=116	P-Values
SALES	42.6	49.7	51.0	51.4	0.997
OPER. INC.	21.1*	22.3**	20.3**	9.6	0.019
ROA	18.5%***	16.7%***	13.7%***	7.9%	0.000
ROIC	24.3%***	20.3%***	17.1%***	10.0%	0.000
ROE	33.3%***	34.1%***	27.7%***	15.9%	0.000
DAYS AR	69.1**	69.6*	71.0	79.1	0.044
DAYS INV	1.6	1.0	0.6	1.8	1.000
DAYS AP	129.2*	106.7	96.7	86.7	0.256

TABLE 6.1: Continued

Panel C: Medians by Quarter: Industry 2 Retail Department Stores 1998

Significances indicated in the Q1 through Q3 column refer to the difference in median between the respective quarter and Q4. *, ** and *** indicate significance differences in median at the 5%, 1% and .1% level respectively.

The Kruskal-Wallis Test column reports p-values for tests of the null hypothesis that all 4 quarters medians are equal.

Accounting Measure					Kruskal-Wallis Test
	Q1 N=33	Q2 N=33	Q3 N=33	Q4 N=33	P-Values
SALES	1,020.8	1,031.1	1,021.5	1,013.5	0.985
OPER. INC.	37.7	41.8	38.6	35.4	1.000
ROA	13.8%*	14.4%*	12.4%	12.7%	0.045
ROIC	20.1%*	20.1%*	18.4%	18.0%	0.022
ROE	33.8%*	33.8%*	31.2%	29.0%	0.042
DAYS AR	8.0	7.5	7.8	16.2	0.901
DAYS INV	112.6	106.4	127.7*	109.8	0.119
DAYS AP	34.5	35.5	49.4**	35.5	0.018

In the Compustat sample as a whole, the median values for profitability exhibit some seasonal variation because of redrawing the FYE point. Other accounting measures showed no statistically significant seasonal variation. However, the within industry medians exhibit some seasonal variation in profitability measures as well as some of the other accounting measures. This seasonal variation illustrates the potential comparability issues found when FYEs vary across firms. Fundamental analysis based on benchmarks (i.e., ratio analysis) can suffer for either of the previous reasons or because of a combination of both.

Because firms report quarterly earnings, I expected bottom-line earnings to require less information gathering and processing costs to make them comparable among firms that share the same quarter cycle. The comparability impairment in this case arises from additional information contained in the full annual financial statements (Callen, Livnat and Segal, 2006; Griffin, 2003; Christensen, Heninger, Stice and Campbell, 2006; Foster and Vickrey, 1978) as well as possible differences in information contained in a firm's fourth quarter earnings versus information contained in interim quarters due to quality issues related to auditing or managerial discretion in interim quarters (Cornell and Landsman, 1989; Kross and Schroeder, 1990). In either case, users of financial reporting information must expend more information-gathering resources than they would if the year-ends aligned with one another.

Firms that have different quarter-ends may suffer from a lack of comparability both because of the above FYE differences as well as information complexity issues involved in translating off-cycle quarters. Because there is no regulatory requirement to report monthly data, at least some cost would be involved in gathering and processing the

additional information needed to make off-quarter-end firms comparable. Plumlee (2003) finds evidence consistent with an inverse relationship between information complexity and information usefulness with respect to analysts as a user group. I expected this added complexity to create greater off-quarter-cycle differences in information usefulness.

When the reporting firm and its potential benchmarks are comparable in terms of industry and operations but differ in terms of FYEs, users will incur additional costs to adjust the available information to make the reporting firm's information more comparable to the benchmark firms (Lang and Lundholm, 1996a). Given the additional costs incurred in making adjustments to make the reporting and benchmark firms more comparable, I expected financial statement users to identify relevant benchmarks within the group of firms sharing the same quarterly reporting cycle or the same FYE when possible. The more firms within a particular firm's industry producing accounting information using the same periodicity assumption, the more likely the financial statement users are to find their preferred relevant benchmarks. Combining the likelihood of more comparable benchmarks from a greater pool of firms sharing the quarterly reporting period or FYE with the comparability benefit findings reasoning outlined from prior research (DFKV, 2008; Lang and Lundholm, 1996a) led to the following four predictions.

Prediction 1: The number of firms within an industry sharing fiscal quarter-ends is positively associated with analyst coverage.

Prediction 2: The number of firms within an industry sharing fiscal quarter-ends is negatively associated with analyst forecast error.

Prediction 3: The number of firms within an industry sharing fiscal quarter-ends is negatively associated with analyst forecast optimism.

Prediction 4: The number of firms within an industry sharing fiscal quarter-ends is negatively associated with analyst forecast dispersion.

The primary driver for the four preceding predictions is the relationship of a single output of quarterly accounting information (i.e., earnings) and the cost of adjusting for differences in the period assumption among potential benchmark firms. Audited annual financial statements contain considerably more information (in quality and quantity) about a firm than earnings. Prior research suggests that there is incremental information contained in full annual financial statements relative to the quarterly releases (Callen, Livnat and Segal, 2006; Griffin, 2003; Christensen, Heninger, Stice and Campbell, 2006; Foster and Vikrey, 1978). In addition, prior research suggests that information in a firm's fourth-quarter financial report differs from the other three quarters due to quality issues related to auditing or managerial discretion in interim quarters (Cornell and Landsman, 1989; Kross and Schroeder, 1990).

In combination, these two streams of research suggest that the information environment may differ between firms that only share quarterly reporting periods and firms that share both quarterly reporting periods and FYEs. If this is true, then this difference in information environment may affect the analysts' costs of identifying and employing effective benchmarks. Furthermore, the comparability of nonearnings information in the annual report will likely influence analyst effort throughout the entire year.

Based on the findings in prior research (Callen, Livnat and Segal, 2006; Griffin, 2003; Christensen, Heninger, Stice and Campbell, 2006; Foster and Vickrey, 1978), I posited that annual financial statements contain information that facilitates selection and use of higher quality benchmarks that the financial information user can use in analyzing subsequent information. The resulting difference in comparability between firms that share both quarterly reporting periods and FYEs versus firms that share only quarterly reporting periods led to four predictions related to the four previous predictions. Implicit in each prediction is that all firms that share FYEs will also have the same quarterly reporting periods.

Prediction 5: The number of firms within an industry sharing FYEs is positively associated with analyst coverage.

Prediction 6: The number of firms within an industry sharing FYEs is negatively associated with analyst forecast error.

Prediction 7: The number of firms within an industry sharing FYEs is negatively associated with analyst forecast optimism.

Prediction 8: The number of firms within an industry sharing FYEs is negatively associated with analyst forecast dispersion.

In summary, I expected firms with more (fewer) potential relevant benchmarks to be more (less) comparable and, therefore, to exhibit increased (decreased) benefits from comparability. By including two mechanisms by which firms may be more comparable (quarterly reporting period and FYE), I was able to examine comparability and the use of benchmarks in two scenarios with varying complexities and therefore costs associated with gathering benchmark information.

6.2 Empirical Tests of My Predictions

6.2.1 Initial Choice of FYE

I tested my predictions on two sets of firms, which I label NONCHANGERS and CHANGERS. NONCHANGERS include firms that make and maintain an initial decision about their FYE. This sample included all firms in the COMPUSTAT database that have the same FYE during their entire life cycle, using data from 1994 through 2007. I began my sample with firm years occurring after the SEC's electronic filing system was operational to help control for variation in proxies due to differences in the timing of availability of information. I limited the sample to firms with analyst following and forecast data reported in the I/B/E/S database. Requiring analyst coverage limits my sample to larger, more frequently traded firms. I further limited the sample to firms with the required data to calculate the dependant and control variables as detailed below. The final NONCHANGERS sample consists of 11,196 firms with 70,177 firm-years of data.

For the tests on the NONCHANGERS, variables of interest are the number of firms within the same industry that share the same fiscal quarter-end (NFQE) and/or share the same FYE (NFYE). Defining industry was an integral component of my analysis and several means of doing so exist in the literature. Therefore, I conducted all tests using each of four different classification methods commonly employed in the literature: 2-digit Standard Industry Classification (SIC), 3-digit North American Industry Classification System (NAICS), Fama/French (1997) industry classification codes, and 6-digit Global Industry Classification Standard (GICS). The results from the four methods are not substantively different. Bhojraj, Lee and Oler (2003) suggested that GICS, an analyst survey-based grouping, is superior to using alternative methods of defining

industry in that grouping by GICS better explains stock return co-movements as well as cross-sectional variation in valuation multiples, forecasted and realized growth rates and other key financial measures. Thus, I only tabulated results using a 6-digit GICS.

I estimated a regression using the following two models and observations from the NONCHANGERS.

$$\text{Model 6.1:} \quad \text{AnalystVariable}_{it} = \alpha + \beta_1 * NFQE_{it} + \sum_{p=2}^h \beta_p * CONTROLS_{pit} + \varepsilon_{it}$$

$$\text{Model 6.2:} \quad \text{AnalystVariable}_{it} = \alpha + \beta_1 * NFQE_{it} + \sum_{p=2}^h \beta_p * CONTROLS_{pit} + \varepsilon_{it}$$

6.2.1.1 Dependent Analyst Variables: I examined five analyst forecast properties that proxy for effects on financial information users. First, $LNANALYST_{it}$, the natural logarithm of the number of analysts issuing an annual forecast for firm i in year t , provides an indication of the costs and benefits that analysts face in covering a particular firm (Bhushan, 1989; Lang and Lundholm, 1996a). The number of analysts within and between industries varies greatly, giving way to a concern that firms in larger industries might become overly influential in my analysis. Therefore, I took the natural log to reduce the influence of firms in more heavily followed industries and individual firms with atypical coverage. Based on *Predictions 1* and *5* from above, I expected the β_1 coefficients in Models 1 and 2 to be positive and significant with analyst following ($LNANALYST$) as a dependent variable.

My second dependent measure, $FCSTERR_{it}$, is the absolute value of the forecast error for period t scaled by price at time $t-1$. This measure captures how effectively financial information users use the financial information available about a particular firm.

I calculated forecast error using the final I/B/E/S median summary annual earnings forecast less the actual annual earnings also reported by I/B/E/S. I used the median value in my analysis to reduce the effects of outlier observations that result from data errors or extremely low quality analyst predictions. Following from *Predictions 2* and *6* above, I expected the β_1 coefficients in Models 1 and 2 to be negative and significant when FCSTERR is the dependent variable.

My third and fourth dependent measures are signed values of FCSTERR_{it} that I labeled OPTMED_{it} and OPTMEAN_{it} . OPTMED_{it} and OPTMEAN_{it} represent the difference between the median consensus forecast and the mean consensus forecast, respectively, and the firm's actual earnings. I examined forecast optimism using both measures because Abarbanell and Lehavy (2003) suggest that the asymmetric distribution of analyst forecast errors around zero can lead to incorrect inferences about forecast bias if a researcher uses only one measure to represent the distribution. *Predictions 3* and *7* led to an expectation of negative and significant β_1 coefficients when I estimated Models 1 and 2 with the two measures of forecast optimism, OPTMED and OPTMEAN , as the dependent variables.

Finally, STDFCST_{it} is the standard deviation of individual final annual earnings forecasts scaled by price at time $t-1$. Under the assumption that analysts are using common forecasting models, this measure indicates the level of common information available about a firm. A lower standard deviation of forecasts provides evidence that financial information users are receiving and relying upon common information about the economic reality of a firm given the number of quality benchmark firms available. With

STDFCST as the dependent variable in Models 1 & 2, *Predictions 4* and 8 led to an expectation of negative and significant β_1 coefficients.

I derived all of the forecast measures using earnings per share amounts. I calculated the forecast and actual measures using per share amounts and then scaled the measures by price at the end of the previous period to allow for differences in share numbers across firms.

6.2.1.2 Control Variables: Past empirical research identifies a number of variables that are highly correlated with my dependent variables of interest. I included these variables in my analysis to improve my models. I controlled for size (MKTVAL) calculated as the total market value at time $t-1$ because previous research shows evidence that firm size is related to analyst forecast attributes (Lang and Lundholm, 1996a). I expected size to be positively related to analyst following (LNANALYST) and negatively related to forecast error (FCSTERR), optimism (OPTMED and OPTMEAN) and standard deviation (STDFCST).

Prior research suggests a strong correlation between performance variability and information environment (Bhushan, 1989; Waymire, 1986; Lang and Lundholm, 1993 and 1996a; Brennan and Hughes, 1991). I included standard deviation of return (STDROE) on equity calculated on the previous eight years of annual data from $t-9$ to $t-1$. The same line of research led me to include returns-earnings correlation (RECORR) as a control for general differences with information environment. The aforementioned studies suggest that higher correlation firms have earnings that are more predictable. It follows that higher correlation firms would then be less costly to follow, resulting in an increase in analyst coverage. I expected that predictability also leads to greater accuracy and more

consensus among forecasters. I calculated RECORR based on the preceding eight years of returns and earnings data from $t-9$ to $t-1$. My expectations for the performance variability control variables for standard deviation of return (STDROE) and return-earnings correlation (RECORR) were for negative coefficients when the dependent variables are the forecast variables (FCSTERR, OPTMED, OPTMEAN and STDFCST). I had no expectations for the performance variability control variables when analyst following (LNANALYST) is the dependent variable.

When estimating regressions involving forecast properties, I included earnings surprise (EPSSURP) to control for any unusual shocks to the firm, industry or market information environments (Lang and Lundholm, 1996a). I expected EPSSURP to be positively correlated with the forecast property dependent variables.

I estimated the regressions both with and without a control for the timing of forecast releases (TIMERK) within industry fiscal quarter-end (FYE) groups. TIMERK represents the decile rank order of summary earnings releases for a particular industry for a particular earnings date. A higher TIMERK indicates a later release of summary forecast information. The purpose of the control was to limit the influence of intra-industry information transfer for the earnings season period. While information transfer among potentially comparable firms within an industry is the main mechanism by which I expected comparable firms to gain the benefits of sharing quarter and year-ends, I was more interested in the general information environment effects rather than effects that may result from earnings season herding behavior or noise. The TIMERK variable also controlled for the potential staleness of information that might drive differences in the forecast properties (Ramnath, Rock and Shane, 2005; Brown, 1991). I expected the

TIMERK to exhibit a negative correlation with the forecast variables (FCSTERR, OPTMED, OPTMEAN and STDFCST).

6.2.2 Seasoned Change of FYE

The second set of firms I examined, CHANGERS, included COMPUSTAT firms that changed their FYE during the period from 1994 to 2007. Again, I began the sample after EDGAR's functionality to seek some assurance that the timing of availability of information does not influence variation in my proxies. I limited the CHANGERS sample to firms with analyst forecast information contained in the I/B/E/S database during at least one year both before and after the firm changes FYE. After eliminating firms without the required analyst following and without sufficient data to construct the controls detailed below, my CHANGERS sample consisted of 349 firms reporting 4,855 firm-years of data. My goal in examining this sample was to ascertain whether there is evidence that firms influence their comparability with a seasoned accounting change to their FYE. In the next tests, the variables of interest related to characteristics of the change in FYE. I began with the following model:

Model 6.3a:

$$\begin{aligned} \text{AnalystVariable}_{it} = & \alpha + \beta_1 * \text{POSTCHGFYE}_{it} + \beta_2 * \text{POSTCHGFYE} * \text{GAINNFYE}_{it} \\ & + \sum_{p=3}^h \beta_p * \text{CONTROLS}_{pit} + \varepsilon_{it} \end{aligned}$$

Model 6.3b:

$$\begin{aligned} \text{AnalystVariable}_{it} = & \alpha + \beta_1 * \text{POSTCHGFQE}_{it} + \beta_2 * \text{POSTCHGFQE} * \text{GAINNFYE}_{it} \\ & + \sum_{p=3}^h \beta_p * \text{CONTROLS}_{pit} + \varepsilon_{it} \end{aligned}$$

PCHGFYE(FQE) is an indicator variable taking the value of one if the firm year occurs after the change in FYE (quarter-end), and zero otherwise. GAINFYE(FQE) is equal to the change in the number of firms sharing FYE (quarter-end). Based on *Predictions 1* and 5, I expected the β_2 coefficients in Models 3a and 3b to be positive (negative) and significant with analyst following (forecast property) as the dependent variable(s). Because firms may gain or lose potential benchmark firms depending on how they change FYE in relation to their industry, I had no expectation about the β_1 coefficients.

Next, I estimated a model including indicators for the expected change in comparability.

Model 6.4a:

$$\begin{aligned} \text{AnalystVariable}_{it} = & \alpha + \beta_1 * \text{POSTDIRECTIONFYE}_{it} \\ & + \sum_{p=2}^h \beta_p * \text{CONTROLS}_{pit} + \varepsilon_{it} \end{aligned}$$

Model 6.4b:

$$\begin{aligned} \text{AnalystVariable}_{it} = & \alpha + \beta_1 * \text{POSTDIRECTIONFQE}_{it} \\ & + \sum_{p=2}^h \beta_p * \text{CONTROLS}_{pit} + \varepsilon_{it} \end{aligned}$$

There are four different PDIRECTFYE(FQE) variables that indicate how a firm's FYE (FQE) changes in relationship to the majority of firms in its industry. PMOVETO takes a value of one if the firm adopts a new FYE shared by the majority of firms in its industry and a zero otherwise. PMOVEFROM indicates a firm that has changed from an FYE shared by the majority of its industry to an FYE that differs from its industry. PHORZ indicates that a firm has changed from an FYE that differed from the majority of its

industry to another FYE that differs from the majority of its industry. Based on my earlier predictions, I expected the coefficients for PMOVETO to be positive and significant for the analyst following variable and negative and significant for the analyst forecast property variables. I expected the PMOVEFROM coefficients to be the opposite of the PMOVETO coefficients. I had no expectations for the PHORZ variable.

Models 3 and 4 include one additional control variable in regressions on the analyst forecast dependent variables. I assigned the indicator variable SHORTYEAR a value of one if the firm-year is a transition or short year and zero if it is a standard 12-month year. I anticipated that odd-length periods may affect information gathering and processing costs as well as the cost and effectiveness of identifying new, relevant benchmark firms. Thus I expected the SHORTYEAR control variable to have a positive correlation with forecast error, optimism and standard deviation.

DFKV included an industry fixed effect that may control for opposing influences. On the one hand, an industry with a larger number of firms may create a rich information environment leading to increased comparability benefits (higher analyst following, higher forecast accuracy and lower forecast dispersion) but, at the same time, a larger industry increases the likelihood of variation among business operating models, thereby driving benefits in the opposite direction. I did not include an industry fixed effects because of uncertainty about the phenomenon that it would control. I also did not include year fixed effects because I reported Fama/MacBeth t-statistics. Fama/MacBeth t-statistics also eliminate problems with cross-sectional independence due to the use of multiple firm-years from a single firm (Fama and MacBeth, 1973).

6.3 Results of Tests of Predictions

Table 6.2 provides descriptive statistics for the intersection set of Compustat and I/B/E/S, the sample of firm years of firms changing FYE between 1994 and 2007, and the set of firm years immediately following an FYE change. The Compustat/I/B/E/S sample consists of firms in the intersection set between Compustat and IBES that have at least two years with at least one year of analyst following, sales of greater than zero, a stock price greater than \$.10 and a single FYE for the entire period they appear in the data. The resulting sample consists of 10,177 firm-years covering 11,196 firms. To be included in the second set of columns, a firm must meet all of the above requirements except that the firm must change FYE sometime between 1994 and 2007. The resulting sample consists of 4,855 firm-years covering 349 firms. The final columns describe the set of initial firm-years following a change. The change firms appear to have slightly fewer assets and sales and less market capitalization. The firms in the change sample appear slightly older. None of the analyst property variables appears to be unusually out of balance. The complete change year sample differs considerably from the first year after change sample in size measures. The first year change years also appear to have more bias, forecast error and forecast dispersion. Other information environment variables are similar between groups. The measures of firms sharing FYE and quarter ends (NFYE and NFQE) present an interesting juxtaposition of the three samples. The mean and median numbers of firms sharing FYE and quarter ends are considerably higher than the numbers for the change year firms, which, in turn, appear much lower than the first-year postchange sample. This follows expectations as the largest group of firms changing FYE consists of firms changing to an FYE or quarter end shared by the majority of their industry and that the

TABLE 6.2: Descriptive Statistics**Descriptive Statistics for the period from 1994-2007**

	All Nonchange Firms FIRMS=11,196				All Change Firms FIRMS =349				Change Firms at the 1 st Year Post Change FIRM YEARS=349			
	N	Mean	Median	STD	N	Mean	Median	STD	N	Mean	Median	STD
MKTVAL	67,320	3,082	402	13,873	4,768	1,878	246	7,367	344	646	184	1,341
SALES	70,177	2,623	384	10,441	4,849	2,494	340	9,693	349	793	196	2,102
ASSETS	70,135	7,144	527	52,010	4,849	3,107	335	14,012	349	1,344	265	4,525
EPS	70,077	1.76	1.05	56.09	4,848	0.79	0.83	2.21	349	0.18	0.43	1.82
FCSTERR	70,177	0.02	0.00	0.21	4,855	0.03	0.00	0.27	349	0.06	0.00	0.44
ANALYSTN	70,177	7.87	5.00	6.68	4,855	6.66	5.00	6.42	349	5.16	3.00	5.07
OPTMED	70,177	0.01	0.00	0.21	4,855	0.02	0.00	0.27	349	0.05	0.00	0.45
OPTMEAN	70,177	0.01	0.00	0.21	4,855	0.02	0.00	0.27	349	0.05	0.00	0.45
STDFCST	70,177	0.01	0.00	0.08	3,984	0.01	0.00	0.07	265	0.02	0.00	0.23
STDROE	69,577	0.75	0.08	16.20	4,828	0.51	0.09	2.69	349	0.71	0.13	3.05
RECORR	52,174	0.21	0.29	0.49	4,003	0.19	0.26	0.49	268	0.19	0.24	0.50
EPSSURP	67,097	0.47	0.02	55.44	4,739	0.12	0.03	0.77	329	0.14	0.04	0.58
AGE	70,177	15	11	12	4,855	16	13	11	349	13	10	10
TIMERKFYE	70,177	5.0	5.0	0.3	4,855	4.9	5.0	0.7	349	4.9	5.0	0.6
TIMERKFQE	70,177	4.7	5.0	2.0	4,855	4.3	5.0	2.6	349	4.6	5.0	1.8
NFYE	70,177	135	83	153	4,855	77	25	110	349	131	100	124
NFQE	70,177	199	159	185	4,855	148	113	147	349	195	166	140
GAINFYE									349	54	7	102
GAINFQE									349	25	3	83

GAINFYE and GAINFQE variables are positive. However, the magnitude of the GAINFYE and GAINFQE variables appears too low given the differences of the GAINFYE and GAINFQE variables between samples.

Table 6.3, Panel A, presents the Pearson correlations among key variables in my analysis. As expected, size (LOGMKTVAL) and analyst following (LNANALYST) exhibit a high correlation at 0.62. The forecast error (FCSTERR) and analyst optimism measures (OPTMED and OPTMEAN) show a high degree of correlation that I expected given their mechanical relation. The standard deviation of forecasts (STDFCST) and forecast error are all, also expectedly, highly correlated. Table 6.3, Panel B, shows similar correlations between variables for the change firm sample with slightly lower magnitude. Finally, Panel C presents correlations between variable from the previous panels with the number of firms sharing FYE and quarter end variables (NFYE and NFQE) for both the full and change year firms samples.

I conducted the first part of my analysis on the larger ‘Nonchanger’ sample. My expectation was that firms in larger groups of common industry firms that share the same FYE (quarter end) exhibit a greater analyst following and improved properties of analyst forecasts. I used a quantile (median) estimator to estimate equations of the form in Models 1 and 2 using analyst following (LNANALYST), analyst forecast error (FCSTERR), analyst forecast dispersion (STDFCST) and measure of analyst bias (OPTMED and OPTMEAN) as the dependent variables. A quantile regression fitting the model minimizing median rather than mean distances (as in an OLS) reduces the influences of outlier observations (Koenker and Hallock, 2001). Creating new observation data by winsorizing or eliminating observations by trimming data were

TABLE 6.3: Correlations

Panel A: Pearson Correlations All Nonchange Firms

	LMKTVA L	EPS	FCSTE RR	LN ANALYST	OPTMED	OPTMEA N	STDFCST	STDROE	RECORR	EPSSURP	TIMERK FYE	TIMERK FQE
LMKTVAL	1.00	0.04	-0.07	0.62	-0.05	-0.05	-0.07	-0.02	0.00	-0.03	0.01	0.04
		<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i>0.965</i>	<i><.0001</i>	<i>0.017</i>	<i><.0001</i>
EPS		1.00	-0.01	0.00	-0.01	-0.01	-0.01	0.00	0.01	0.00	0.00	0.00
			<i>0.011</i>	<i>0.783</i>	<i>0.020</i>	<i>0.020</i>	<i>0.018</i>	<i>0.668</i>	<i>0.131</i>	<i>0.986</i>	<i>0.675</i>	<i>0.685</i>
FCSTERR			1.00	-0.05	0.95	0.94	0.62	0.01	0.03	0.00	-0.04	0.00
				<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i>0.001</i>	<i><.0001</i>	<i>0.781</i>	<i><.0001</i>	<i>0.917</i>
LNANALYST				1.00	-0.04	-0.03	-0.04	-0.01	0.01	0.00	0.01	0.02
					<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i>0.001</i>	<i>0.015</i>	<i>0.301</i>	<i>0.001</i>	<i><.0001</i>
OPTMED					1.00	1.00	0.56	0.01	0.03	0.00	-0.03	0.00
						<i><.0001</i>	<i><.0001</i>	<i>0.008</i>	<i><.0001</i>	<i>0.787</i>	<i><.0001</i>	<i>0.554</i>
OPTMEAN						1.00	0.57	0.01	0.03	0.00	-0.03	0.00
							<i><.0001</i>	<i>0.012</i>	<i><.0001</i>	<i>0.788</i>	<i><.0001</i>	<i>0.524</i>
STDFCST							1.00	0.01	0.03	0.00	-0.03	0.00
								<i>0.001</i>	<i><.0001</i>	<i>0.788</i>	<i><.0001</i>	<i>0.613</i>
STDROE								1.00	0.01	0.00	0.00	0.01
									<i>0.008</i>	<i>0.887</i>	<i>0.939</i>	<i>0.092</i>
RECORR									1.00	0.01	-0.01	0.11
										<i>0.003</i>	<i>0.152</i>	<i><.0001</i>
EPSSURP										1.00	0.00	0.00
											<i>0.942</i>	<i>0.484</i>
TIMERKFYE											1.00	0.09
												<i><.0001</i>
TIMERKFQE												1.00

TABLE 6.3: Continued

Panel B: Pearson Correlations Change Firms

	LMKTV AL	EPS	FCSTER R	LNANALYS T	OPTMED	OPTMEAN	STDF CST	STDR OE	RECOR R	EPSSU RP	TIMERK FYE	TIMERK FQE
LMKTVAL	1.00	0.18	-0.08	0.58	-0.05	-0.05	-0.05	-0.06	-0.06	-0.16	0.12	0.12
		<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i>0.0004</i>	<i>0.0004</i>	<i>0.0030</i>	<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i><.0001</i>
EPS		1.00	-0.25	0.10	-0.24	-0.24	-0.23	-0.10	-0.02	-0.08	0.05	-0.01
			<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i>0.2073</i>	<i><.0001</i>	<i>0.0003</i>	<i>0.3259</i>
FCSTERR			1.00	-0.06	0.85	0.85	0.52	0.08	0.04	0.10	-0.06	-0.00
				<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i>0.0104</i>	<i><.0001</i>	<i><.0001</i>	<i>0.7459</i>
LNANALYST				1.00	-0.04	-0.04	-0.05	-0.02	-0.04	-0.05	0.12	0.07
					<i>0.0061</i>	<i>0.0068</i>	<i>0.0034</i>	<i>0.1414</i>	<i>0.0082</i>	<i>0.0012</i>	<i><.0001</i>	<i><.0001</i>
OPTMED					1.00	1.00	0.47	0.04	0.03	0.08	-0.03	0.00
						<i><.0001</i>	<i><.0001</i>	<i>0.0038</i>	<i>0.0481</i>	<i><.0001</i>	<i>0.0225</i>	<i>0.9047</i>
OPTMEAN						1.00	0.47	0.04	0.03	0.08	-0.03	0.00
							<i><.0001</i>	<i>0.0050</i>	<i>0.0506</i>	<i><.0001</i>	<i>0.0239</i>	<i>0.8994</i>
STDFCST							1.00	0.04	0.03	0.08	-0.01	0.00
								<i>0.0082</i>	<i>0.0631</i>	<i><.0001</i>	<i>0.4948</i>	<i>0.8720</i>
STDROE								1.00	0.04	0.09	-0.05	0.02
									<i>0.0132</i>	<i><.0001</i>	<i>0.0013</i>	<i>0.1714</i>
RECORR									1.00	0.05	-0.03	0.09
										<i>0.0035</i>	<i>0.0906</i>	<i><.0001</i>
EPSSURP										1.00	-0.02	0.00
											<i>0.1304</i>	<i>0.9538</i>
TIMERKFYE											1.00	0.19
												<i><.0001</i>
TIMERKFQE												1.00

TABLE6.3: Continued

Panel C: Correlation Matrix for Number of Firms Sharing FYE or Quarter-end				
	All NonChange Firms		All Change Firms	
	NFYE	NFQE	NFYE	NFQE
LMKTVAL	0.05	-0.02	0.14	0.06
	<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i><.0001</i>
EPS	0.01	0.00	-0.02	-0.03
	<i>0.068</i>	<i>0.691</i>	<i>0.1080</i>	<i>0.0257</i>
FCSTERR	0.01	0.01	0.02	0.01
	<i>0.014</i>	<i>0.002</i>	<i>0.1797</i>	<i>0.3317</i>
LNANALYST	0.00	-0.04	0.09	0.01
	<i>0.363</i>	<i><.0001</i>	<i><.0001</i>	<i>0.6009</i>
OPTMED	0.00	0.01	-0.01	-0.01
	<i>0.213</i>	<i>0.143</i>	<i>0.6757</i>	<i>0.4492</i>
OPTMEAN	0.00	0.01	-0.01	-0.01
	<i>0.207</i>	<i>0.156</i>	<i>0.6639</i>	<i>0.4453</i>
STDFCST	0.01	0.01	0.01	0.00
	<i>0.016</i>	<i>0.046</i>	<i>0.7470</i>	<i>0.8767</i>
STDROE	0.00	0.00	0.05	0.05
	<i>0.593</i>	<i>0.750</i>	<i>0.0013</i>	<i>0.0002</i>
RECORR	0.06	0.02	0.01	-0.02
	<i><.0001</i>	<i><.0001</i>	<i>0.5886</i>	<i>0.1548</i>
EPSSURP	0.00	0.00	0.01	0.01
	<i>0.789</i>	<i>0.591</i>	<i>0.4168</i>	<i>0.3467</i>
TIMERKFYE	-0.05	-0.03	-0.03	-0.03
	<i><.0001</i>	<i><.0001</i>	<i>0.0231</i>	<i>0.0254</i>
TIMERKFQE	0.15	0.03	0.13	-0.04
	<i><.0001</i>	<i><.0001</i>	<i><.0001</i>	<i>0.0058</i>

options for addressing influential observations that I considered but discarded because of potential flaws in those methods. I reported Fama/MacBeth t-statistics and based my p-values on those statistics. Fama/MacBeth t-statistics adjust for observation independence issue arising from panel data consisting of multiple years from a single firm and multiple observations for the same year. One potential issue with using Fama/MacBeth t-statistics arises from the fact that a year variable does not precisely describe the time-period of each of my observations. The year measure only provides an imprecise measure of overall macroeconomic events during a time-period that may differ by as much as six months. Most studies adjust for the imprecision by limiting their samples to firms with common FYEs; however, it is that variation in which I am interested.

I present the results from the analyst following (LNANALYST) regressions in Table 6.4, Panel A. The control variables behaved as expected with size (LNMKTVAL) and return/earnings correlations (RECORR) showing positive, significance coefficients. As predicted, the coefficients on NFYE and NFQE are positive and significant, suggesting that the more firms with which a firm shares FYE and/or quarter ends with within their industry, the greater analyst following that firm will garner.

Panel B of Table 6.4 presents estimates for Models 1 and 2 with analyst forecast error (FCSTERR) and dispersion (STDFCST) as the dependent variables. The coefficient on NFYE is positive and nearly two standard deviations from zero for the forecast error model and positive and more than two standard deviations from zero for the forecast dispersion model. The coefficient on NFQE for forecast dispersion is also the opposite signs than expected and more than two standard deviations from zero. Size, earnings volatility and earnings surprise (EPSSURP) all exhibit significant coefficients of the

TABLE 6.4:
Number of Firms Sharing FYE (Quarter End) and Analyst Forecast
Properties

This table reports the results of a quantile regression estimated on Models 6.1 and 6.2.

Included in italics below each coefficient estimate are Fama/MacBeth t-statistics.

*, ** and *** denote one-tailed (or two-tailed when no sign prediction appears) significance tests at the 10%, 5% and 1% levels, respectively.

indicates a coefficient estimate greater than two standard deviations from zero.

Sample consists of all Nonchanging firms from 1994-2007 meeting data requirements.

Panel A: Analyst Following

	Pred.	LNANALYST	
		Model 1	Model 2
NFYE	+	0.00021 ***	
		<i>5.05</i>	
NFQE	+		0.00017 ***
			<i>4.89</i>
LOGMKTVAL	+	0.36 ***	0.37 ***
		<i>32.2</i>	<i>31.72</i>
STDROE	?	-0.0012	-0.0012
		<i>-1.08</i>	<i>-1.06</i>
RECORR	?	-0.0252 ***	-0.0220 **
		<i>-2.99</i>	<i>-2.47</i>
INTERCEPT		-0.46 ***	-0.48 ***
		<i>-13.87</i>	<i>-13.34</i>
Pseudo R ²		35.4%	35.4%
No. of Obs		52,174	52,174
F-Stat		312.03	294.00

TABLE 6.4: Continued

Panel B: Error and Standard Deviation of Analyst Forecasts									
	Pred.	FCSTERR				STDFCST			
		Model 1		Model 2		Model 1		Model 2	
NFYE	-	0.000001	#			0.000002	#		
		1.79				2.86			
NFQE	-			0				0.000001	#
				0.98				2.51	
TIMERKFYE	-	-0.000931	***			-0.000209	**		
		-3.1				-2.51			
TIMERKFQE	-			0.000026	#			0.000021	#
				2.97				3.47	
LOGMKTVAL	-	-0.000385	***	-0.000379	***	-0.000214	***	-0.000211	***
		-23.26		-27.99		-10.81		-11.15	
STDROE	+	0.000117	**	0.000129	**	0.000081	**	0.000085	**
		2.21		2.25		2.31		2.44	
RECORR	-	0.000066		0.000061		-0.000004		0.000013	
		1.44		1.42		-0.1		0.36	
EPSSURP	+	0.025181	***	0.025374	***	0.015287	***	0.015483	***
		3.28		3.29		3.8		3.76	
INTERCEPT		0.008356	***	0.003556	***	0.003285	***	0.002137	***
		5.71		18.39		6.84		13.39	
Pseudo R ²		2.7%		2.7%		3.9%		3.9%	
No. of Obs		52,174		52,174		52,174		52,174	
F-Stat		163.77		225.70		38.17		29.29	

TABLE 6.4: Continued
Panel C: Optimism of Analyst Forecasts based on Median and Mean Signed Forecast Error

	Pred.	OPTMED		OPTMEAN	
		Model 1	Model 2	Model 1	Model 2
NFYE	-	0		0	
		<i>0.94</i>		<i>0.18</i>	
NFQE	-		0.000001 #		0.000001 #
			<i>2.12</i>		<i>2.51</i>
TIMERKFYE	-	- 0.000513 <i>-2.21</i>	**	- 0.000483 <i>-2.07</i>	**
TIMERKFQE	-		- 0.000008 <i>-1.65</i>	*	0.000021 # <i>3.47</i>
LOGMKTVAL	-	- 0.000029 <i>-1.81</i>	**	- 0.000027 <i>-1.75</i>	*
				- 0.000039 <i>-2.45</i>	**
STDROE	+	0.000092 <i>1.67</i>		0.000092 <i>1.66</i>	
				0.000087 <i>1.6</i>	
RECORR	-	0.000039 <i>0.95</i>		0.000049 <i>1.23</i>	
				0.000027 <i>0.63</i>	
EPSSURP	+	0.008092 <i>1.6</i>		0.008018 <i>1.59</i>	
				0.008745 <i>1.48</i>	
INTERCEPT		0.002521 <i>2.11</i>	**	- 0.000062 <i>-0.61</i>	*
				0.002473 <i>2.07</i>	*
				0.002137 <i>13.39</i>	***
Pseudo R ²		0.4%	0.3%	0.4%	3.9%
No. of Obs		52,174	52,174	52,174	52,174
F-Stat		2.26	2.69	1.50	29.29

expected signs. The contrary result suggests that the increase in the number of comparable firms decreases the quality and consensus of analyst forecasts. One possible mechanism behind the result might be that an increase in public information related to higher comparability has resulted in greater variation and less precision in private information. Such a result is consistent with theoretical research such as Kim and Verrechia (1994), Harris and Raviv (1993), and Kandel and Pearson (1995). Still another explanation for the contrary results might be herding behavior of the analysts.

The controls for the rank order of consensus forecast releases (TIMERKFYE and TIMERKFQE) exhibit opposite coefficients between Model 1 and Model 2 for both error and dispersion dependent variables. For both Model 1s the sign on the coefficient estimates match expectations and are statistically significant. In the Model 2s that examine the rank among firms sharing quarter cycles the coefficients show signs opposite from my expectations and more than two standard deviations from zero. My expectation was that the later the forecasts were released, the greater common information set would be enjoyed by subsequent forecasters and therefore the lower the forecast error and dispersion. The opposite appears to be the case for firms sharing fiscal quarter-ends. An insignificant coefficient on TIMERKFQE might result from a smaller information set surrounding quarterly versus annual earnings seasons, but a positive coefficient more than two standard deviations from zero is perplexing.

Panel C of Table 6.4 presents coefficient estimates for the analyst optimism proxies. The coefficients on the NFYE variable are not significant. The coefficients on the NFQE variables show opposite signs from those expected using either measure of analyst optimism. The coefficients are also more than two standard deviations from zero.

The control variables show a weaker relation in the optimism regressions than in regressions for the other dependent variables. One possible counteracting force to my expectation suggested by DFKV (2008) is that with increased comparability, a firm may also experience increased information transfer from firms with noisy or biased information environments.

In Table 6.5, I present the results of my analysis on the sample of firm-years from firms that have changed FYE sometime between 1994 and 2007. In Panel A, I show the results of an estimation of Models 3a, 3b, 4a and 4b for the dependent variable of analyst following. In Model 3, the pre/postchange indicators show no significance. The interaction between pre/postchange and the number of firms in the same industry and FYE (quarter end) appear positive and significant as expected. This suggests that the benefit of more comparable firms found among the larger sample may be available to firms making the decision to change. In Model 4, positive and significant coefficients on the PMOVETOFYE(FQE) variables suggest that changing FYE or quarter end to mimic the majority of a firm's industry results in an increase in analyst following. The positive coefficient on PMOVEFROMFQE suggests that firms that change fiscal quarter ends that differ from their industry majority lose analyst coverage. I had no expectation for the PHORZFYE(FQE) indicator, but negative, significant coefficients suggest that firms that change from one nonmajority FYE or quarter end to another nonmajority FYE or quarter end also lose coverage. Panel B of Table 6.5 presents Models 3a, 3b, 4a and 4b for the dependent variable of forecast error. The indicator variable for pre/post FYE change has a significant positive coefficient suggesting an increase in forecast error following any change in FYE, whether gaining or losing comparable firms. I did not estimate either the

TABLE 6.5:**Firms Changing FYE (Quarter End) and Analyst Forecast Properties**

This table reports the results of a quantile regression estimated on Models 6.1 and 6.2.

Included in italics below each coefficient estimate are Fama/MacBeth t-statistics.

*, ** and *** denote one-tailed (or two-tailed when no sign prediction appears) significance tests at the 10%, 5% and 1% levels, respectively.

indicates a coefficient estimate greater than two standard deviations from zero.

Sample consists of all NONCHANGER firms from 1994-2007 meeting data requirements.

Panel A: Analyst Following

	Pred.	LNANALYST							
		Model 3a		Model 3b		Model 4a		Model 4b	
PCHGFYE	?	-0.021							
		<i>-0.62</i>							
PCHG X GAINFYE	+	0.002	***						
		<i>2.73</i>							
PCHGFQE	?			-0.204					
				<i>-0.86</i>					
PCHG X GAINFQE	+			0.005	**				
				<i>1.83</i>					
PMOVETOFYE	+					0.103	***		
						<i>3.25</i>			
PMOVEFROMFYE	-					0.045			
						<i>1.02</i>			
PHORZFYE	?					-0.462	***		
						<i>-5.53</i>			
PMOVETOFQE	+							0.234	***
								<i>5.39</i>	
PMOVEFROMFQE	-							-0.182	***
								<i>-2.82</i>	
PHORZFQE	?							-0.197	**
								<i>-2.32</i>	
LOGMKTVAL	+	0.361	***	0.36	***	0.372	***	0.362	***
		<i>51.42</i>		<i>54.57</i>		<i>63.53</i>		<i>55.57</i>	
STDROE	?	-0.005		0.001		-0.003		0.001	
		<i>-0.33</i>		<i>0.08</i>		<i>-0.22</i>		<i>0.08</i>	
RECORR	?	-0.024		-0.024		-0.017		-0.038	
		<i>-0.8</i>		<i>-0.76</i>		<i>-0.56</i>		<i>-1.31</i>	
INTERCEPT		-0.639	****	-0.643	****	-0.712	***	-0.629	***
		<i>-8.65</i>		<i>-10.3</i>		<i>-10.15</i>		<i>-9.78</i>	
Pseudo R ²		38.7%		38.9%		41.9%		40.6%	
No. of Obs		4,003		4,003		4,003		4,003	
F-Stat		720.50		891.75		1,868.32		926.82	

TABLE 6.5: Continued

Panel B: Analyst Forecast Error									
	Pred.	FCSTERR							
		Model 3a		Model 3b		Model 4a		Model 4b	
PCHGFYE	?	0.008	**						
		<i>2.52</i>							
PCHG X GAINFYE	-	0							
		<i>-0.72</i>							
PCHGFQE	?			-0.006					
				<i>-0.15</i>					
PCHG X GAINFQE	-			0					
				<i>0.72</i>					
PMOVETOFYE	+					0.005	*		
						<i>1.39</i>			
PMOVEFROMFYE	-					0.01			
						<i>0.98</i>			
PHORZFYE	?					0.01	***		
						<i>2.71</i>			
PMOVETOFQE	+							0.011	
								<i>1.18</i>	
PMOVEFROMFQE	-							0.015	*
								<i>1.44</i>	
PHORZFQE	?							0.003	
								<i>0.25</i>	
TIMERKFYE	-	-0.009				-0.009			
		<i>-0.88</i>				<i>-0.88</i>			
TIMERKFQE	-			0				-0.001	
				<i>-0.35</i>				<i>-1</i>	
LOGMKTVAL	-	-0.004	**	-0.003		-0.004		-0.004	
		<i>-1.87</i>		<i>-1.18</i>		<i>-1.7</i>		<i>-1.51</i>	
STDROE	+	0.007		0.008		0.007		0.009	
		<i>1.35</i>		<i>1.73</i>		<i>1.46</i>		<i>1.71</i>	
RECORR	-	0.003		0.005		0.003		0.004	
		<i>0.95</i>		<i>1.36</i>		<i>0.87</i>		<i>1.14</i>	
EPSSURP	+	0.316	**	0.325	**	0.313	**	0.321	**
		<i>1.97</i>		<i>2.06</i>		<i>1.96</i>		<i>2.04</i>	
INTERCEPT	?	0.056		0.016		0.057		0.018	
		<i>0.81</i>		<i>0.58</i>		<i>0.82</i>		<i>0.69</i>	
Pseudo R ²		35.5%		29.6%		36.5%		32.0%	
No. of Obs		4,003		4,003		4,003		4,003	
F-Stat		12.13		8.94		11.71		7.71	

TABLE 6.5: Continued

Panel C: Dispersion of Analyst Forecasts

	Pred.	STDFCST			
		Model 3a	Model 3b	Model 4a	Model 4b
PCHGFYE	?	0 <i>-0.18</i>			
PCHG X GAINFYE	-	0 <i>-1.4</i>			
PCHGFQE	?		0.06 <i>0.98</i>		
PCHG X GAINFQE	-		0 <i>-1.04</i>		
PMOVETOFYE	+			-0.001 <i>-0.62</i>	
PMOVEFROMFYE	-			0 <i>0.08</i>	
PHORZFYE	?			0 <i>0.1</i>	
PMOVETOFQE	+				0 <i>0.04</i>
PMOVEFROMFQE	-				0.004 <i>0.87</i>
PHORZFQE	?				-0.02 <i>-0.95</i>
TIMERKFYE	-	0.003 <i>1.33</i>		0.003 <i>1.29</i>	
TIMERKFQE	-		0 <i>0.02</i>		0 <i>-0.55</i>
LOGMKTVAL	-	0 <i>-0.39</i>	0 <i>-0.11</i>	0 <i>-0.26</i>	-0.001 <i>-0.71</i>
STDROE	+	0.008 <i>1.2</i>	0.008 <i>1.21</i>	0.008 <i>1.19</i>	0.007 <i>1.19</i>
RECORR	-	0.001 <i>0.99</i>	0.001 <i>0.99</i>	0.001 <i>1.04</i>	0.002 <i>1.12</i>
EPSSURP	+	0.13 <i>2.12</i>	0.131 <i>2.09</i>	0.128 <i>2.12</i>	0.132 <i>2.07</i>
INTERCEPT	?	-0.015 <i>-1.19</i>	-0.003 <i>-0.3</i>	-0.019 <i>-1.24</i>	0.002 <i>0.27</i>
Pseudo R ²		29.2%	29.0%	30.0%	29.6%
No. of Obs		4,003	4,003	4,003	4,003
F-Stat		6.68	4.86	9.80	5.35

TABLE 6.5: Continued

Panel D: Analyst Forecast Bias as Measured by MEDIAN Signed Forecast Error									
	Pred.	OPTMED							
		Model 3a		Model 3b		Model 4a		Model 4b	
PCHGFYE	?	0.008	**						
		<i>2.76</i>							
PCHG X GAINFYE	-	0							
		<i>-1.1</i>							
PCHGFQE	?			-0.015					
				<i>-0.38</i>					
PCHG X GAINFQE	-			0					
				<i>0.32</i>					
PMOVETOFYE	+					0.003			
						<i>1.12</i>			
PMOVEFROMFYE	-					0.014			
						<i>1.2</i>			
PHORZFYE	?					0.008	*		
						<i>1.82</i>			
PMOVETOFQE	+							0.014	*
								<i>1.39</i>	
PMOVEFROMFQE	-							0.019	#
								<i>1.64</i>	
PHORZFQE	?							0.009	
								<i>0.7</i>	
TIMERKFYE	-	-0.005				-0.005			
		<i>-0.46</i>				<i>-0.49</i>			
TIMERKFQE	-			0				-0.001	
				<i>-0.36</i>				<i>-1.25</i>	
LOGMKTVAL	-	-0.002		-0.002		-0.002		-0.002	
		<i>-1.1</i>		<i>-0.61</i>		<i>-0.98</i>		<i>-0.92</i>	
STDROE	+	0.002		0.004		0.002		0.004	
		<i>0.46</i>		<i>0.73</i>		<i>0.43</i>		<i>0.76</i>	
RECORR	-	0.003		0.004		0.002		0.003	
		<i>0.75</i>		<i>1.22</i>		<i>0.68</i>		<i>0.96</i>	
EPSSURP	+	0.263	*	0.271	*	0.262	*	0.264	*
		<i>1.62</i>		<i>1.69</i>		<i>1.63</i>		<i>1.66</i>	
INTERCEPT	?	0.026		0.005		0.027		0.007	
		<i>0.37</i>		<i>0.16</i>		<i>0.39</i>		<i>0.26</i>	
Pseudo R ²		25.1%		20.8%		26.5%		23.2%	
No. of Obs		4,003		4,003		4,003		4,003	
F-Stat		4.96		6.45		5.86		9.05	

TABLE 6.5: Continued**Panel E: Analyst Forecast Bias as Measured by MEAN Signed Forecast Error**

	Pred.	OPTMEAN			
		Model 3a	Model 3b	Model 4a	Model 4b
PCHGFYE	?	0.008 <i>2.74</i>	**		
PCHG X GAINFYE	-	0 <i>-1.11</i>			
PCHGFQE	?		-0.014 <i>-0.38</i>		
PCHG X GAINFQE	-		0 <i>0.3</i>		
PMOVETOFYE	+			0.003 <i>1.11</i>	
PMOVEFROMFYE	-			0.014 <i>1.21</i>	
PHORZFYE	?			0.008 <i>1.8</i>	*
PMOVETOFQE	+				0.014 <i>1.38</i>
PMOVEFROMFQE	-				0.019 <i>1.64</i>
PHORZFQE	?				0.008 <i>0.68</i>
TIMERKFYE	-	-0.004 <i>-0.4</i>		-0.004 <i>-0.43</i>	
TIMERKFQE	-		0 <i>-0.31</i>		-0.001 <i>-1.19</i>
LOGMKTVAL	-	-0.002 <i>-1.04</i>	-0.002 <i>-0.58</i>	-0.002 <i>-0.93</i>	-0.002 <i>-0.88</i>
STDROE	+	0.002 <i>0.47</i>	0.004 <i>0.74</i>	0.002 <i>0.45</i>	0.004 <i>0.76</i>
RECORR	-	0.003 <i>0.75</i>	0.004 <i>1.21</i>	0.002 <i>0.69</i>	0.003 <i>0.98</i>
EPSSURP	+	0.263 <i>1.63</i>	* 0.271 <i>1.69</i>	* 0.263 <i>1.63</i>	* 0.265 <i>1.67</i>
INTERCEPT	?	0.022 <i>0.32</i>	0.004 <i>0.14</i>	0.024 <i>0.33</i>	0.006 <i>0.23</i>
Pseudo R ²		25.1%	20.8%	26.5%	23.2%
No. of Obs		4,003	4,003	4,003	4,003
F-Stat		4.59	6.28	5.68	8.88

interaction with the number of firms gained or the directional variables (MOVETO, MOVEFROM, etc.) to be significant. The fact that most of the control variables do not prove significant casts some doubt on the validity of my dependent variable, but the construction of the dependent variables did not change between this analysis and the analysis using the overall sample.

I present the results of my examination of forecast dispersion before and after a change in Panel C of Table 6.5. The results are similar to that for forecast error. I found no significance for any pre/post variables, whether indicators or continuous variables. Only the earnings surprise control variable shows my expected sign and significance.

Panels D and E of Table 6.5 show my tests of analyst optimism. Both measures of optimism produced similar results. The coefficient on the pre/post FYE change variable suggests an increase in analyst optimism following a change in FYE. However, the number of comparable firms gained does not appear to influence optimism. None of my expectations regarding control variables appears significant. This might suggest an alternative explanation for an increase in optimism, such as a reaction to an announcement of a new business strategy or merger.

CHAPTER 7

CONCLUSIONS, LIMITATIONS AND OPPORTUNITIES FOR FUTURE RESEARCH

In this dissertation I have explored motivations and effects of the accounting choice of FYE. I have demonstrated that the choice is neither static nor uniform. A nontrivial number of firms initially choose an FYE that differs from that of the majority of their industry. The majority and nonmajority firms differ along the dimensions of performance, strategy, administrative costs and information environment. I further explored whether these differences were evident in firms that changed their FYE. I found some evidence that firms may select an initial FYE or subsequently change their FYE in an effort to influence their subindustry group membership. I found evidence that firms may make their FYE choice to take advantage of potential savings in administrative costs. Finally, I found evidence that the choice may be influenced by information environment factors.

I have examined an accounting choice (the choice of FYE) and its relationship to some perceived benefits of comparability. The choice of FYE is an accounting choice made by every firm domiciled in the United States. All firms must make the choice at inception, and 3,678 times between 1960 and 2007, firms decided to change their choice. Firms cite various reasons for the change ranging from cost savings from administrative efficiencies to adopting a new business strategy to reducing investor confusion. I

examined the effects of the choice on the potential benefits of increased analyst following and reduced analyst forecast error, dispersion and optimism. I predicted that the number of similar firms sharing a FYE or quarter end is positively related to analyst following and forecast accuracy, consensus and objectivity because the increase would make more potential relevant benchmarks available for comparison. With an increase in comparability, I expected an increase in the quality of a firm's information environment and therefore a positive response in the properties of analysts. Past research has shown evidence consistent with an improvement in information environment reducing a firm's cost of equity capital (Botosan, 1997; Botosan and Plumlee, 2002). I found evidence consistent with a positive relationship between the number of firms in an industry sharing an FYE or quarter end and analyst following. I found evidence opposing my predictions regarding analyst forecast properties. My results suggest a positive relationship between the number of firms in an industry sharing an FYE or quarter end and analyst forecast error, dispersion and optimism. I found results consistent with the notion that a firm making a seasoned decision to change FYE can affect its analyst following. I did not find consistent evidence that a seasoned change can affect analyst forecast properties. My sample consisted of larger, actively-traded firms and, therefore, my results may not generalize to all firms in general. Data requirements for many of my tests limited the number of FYE change firms that I was able to examine. The extent to which my sample was not representative of the full population of FYE changers limits the generalizability of my results regarding the benefits or costs of changing FYE. Future research might explore other, nonanalyst based measures of comparability such as market microstructure indicators or public/private information proxies.

The generalizability of my research is limited by the firm data I have available. My models for explaining FYE choice exhibit very low explanatory power, limiting my confidence that I have captured a significant portion of the motivations behind a particular FYE choice.

APPENDIX A

EXAMPLES OF SAMPLE FIRM EXPLANATIONS FOR CHANGING FYE AND CORRESPONDING CLASSIFICATION OF REASON

Reason classifications used in Table 4:

Merger/Acquisition
Administrative Efficiencies
Customer/Supplier Alignment
Industry Alignment to Improve Comparability

Example 1:

In conjunction with the merger, Rykoff-Sexton said it will change its fiscal year to June 30 from April 30. Van Stekelenburg said the change will conform the quarterly reporting schedule of Rykoff-Sexton, Inc. to other companies in the foodservice distribution industry.

Reason coded as “Merger/Acquisition” and “Industry Alignment.”

Example 2:

The Board believes this is in the best interests of the shareholders, because it believes this change will separate year-end procedures such as physical inventories from the holiday season, help to enhance operational focus on holiday period execution, and reduce fiscal year end costs associated with accounting and audit procedures. With new auditors recently engaged, the Company believes this is an appropriate time to make this beneficial transition, which will also allow additional time to perform Sarbanes Oxley Section 404 remediation and audit procedures.

Reason coded as “Administrative Efficiencies.”

Example 3:

Changing USEC’s fiscal year to a calendar basis enables us to better align our financial reporting with the way we manage and operate our business,” said Henry Z Shelton, USEC senior vice president and chief financial officer. “This will simplify our communications with customers, suppliers and shareholders.”

Reason coded as “Customer/Supplier Alignment” and “Industry Alignment.”

APPENDIX B

VARIABLE DEFINITIONS

ANALYSTN	Number of analysts providing forecasts
ASSETS	Total assets
EPS	Basic earnings per share
EPSSURP	Earnings surprise-difference between current EPS and prior year EPS, scaled by price
FCSTERR	Mean consensus forecast error, normalized, scaled by price
GAINFQE	Change in the number of firms in the firm's 6-digit GICS industry with the same fiscal quarter-end
GAINFYE	Change in the number of firms in the firm's 6-digit GICS industry with the same fiscal year-end
LMKTVAL	Natural log of the market value of the firm.
LNANALYST	Natural log of the number of analysts providing forecasts
MKTVAL	Market value of the firm in U.S. dollars (\$).
NFQE	The number of firms in the firm's 6-digit GICS industry with the same fiscal quarter-end
NFYE	The number of firms in the firm's 6-digit GICS industry with the same fiscal year-end
OPTMED	Signed median consensus forecast error, scaled by price

OPTMEAN	Signed mean consensus forecast error, scaled by price
PHORZ	Indicator variable identifying firms that do not share the same fiscal year (quarter) end as the majority of their industry before or after a change in fiscal year (quarter) end
PMOVEFROM	Indicator variable identifying firms that no longer share the same fiscal year (quarter) end as the majority of their industry after a change in fiscal year (quarter) end
PMOVETO	Indicator variable identifying firms that share the same fiscal year (quarter) end as the majority of their industry after a change in fiscal year (quarter) end
RECORR	Return-earnings correlation based on 8 preceding years
SALES	Total sales
STDFCST	Standard deviation of forecasts
STDROE	Standard deviation of ROE based on 8 preceding years
TIMERKFYE	Rank of consensus earnings release date within the group of firms in the firm's industry sharing the same fiscal year-end
TIMERKFQE	Rank of consensus earnings release date within the group of firms in the firm's industry sharing the same fiscal quarter-end

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