Managerial Empire Building and Firm Disclosure

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ABSTRACT

This study tests the agency cost hypothesis in the context of geographic earnings disclosures. The agency cost hypothesis predicts that managers, when not monitored by shareholders, will make self-maximizing decisions which may not necessarily be in the best interest of shareholders. These decisions include aggressively growing the firm, which reduces profitability and destroys firm value. Geographic earnings disclosures provide an interesting context to examine this issue. Beginning with Statement of Financial Accounting Standards No. 131 (SFAS 131), most U.S. multinational firms are no longer required to disclose earnings by geographic area (e.g., net income in Mexico or net income in East Asia). Such non-disclosure potentially reduces the ability of shareholders to monitor managers' decisions related to foreign operations. Using a sample of U.S. multinationals with substantial foreign operations, we find that non-disclosing firms, relative to firms that continue to disclose geographic earnings, experience greater expansion of foreign sales, produce lower foreign profit margins, and have lower firm value in the post-SFAS 131 period. Our conclusions are strengthened by the fact that these differences do not exist in the pre-SFAS 131 period and do not relate to domestic operations. We find differences in the predicted direction only for foreign operations and only after adoption of SFAS 131. Our results are robust to the inclusion of an extensive set of control variables related to alternative corporate governance mechanisms, operating performance, and the firm's information environment. Overall, the results are consistent with the agency cost hypothesis and the important role of financial disclosures in monitoring managers.

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1. Introduction

Agency theory describes the natural conflict between shareholders and managers. The conflict arises because individuals choose actions to maximize their own utility, suggesting that managers will not always act in the best interest of shareholders (e.g., Jensen and Meckling [1976]). One means to resolve this conflict is through monitoring, and one obvious monitoring system is financial disclosures by the firm (e.g., Bushman and Smith [2001]). To the extent that disclosures serve as a monitoring mechanism, managers are disciplined to act in the best interest of shareholders. However, when disclosure quality reduces, the agency cost hypothesis predicts that managers can make (suboptimal) self-maximizing decisions. These suboptimal decisions include "empire building," which decreases operating performance and reduces firm value (Jensen [1986]). Managers are able to behave this way because investors are less capable of linking managerial decisions to firm performance when the quality of monitoring mechanisms, such as financial disclosures, is reduced. Notwithstanding the potential importance of empire building for investors, limited research exists on the role of financial disclosure in mitigating such behavior. We test the agency cost hypothesis in the context of firms' decisions on whether to disclose geographic earnings in the annual report following adoption of Statement of Financial Accounting Standards No. 131 (SFAS 131, FASB [1997]).

Geographic earnings represent the operating performance of a multinational company in a particular foreign country or geographic region. Prior to SFAS 131, geographic earnings were a required disclosure for all multinational companies. However, SFAS 131 eliminates this disclosure requirement for most firms (but maintains the requirement for disclosure of geographic sales to

external customers and long-lived assets). When operating segments are defined on any basis other than geographic area, geographic earnings are no longer required to be disclosed, and most firms opt not to disclose (Herrmann and Thomas [2000]). The lack of geographic earnings disclosure potentially hinders the ability of shareholders to monitor managerial actions related to foreign operations, as risk and growth opportunities vary considerably around the world (Balakrishnan, Harris, and Sen [1990], Herrmann [1996], Thomas [2000], Behn, Nichols, and Street [2002], Bekaert, Harvey, Lundblad, and Siegel [2006], Hope, Thomas, and Winterbotham [2007], Hope, Kang, Thomas, and Vasvari [2007]). If non-disclosure reduces monitoring of managerial actions, then we expect to observe managerial "empire building" (i.e., an expansion of foreign operations), reduced performance of foreign operations, and an overall reduction in firm value (Jensen [1986]).

While firms provide a variety of financial disclosures, testing the agency cost hypothesis in the context of non-disclosure of geographic earnings is particularly advantageous for several reasons. First, firms have the option of not disclosing geographic earnings following the adoption of SFAS 131. This provides an opportunity to construct a "changes-over-time" test of firm performance. Firm performance when all firms disclose geographic earnings (pre-SFAS 131 period) can be compared to firm performance when only some firms disclose (post-SFAS 131 period). Second, approximately 74 percent of our sample firms no longer disclose geographic earnings following adoption of SFAS 131. Thus, we are able to compare firm performance for a group of disclosers versus a group of non-disclosers in the pre- and post-SFAS 131 periods. Most mandated disclosure changes affect all firms in the same way at the same point in time, making cross-sectional tests difficult. The ability to provide "difference-in-differences" tests (i.e., cross-sectional comparisons in the pre- versus post-SFAS 131 periods) allows us to control for numerous extraneous factors that could affect firm performance.

A third advantage of our research setting is that we can compare the performance of foreign operations with domestic operations within the same firm. Presumably, the decision to disclose or not disclose geographic earnings relates only to foreign operations. If disclosure decisions affect agency costs and therefore firm performance, we would expect non-disclosure of geographic earnings to have an impact only on foreign operations. The ability to test the impact of disclosure on one component of firm performance (foreign operations) while controlling for another (domestic operations) provides a within-firm control that increases reliability of conclusions by controlling for a number of immeasurable firm characteristics.

Finally, our tests predict an effect on foreign operations, and prior research shows that information asymmetry problems for foreign operations are especially severe compared to domestic operations (e.g., Martinez and Jarillo [1989], Egelhoff [1991], Thomas [1999], Denis, Denis, and Yost [2002], Duru and Reeb [2002], Khurana, Pereira, and Raman [2003], Thomas [2004], Callen, Hope, and Segal [2005]). Our sample firms have extensive foreign operations, with foreign sales on average being almost 37 percent of total sales in the post-SFAS 131 period (as compared to ten percent for the full Compustat population). Thus, firm performance should be particularly sensitive to disclosure decisions related to foreign operations. Firm performance is not likely to be as sensitive to disclosures related to domestic operations. Information related to domestic operations is much more widely available from alternative sources for most firms and easier to process (Tihanyi and Thomas [2005]). Thus, our tests of the impact of geographic earnings disclosure on the performance of foreign operations provide a strong setting for testing the agency cost hypothesis.

Consistent with the predictions of the agency cost hypothesis, we find that non-disclosure of geographic earnings is associated with a significant increase in foreign sales growth and a significant decrease in foreign profit margin. In other words, as the ability of shareholders to

monitor managers diminishes because of non-disclosure of geographic earnings, managers are more willing to expand their international operations (i.e., "build an empire"), even though such actions lead to lower firm performance.

We also find that overall firm values, measured using Tobin's q ratio, of non-disclosers are significantly lower than those of disclosers in the post-SFAS 131 period. The lower firm value is consistent with investors detecting the value reducing decisions of managers of non-disclosing firms. Since we control for domestic performance in these tests, we attribute the lower firm values of non-disclosers to foreign operations. We find no evidence of differences in firm values in the year prior to adoption of SFAS 131.

Importantly, we do not find a similar pattern in firm performance for domestic operations in the post-SFAS 131 period or for foreign operations in the pre-SFAS 131 period. Firms that do not disclose geographic earnings following adoption of SFAS 131 do not have greater domestic sales growth or lower domestic profit margins in the post-SFAS 131 period. In addition, during the pre-SFAS 131 period, firms that will eventually decide not to disclose geographic earnings do not have greater foreign sales growth or lower foreign profit margins than do firms that will continue to disclose geographic earnings. These results suggest that differences in the hypothesized direction occur only for foreign operations and only in the post-SFAS 131 period. This increases our confidence that results relate to their hypothesized effect and not to some overall firm characteristic associated with firm performance and the decision to disclose geographic earnings.

As an additional sensitivity test, we examine whether the lower performance of non-disclosing firms was expected prior to the adoption of SFAS 131. One may consider that managers make disclosure decisions based on expected performance rather than causality running in the opposite direction (i.e., current disclosure decisions affecting future firm performance). We test this in three ways. First, we compare annual stock returns of disclosers and non-disclosers in each

year of the pre-SFAS 131 sample period. To the extent that prices lead reported accounting performance (e.g., Collins, Kothari, Shanken, and Sloan [1994]), returns in the years just prior to the adoption of SFAS 131 would be lower for firms expected to perform more poorly in future years. We find no evidence that investors expected the lower performance of non-disclosers.

Second, we examine analysts' one-year, two-year, and long-term forecasts of earnings growth just prior to adoption of SFAS 131. If analysts expect firm performance to be lower for non-disclosing firms, then this should be revealed in their publicly issued forecasts. We find no evidence that this is the case. Analysts' forecasts of growth in earnings are approximately equal for the two groups of firms.

Third, similar to analyst forecasts, we examine management forecasts of growth in earnings for a restricted sample of firms that have data available. We detect no significant difference in management expectations between eventual disclosers and non-disclosers. Thus, based on the results for the expectations of investors, analysts, and management, we conclude that our results are not driven by prior expectations of differential future operating performance.

Overall, our results are consistent with the agency cost hypothesis. Our additional tests for post-SFAS 131 domestic operating performance, pre-SFAS 131 foreign operating performance, and expected performance by investors, analysts, and management increase our confidence in the conclusions. These conclusions remain robust when using alternative measures for growth in foreign operations (e.g., long-lived assets), firm performance (e.g., return on assets), and change in firm value (e.g., annual stock returns). We also note that results are not sensitive to inclusion of a number of control variables in the models. Specifically, our results continue to hold after controlling for factors related to alternative corporate governance mechanisms, the information environment, and firm performance.

Our research also provides relevant information for the International Accounting Standards Board (IASB). In 2006, the IASB adopted IFRS 8 *Operating Segments* which converges international segment reporting standards with those in the U.S. Like SFAS 131, IFRS 8 includes the option of not disclosing geographic earnings when operating segments are defined along lines other than geographic area. Given the option of disclosing geographic earnings, many firms around the world may discontinue disclosure, as companies have in the U.S.

The remainder of our paper is organized as follows. The next section reviews prior research and develops our hypotheses. Section three describes our sample and data. Section four presents our bivariate results related to the operating performance of non-disclosers versus disclosers and section five presents our multivariate results and sensitivity tests. Finally, section six offers a summary and concluding remarks.

2. Prior Research and Hypotheses

Researchers have long recognized that managers' allocations of resources may not be efficient and can destroy investor value. As early as 1911, Schumpeter postulated that managers are empire builders (Schumpeter [1911, 1934]). Since then, it has become one of the mainstays of the literature on corporate governance that executives will turn into empire builders if not reined in by some tight form of governance (e.g., Dominguez-Martinez, Swank, and Wisser [2006]).[1] Excessive growth and excessive investment are two forms that empire building may take on.[2]

[1] While the preponderance of both the theoretical and empirical literature builds on the idea that managers are natural empire builders, it is possible that some managers may prefer the "quiet life." For example, Bertrand and Mullainathan [2003] use plant-level data and examine the effect of anti-takeover laws. They find that production workers' wages rise by one percent and white-collar wages rise by four percent in the protected plants in the post anti-takeover period compared with the pre period. In addition, they document that both the rates of plant destruction and plant creation fall.

[2] Marris [1964] was the first to posit growth maximization as a goal for managers. Achieved growth can become a measure of personal ability of executives, especially considering that the board often possesses only limited information on an executive's ability.

Managers might act in this way because increasing firm size (or diversifying operations) could serve their private interests in various ways. Motivations for the construction of "empires" presumably reflect executives' hunger for status, power, compensation, and prestige (e.g., Baumol [1959], Marris [1964], Williamson [1974], and Jensen [1986]). Empire building, then, stems from differences in preferences between the board of directors (representing investors) and executives, in conjunction with lack of observability, a typical moral hazard problem (Dominguez-Martinez, Swank, and Visser [2006]).

In a widely cited article, Jensen [1986] presents a "free cash flow" theory, whereby firms with high free cash flows and low investment opportunities have incentives to grow beyond their optimal size (see also McConnell and Muscarella [1986]). By growing the firm, managers gain by increasing the resources under their control, increasing their prestige (Stulz [1990]), and possibly increasing their compensation (since compensation is often tied to sales growth, firm size, and diversification) (Murphy [1985], Jensen and Murphy [1990], Rose and Shepard [1997], Bebchuk and Grinstein [2005]).[3] In a similar vein, Amihud and Lev ([1981, 1999] present a theory of "managerialism." Here, managers have incentives to grow the firm beyond the optimal size because this decreases their unemployment risk, creates additional middle manager promotions (Baker [1986]), and makes the manager more indispensable to the firm (Shleifer and Vishny [1989]).

[3] There are two distinct approaches relating compensation contracts to agency problems, optimal contracting and managerial power (e.g., Bebchuk and Fried [2003]). Optimal contracting assumes that compensation is a (partial) remedy to agency problems. In other words, the board of directors designs optimal contracts that encourage managers to maximize shareholder value. Under the alternative approach, managerial power, executive compensation is part of agency problems (e.g., Jiraporn, Kim, and Davidson [2005]). Bebchuk and Fried [2003, 2004, 2005] examine how managerial power and influence have shaped executive compensation in publicly traded U.S. companies. Their analyses indicate that the pay-setting process has strayed far from the arm's-length model assumed in most economic models of pay arrangements. In particular, they find that managerial power plays a key role in shaping executive pay. This managerial influence has led to compensation schemes that weaken managers' incentives to increase firm value and that may even create incentives to take actions that *reduce* long-term firm value. Jiraporn, Kim, and Davidson [2005] provide corroborative evidence and show that CEOs obtain more favorable compensation in firms where shareholder rights are weaker.

More recently, research investigates the conditions under which agency costs of managerial decisions are more severe. Jiraporn, Kim, Davidson, and Singh [2006] suggest that when managers are less accountable to the firm's investors, managers are more likely to make decisions for private gain, leading to poorer firm performance and ultimately loss of shareholder value. Financial disclosures are one important means of monitoring managers to make them more accountable. Investors seek high-quality disclosures which reduce information asymmetries between investors and managers (and among informed and uninformed market participants) (Diamond and Verrecchia [1991]). Better disclosures improve shareholders' ability to relate managerial decisions to firm performance (Lombardo and Pagano [2002]). The relation between disclosure quality and monitoring ability may also apply to corporate boards. Hermalin and Weisbach [2007, 1] state, "The benefits [of disclosure] reflect the fact that more accurate information about performance allows boards to make better personnel decisions about their executives" (see also Mueller and Inderst [2007]).

Bushman and Smith [2001] and Watts and Zimmerman [1986] provide an overview of the large literature that documents how financial accounting information is an important source of information used by shareholders and others to monitor managers. Regarding the importance of the stewardship role of financial disclosure, Rosenfield [1974, 126] states that "An objective of financial statements is to report on the control and use of resources by those accountable for their control and use to those to whom they are accountable." A more recent example is from the International Corporate Governance Network (comment letter to the IASB dated February 15, 2006), in which they state that "Without appropriate information, outside investors may not be able to fulfill their role as monitors of corporate affairs." Healy and Palepu [2001] discuss how

disclosures can reduce agency costs by providing shareholders with an effective monitoring tool.[4] According to Ball [2006, 11], increased transparency causes managers to act more in the interests of shareholders. Kanodia and Lee [1998] develop a theoretical model in which an investor's ability to identify suboptimal investment choices increases with the precision of the periodic performance report. In other words, enhanced disclosure mitigates the overinvestment problem in their model.[5]

Bens and Monahan [2004] investigate the valuation effects of differences in firms' disclosure practices (using AIMR scores) for a set of firms that are diversified by line of business. They document a significantly positive association between disclosure level and a measure of the excess value of diversification (based on Berger and Ofek [1995]). They attribute this result to the monitoring effect of disclosure, concluding that greater firm disclosure reduces management's proclivity for investing in assets that destroy shareholder value.[6]

There are reasons to believe that segment disclosures may be particularly important to investors. For example, paragraph 44 of SFAS 131 cites the AIMR (now CFA Institute) Position Paper (AIMR [1993, 59-60]):

> "[Segment data] is vital, essential, fundamental, indispensable, and integral to the investment analysis process. Analysts need to know and understand how the various

[4] The benefits from disclosures could be reduced if managers make opportunistic voluntary disclosure decisions. To reduce the negative impact of such actions, accounting disclosures are subject to assessment of independent auditors, the board of directors, analysts, regulators, the legal system, and investors (e.g., Healy and Palepu [2001]).

[5] Other well-cited works on the monitoring role of disclosures include Stiglitz [1975], Holmström [1979], Gjesdal [1981], and Diamond and Verrecchia [1991].

[6] As an alternative to differences in disclosure practices, Verdi [2006] measures financial reporting quality using abnormal accruals. He finds that reporting quality is negatively associated with overinvestment. His cross-sectional tests further indicate that the impact of financial reporting quality on overinvestment is due to the alleviation of agency costs. Biddle and Hilary [2006] measure reporting quality using earnings attributes such as aggressiveness, loss avoidance, smoothing, and timeliness. They find a positive association between financial reporting quality and investment efficiency. Related to this study, Biddle and Hilary [2007] find that firms with higher-quality accounting invest less, have higher productivity, have higher returns on assets, and have higher technological efficiency, suggesting that higher quality-accounting serves primarily to mitigate capital overinvestment rather than underinvestment (see Frederickson and Hilary [2006] for an example of the relation between disclosure quality and investment activity in the oil industry).

components of a multifaceted enterprise behave economically. One weak member of a group is analogous to a section of blight on a piece of fruit; it has the potential to spread rot over the entirety. Even in the absence of weakness, different segments will generate dissimilar streams of cash flows to which are attached disparate risks and which bring about unique values."

Furthermore, voluntary disclosures, such as disclosure of geographic earnings after the implementation of SFAS 131, can play an important role in stewardship. Berger and Hann [2007, 3] state:

"… we argue that segment profitability is likely the most valuable piece of information managers might wish to withhold from competitors and investors… managers face agency costs of segment disclosure if the revelation of a segment that earns low abnormal profits reveals unresolved agency problems and ultimately leads to heightened external monitoring."[7]

They also state [5]:

"…in studying managers' motives to withhold segment data, one needs to consider not only what managers want to hide, but also what they *can* hide."

Related to our study, managers *can* hide geographic earnings under SFAS 131.[8] The usefulness of disclosing geographic earnings beyond aggregated total foreign earnings is alluded

[7] Berger and Hann [2007] find that the agency cost motive hypothesis dominates the proprietary cost motive hypothesis in explaining why managers conceal (abnormal) segment profits.

[8] Although there are other examples of new standards that reduce mandated disclosures, most often accounting standard setters add required disclosures when writing new rules. The reduction in mandated geographic segment disclosures under SFAS 131 was likely a result of the political process of accounting standard setting which involves a

to in Paragraph 105 of SFAS 131 which states "Information disclosed by country is more useful because it is easier to interpret. Countries in contiguous areas often experience different rates of growth and other differences in economic conditions." In this paper, we test the monitoring role of financial disclosures in the context of geographic earnings disclosures. When firms no longer disclose geographic earnings, managers are less accountable for segmental profits.[9]

Several studies provide evidence of the higher information asymmetry associated with foreign operations compared to domestic operations (e.g., Martinez and Jarillo [1989], Egelhoff [1991], Thomas [1999], Denis, Denis, and Yost [2002], Duru and Reeb [2002]; Khurana, Pereira, and Raman [2003], Thomas [2004], Callen, Hope, and Segal [2005], Tihanyi and Thomas [2005]). For example, managers can grow the firm (via sales or assets) by moving into unprofitable or less profitable foreign markets. While the firm grows, managers are not required to disclose reduced profits of the foreign segments. As firms are still required by SEC Regulation §210.4-08(h) to disclose total foreign (and total domestic) income, these profits can be aggregated into a total

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number of trade-offs. The FASB and the Canadian Accounting Standards Board (AcSB), which jointly wrote the segment standard, focused primarily on increasing line of business disclosures and gaining acceptance for the so-called "management approach" to operating segment disclosures. We have privately discussed non-disclosure of geographic earnings with three individuals who were FASB or AcSB board members at the time SFAS 131 was decided upon. They indicated that the decision not to require geographic earnings was a concession to preparers who argued that the increase in line of business disclosures was too onerous. In other words, to get more line of business information, standard setters were willing to cede other information, such as geographic earnings. These comments are consistent with the discussion in SFAS 131. Paragraph 101 of SFAS 131 discusses some of the trade-offs in writing the standard (see also Paragraph 109). For example, the paragraph states "Many respondents said that the proposal would have resulted in disclosure of excessive amounts of information." We also note that standard setters set rules for *all* firms. In our study we have a sample of firms with substantial foreign operations (mean foreign revenue percent of 37 in the post-SFAS 131 period). It should be more important for investors to know about these firms' foreign operations than for firms with only minimal foreign activity. Finally, U.S. corporations have experienced a significant increase in their foreign operations in recent years. At the time the FASB was deliberating disclosure of geographic earnings for SFAS 131, the foreign operations of U.S. firms were smaller.

[9] The evidence on the usefulness of geographic earnings disclosures under SFAS 14 is somewhat mixed. For example, Boatsman, Behn, and Patz [1993] find that such disclosures are useful, but only for firms with large changes in profitability. Balakrishnan, Harris, and Sen [1990] conclude that geographic earnings disclosure are useful in predicting consolidated earnings but only when perfect forecasts of GNP and exchange rates are employed. Ahadiat [1993] uses a Box-Jenkins time series model on a limited sample and concludes that such disclosures are useful in predicting consolidated earnings. Thomas [2000] demonstrates that SFAS 14 geographic earnings disclosures are value relevant. Finally, Hope, Kang, Thomas, and Vasvari [2007] show that disclosure of geographic earnings following the implementation of SFAS 131 is positively associated with the pricing of (total) earnings from foreign operations.

foreign income number. While total foreign profits will decline, it is not possible for investors to determine whether lower profits occur as a result of existing foreign operations or as a result of managerial decisions related to expanding foreign operations. In other words, non-disclosure makes it more difficult for investors to hold managers accountable for segment-specific decisions. Thus, we hypothesize that non-disclosure of geographic earnings allows managers to expand the firm with less accountability, leading to higher growth in foreign sales, lower foreign profitability, and lower firm value. We state these individual hypotheses below (in alternative form).

H1: The growth in foreign sales following adoption of SFAS 131 is greater for firms that no longer disclose geographic earnings than for firms that continue to disclose geographic earnings.

H2: The foreign profit margin following adoption of SFAS 131 is lower for firms that no longer disclose geographic earnings than for firms that continue to disclose geographic earnings.[10]

H3: Firm value following adoption of SFAS 131 is lower for firms that no longer disclose geographic earnings than for firms that continue to disclose geographic earnings.

In addition to sales growth as a measure of empire building, one might also hypothesize an effect on other variables such as changes in total assets, total capital expenditures, or total expenditures for R&D and acquisitions (e.g., Biddle and Hilary [2006, 2007], Verdi [2006]). However, we examine a disclosure related only to a portion of the firm (i.e., foreign operations),

[10] The foreign profit margin is based on the total foreign earnings number required by SEC Regulation §210.4-08(h).

and thus we need a measure of foreign empire building. We use foreign sales growth as a measure of foreign empire building.[11] We consider growth in foreign long-lived assets as a sensitivity analysis, and results are consistent (see Section 5.6.2.).[12]

3. Sample Selection

First, we require all firm-year observations to have data available from Compustat to calculate foreign sales growth, foreign profit margin, domestic sales growth, and domestic profit margin.[13] Firms are required by SEC Regulation §210.4-08(h) to disclose total domestic and total foreign pretax income. We require availability of domestic and foreign performance measures to assess whether changes in foreign operations simply reflect overall firm characteristics affecting domestic operations in the same manner. Then, we require that each firm have data in the five years prior to and the two years following adoption of SFAS 131. Requiring five years of pre-SFAS 131 data ensures that sample firms are well-established and that performance measures are more representative of managerial actions.

[11] In addition to foreign sales growth being a useful measure of empire building, this variable also has the advantage of being readily available on Compustat, our source for segment data. SFAS 131 does not require disclosure of capital expenditure, depreciation, or number of employees by geographic area for most firms, making these data largely unavailable. In addition, SFAS 131 changes the requirement (from SFAS 14) that firms no longer report *total* assets by geographic area, but now must report *long-lived* assets by geographic area. However, Compustat provides data only for total assets by geographic area. If the firm reports long-lived assets but not total assets (in accordance with SFAS 131), then Compustat reports missing geographic asset data for that firm. For our sample, approximately 70 percent of the firms are coded as missing geographic asset data in the post-SFAS 131 period. In contrast, Compustat reports missing geographic asset data for only 0.4% of the sample in the pre-SFAS 131 period.

[12] It is not clear whether sales growth or investment in (fixed) assets would be the preferred measure of empire building. Many firms either do not have significant fixed assets (e.g., service firms) or lease such assets instead of buying them. In addition, unlike sales revenues which can be expanded quickly (say via a new sales office and increased staff), capital investments may take some time to have an effect. As a practical matter, the correlation between foreign sales growth and foreign asset growth in the pre-SFAS 131 period, when data for all firms are available, is 86 percent for our sample of firms. The correlation between domestic sales growth and domestic asset growth in the pre-SFAS 131 period is 82 percent. These high correlations suggest that making distinct inferences from sales growth versus asset growth may be difficult.

[13] Sales growth is defined as the year-over-year percentage change in sales. Foreign and domestic sales data are obtained from the Compustat Segment File. Profit margin is defined as the SEC required foreign (domestic) earnings divided by the sum of foreign (domestic) segment sales. Foreign and domestic pre-tax earnings are provided on the Compustat Annual Industrial File. No inferences are affected if we instead use after-tax income numbers.

We require two years of data in the post-SFAS 131 period to more reliably classify firms as "disclosers" and "non-disclosers" of geographic earnings.[14] Firms are classified as disclosers if they report earnings for at least two foreign geographic segments in the first two years following adoption of SFAS 131.[15] All of our sample firms report geographic earnings in the pre-SFAS 131 period. The final sample consists of 4,773 firm-year observations (502 firms) over ten years surrounding the adoption of SFAS 131 (i.e., five years before and five years after adoption). Approximately 26 percent of the firms are classified as disclosers of geographic earnings in the post-SFAS 131 period. There are 2,263 firm-year observations in the post-SFAS 131 period and 2,510 observations in the pre-SFAS 131 period.

4. Bivariate Tests

In this section, we test our hypotheses related to the impact of non-disclosure of geographic earnings on foreign operations and firm value. Results and conclusions from these tests are then substantiated by examining the relation between (1) non-disclosure and *domestic* operations in the post-SFAS 131 period and (2) non-disclosure and foreign operations in the *pre*-SFAS 131 period. Tests of domestic operating performance in the post-SFAS 131 period provide a within-firm control of whether non-disclosure of geographic earnings relates to some overall firm characteristic affecting firm performance. Tests of foreign operations in the pre-SFAS 131 period

[14] As an additional test, we implement the requirement that firms have all five years available in the post-SFAS 131 period. All of our main conclusions remain with this smaller sample. We prefer the larger sample for which survivorship bias is less severe.

[15] The requirement that at least two foreign geographic segments disclose earnings ensures that all foreign earnings are not included in a single "Total Foreign" segment. Firms are required by SEC Regulation §210.4-08(h) to disclose domestic and foreign pretax income and domestic and foreign tax expense. To be useful, geographic segment disclosure would need to provide a less aggregated set of information. For a random sample of 50 firms disclosing earnings for a single foreign segment, we examine the geographic segment name and find that 38 firms combine multiple geographic areas, seven disclose a single continent segment, and five disclose a single country segment. We have repeated all tests (1) after classifying firms disclosing earnings for a single foreign segment as disclosers and (2) after deleting firms that disclose earnings for a single foreign segment, as it is not clear whether these firms should be classified as disclosers or non-disclosers. For either set of tests, conclusions are consistent with those reported.

provide a control of whether any differential performance in the post-SFAS 131 period also exists in the pre-SFAS 131 period. In section 5, we provide multivariate regressions where we combine all of the bivariate tests into a single model. In the multivariate models we add additional control variables motivated by prior research.

4.1 FIRM PERFORMANCE RELATED TO FOREIGN OPERATIONS

Figure 1 provides evidence of the five-year growth in foreign sales (Panel A), foreign profit margin (Panel B), and Tobin's q (Panel C) for firms disclosing geographic earnings versus those not disclosing in the post-SFAS 131 period. As shown, firms not disclosing geographic earnings have a substantially higher growth in foreign sales following adoption of SFAS 131. The mean five-year growth in foreign sales for non-disclosing (disclosing) firms is 29.2 (13.9) percent.[16] The difference is significant at the 0.05 level and provides evidence consistent with H1.

Figure 1 also shows that foreign profit margins for non-disclosers remain relatively flat following implementation of SFAS 131, while foreign profit margins for disclosers increase (Panel B). In the initial year of adoption, the average foreign profit margins for non-disclosers and disclosers are quite similar (6.3 percent versus 6.7 percent). By the fourth year after the year of adoption, the average foreign profit margin for non-disclosers slightly increases to 6.4 percent, while the average foreign profit margin for disclosers rises to 9.1 percent. The difference is significant at the 0.05 level.

One may consider that the lower foreign profit margins of non-disclosers are simply a mathematical result of greater foreign sales growth (i.e., a denominator effect in the calculation of

[16] To mitigate the effect of extreme observations, we define sales growth as the log of one plus the percentage change in sales. Results are consistent (and even more pronounced) when we instead use raw numbers for sales growth. The remaining variables of interest (i.e., profit margin, Tobin's q ratio, stock returns, and forecasts made by analysts and management) are also subject to extreme observations. Within each of these tests, we exclude the extreme percentiles in each year as a control for outliers. No inferences are affected if we do not exclude extreme observations.

profit margin). However, this does not appear to be the case. If we split the sample based on the median foreign sales growth, we find that firms with higher foreign sales growth have, on average, higher foreign profit margins (0.087) compared to firms with lower foreign sales growth (0.063) in the post-SFAS 131 period.[17] However, the opposite is true when we split firms based on disclosure/non-disclosure of geographic earnings. Firms that no longer disclose geographic earnings have lower foreign profit margins even though they have greater foreign sales growth. This result supports our contention that non-disclosure reduces monitoring of managerial decisions, allowing managers to inefficiently expand foreign operations, which reduces foreign profitability.

Finally, in Panel C we show the trend in the Tobin's q ratio, measured as total liabilities plus total market of common equity, divided by total book value of assets. Both groups of firms have falling firm values, consistent with overall market trends during the post-SFAS 131 period. Important for our tests, the decrease in firm value is nearly twice as great for non-disclosers. By the end of the post-SFAS 131 period, the average Tobin's q is 1.87 for disclosers and only 1.57 for non-disclosers. This difference is significant at the 0.01 level. In the year prior to implementation of SFAS 131, the average Tobin's q ratio is not significantly different between the two groups. The Tobin's q is 2.15 for disclosers and 2.05 for non-disclosers. Overall, the evidence is consistent with investors perceiving non-disclosers to be losing more value than disclosers in the post-SFAS 131 period.[18]

[17] The same is also true in the pre-SFAS 131 period. The foreign profit margin for high foreign sales growth firms (0.084) is greater than the foreign profit margin for low foreign sales growth firms (0.069).

[18] One may argue that non-disclosers are investing in foreign operations, and results of such investments have not reached fruition during our five-year post-SFAS 131 period. In other words, non-disclosers may be willing to suffer lower profit margins in the short run as a trade-off for higher profit margins in the long run. Since we limit our post-SFAS 131 period to five years, we add this possibility as a caveat to our conclusions. Future research can extend the performance window to provide additional evidence. Results for Tobin's q test, however, suggest that as of the final year of the post-SFAS 131 period investors did not expect performance to improve in the near future for non-disclosers.

The fact that non-disclosers do not report geographic earnings does not preclude investors from detecting the inferior performance of the firm as a whole. In fact, this is exactly what we predict should happen. The agency cost hypothesis predicts that when managers are monitored less, they are more likely to make suboptimal decisions. Suboptimal decisions will eventually lead to lower reported total earnings, which must be disclosed by all firms, causing firm values to decline.[19] Non-disclosers do not report specific geographic earnings, making it more difficult for investors to know whether poorer performance relates to normal business operations (i.e., existing operations or events external to the manager's control) or to the manager's decision to expand in certain foreign areas. Thus, non-disclosure of geographic earnings does not preclude poor performance from eventually being reported in total earnings, but non-disclosure does make it more difficult to monitor whether performance relates to poor managerial decisions. In summary, we show that non-disclosure is associated not only with lower reported accounting performance but also with real economic losses, as measured by the decrease in firm value.[20]

4.2 FIRM PERFORMANCE RELATED TO DOMESTIC OPERATIONS

To this point, we have analyzed performance measures related to foreign operations (i.e., foreign sales growth and foreign profit margin). These measures are hypothesized to be affected by non-disclosure of geographic earnings because geographic earnings disclosures relate to the reporting of foreign operations. Geographic disclosures do not pertain to domestic operations, and therefore domestic operations are not expected to be affected by disclosure/non-disclosure of

[19] At some point, the valuation penalty will be internalized by the manager (e.g., declines in personal value of equity in company, increased likelihood of being fired, etc.). However, some of these penalties can be delayed with the help of strategic disclosure. Note that our multivariate tests control for managerial ownership in the firm.

[20] An alternative explanation for non-disclosure is proprietary costs (Harris [1998], Ettredge, Kwon, Smith, and Stone [2006]). That is, firms may reduce disclosure so as to minimize costs of competitive harm from public disclosure. However, the proprietary cost explanation for non-disclosure would *not* explain the economic consequences we predict in our hypotheses and observe in our tests. Nevertheless, our multivariate regressions include controls for proprietary costs (and results are not affected by inclusion of these controls).

geographic earnings. Thus, tests of firm performance measures related to domestic operations provide a useful (within-firm) sensitivity analysis of whether results for foreign operations relate to non-disclosure of geographic earnings, or whether they are spuriously correlated with overall firm characteristics.

Panel A of Figure 2 shows that, in the first three years of the post-SFAS 131 period, domestic sales growth is approximately equal for disclosers and non-disclosers. In the last two years, non-disclosers actually have lower domestic sales growth. The difference in year 3 is marginally significant ($t = 1.79$) and year 4 is not significant ($t = 1.22$). The slightly greater domestic sales growth is the opposite of the results found in Figure 1 where non-disclosers have higher foreign sales growth. Therefore, the results in Figure 2 reinforce the notion that the greater foreign sales growth of non-disclosers is not attributable to overall firm characteristics which separate firms into high and low growth firms.

Panel B reports domestic profit margins in the post-SFAS 131 period. For four out of the five years, we find no difference in domestic profit margins between disclosers and non-disclosers. Similar to our conclusions for sales growth, finding evidence that domestic profit margins do not show a similar pattern for disclosers versus non-disclosers supports our conclusions related to foreign profit margin.

4.3 DIFFERENCES IN FIRM PERFORMANCE IN THE PRE-SFAS 131 PERIOD

The results in the previous section provide evidence of differences in firm performance consistent with the agency cost hypothesis. However, it could be that these differences existed *before* adoption of SFAS 131 because of some "other" factor. If this is the case, then it would be difficult to argue that disclosure/non-disclosure of geographic earnings accompanying adoption of SFAS 131 relates to firm performance. We examine whether differences in firm performance

measures between non-disclosers and disclosers in the post-SFAS 131 period also existed in the pre-SFAS 131 period.

Results are depicted in Figure 3. Panel A shows that the five-year foreign sales growth in the pre-SFAS 131 period for disclosers and non-disclosers is very similar. Thus, there is no evidence that the higher growth of foreign sales for non-disclosing firms existed prior to adoption of SFAS 131. Only after adoption of SFAS 131 did the growth characteristics of foreign sales become fundamentally different between disclosers and non-disclosers. For descriptive purposes, we also show domestic sales growth in the pre-SFAS 131 period (Panel B). Over the five-year period, domestic sales growth is approximately equal between the two groups (40.0 percent versus 48.4 percent).

Panel C shows that in the first three years of the pre-SFAS 131 period, eventual disclosers have higher foreign profit margins than eventual non-disclosers. Then, during the final two years of the pre-SFAS 131 period, foreign profit margins of eventual non-disclosers became greater. However, in the post-SFAS 131 period non-disclosers have lower foreign profit margins than they did in the pre period (and compared with disclosers). Thus, the results in the pre-SFAS 131 period are opposite those found in the post-SFAS 131 period, supporting our earlier conclusions. Panel D shows that domestic profit margins are approaching each other over the pre-SFAS 131 period, although eventual disclosers exhibit higher domestic profit margins each year prior to adoption.

In summary, the results in Figure 3 provide no indication that differences in firm performance measures, identified in the post-SFAS 131 period, existed in the pre-SFAS 131 period. This increases our confidence that results attributed to the disclosure/non-disclosure of geographic earnings are reliable.

4.4 EXPECTATIONS OF INVESTORS, ANALYSTS, AND MANAGEMENT

One plausible explanation for our results is that if management expects firm performance to be poorer in the post-SFAS 131 period, then they may have incentives not to report these lower profit margins on a geographical basis (i.e., they would become non-disclosers).[21] We test whether firms' expected performance at the end of the pre-SFAS 131 period relates to the decision of disclosing geographic earnings in the post-SFAS 131 period. We employ three measures. First, we use annual stock returns leading up to adoption of SFAS 131. To the extent that prices lead reported accounting performance (e.g., Collins, Kothari, Shanken, and Sloan [1994], Ettredge, Kwon, Smith, and Zarowin [2005]), investors will likely react at the end of the pre-SFAS 131 period to the expected lower profit margins in the post-SFAS 131 period. If we detect a decline in stock performance, then one may argue that lower performance was expected for non-disclosers. In other words, non-disclosure is not affecting firm performance, but rather (expected) firm performance is affecting disclosure.

Our second measure is analysts' expectations of the growth in earnings prior to adoption of SFAS 131. While it would be convenient to have analysts' separate forecasts of foreign earnings and domestic earnings, these data are not available. Instead, we must rely on estimates of total earnings. If analysts are predicting a decline in overall firm performance, then it could very well be that the expected declining firm performance relates to foreign operations. Once again, in this case it could be argued that non-disclosure of geographic earnings in the post-SFAS 131 period relates to expected firm performance.

Our final measure is forecasts of the growth in earnings made by management prior to adoption of SFAS 131. This provides the most direct test of whether the decision to disclose

[21] The proprietary cost hypothesis predicts the opposite. Non-disclosure of segment data is more likely to occur when expected operating performance is high (e.g., Botosan and Stanford [2005]). The results for our sample of firms do not support this prediction.

geographic earnings merely reflects the CEO's expectations of higher future operating performance. At the same time, this test is the one most likely to be affected by (management) bias. Bias can occur not only in the reported number but also in the decision of whether to announce a forecast. Thus, these results should be interpreted cautiously.

Figure 4 provides a graphical depiction of stock returns over the five-year pre-SFAS 131 period. Since investors may predict earnings up to three years in advance (Collins, Kothari, Shanken, and Sloan [1994]), we report all five years to be complete. The average annual returns of disclosers and non-disclosers in the pre-SFAS 131 period are 20.3 percent and 21.6 percent, respectively. Based on these results, it does not appear that investors expected relatively poorer earnings performance of non-disclosers in the post-SFAS 131 period.

Panel A of Figure 5 reports analysts' one-year, two-year, and long-term forecasted growth in earnings during adoption of SFAS 131 (from I/B/E/S).[22] Across the one-year, two-year, and long-term horizons, growth forecasts are similar for disclosers and non-disclosers. None of these differences is significant.

In Panel B of Figure 5 we show management forecasts of one-year growth in earnings (from First Call).[23] The mean forecasted growth in EPS for disclosers is 1.0 percent, as compared with 1.1 percent for eventual non-disclosers (both scaled by price). This difference is not significant, supporting our results for stock returns and analysts' forecasts.

[22] The forecasted growth in one-year (two-year) earnings is measured as the mean consensus forecasted earnings per share for next year (two years ahead) less forecasted earnings for the current year, scaled by price at the time of the forecast. Long-term forecasts are provided directly by I/B/E/S as a percentage growth in earnings. Analysts' forecasts are measured in the final month of the SFAS 131 adoption year. All per share data are adjusted for stock splits (Payne and Thomas [2003]). We eliminate growth forecasts at the 1st and 99th percentile. The final sample sizes include 349, 132, and 316 observations for the one-year, two-year, and long-term intervals, respectively. Similar results are obtained when instead using the median consensus forecast.

[23] Since not all firms provide management earnings forecasts, we have a much smaller sample (N = 91) for this test compared with tests using investors' or analysts' expectations. The frequency of providing a managerial forecast is approximately equal between disclosers (18.3 percent) and non-disclosers (18.1 percent).

Overall, the results in this section suggest that just prior to adoption of SFAS 131, investors, analysts, and managers did not expect the inferior performance of non-disclosers in the post-SFAS 131 period.

5. Multivariate Tests

In this section, we combine the graphical results presented in Figures 1-5 into multivariate tests of the hypotheses. We test for the relation between non-disclosure of geographic earnings and foreign operations while controlling for domestic operations and pre-SFAS 131 operations. Then, we add a number of other variables to control for firm characteristics which may explain our results. We follow the multivariate tests with a number of sensitivity tests.

5.1 FOREIGN OPERATIONS CONTROLLING FOR DOMESTIC OPERATIONS AND PRE-SFAS 131 OPERATIONS

To test the relation between non-disclosure of geographic earnings and foreign sales growth in the post-SFAS 131 period, we estimate the following model.

$$ForGrow_{i,t} = \alpha_{10} + \alpha_{11} NoDisc_{i,t} + \alpha_{12} DomGrow_{i,t} + \alpha_{13} Pre\_ForGrow_{i,t} + \alpha_{14} Pre\_DomGrow_{i,t} + \varepsilon_{1,i,t} \quad (1)$$

α_{11} estimates the relation between five-year growth in foreign sales (*ForGrow*) in the post-SFAS 131 period and non-disclosure of geographic earnings (*NoDisc*).[24] Consistent with H1, α_{11} is expected to be positive. We control for five-year domestic sales growth in the post-SFAS 131 period (*DomGrow*), as well as the five-year foreign and domestic sales growth at the end of the pre-SFAS 131 period (*Pre_ForGrow* and *Pre_DomGrow*).

[24] We also consider four-year and three-year horizons to measure sales growth and find results similar to those reported.

As a sensitivity analysis, we also estimate a similar model for domestic sales growth in the post-SFAS 131 period.

$$DomGrow_{i,t} = \alpha_{20} + \alpha_{21} NoDisc_{i,t} + \alpha_{22} ForGrow_{i,t} + \alpha_{23} Pre\_ForGrow_{i,t} + \alpha_{24} Pre\_DomGrow_{i,t} + \varepsilon_{2,i,t} \quad (2)$$

Here, α_{21} is not expected to be significantly different from zero. As final tests, we present results for the pre-SFAS 131 period.

$$ForGrow_{i,t} = \alpha_{30} + \alpha_{31} NoDisc_{i,t} + \alpha_{32} DomGrow_{i,t} + \varepsilon_{3,i,t} \quad (3)$$

$$DomGrow_{i,t} = \alpha_{40} + \alpha_{41} NoDisc_{i,t} + \alpha_{42} ForGrow_{i,t} + \varepsilon_{4,i,t} \quad (4)$$

α_{31} and α_{41} are not expected to be significantly different from zero.

We provide a similar set of models for foreign and domestic profit margin (*ForPM* and *DomPM*).

$$ForPM_{i,t} = \alpha_{50} + \alpha_{51} NoDisc_{i,t} + \alpha_{52} DomPM_{i,t} + \alpha_{53} Pre\_ForPM_{i,t} + \alpha_{54} Pre\_DomPM_{i,t} + \varepsilon_{5,i,t} \quad (5)$$

$$DomPM_{i,t} = \alpha_{60} + \alpha_{61} NoDisc_{i,t} + \alpha_{62} ForPM_{i,t} + \alpha_{63} Pre\_ForPM_{i,t} + \alpha_{64} Pre\_DomPM_{i,t} + \varepsilon_{6,i,t} \quad (6)$$

$$ForPM_{i,t} = \alpha_{70} + \alpha_{71} NoDisc_{i,t} + \alpha_{72} DomPM_{i,t} + \varepsilon_{7,i,t} \quad (7)$$

$$DomPM_{i,t} = \alpha_{80} + \alpha_{81} NoDisc_{i,t} + \alpha_{82} ForPM_{i,t} + \varepsilon_{8,i,t} \quad (8)$$

Models (5) and (6) are estimated over the post-SFAS 131 period, while models (7) and (8) are estimated over the pre-SFAS 131 period.[25] For our five-year sales growth models (1-4), we estimate the model in the final year of the five-year period (i.e., each firm appears only once in the

[25] In these models, *Pre_ForPM* and *Pre_DomPM* are five-year averages of *ForPM* and *DomPM* in the pre-SFAS 131 period.

estimation). For our profit margin models (5-8), we estimate the model in each year and report average coefficients using the Fama-Macbeth [1973] procedure.

5.2 OTHER CONTROL VARIABLES

Because a number of firm characteristics may explain cross-sectional differences in firm performance, we also report results after adding several control variables to models (1) – (8). In particular, we include control variables for the firm's information environment, firm performance, and alternative corporate governance mechanisms.

We include *Size* (log of total assets) as it is a standard proxy for the firm's overall disclosure level (e.g., Lang and Lundholm [1996]), and thus it controls for other disclosures provided by firms. *Follow* (number of analysts following the firm) is included as a further control for the firm's information environment (Schipper [1991]). *Listing* (indicator variable for exchange listing on NYSE or AMEX) controls for any differential effect that listing on a major stock exchange may have on the firm's decisions related to disclosure. *Listing* may also control for the extent of alternative sources of public information about the firm's operations.

LOB (reported number of line of business segments) controls for industry diversification across firms, which may affect overall firm growth and profitability (Bens and Monahan [2004]). *Foreign%* (percentage of sales from foreign operations) controls for the relative importance of foreign operations across our sample firms. *Industry* (indicator variables for each two-digit SIC code) controls for industry-variation in performance and industry-varying proprietary costs (Dye and Sridhar [1995]).

Since we want to isolate the effect of non-disclosure of geographic earnings to lack of monitoring, we control for several alternative corporate governance mechanisms. In addition to being a widely used proxy for the firm's information environment, analysts (*Follow*) could also be

viewed as external monitors of managers' actions. In fact, prior literature argues that financial analysts have a competitive advantage in monitoring the firms they follow (e.g., Jensen and Meckling [1976], Bushman, Piotroski, and Smith [2006]).

We further include institutional and management stock ownership as controls for alternative governance mechanisms. Prior literature suggests that institutional investors can act as effective monitors of corporate governance (e.g., Shleifer and Vishny [1997]), and we control for the percentage of shares owned by institutions (from 13f filings, available through Thomson Financial), *Inst%*.[26] Managerial stock ownership represents an alternative mechanism by which to align managers' interests with those of shareholders (Jensen and Meckling [1976]), and consequently we control for the percentage of shares owned by the CEO (from ExecuComp), *Mgmt%*.[27] Finally, given the arguments provided by Jensen [1986] regarding how the use of debt can reduce agency costs, we include *Leverage* (total liabilities divided by total assets) as an additional control variable (see also Lyandres and Zdhanov [2005]).

For brevity, we show the model including all control variables only for equation (1):

$$\begin{aligned} ForGrow_{i,t} = {} & \alpha_{10} + \alpha_{11} NoDisc_{i,t} + \alpha_{12} DomGrow_{i,t} + \alpha_{13} Pre\_ForGrow_{i,t} + \\ & \alpha_{14} Pre\_DomGrow_{i,t} + \alpha_{15} Size_{i,t} + \alpha_{16} Follow_{i,t} + \alpha_{17} Listing_{i,t} + \\ & \alpha_{18} LOB_{i,t} + \alpha_{19} Foreign\%_{i,t} + \alpha_{110} Inst\%_{i,t} + \alpha_{111} Mgmt\%_{i,t} + \\ & \alpha_{112} Leverage_{i,t} + \sum_{j} \alpha_{j} Industry_{j,i,t} + \varepsilon_{j,i,t} \end{aligned} \tag{1a}$$

These control variables are also added to models (2) – (8). Table 1 provides mean amounts of control variables. We compare disclosers and non-disclosers in the post-SFAS 131 period and in the pre-SFAS 131 period. In the first set of variables, we find that non-disclosers tend to be

[26] No inferences are affected when we instead use the number of institutions holding the stock of the company.
[27] In the sensitivity analyses section we control for additional governance variables. We do not include these in the main tests as they limit the sample size rather significantly.

followed by fewer analysts, be listed more often on the NYSE or AMEX, and have a lower foreign sales percentage.[28]

5.3 SALES GROWTH

Table 2 reports multivariate regression results for sales growth. The first column supports H1 by demonstrating that the positive and significant relation between *ForGrow* and *NoDisc* in Figure 1 holds after controlling for *DomGrow, Pre_ForGrow*, and *Pre_DomGrow*. In other words, controlling for domestic sales growth in the post-SFAS 131 period and for domestic and foreign sales growth in the pre-SFAS 131 period, we find that non-disclosers have significantly (at the five percent level using a two-tailed test) greater foreign sales growth compared to disclosers. The second column shows that, after adding additional control variables (including several proxies for alternative corporate governance mechanisms), this conclusion does not change.

The remaining six columns of Table 2 provide results of the sensitivity tests. We find no evidence that *NoDisc* relates positively to domestic sales growth in the pre- or post-SFAS 131 period or to foreign sales growth in the pre-SFAS 131 period. As predicted, the positive association between non-disclosure and sales growth appears to be isolated to foreign sales in the post-SFAS 131 period.

5.4 PROFIT MARGIN

In Table 3, we examine the effect of non-disclosure on profit margins and obtain similar conclusions. *NoDisc* is significantly negatively related to *ForPM* in the post-SFAS 131 period, consistent with H2. These results obtain after controlling for domestic profit margin in the post-

[28] Untabulated results also show that the percentage increase in foreign sales from the pre- to post-SFAS 131 period is significantly positive for non-disclosers and not significant for disclosers.

SFAS 131 period and for domestic and foreign profit margin in the pre-SFAS 131 period (as well as other control variables). There is no evidence of a negative association between *NoDisc* and *ForPM* in the pre-SFAS 131 period or between *NoDisc* and *DomPM* in the post-SFAS 131 period.

Overall, the results in tables 2 and 3 support the notion that non-disclosure of geographic earnings reduces shareholders' ability to monitor the foreign operations of the firm, causing the manager to aggressively grow the firm, which reduces firm performance. These results are consistent with the findings of Bebchuk and Fried [2005] that managers may have incentives to take actions that reduce the value of the firm. Our findings are also consistent with the idea that financial disclosures can be useful in reducing agency costs by providing shareholders with a tool for monitoring, which improves their ability to relate managerial decisions to firm performance (Healy and Palepu [2001]. Lombardo and Pagano [2002]), and with the idea that enhanced disclosure can mitigate the overinvestment problem (Kanodia and Lee [1998]).

5.5 TOBIN'S Q RATIO

For this analysis, we estimate the relation between non-disclosure and Tobin's q ratio at the end of the post-SFAS 131 period and control for Tobin's q ratio at the end of the pre-SFAS 131 period.

$$TobinQ_{i,t} = \alpha_{90} + \alpha_{91} NoDisc_{i,t} + \alpha_{92} Pre\_TobinQ_{i,t} + \varepsilon_{9,i,t} \quad (9)$$

As a sensitivity analysis, we also estimate the relation between Tobin's q and non-disclosure in the pre-SFAS 131 period. This informs as to whether investors perceived differences in firm value prior to adoption of SFAS 131.

$$TobinQ_{i,t} = \alpha_{100} + \alpha_{101} NoDisc_{i,t} + \varepsilon_{10,i,t} \quad (10)$$

Model (10) is estimated in the final year of the pre-SFAS 131 period. As in our previous models, we then add a number of additional control variables to models (9) and (10). In addition to those included in the models for growth and profit margin, we include average domestic profit margin (*DomPM*) in the post-SFAS 131 period for (9) and in the pre-SFAS 131 period for (10). Including performance measures related to domestic operations controls for movements in firm value unrelated to foreign operations. Our tests are built on the premise that it is managerial decisions related to foreign operations, and consequently foreign performance, which results in reduced firm value. Finally, in both models we control for the five-year standard deviation of return on equity in the pre-SFAS 131 period (*Pre_StdROE*). *Pre_StdROE* provides some measure of cross-sectional differences in risk, which could impact realized results.[29]

Table 4 provides results for the firm value analysis. For the post-SFAS 131 period, we find that *NoDisc* is significantly negatively related to Tobin's q. This result is consistent with H3 and suggests that investors perceive firms that no longer disclose geographic earnings to be less valuable compared with disclosers. Thus, the reduced operating performance documented in Table 3 appears to have real consequences for firm value. For the pre-SFAS 131 period we see that *NoDisc* is not significant, indicating that in the year prior to adopting SFAS 131 Tobin's q ratio does not differ significantly between disclosers and non-disclosers. The lower firm values of non-disclosers observed in the post-SFAS 131 period occurs only after adoption of SFAS 131. Overall, the results in Table 4 confirm our earlier conclusions that non-disclosure of geographic earnings is associated with lower firm value.

[29] We winsorize *DomPM* at the 1st and 99th percentile and *Pre_StdROE* at the 99th percentile in each year.

5.6 PRIOR EXPECTATIONS OF INVESTORS, ANALYSTS, AND MANAGEMENT

We also examine the relation between non-disclosure and prior expectations of investors, analysts, and management using multivariate models. For investors' expectations, we measure returns over the following periods: (1) the year prior to adoption of SFAS 131, (2) the three-year period prior to adoption, and (3) the five-year period prior to adoption. Using periods longer than one year is consistent with findings in Collins, Kothari, Shanken, and Sloan [1994] that stock prices lead reported accounting performance by up to three years. In these regressions, we control for annual changes in domestic earnings and the equally-weighted market return in addition to the controls previously introduced.

For analysts' expectations, we use (1) the one-year-ahead forecasted change in earnings per share, (2) two-year-ahead forecasted change in earnings per share, and (3) the long-term forecast of percentage growth in EPS. The (consensus) forecasted change equals the forecasted amounts for subsequent years less expected earnings in the current year, scaled by price at the time of the forecasts. Long-term forecasts are provided directly by I/B/E/S as a percentage growth in earnings. All forecasts are measured in the final month of the SFAS 131 adoption year.

For management expectations, we use management forecasts of the percentage growth in one-year-ahead earnings around the adoption of SFAS 131. We obtain management forecasts during the period six months before to six months after the end of the SFAS 131 adoption year.

Using multivariate models (not tabulated for brevity), we find no evidence of a relation between non-disclosure and expectations of investors, analysts, and management. These results are consistent with the results reported in section 4 which did not include control variables. We conclude that there is no evidence suggesting that the decision to disclose geographic earnings is caused by expected performance rather than causality running in the opposite direction (i.e., the decision to disclose affects firm performance).

5.7 ADDITIONAL SENSITIVITY ANALYSES

Although we provide a number of tests above, in this section we subject our findings to additional robustness tests.

5.7.1. Control for Alternative Disclosure of Geographic Earnings. To ensure that our non-disclosing firms do not provide geographic earnings information elsewhere in the annual report (e.g., in the MD&A section), we selected a random sample of 30 firms and examined their annual reports in detail. We found no instance where our non-disclosing firms discussed geographic earnings, suggesting that non-disclosure in the segment notes means non-disclosure in the annual report. All of these firms report geographic sales and long-lived assets as required by SFAS 131 in the segment note.[30]

5.7.2. Growth in Foreign Long-Lived Assets. As explained earlier, data limitations make it more difficult to test for changes in foreign assets from the pre to post-SFAS 131 period. However, as a sensitivity analysis, we hand collect data on foreign long-lived assets for the post-SFAS 131 period for a random sample of 50 disclosers and 50 non-disclosers. We find that the mean (median) of the log of growth in foreign long-lived assets for non-disclosers of geographic earnings is 46.3 (44.0) percent. This compares with a mean (median) of −3.4 (14.5) percent for disclosers. The difference in means (medians) is significant at the 0.05 level for a two-tailed test. Furthermore, for the growth in domestic long-lived assets, the differences in means (21.6 versus 12.2 percent) and medians (13.7 versus 14.4 percent) of non-disclosers and disclosers are not

[30] It is possible that managers provide analysts with geographic earnings information during conference calls or other similar forums. While we know of no instance where this has occurred, we do not test explicitly for these alternative sources of disclosure.

significant. These results suggest that empire building includes actual assets being employed in foreign countries.

5.7.3. Alternative Measures of Firm Performance and Firm Value. As an alternative to using foreign profit margin, we investigate return on total assets, measured as income before extraordinary items divided by average total assets. In the year prior to SFAS 131, the returns on assets for disclosers (0.062) and non-disclosers (0.054) are not significantly different. In the final year of the post-SFAS 131 period, the difference in return on assets for disclosers (0.034) and non-disclosers (0.015) is significant at the 0.05 level. Since asset growth has occurred primarily through foreign assets (see previous section), the lower return on total assets for non-disclosers in the post-SFAS 131 period is likely attributable to the lower productivity of expanding foreign assets.

As an alternative to using Tobin's q ratio to measure changes in firm value in the post-SFAS 131 period, we employ annual stock returns. To this point, we document that (1) non-disclosers have lower Tobin's q in the post-SFAS 131 period (Table 4 and Figure 1, Panel C), (2) Tobin's q ratios of disclosers and non-disclosers are not different in the pre-SFAS 131 period (Figure 1, Panel C), and (3) annual stock returns of disclosers and non-disclosers are not different in the pre-SFAS 131 period (Figure 4). In combination, these results suggest that investors did not expect the lower performance of non-disclosers in the post-SFAS 131 period and, consequently, the change in firm values were lower for these firms. We examine whether these declining firm values in the post-SFAS 131 period are also evident by lower annual stock returns. Over the five-year post-SFAS 131 period, the mean (median) annual stock return of non-disclosing firms is 5.1 (-4.2) percent as compared to 10.9 (-0.5) percent for disclosing firms. These differences are significant at the 0.05 level and remain after controlling for average returns in the pre-SFAS 131

period and other variables discussed before (as well as the book-to-market ratio and CAPM beta). Thus, based on the above tests, our conclusions do not hinge on the use of foreign profit margins or Tobin's q ratio as our test metrics of firm performance.

5.7.4. Additional Controls for Corporate Governance. Using a smaller sample that has the necessary governance data available from ExecuComp, we add controls for (1) whether the CEO is also the Chairman of the board, (2) the CEO's tenure in years, and (3) the number of board meetings per year. In addition, as an overall proxy for shareholders' rights, we add the "corporate governance index" (or "gindex") from Gompers, Ishii, and Metrick [2003].[31] No inferences are affected by the inclusion of these additional controls.

Whether the CEO is also the chairman or not is possibly the single strongest indicator of how much power the CEO has vis-à-vis the board. In unreported analyses, we find that our results for non-disclosure of geographic earnings are significantly more pronounced for the subsample of firms for which the CEO also chairs the board. However, given the limited sample size in these tests we do not want to emphasize these results too strongly.

5.7.5. Sales Forecasts. Previously reported results suggest that analysts' *earnings* growth expectations do not differ between disclosers and non-disclosers prior to adoption of SFAS 131. In this section, we consider *sales* growth expectations. Expected sales growth is measured as the expected growth in sales from the year before to the year after adoption of SFAS 131. Expectations are measured as of the last available I/B/E/S consensus sales forecast in the year of SFAS 131 adoption. The sample size reduces to 67 disclosers and 182 non-disclosers. Average

[31] These governance scores are described in detail in Gompers, Ishii, and Metrick [2003] and Jiraporn, Kim, Davidson, and Singh [2006]. We obtain these scores from Jan Mahrt-Smith, Pornsit Jiraporn, and from Andrew Metrick's web site at Wharton.

expected sales growth of disclosers (14.4 percent) is not significantly different from that of non-disclosers (16.4 percent). Medians are also similar (13.4 percent versus 14.7 percent). In the multivariate regression controlling for all variables in the expected earnings growth models and forecast horizon, the coefficient on *NODISC* is not significant.

5.7.6. Control for Accrual Quality. Verdi [2006] finds evidence that accrual quality (a proxy for financial reporting quality) is negatively associated with overinvestment. Following the procedure in Verdi [2006], we include accrual quality as an additional control variable. Lack of available data reduces the sample by 21 percent. We find results nearly identical to those we report and none of our conclusions changes. Accrual quality, as measured by Verdi [2006], is not significantly related to foreign sales growth, foreign profit margin, or Tobin's q for our sample of firms.

5.7.7. Alternative Sample Choice. As discussed above, firms that define their primary segments along geographic lines are required to disclose geographic earnings. After deleting these observations, the sample size is reduced by 12 percent but no inferences are affected.[32]

6. Summary

An important function of financial disclosures is to provide shareholders a mechanism by which to monitor the activities of managers. When left unmonitored, managers will make decisions to maximize their own utility, potentially reducing shareholder value. Suboptimal

[32] Whether geographic earnings are disclosed voluntarily (secondary segments) or by mandate (primary segments) is not crucial to our research design. Disclosures allow external parties to monitor the activities of managers. Non-disclosure reduces this monitoring role. Thus, we are concerned only with the disclosure/non-disclosure distinction for all sample firms. Nevertheless, our results remain robust to excluding those firms that are required to disclose geographic earnings.

decisions by the manager include "empire building" (i.e., growing the firm beyond its optimal size), which decreases operating performance and reduces firm value (Jensen [1986]). There is, however, little empirical evidence on the relation between financial disclosure and managers' propensity to overinvest. We test this notion in the context of geographic earnings disclosures. Prior to implementation of Statement of Financial Accounting Standards No. 131 (SFAS 131), all firms were required to disclose earnings by geographic area. However, under SFAS 131, the reporting of geographic earnings is no longer mandatory for most firms. When operating segments are defined on any basis other than geographic area, geographic earnings are not a required disclosure. If non-disclosure of geographic earnings hinders the ability of shareholders to monitor the decisions of managers related to foreign operations, then we expect managers to excessively grow the foreign operations of the firm, leading to reduced foreign profitability and an overall reduction in firm value.

Consistent with these predictions, using a sample of firms with extensive foreign operations, we find that non-disclosure of geographic earnings is associated with higher foreign sales growth and a decrease in foreign profit margin. As monitoring is reduced, managers are more willing to expand international operations even though it leads to lower profitability. In conjunction with the lower profitability, we also note that firm values are consistently lower for firms that no longer disclose geographic earnings. This is consistent with investors perceiving these managerial actions as value reducing as well.

Two additional features of our research design provide greater comfort that our results relate to their hypothesized effect and are not merely caused by overall firm characteristics. First, we are able to provide a "within-firm" control by comparing the performance of foreign operations with the performance of domestic operations in the post-SFAS 131 period. Geographic earnings disclosures relate solely to foreign operations. Therefore, non-disclosure of geographic earnings

should have no impact on domestic operations. If domestic operations follow a similar pattern to foreign operations, then our tests would appear to be capturing some overall firm characteristics. We find no evidence that non-disclosure has a similar relation with domestic operations in the post-SFAS 131 period. Second, we compare differences in firm performance of disclosers and non-disclosers in the post-SFAS 131 period to differences between these firms in the pre-SFAS 131 period. These "difference-in-differences" tests have the advantage of controlling for a number of extraneous factors that could affect firm performance. When all sample firms adopt a financial reporting standard in a similar manner and at the same point in time, it is difficult to rule out the effect of changing macroeconomic conditions which may coincide with implementation of the new standard. We find that differences in foreign operations in the post-SFAS 131 period do not exist in the pre-SFAS 131 period.

As a final test, we consider that the decision to disclose geographic earnings may be based on expected firm performance. In other words, disclosure does not impact firm performance (we hypothesize that it does). Instead, expected firm performance could impact disclosure. To examine this alternative scenario, we consider three tests. We examine expectations of firm performance in the post-SFAS 131 period by investors, analysts, and managers. The expectations of post-SFAS 131 performance by analysts and managers are directly observable at the time of adoption of SFAS 131. Investors' expectations are inferred based on stock returns prior to adoption of SFAS 131. For all three tests, we find no evidence that non-disclosing firms were expected to perform more poorly in the post-SFAS 131 period. Stock returns and analysts' and managers' forecasts of post-SFAS 131 performance are approximately equal for eventual disclosers and non-disclosers in the pre-SFAS 131 period.

Finally, we add a large number of control variables to capture effects of alternative corporate governance mechanisms, the firm's information environment, and drivers of operating

performance. Our inferences remain robust when using alternative measures for growth in foreign operations (e.g., long-lived assets), firm performance (e.g., return on assets), and change in firm value (e.g., annual stock returns). Overall, our results are consistent with the agency cost hypothesis and the important role of financial disclosures in monitoring the activities of managers.[33]

As U.S. firms continue to expand their international operations, both investors and regulators should be increasingly interested in issues related to disclosure of foreign operations. By allowing managers the choice of whether to disclose geographic earnings for enterprise-wide disclosures, SFAS 131 may reduce the ability of investors to monitor managerial activities. Similarly, the IASB's recent standard on segment reporting (IFRS 8), which is nearly identical to SFAS 131 and considered quite controversial by many, may also result in weakened monitoring of firms around the world.

[33] We detect a decline in the performance of non-disclosures relative to disclosers and attribute that result to empire building of foreign operations. Theoretically it could be that the decline would have been even greater if managers of non-disclosing firms had *not* engaged in foreign expansion. While there is no way to determine this with certainty, our overall research design and results suggest that suboptimal behavior through empire building is the more likely story. Specifically, finding no differences in foreign performance in the pre period or for domestic operations in the post periods indicates that there is no reason to believe that managers of disclosers versus non-disclosers would have differential optimal behavior in the post period. Even more importantly, the fact that investors, analysts, and management do not appear to expect the lower post period performance of non-disclosers suggests that non-disclosing managers' actions were unexpected and less likely the result of rational behavior to expected lower performance.

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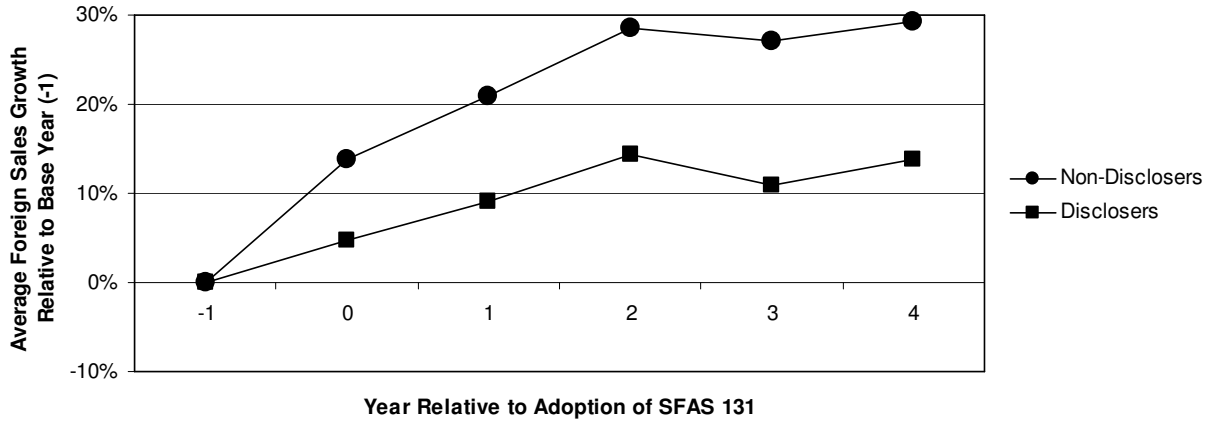
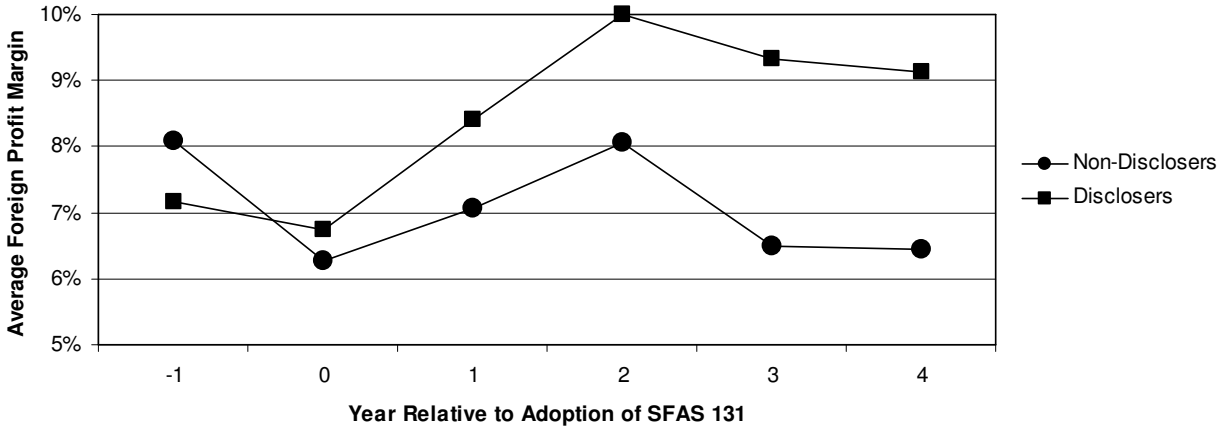
Figure 1. Firm Performance in the Post-SFAS 131 Period for Disclosers and Non-Disclosers of Geographic Earnings

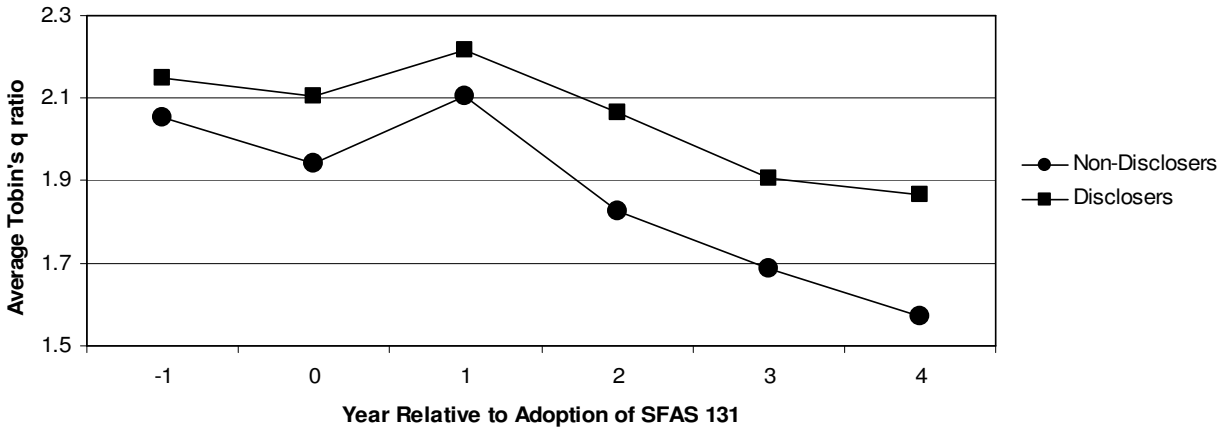
Panel A: Foreign sales growth



Panel B: Foreign profit margin



Panel C: Tobin's q ratio



Panel A: Foreign sales growth is defined as the natural log of growth in foreign sales since the base year.

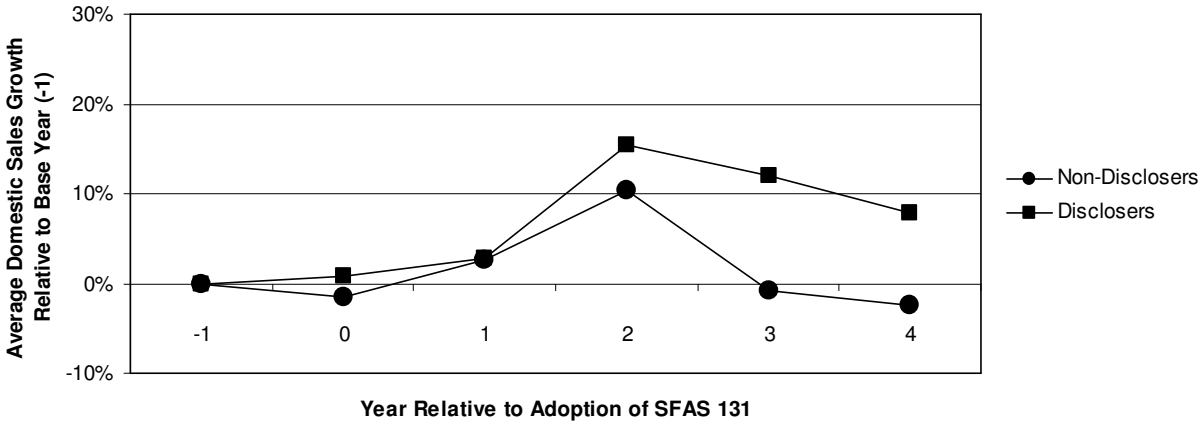
Panel B: Foreign profit margin is defined as foreign pre-tax income divided by foreign sales.

Panel C: Tobin's q ratio equals total liabilities plus total market of common equity, divided by total book value of assets.

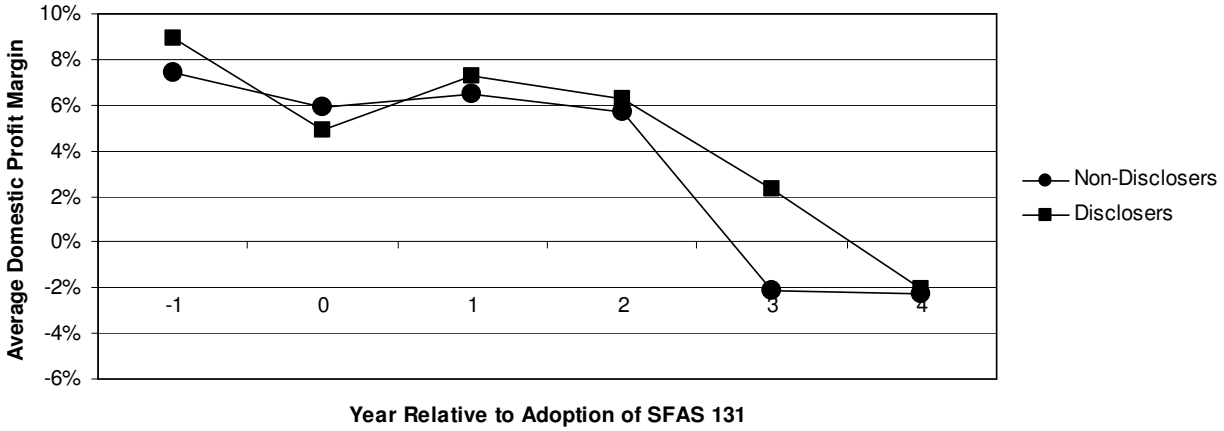
"Disclosers" are defined as firms that report earnings for at least two foreign segments in the first two years of adoption of SFAS 131. All other firms are classified as "Non-disclosers."

Figure 2. Performance of Domestic Operations in the Post-SFAS 131 Period for Disclosers and Non-Disclosers of Geographic Earnings

Panel A: Domestic sales growth in the post-SFAS 131 period



Panel B: Domestic profit margin in the post-SFAS 131 period



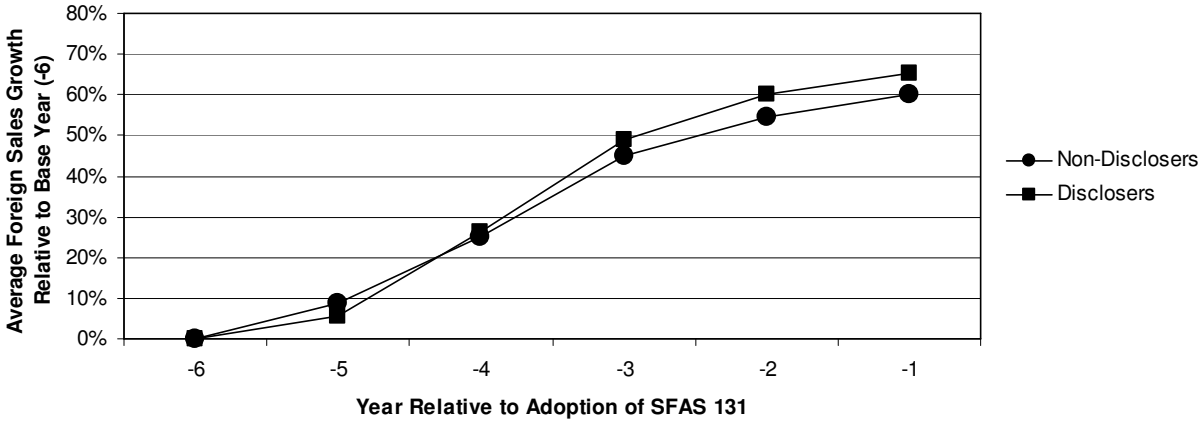
Panel A: Domestic sales growth is defined as the growth in domestic sales since the base year.

Panel B: Domestic profit margin is defined as domestic pre-tax income divided by domestic sales.

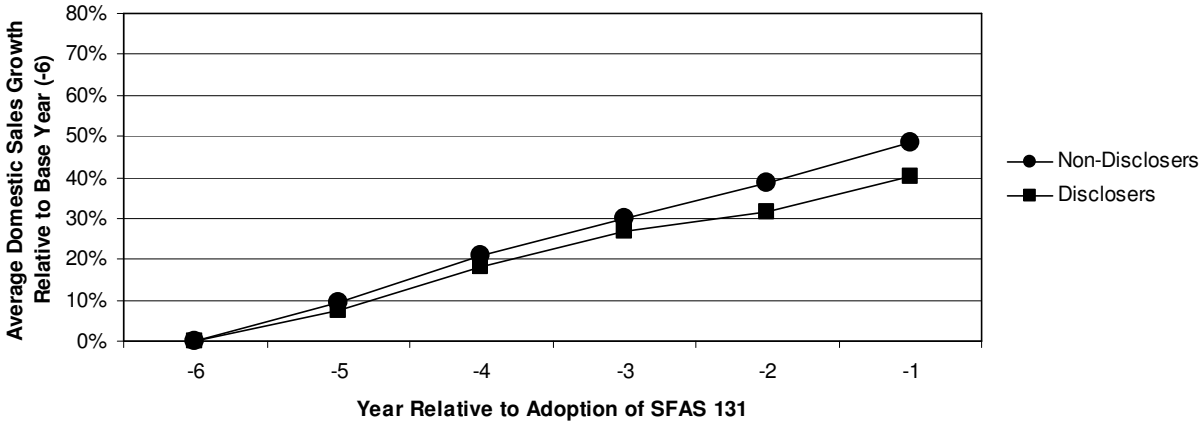
"Disclosers" are defined as firms that report earnings for at least two foreign segments in the first two years of adoption of SFAS 131. All other firms are classified as "Non-disclosers."

Figure 3. Firm Performance in the Pre-SFAS 131 Period for Eventual Disclosers and Non-Disclosers of Geographic Earnings in the Post-SFAS 131 Period

Panel A: Foreign sales growth in the pre-SFAS 131 period



Panel B: Domestic sales growth in the pre-SFAS 131 period



Panel C: Foreign profit margin in the pre-SFAS 131 period

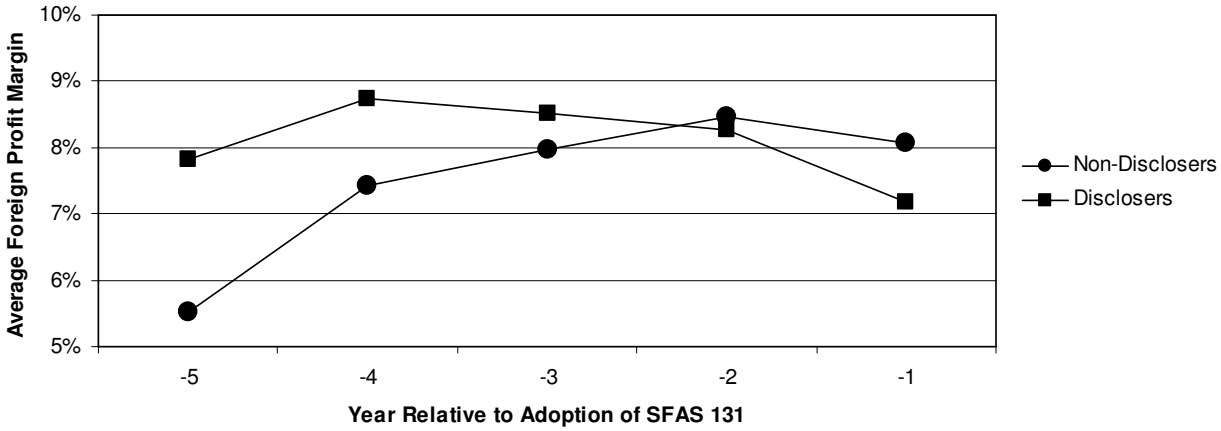
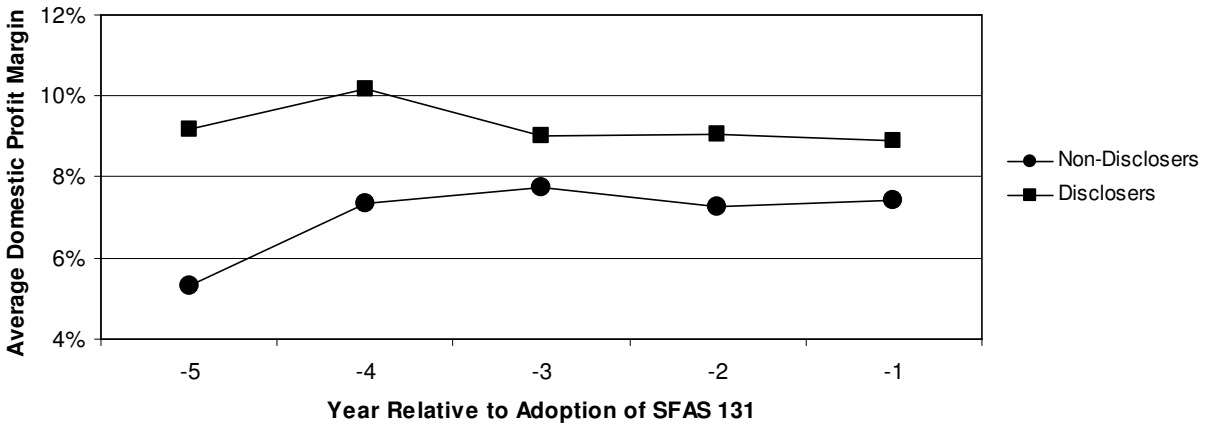


Figure 3 (continued). Firm Performance in the Pre-SFAS 131 Period for Eventual Disclosers and Non-Disclosers of Geographic Earnings in the Post-SFAS 131 Period

Panel D: Domestic profit margin in the pre-SFAS 131 period

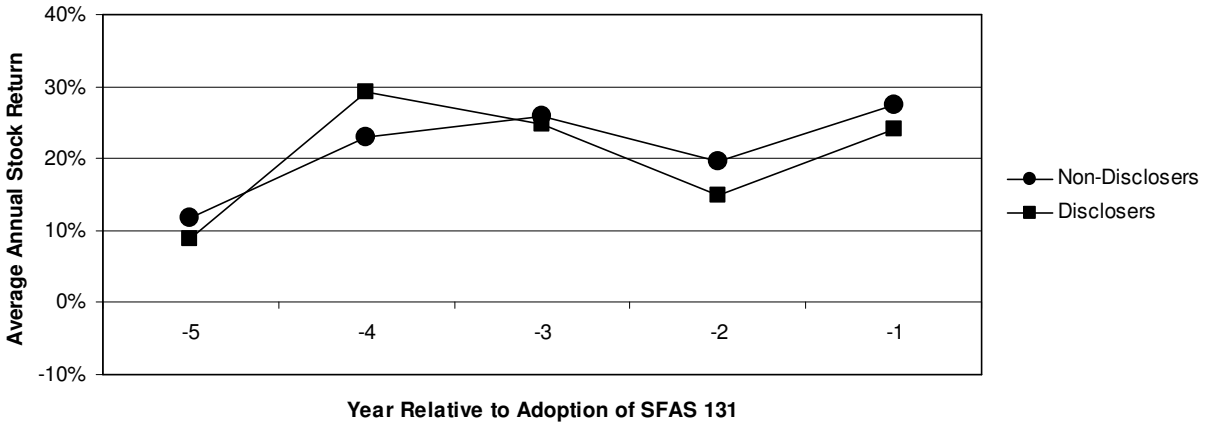


Panel A: (Panel B:) Foreign (domestic) sales growth is defined as the growth in foreign (domestic) sales since the base year.

Panel C: (Panel D:) Foreign (domestic) profit margin is defined as foreign (domestic) pre-tax income divided by foreign (domestic) sales.

"Disclosers" are defined as firms that report earnings for at least two foreign segments in the first two years of adoption of SFAS 131. All other firms are classified as "Non-disclosers."

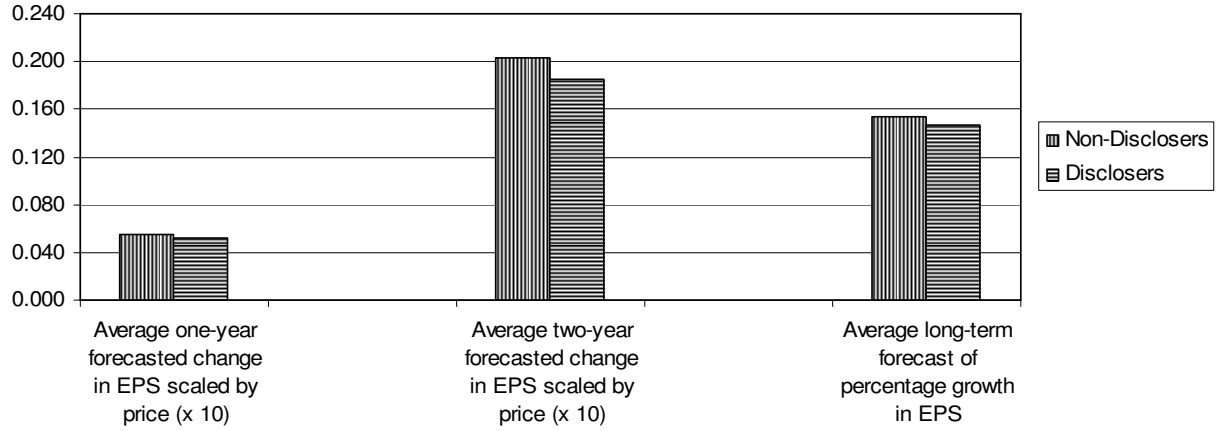
Figure 4. Annual Stock Returns in the Pre-SFAS 131 Period for Eventual Disclosers and Non-Disclosers of Geographic Earnings in the Post-SFAS 131 Period



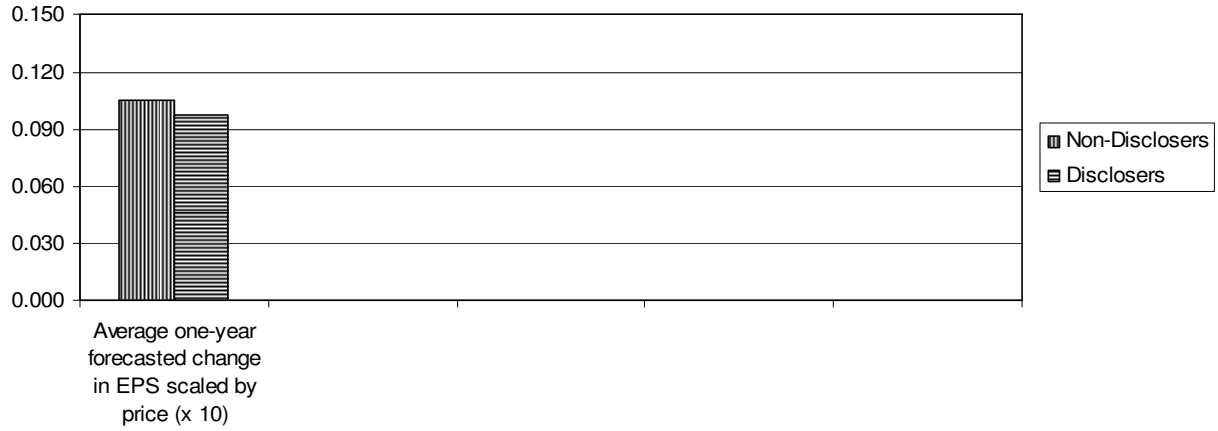
Annual stock return equals the twelve-month buy-and-hold stock return ending three months after the fiscal year end. "Disclosers" are defined as firms that report earnings for at least two foreign segments in the first two years of adoption of SFAS 131. All other firms are classified as "Non-disclosers."

Figure 5. Forecasted Growth in Earnings Prior to Adoption of SFAS 131

Panel A: Analyst forecasts



Panel B: Management forecasts



Panel A: Analyst forecast data are obtained from I/B/E/S. The forecasted growth in one-year (two-year) earnings is measured as (consensus) forecasted earnings per share for next year (two years ahead) less forecasted earnings for the current year, scaled by price at the time of the forecast. Long-term forecasts are provided directly by I/B/E/S as a percentage growth in earnings. Analysts' forecasts are measured in the final month of the SFAS 131 adoption year.

Panel B: Management forecast data are obtained from First Call. The forecasted growth in one-year earnings is measured as management's forecasted earnings for next year less earnings scaled by price at the end of the year. Because management forecasts are provided relatively infrequently, forecasts are measured between six months before and six months after the initial adoption year and only for the one-year horizon.
All per share data are adjusted for stock splits. "Disclosers" are defined as firms that report earnings for at least two foreign segments in the first two years of adoption of SFAS 131. All other firms are classified as "Non-disclosers."

Table 1. Mean Amounts

Variables	Post-SFAS 131 period		Pre-SFAS 131 period	
	Disclosers	**Non-Disclosers**	**Disclosers**	**Non-Disclosers**
Size	21.022	20.818	20.435	20.300
Follow	8.716	7.626**	9.504	8.230**
Listing	0.552	0.676**	0.527	0.666**
LOB	2.778	2.678	1.953	1.983
Foreign%	0.390	0.359**	0.374	0.314**
Leverage	0.595	0.608	0.570	0.568
Year prior to adoption of SFAS 131:				
Inst%			0.407	0.416
Mgmt%			0.027	0.017

Notes to Table 1

The pre- (post-) SFAS 131 period is the five-year period before (after) adoption of SFAS 131. *Size* is total assets at the end of the previous year. *Follow* is the number of analysts following the firm. *Listing* is an indicator variable equal to one if the firm lists on the NYSE or AMEX, 0 otherwise. *LOB* is the reported number of line of business segments for the year. *Foreign%* is the percentage of foreign sales for the year, defined as foreign sales divided by the sum of domestic and foreign sales. *Leverage* is total liabilities divided by total assets. *Inst%* is the percentage of shares held by institutions. *Mgmt%* is the percentage of shares held by the CEO. *, ** represents significance at the 0.05, 0.01 level for a two-tailed t-test that the mean of Disclosers equals the mean of Non-Disclosers. Disclosers are classified as firms reporting earnings for at least two foreign segments in the first two years of adoption of SFAS 131.

Table 2. The Relation Between Non-Disclosure of Geographic Earnings and Foreign and Domestic Sales Growth in the Pre- and Post-SFAS 131 Periods

Independent Variables	Dependent Variables: Post-SFAS 131 *ForGrow*		Post-SFAS 131 *DomGrow*		Pre-SFAS 131 *ForGrow*		Pre-SFAS 131 *DomGrow*	
Intercept	0.055	-0.597	0.027	0.816	0.366**	-0.042	0.143**	0.392
	(0.064)	(0.478)	(0.070)	(0.485)	(0.068)	(0.590)	(0.052)	(0.433)
NoDisc	**0.161***	**0.202****	**-0.141**	**-0.143**	**-0.112**	**-0.017**	**0.105**	**0.072**
	(0.069)	**(0.069)**	**(0.075)**	**(0.078)**	**(0.076)**	**(0.081)**	**(0.057)**	**(0.059)**
ForGrow			0.482**	0.488**			0.396**	0.367**
			(0.049)	(0.047)			(0.028)	(0.030)
DomGrow	0.403**	0.471**			0.714**	0.677**		
	(0.041)	(0.045)			(0.051)	(0.055)		
Pre_ForGrow	-0.076	-0.120**	0.118*	0.156**				
	(0.045)	(0.045)	(0.049)	(0.046)				
Pre_DomGrow	0.268**	0.294**	-0.250**	-0.298**				
	(0.056)	(0.055)	(0.061)	(0.056)				
Size		0.005		0.001		0.034		0.015
		(0.025)		(0.025)		(0.031)		(0.023)
Follow		0.003		0.018**		-0.003		0.007*
		(0.006)		(0.006)		(0.006)		(0.004)
Listing		-0.017		0.033		0.128		-0.107
		(0.076)		(0.077)		(0.089)		(0.065)
LOB		-0.009		0.028		-0.005		-0.056*
		(0.022)		(0.022)		(0.032)		(0.024)
Foreign%		1.101**		-1.560**		0.809**		-0.598**
		(0.181)		(0.175)		(0.208)		(0.153)
Inst%		0.165		-0.137		-0.054		0.045
		(0.115)		(0.117)		(0.133)		(0.098)
Mgmt%		-0.094		0.221		-0.012		-0.009
		(0.467)		(0.475)		(0.546)		(0.402)
Leverage		0.008		-0.341**		-0.163		-0.439**
		(0.099)		(0.099)		(0.174)		(0.127)
Industry Effects		Yes		Yes		Yes		Yes
Adj. R^2	0.228	0.371	0.208	0.441	0.283	0.360	0.285	0.375
N	400	400	400	400	502	502	502	502

Notes to Table 2

The pre- (post-) SFAS 131 period is the five-year period before (after) adoption of SFAS 131. *ForGrow* (*DomGrow*) = the five-year growth in foreign (domestic) sales since the base year, where the base year for the pre- (post-) SFAS 131 period is the sixth (last) year prior to adoption. *NoDisc* = 1 if the firm does not report earnings for at least two foreign segments in the first two years of adoption of SFAS 131; 0 otherwise. *Pre_ForGrow* (*Pre_DomGrow*) = the five-year growth in foreign (domestic) sales as of the end of the pre-SFAS 131 period. *Size* is total assets at the end of the previous year. *Follow* is the number of analysts following the firm. *Listing* is an indicator variable equal to one if the firm lists on the NYSE or AMEX, 0 otherwise. *LOB* is the reported number of line of business segments for the year. *Foreign%* is the percentage of foreign sales for the year, defined as foreign sales divided by the sum of domestic and foreign sales. *Inst%* is the percentage of shares held by institutions. *Mgmt%* is the percentage of shares held by the CEO. *Leverage* is total liabilities divided by total assets. Models with control variables include industry fixed effects. Amounts represent coefficients from a cross-sectional regression in the final year of the period (standard errors are reported in parentheses). *, ** represents significance at the 0.05, 0.01 level for a two-tailed t-test.

Table 3. The Relation Between Non-Disclosure of Geographic Earnings and Foreign and Domestic Profit Margins in the Pre- and Post-SFAS 131 Periods

Independent Variables	Dependent Variables							
	Post-SFAS 131				Pre-SFAS 131			
	ForGrow		*DomGrow*		*ForGrow*		*DomGrow*	
Intercept	0.037**	-0.018	-0.040*	-0.101	0.063**	-0.086*	0.071**	0.031
	(0.007)	(0.025)	(0.012)	(0.053)	(0.003)	(0.022)	(0.001)	(0.024)
NoDisc	**-0.014***	**-0.014***	**0.007**	**0.001**	**-0.002**	**0.001**	**-0.024****	**-0.024****
	(0.003)	**(0.004)**	**(0.008)**	**(0.007)**	**(0.005)**	**(0.005)**	**(0.004)**	**(0.003)**
ForPM			0.392**	0.358**			0.305**	0.193**
			(0.072)	(0.062)			(0.008)	(0.025)
DomPM	0.110**	0.105**			0.194**	0.132**		
	(0.011)	(0.010)			(0.007)	(0.018)		
Pre_ForPM	0.532**	0.469**	-0.153*	-0.139**				
	(0.042)	(0.048)	(0.037)	(0.023)				
Pre_DomPM	0.019	-0.009	0.651**	0.534**				
	(0.030)	(0.032)	(0.089)	(0.087)				
Size		0.002		0.009*		0.008**		0.007*
		(0.002)		(0.003)		(0.002)		(0.002)
Follow		0.001		0.000		0.001**		0.001*
		(0.001)		(0.001)		(0.000)		(0.000)
Listing		0.011*		0.035		0.001		0.009**
		(0.002)		(0.013)		(0.002)		(0.002)
LOB		-0.001*		0.000		0.002		-0.002
		(0.001)		(0.003)		(0.001)		(0.003)
Foreign%		0.050*		-0.201*		0.038**		-0.057**
		(0.013)		(0.064)		(0.007)		(0.009)
Inst%		-0.021*		0.001		0.011		0.018
		(0.007)		(0.007)		(0.009)		(0.007)
Mgmt%		-0.024		0.046		0.008		-0.051
		(0.027)		(0.048)		(0.020)		(0.028)
Leverage		-0.013		-0.091*		-0.058**		-0.153**
		(0.006)		(0.022)		(0.011)		(0.022)
Industry Effects		Yes		Yes		Yes		Yes
Adj. R^2	0.238	0.269	0.197	0.260	0.063	0.144	0.070	0.199
N	2,172	2,172	2,172	2,172	2,411	2,411	2,411	2,411

Notes to Table 3

The pre- (post-) SFAS 131 period is the five-year period before (after) adoption of SFAS 131. *ForPM* (*DomPM*) = foreign (domestic) pre-tax income divided by foreign (domestic) sales. *NoDisc* = 1 if the firm does not report earnings for at least two foreign segments in the first two years of adoption of SFAS 131; 0 otherwise. *Pre_ForPM* (*Pre_DomPM*) = the five-year average foreign (domestic) profit margin in the pre-SFAS 131 period. *Size* is total assets at the end of the previous year. *Follow* is the number of analysts following the firm. *Listing* is an indicator variable equal to one if the firm lists on the NYSE or AMEX, 0 otherwise. *LOB* is the reported number of line of business segments for the year. *Foreign%* is the percentage of foreign sales for the year, defined as foreign sales divided by the sum of domestic and foreign sales. *Inst%* is the percentage of shares held by institutions. *Mgmt%* is the percentage of shares held by the CEO. *Leverage* is total liabilities divided by total assets. Models with control variables include industry fixed effects. Amounts represent average annual coefficients from cross-sectional regressions over the five-year period (standard errors are reported in parentheses). Results are consistent if we instead estimate pooled regressions and include year fixed effects. *, ** represents significance at the 0.05, 0.01 level for a two-tailed t-test.

Table 4. The Relation Between Non-Disclosure of Geographic Earnings and Tobin's q Ratio in the Post- and Pre-SFAS 131 Periods

Variables	Post-SFAS 131 t = 4		Pre-SFAS 131 t = -1	
Intercept	0.962**	2.351**	2.150**	3.697**
	(0.094)	(0.560)	(0.105)	(0.859)
NoDisc	**-0.218****	**-0.185***	**-0.099**	**0.111**
	(0.079)	**(0.077)**	**(0.122)**	**(0.113)**
Pre_TobinQ	0.389**	0.260**		
	(0.029)	(0.031)		
Size		-0.117**		-0.160**
		(0.029)		(0.046)
Follow		0.042**		0.058**
		(0.007)		(0.008)
Listing		-0.176*		0.000
		(0.086)		(0.127)
LOB		0.038		-0.006
		(0.024)		(0.044)
Foreign%		0.152		0.434
		(0.194)		(0.290)
Inst%		0.172		0.223
		(0.130)		(0.187)
Mgmt%		1.450**		1.935*
		(0.509)		(0.764)
Leverage		0.525**		0.194
		(0.113)		(0.291)
Pre_StdROE		-0.056		0.348**
		(0.070)		(0.090)
DomPM		1.172**		3.948**
		(0.229)		(0.527)
Industry Effects		Yes		Yes
Adj. R^2	0.337	0.512	0.001	0.365
N	375	367	481	471

Notes to Table 4

The pre- (post-) SFAS 131 period is the five-year period before (after) adoption of SFAS 131. The dependent variable is Tobin's q ratio. Tobin's q ratio is measured as total liabilities plus market value of common equity, divided by total book value of assets. *NoDisc* = 1 if the firm does not report earnings for at least two foreign segments in the first two years of adoption of SFAS 131; 0 otherwise. *Pre_TobinQ* = the Tobin's q ratio in the final year of the pre-SFAS 131 period. *Size* is total assets at the end of the previous year. *Follow* is the number of analysts following the firm. *Listing* is an indicator variable equal to one if the firm lists on the NYSE or AMEX, 0 otherwise. *LOB* is the reported number of line of business segments for the year. *Foreign%* is the percentage of foreign sales for the year, defined as foreign sales divided by the sum of domestic and foreign sales. *Inst%* is the percentage of shares held by institutions. *Mgmt%* is the percentage of shares held by the CEO. *Leverage* is total liabilities divided by total assets. *Pre_StdROE* is the five-year standard deviation of return on equity in the pre-SFAS 131 period. *DomPM* = the average domestic profit margin over the corresponding five-year period. Models with control variables include industry fixed effects. Amounts represent coefficients from a cross-sectional regression in the final year of the period (standard errors are reported in parentheses). *, ** represents significance at the 0.05, 0.01 level for a two-tailed t-test.