

Delaware Incorporation and Earnings Management: An Empirical Analysis

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Motivated by agency theory, this study examines whether the extent of earnings management significantly differs in firms incorporated in Delaware versus those incorporated elsewhere in the U.S. Delaware corporate law has been argued to affect agency costs. To the extent that shareholders make poor investment decisions based on managed accounting numbers, earnings management can be regarded as an agency cost. The evidence indicates that earnings management occurs to a lesser extent in Delaware firms. In addition, Delaware incorporation combined with a predominance of outside independent directors on the board, further constrains earnings management. Finally, the results suggest that earnings management is not diminished in Delaware firms that are controlled by founding families. [G30, G32, G34]

■Corporations are governed by corporate law, which dictates investors' rights and managers' responsibilities. Theoretically, when these rules alleviate agency costs, investors pay more for the firm's securities. When legal rules promote managerial slack and entrench incumbent managers, investors pay less (Daines, 2001). International variation in legal rules has been shown to affect firm value and ownership structure (LaPorta, Lopez-de-Silanes, Shleifer, and Vishney, 1999).

Rather than examining legal variation across countries, this study investigates legal variation in the U.S., much in the same spirit as Daines (2001), who reports that firms incorporated in Delaware are more valuable than those incorporated elsewhere. We extend the work of Daines (2001) by focusing on the specific issue of earnings management.¹ To the extent that shareholders make poor

investment decisions based on managed accounting numbers, earnings management can be regarded as an agency cost (Davidson, Jiraporn, Kim, and Nemeč, 2004). We examine whether this particular type of agency cost is alleviated or exacerbated in firms incorporated in Delaware. Given the recent focus on earnings management due to the recent corporate scandals, this study examines a timely issue.

Delaware incorporation is dominant in the U.S.; more than 50% of publicly traded firms are incorporated in Delaware. Several arguments have been advanced as to why Delaware incorporation may affect agency costs. Cary (1974) suggests that because Delaware derives a large portion of its revenue from incorporations, it caters to managers who influence incorporation decisions. Therefore, Delaware's legal rules are designed in favor of managers rather than shareholders. Such legal rules arguably widen the divergence between ownership and control, and hence exacerbate agency problems. Winter (1977) argues, on the contrary, that market forces motivate states to provide, and incorporators to select, legal rules that maximize shareholder welfare. If this is the case, then Delaware incorporation should mitigate agency conflicts.

The fundamental hypothesis of this study is that the extent of earnings management should differ in Delaware firms than in firms incorporated elsewhere in the United States. This contention is based on several reasons. First, because Delaware incorporation affects agency problems, and earnings management can be regarded as an agency cost, we argue that there should be a relationship between earnings management and Delaware incorporation. Further, Daines (2001) argues and finds evidence that Delaware firms are more likely to be takeover targets

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¹This is analogous to the literature on the board of directors. There is mixed evidence on the association between boards and firm performance. Thus, several studies focus on specific situations rather than on the overall firm performance. For example, research has been conducted on the impact of boards on CEO turnover (Weisbach, 1988 and Perry, 2000), on earnings management (Xie, Davidson, and DaDalt, 2003), and on executive compensation (Core, Holthausen, and Larcker, 1999 and Hallock, 1997).

and to be successfully acquired. Such extra vulnerability to market forces may impact managerial incentives to manage earnings. Finally, Delaware, due to its dominance in the incorporation market, has a specialized business court known as the Delaware Chancery Court. The presence of this special court with profound expertise and experience in business cases may influence how managers view earnings management and hence may affect the degree of earnings management in Delaware firms.

The empirical evidence lends support to the hypothesis. We document that earnings management occurs to a *lesser* extent in firms incorporated in Delaware. The reduction in earnings management is not uniform, however. Additional evidence suggests that Delaware incorporation mitigates earnings management particularly in firms where the board of directors is dominated by independent directors. We also find that family ownership of Delaware firms does not appear to exacerbate earnings management. This evidence is consistent with the hypothesis that Delaware's legal rules help alleviate agency problems and thus leads to a lower degree of earnings distortion by managers. Such a finding is consistent with Daines (2001), who argues that Delaware incorporation is associated with a reduction in agency conflicts, thereby resulting in higher firm value.²

Our research lies at the intersection of law, economics, and accounting, and thus makes several contributions to the literature. First, we show that Delaware incorporation is a significant determinant of the degree of earnings management. Second, we demonstrate that legal variation within the U.S. does have an economic impact on firms. Third, we contribute to the literature that examines the benefits and costs of Delaware incorporation (Lipton and Rowe, 2002; Gilson 2002a, 2002b; Macey, 2002; Sitkoff, 2002; Grossfeld, 2002; Bebchuk and Ferrell, 2001; Bebchuk, Cohen, and Ferrell, 2002; and Bar-Gill, Barzuza, and Bebchuk, 2001) The results suggest that Delaware incorporation is beneficial, at least, as far as earnings management is concerned.

I. Prior Literature and Hypothesis Development

Because Delaware incorporation has been argued to impact agency costs (Cary, 1974 and Winter, 1977), we argue that it may have implications for earnings management. Theoretically, however, it is not immediately clear how earnings management would differ between firms incorporated in Delaware and those incorporated elsewhere.

²Daines (2001) also asserts that Delaware firms are more valuable because of the mild takeover defenses in Delaware, making them more likely takeover targets, thereby increasing firm value.

A. Does Delaware Incorporation Exacerbate Earnings Management?

Delaware is a small state, but it attracts a disproportionate number of incorporations. As a result, the revenue from incorporation fees represents a significant portion of the total state income (as high as 20% by some estimates). This degree of economic dependence on incorporations could motivate Delaware to design its legal rules in favor of managers, who decide where to have the firm incorporated, rather than in favor of the atomistic, relatively powerless, shareholders (Cary, 1974). This view argues that Delaware produces legal rules that are unjustifiably lax or pro-management, leading to a national "race to the bottom" in terms of legal rules. For instance, Delaware was one of the first states to eliminate managers' mandatory fiduciary duty of care, appraisal rights for dissenting shareholders in public firms, and certain shareholder voting and meeting requirements (Daines, 2001). In this view, Delaware incorporation favors managers and thus exacerbates agency problems, potentially promoting managerial opportunism. Earnings management can be considered an agency problem that is costly for shareholders, because it is under managers' control and can be employed to benefit managers at the expense of shareholders (Davidson, Jiraporn, Kim, and Nemeč, 2004). It also can lead to systematic misvaluation in the equity markets (Chambers, 2000). Therefore, according to this view, it is likely that earnings management is more severe in firms incorporated in Delaware.

There is another reason earnings management may be more severe in firms incorporated in Delaware. Daines (2001) shows that Delaware firms are significantly more likely to receive takeover bids and to be successfully acquired. Managers of firms more susceptible to unfriendly takeovers have weaker job security and may suffer from myopia, focusing more on the short-term benefits rather than on the long-term prospects of the firm that benefit shareholders.³ It is possible, therefore, that managers of firms incorporated in Delaware are myopic and employ, to a greater extent, transient earnings distortion via earnings management. In conclusion,

³Daines (2001) discusses several reasons why takeover attempts are facilitated in Delaware. First, Delaware takeover law raises few obstacles to hostile bids than in other states. Second, Delaware law prevents managers from resisting a takeover on the grounds that it threatens non-shareholders, something 29 states explicitly authorize managers to do. Third, Delaware default law imposes the shortest delay on hostile bids of all states, thus encouraging bidders to make hostile bids (Coates, 1999). Moreover, Delaware law may reduce acquisition costs by providing relatively clear precedents and by occasionally prohibiting extreme defensive tactics. Finally, firms that incorporate in Delaware do not operate there. Delaware firms have no Delaware operations and no Delaware employees and therefore lack local political clout. When these firms become targets of hostile bids, they are unable to win entrenching legislation.

this view argues for a higher degree of earnings management in Delaware firms.

B. Does Delaware Incorporation Alleviate Earnings Management?

An alternative perspective is that Delaware incorporation reduces the extent of earnings management. According to this view, market forces (including competition for capital, products, and corporate control) lead states to provide, and incorporators to select, legal rules that maximize shareholder welfare. Rather than exploiting shareholders, Delaware's famed "laxity" improves firm value by allowing parties to adopt customized contracts that limit agency costs (Easterbrook and Fischel, 1991). If this is the case, then, Delaware incorporation should be associated with a lower extent of earnings management.

Earnings management is also arguably detectable more easily in Delaware, which would discourage managers from managing earnings. Due to its dominance in the market for incorporation, Delaware operates a specialized court for business disputes, whose judges are appointed from the corporate bar and are familiar with complex transactions. Delaware Chancery Court judges are regularly exposed to complex cases, providing them with valuable training.⁴ This enhanced expertise may make the detection of subtle earnings management more likely in Delaware than elsewhere. In the event of a lawsuit filed by stockholders against managers for misrepresenting earnings information, the potential liability to the managers of managed earnings may be more severe in Delaware, a factor that conceivably represents a disincentive to manage earnings.

C. The Domicile Irrelevance Hypothesis

It can also be argued that domicile of incorporation makes no difference. Some consider state laws uniform. Others believe differences do not matter because entrepreneurs and managers can eliminate differences between jurisdictions by customizing the firm's securities and charter provisions and by providing substitute governance arrangements (like managerial compensation or board structure). A firm's choice of domicile can therefore be regarded as trivial (Black, 1990). If this is the case, Delaware incorporation should have no impact on earnings management.

⁴Black (1990) observes that no other state has a specialized business court; rather, they allocate shareholder claims to elected judges, many of whom have little experience with corporate law and transaction. Factual questions in other states are decided by juries, whose decisions are unpredictable.

D. Impact of the Board of Directors

The board of directors represents a governance mechanism that serves to reduce agency costs. Most of the literature on boards focuses on board composition, i.e., the role of independent directors on the board. Presumably, independent directors are not beholden to the firm's managers and thus may have greater incentives to alleviate agency problems. Xie, Davidson, and Dadalt (2003) report that the degree of earnings management is influenced by board composition; earnings management is less likely to occur, or occur to a lesser extent, in firms whose boards include both more independent directors and directors with corporate experience. Given the results in Xie et al. (2003), we hypothesize that board composition affects the association between Delaware incorporation and earnings management.

E. Earnings Management in Family Firms

Firms that are controlled by founding families represent a significant portion of publicly traded firms - roughly one-third (Andersen and Reeb, 2003a, b). Family control is argued to have several implications for agency costs. For instance, with substantial ownership of cash flow rights, family owners have the incentives and the power to take actions that benefit themselves at the expense of other shareholders (Andersen and Reeb, 2003a, b). Gomez-Mejia, Nunez-Nickel, and Gutierrez (2001) report that family ownership and control in Spanish firms is associated with greater managerial entrenchment. Shleifer and Vishny (1997) argue that large shareholders may impose agency costs on the firm by remaining active in management even though they are no longer competent or qualified to run the firm. This problem can be particularly severe in family firms, which usually place their family members at the helm of the firm irrespective of their competence or qualifications. If founding family exacerbates agency problems, it may make earnings management more severe.

On the contrary, there are several reasons to suggest that founding families do not necessarily exacerbate earnings management. First, family firms typically have concentrated ownership. Demsetz and Lehn (1985) note that concentrated investors have considerable economic incentives to diminish agency costs. Because the family's wealth is so closely linked to firm welfare, families may have strong incentives to monitor managers and minimize the free-rider problem inherent with small, atomistic shareholders. Hence, families can exert influence to ensure that accounting reports do not materially depart from the actual underlying firm performance.

Second, founding families usually maintain a long-term presence in their firms. The DuPont family, for instance, has

been a major stockholder (holding at least 15 percent) for over 200 years in the firm bearing their name (Anderson and Reeb, 2003a). As such, families are likely to have longer investment horizons than other shareholders. This long-term perspective reduces myopia, where managers focus more on short-term benefits in the near future rather than potential long-term payoffs. An important feature of accounting accruals is that they tend to reverse over time.⁵ Thus, family owners, who are likely to maintain their presence for an extended period of time, should be less supportive of temporary window dressing via earnings management because they realize that, eventually, the accruals will reverse and that they will probably still be with the firm (and thus have to deal with the unwinding accruals).

Third, family owners have enormous reputational capital invested in the firm. Several firms directly bear their names. Usually, the family intends to pass the firm on to succeeding generations. Casson (1999) and Chami (1999) concur with this assertion by positing that founding families view their firms as an asset to pass along to their descendants rather than wealth to consume during their lifetimes. Family owners are thus less likely to risk jeopardizing their long-term reputation through any transitory earnings distortion. This reputation concern should mitigate the severity of earnings management.

Given the above discussion, it is likely that a family presence affects the extent of earnings management. Empirically, Jiraporn (2006) shows that earnings management occurs 36% less in family firms than in non-family firms. As a result, we argue that the presence of a family influences the relationship between Delaware incorporation and earnings management.

F. Impact of Institutional Investors

Institutional investors may act as activists, or at least successful monitors of the firm (Black, 1990). Since they often own a large amount of shares of the firm, they have strong incentives to facilitate value maximizing behavior, and prevent managers from following personal wealth-enhancing strategies at the expense of shareholders. McConnell and Servaes (1990) and Agarwal and Knoeber (1996) find a positive relationship between institutional ownership and firm performance; Del Guercio and Hawkins (1999) and Gillan and Starks (2002), on the other hand, find no evidence that shareholder activism is effective. If high institutional ownership results in enhanced vigilance, institutions may be more likely to detect earnings management and discourage managers from engaging in such activities. Indeed, Chung, Firth, and Kim (2002) find that large institutional investor shareholdings discour-

age earnings management activity. Hence, we argue that greater institutional ownership should mitigate the costs of agency conflicts.

If Delaware law serves to encourage earnings management, institutional investors should play an important role in firms incorporated in Delaware. They would act as monitors of the firm and advocate shareholders, when other corporate governance mechanisms, such as fiduciary duty laws, cannot promote the interests of shareholders. Hence, we would anticipate finding that higher levels of institutional ownership alleviates tendencies to engage in earnings management.

G. Impact of Auditor Type

Independent auditors play a critical role in corporate governance (Watts and Zimmerman, 1986). They are responsible for oversight of financial statements of the firm and for verifying that they are correct. While auditors are supposed to represent the interests of shareholders, they are often hired by managers and may be answerable to managers in order to keep their jobs. Further, auditors may have incentives to be less concerned with earnings quality (or overlook legal earnings management) if managers so desire, due to their desire to obtain non-audit fees, and hence their independence may be compromised (Frankel, Johnson, and Nelson, 2001). If there are conflicts of interest that lead auditors to act in the interests of managers rather than shareholders, agency conflicts may arise, and impose costs on shareholders. Moreover, auditors may fail to investigate managerial misbehavior closely (or perhaps even shred documents related to their clients' behavior).

Managers may also change auditors if they are trying to avoid the detection of earnings management. Davidson, Jiraporn, and Dadalt (2006) find that while there is no impact on earnings management arising from changes in auditors, firms that shift from Big Six audit firms to non-Big Six audit firms appear to experience greater earnings management. Thus, the evidence suggests that earnings management concerns may be worse when auditors are of poorer quality. Hence, we hypothesize that firms with high-quality auditors, defined as a Big Six accounting firm (or Big Five, depending on the year and the bankruptcy of Arthur Anderson) should experience less earnings management.

II. Sample Selection and Data Description

A. Sample Selection

The original sample is obtained from the Investor Research Responsibility Center (IRRC) which provides

⁵Accruals are utilized as a proxy for the extent of earnings management. This approach is very common in the accounting and finance literature.

data on the state of incorporation for roughly 1,500 firms. Then, the sample is narrowed down by eliminating firms with insufficient data in COMPUSTAT to estimate the modified Jones (1991) model. Financial firms are excluded because of their different financial and accounting characteristics. We obtain the data on boards also from the IRRC.⁶ We obtain institutional ownership data for sample firms from the CDA Spectrum Database. We use total institutional ownership as a percent of total share ownership, following Hartzell and Starks (2003). Auditor type is ascertained in *Audit Analytics*. Finally, we differentiate between family and non-family firms, using the family firm classification from Andersen and Reeb (2003a, b).⁷ The final sample consists of 453 firm-year observations from 1996 to 1999.⁸ Exhibit 1 shows the distribution of firms across years and by Delaware incorporation. Delaware firms account for more than half of the sample (54.53%).

B. Accruals Estimation

We employ abnormal accruals as a proxy for the degree of earnings management. This approach has been used in a large number of studies (Teoh, Welch, and Wong, 1998 a, b; Xie, et al., 2003; Davidson et al., 2004; Jiraporn, Kim, and Mathur, 2008; Jiraporn, Miller, Yoon, and Kim, 2007; Jiraporn, 2005 and Jiraporn, 2006). We estimate accruals that are considered “unexpected” or “abnormal” using the modified Jones (1991) model.⁹

Abnormal accruals are decomposed along two dimensions, time period (current and long-term) and manager control (discretionary and non-discretionary). We focus on the firm’s current working capital accruals or *discretionary current* accruals that are considered abnormal compared to industry peers. These abnormal discretionary current accruals are utilized as a proxy for earnings management. We place the detailed model descriptions in the Appendix.

⁶Board data in the IRRC database are available only from 1996 to 2001. Since the IRRC tends to cover only large firms, our sample may be biased towards large firms.

⁷Our thanks go to Andersen and Reeb (2003a, b) for making the family firm classification available.

⁸The sample consists of observations from 248 distinct companies over the sample period.

⁹We select the modified Jones (1991) model because the model has been found to have “the most power in detecting earnings management” (Dechow, Sloan, and Sweeney, 1995). In addition, Guay, Kothari, and Watts (1996) state that “only the Jones and modified Jones models appear to have the potential to provide reliable estimates of discretionary accruals.” Moreover, Bartov et al. (2001) find that only the Jones and modified Jones model are consistently able to detect earnings management.

As there is no particular reason to suspect an unusual degree of income-increasing or income-decreasing accruals in the randomly selected sample, we employ the unsigned absolute values of the abnormal accruals to capture the extent of earnings management. Other studies use the same measure as a proxy for the combined effect of income-increasing and income-decreasing earnings management (Klein, 2002; Warfield, Wild, and Wild, 1995; Becker et al., 1998; Bartov, Gul, and Tsui, 2001; Jiraporn, Kim, and Mathur, 2008; Jiraporn, Miller, Yoon, and Kim, 2007; Jiraporn, 2005; and Jiraporn, 2006).

C. Identification of Family Firms

This study classifies companies into family and non-family firms as in Anderson and Reeb (2003a, 2003b, and 2004). They employ the fractional equity ownership of the founding family and/or the presence of family members serving on the board of directors.¹⁰ Anderson and Reeb (2003a, 2003b, and 2004) argue for the use of a dichotomous variable equal to one where a founding family is present and zero otherwise. Although the percentage of equity ownership may be used as a continuous variable, differences in ownership levels may not represent the influence that the founding family exercises in the firm.¹¹ We concur with Anderson and Reeb (2003a, b, and 2004) and elect to employ a binary dummy to designate family control.¹² Anderson and Reeb (2003a, b, and 2004) also utilize alternative classification approaches and obtain similar results in their studies.

III. Empirical Results

A. Descriptive Statistics

Exhibit 2 Panel A provides summary statistics for the sample firms. In terms of size, Delaware firms average \$13,653 million in sales and \$15,264 million in total assets. Non-Delaware firms average \$10,324 million and \$10,480 in sales and total assets respectively. The differences, however, are not statistically significant.

¹⁰Anderson and Reeb (2003a, 2003b, and 2004) make their classification of family firms available to the public. More detailed discussions about the classification can be found in their studies.

¹¹For instance, the Ablon family is perceived as controlling the Ogden Corporation as if they were majority owners but, in actuality, they hold merely 2% of the outstanding shares. On the contrary, at Nordstrom’s, the family holds 24% of the equity to maintain control.

¹²Another practical reason for not using the percentage of ownership is that Anderson and Reeb (2003a, 2003b, and 2004) do not make their ownership data available, we thank them, however, for making the binary variable available.

Exhibit 1. Sample Distribution by Year

The original sample is obtained from the Investor Responsibility Research Center (IRRC). Firms are excluded when accounting data are not sufficient to estimate the modified Jones (1991) model. Financial firms are not included (SIC 6000-6999). Firms are not included when board and family firm data are not available.

Year	Delaware	Elsewhere	Total	Percent of Delaware firms
1996	73	64	137	53.28%
1997	68	60	128	53.13%
1998	62	47	109	56.88%
1999	44	35	79	55.70%
Total	247	206	453	54.53%

The average long-term debt ratio for the Delaware firms is 25.92% while the debt ratio for the non-Delaware firms is 25.77%, also a statistically insignificant difference. Finally, in terms of profitability, the EBIT ratio averages 11.16% for the Delaware firms and 12.11% for the non-Delaware firms, not significantly different.

There are significant differences (at the 5% level) between Delaware and non-Delaware firms in terms of institutional ownership. Delaware firms have an average institutional ownership of 20.22% compared to 30.01% for non-Delaware firms.

Exhibit 2 Panel B shows descriptive statistics for the accounting accruals. Discretionary current accruals (DCA) average -0.0048 for the Delaware firms and 0.0044 for the non-Delaware firms. Average absolute accruals, (|DCA|), are 0.0402 for the Delaware firms and 0.0485 for the non-Delaware firms. The difference is statistically significant. This is preliminary evidence that earnings management occurs to a lesser extent in Delaware firms than in non-Delaware firms. We can also interpret the statistic regarding significantly higher institutional ownership for non-Delaware firms to indicate that firms not subject to the oversight of the Delaware court system may require additional monitoring by institutional investors.

B. Empirical Results

Exhibit 3 shows results of the multivariate regression analysis. The dependent variable is the absolute discretionary current accruals, representing the extent of earnings management. The primary focus of this paper is on the Delaware variable, a dichotomous variable equal to one if the firm is incorporated in Delaware and zero otherwise. We also include a number of control variables that may affect earnings management. First, firm size is represented by the logarithm of total assets. Second, leverage may act as a mechanism for controlling agency costs, perhaps, including the incentives to manage earn-

ings.¹³ We control for leverage by including the debt ratio. Third, profitability may be a factor as unprofitable firms may have stronger incentives to manage earnings. We employ the EBIT ratio to measure profitability. Fourth, institutional ownership, which may preclude managers from engaging in agency behavior by aggressively disciplining managers, is represented by the variable INSTOWN. Finally, Big Six or Big Five auditors (AUDITOR) may be better monitors of the firm, and promote good earnings quality. These variables are the typical controls employed in the literature.¹⁴

We also examine an interaction variable between Delaware status and boards composed of a majority of independent directors. Independent directors should have a stronger monitoring role in Delaware, if Delaware firms are more likely to practice earnings management. We anticipate a significant positive coefficient on the interaction variable. But as there are contrary theories on the contribution of Delaware incorporation to earnings quality, we might observe a significantly negative coefficient on the interaction variable if Delaware firms are less likely to practice earnings management.

Finally, we examine an interaction variable between Delaware incorporation and family ownership. While the evidence on family-owned firms and agency conflict

¹³ Leverage has been argued to alleviate agency costs in several ways. First, one way to reduce agency conflicts is to cause managers to increase their ownership in the firm (Jensen and Meckling, 1976). By increasing the use of debt financing, effectively displacing equity capital, firms shrink their equity bases, thereby increasing the percentage of equity owned by management. Second, the use of debt increases the probability of bankruptcy and job loss. This additional risk may further motivate managers to decrease their consumption of perks and increase their efficiency (Grossman and Hart, 1982). Finally, the obligation of interest payments resulting from the use of debt helps resolve the free cash flow problem (Jensen, 1986).

¹⁴ In alternate regressions, a larger set of control variables are employed that include growth opportunities and ROA among others. The results remain similar. For the sake of parsimony, we show the results with only the control variables shown in the table.

Exhibit 2. Descriptive Statistics

Debt ratio is long-term debt divided by total assets. EBIT ratio is earnings before interest and taxes divided by total assets. INSTOWN is the percent of shares held by institutional investors. Auditor is a dummy variable equal to 1 if the firm employed one of the Big 6 auditors during the sample period, and 0 otherwise. DCA represents the discretionary current accruals. $|DCA|$ is the unsigned absolute value of the DCA.

	Delaware Mean (Median)	Elsewhere Mean (Median)	Difference (t-statistics)
<i>Panel A: Firm Characteristics</i>			
Sales	13,653 (5,494)	10,324 (5,384)	-1.58
Total Assets	15,264 (5,326)	10,480 (3,591)	-1.62
Debt Ratio	25.92% (24.91%)	25.77% (24.47%)	-0.11
EBIT Ratio	11.16% (10.64%)	12.11% (11.43%)	1.05
INSTOWN	20.22% (19.52%)	30.01% (24.36%)	2.04**
AUDITOR	59.29% (46.33%)	52.36 (45.22)	1.17
<i>Panel B: Accounting Accruals</i>			
DCA	-0.0048 (-0.0070)	0.0044 (0.0038)	1.43
$ DCA $	0.0402 (0.0261)	0.0485 (0.0350)	1.73*
N	247	206	

** Statistically significant at the 0.05 level.
* Statistically significant at the 0.10 level.

is mixed, Jiraporn (2005) finds less earnings management in family-owned firms. If this is the case, and if Delaware incorporation constrains earnings management, then we may observe a significant and negative coefficient on the interaction term.

Model 1 includes Delaware incorporation, board independence, and family ownership, as well as control variables (size, leverage, profitability, institutional ownership, and auditor).

The Delaware dummy exhibits a negative and significant coefficient.¹⁵ This is evidence that firms incorporated in Delaware manage earnings less than those incorporated elsewhere. To the extent that earnings management represents an agency cost, Delaware incorporation appears to reduce such costs. This may occur because of the expertise of the Delaware Chancery Court or because investors are more likely to adopt customized

contracts to protect their interests. Further, the coefficient on institutional ownership is negative and significant, indicating that there is a monitoring role for shareholder activists that limits earnings management. This is consistent with the findings of Chung et al. (2002), as well as with the large literature indicating that institutional investors often act as governance agents.

More profitable firms also experience less earnings management, consistent with the notion that less profitable firms have more of an incentive to manage earnings. Leverage and auditor type are insignificant determinants of earnings management, indicating that monitoring by either creditors or auditors does not impact earnings quality.

We have noted that the board of directors plays a role in alleviating agency conflicts and may have an impact on earnings management. Board composition has been shown to be relevant in a variety of agency-related situations. Hence, in Model 1, we also incorporate independent board status into our analysis. An independent board is one where independent directors constitute at least half of the members (there are 380 firms with independent boards and 73 with non-independent boards); the variable used in the analysis, INDEPENDENT, is a

¹⁵Although the R²s appear to be low, this should not be particularly problematic for Lev (1989) finds that a majority of earnings studies exhibit low R²s. The R²s in this study are comparable to those in other earnings studies. We also make sure that multi-collinearity is not a problem. We examine the variance inflation factors (VIF) and find that none of them are higher than 2.

Exhibit 3. Regressions of Discretionary Current Accruals (DCA) on Delaware Dummy and Controls

Debt ratio is long-term debt divided by total assets. Independent is a dummy equal to 1 if the board is independent (i.e., if 50% or more of the board consists of outsiders), and zero if it is non-independent. EBIT ratio is earnings before interest and taxes divided by total assets. INSTOWN is the percent of shares held by institutional investors. Auditor is a dummy variable equal to 1 if the firm employed one of the Big 6 auditors during the sample period, and zero otherwise. Delaware \times Indbrd is an interaction variable equal to the product of the Delaware dummy and the Independent board dummy. Delaware \times family is an interaction variable equal to the product of the Delaware dummy and the family ownership dummy. DCA represents the discretionary current accruals. Family firm classification is based on Anderson and Reeb (2003a, 2003b, and 2004). To alleviate the concern for outliers, the sample is winsorized by excluding the extreme 5% of the observations based on the abnormal accruals.

	Model 1 (t-statistics)	Model 2 (t-statistics)	Model 3 (t-statistics)
Intercept	0.138*** (3.97)	0.066*** (4.70)	0.182*** (4.10)
Delaware Inc.	-0.011** (-2.21)	-0.007* (-1.77)	-0.027** (-2.46)
Ln (Total Assets)	-0.006 (-1.57)	-0.001 (-1.43)	-0.002 (-1.54)
Debt Ratio	0.021 (1.60)	0.016 (1.49)	0.011* (1.72)
EBIT Ratio	-0.407** (-1.99)	-0.066** (-2.53)	-0.082** (-1.78)
INSTOWN	-0.346** (-2.43)	-0.247** (-2.49)	-0.309** (-2.29)
AUDITOR	0.097 (0.52)	0.180 (1.60)	0.196 (1.38)
INDEPENDENT	-0.044** (-2.08)	-	-
Family	0.042* (1.76)	-	-
Delaware \times Indbrd	-	-0.049** (-2.28)	-
Delaware \times Family	-	-	0.041 (1.48)
F-statistics	4.85***	5.87***	5.30***
Adjusted-R ²	3.82%	4.62%	4.36%

*** Statistically significant at the 0.01 level.

** Statistically significant at the 0.05 level.

* Statistically significant at the 0.10 level.

dichotomous variable equal to one if over half of the board is independent.

Our results indicate that the presence of outside directors is significantly and negatively related to the discretionary current accruals, i.e., independent boards act as monitors of the firm, and mitigate earnings management. Finally, the coefficient on family ownership is negative, although significant at only the 10% level. This is weak evidence that family ownership facilitates earnings management. The F-statistic for Model 1 indicates that the model is significant in explaining the variation in discretionary current accruals.

In Model 2, we add an interaction variable equal to the product of the dichotomous Delaware and independent director variables. The coefficient of the Delaware

dummy itself remains negative and significant, suggesting a consistent reduction in earnings management for Delaware firms. Further, the coefficient of the Delaware-outside board interaction term is negative and significant, implying that firms whose boards are dominated by outside directors and that are incorporated in Delaware experience significantly less earnings management; that is, these factors act jointly to improve earnings quality. This is consistent with Xie et al. (2003), who report reduced earnings management in firms whose boards have more independent directors.

Institutional ownership shows a negative and significant coefficient, highlighting the monitoring role of institutions. Auditor type and firm size are insignificant determinants of earnings management. Leverage also remains

insignificant, but again higher profitability is associated with lower earnings management. The F-statistic indicates that the Model 2 has significant explanatory power.

The presence of a founding family may affect agency conflict, and thus may impact earnings management. Model 3 incorporates an interaction variable equal to the product of the dichotomous Delaware and family ownership variables. First, the Delaware dummy again has a negative and significant coefficient, as is the result across the three models. Although in Model 3, the interaction variable itself is insignificant (albeit positive). Hence, it is likely that the tendency of managers of family-owned firms to manage earnings is offset by the aspects of Delaware incorporation that enhance earnings quality.

Hence, it appears that founding families may increase agency costs and, therefore, do not help mitigate earnings management. The results are consistent with Gomez-Mejia, Nunez-Nickel, and Gutierrez (2001) and Shleifer and Vishny (1997), who argue against the benefits of family control.

Auditor type remains insignificant in Model 3, implying that the role of monitoring by auditors may be irrelevant. All other control variables retain their signs and significance. The F-statistic indicates that Model 3 is significant in explaining the variation in discretionary current accruals.

C. Potential Endogeneity

Many agency-related empirical studies are plagued by endogeneity. In the context of this study, endogeneity would imply that Delaware incorporation does not necessarily serve to reduce earnings management, but rather that firms where earnings management is milder tend to choose to incorporate in Delaware. It would be highly unlikely, however, that endogeneity exists between earnings management and Delaware incorporation.

Daines (2001) argues that the decision on where to incorporate is largely exogenous. The only predictor of domicile is the domicile chosen at the time of the IPO. It is not clear why factors determining domicile at the IPO stage would be relevant to the extent of earnings management in a firm decades later as ownership, firm, and industry conditions change. Domicile is also fixed in that neither managers nor shareholders can change domicile without the other party's approval. Accordingly, the presence of endogeneity is unlikely.

Nevertheless, we attempt to address endogeneity by trying to examine any change in the degree of earnings management relative to a change in domicile. Unfortunately, re-incorporation in another state occurs so rarely in the sample (and in general) that there are not enough observations to test for the impact of re-

incorporation on earnings management. To formally rule out endogeneity, we conduct a Hausman test for simultaneity, which reveals no simultaneity problem.

D. Earnings Management as an Agency Cost

We have demonstrated so far that Delaware firms exhibit less earnings management. Delaware law appears to attenuate agency costs to the extent that earnings management constitutes an agency problem. Nevertheless, it could be argued that earnings management does not necessarily represent an agency cost. For instance, earnings management may have some information value.¹⁶ In fact, this issue constitutes a separate area of research in the accounting literature.¹⁷ To show that earnings management should constitute an agency cost, we demonstrate in this section that earnings management has a detrimental impact on firm value (or at least, in the present sample.)¹⁸ While there is a vast area of research on the relationship between firm value and earnings management, it is not the focus of this study. Rather, our goal is simply to demonstrate that Delaware incorporation is related to earnings management, as proxied by high levels of abnormal discretionary current accruals.

To examine the impact of earnings management on firm value, we employ Tobin's q to represent firm value, as in many previous studies, including Daines (2001).¹⁹ However, we cannot simply regress abnormal accruals on Tobin's q (as well as the control variables), because such an approach would be fraught with endogeneity. Rather, we sidestep the endogeneity problem by examining the change in Tobin's q relative to the change in discretionary current accruals, $\Delta |DCA|$.²⁰ We also control for changes in firm size (LNASSETS), profitability (EBIT ratio), institutional ownership (INSTOWN), auditor type (AUDITOR), and financial leverage. The regression result is as follows:

$$\Delta \text{Tobin's } q = 0.238^a - 1.468^b(\Delta |DCA|) - 0.114^c (\Delta \text{LNASSETS}) - 0.998^b(\Delta \text{Debt Ratio}) + 1.085^b(\Delta \text{EBIT})$$

¹⁶For example, Dechow (1994) finds that current earnings are better than current cash flows in predicting future cash flows and Subramanyam (1996) reports that discretionary accruals are value-relevant.

¹⁷A more detailed discussion of this topic and a literature review can be found in Subramanyam (1996).

¹⁸Our thanks go to Jayant Kale for this suggestion.

¹⁹Tobin's q is calculated as in Chung and Pruitt (1994).

²⁰An alternative approach would be to utilize simultaneous equations modeling. However, that approach would require the use of appropriate instrumental variables, which are notoriously difficult to find. Besides, the results tend to be highly sensitive to the choice of instrumental variables.

Ratio) + 0.136 (INSTOWN)^b + 0.230 (AUDITOR)^b where the superscripts ^a, ^b, and ^c represent significance at the 1, 5, and 10% levels, respectively.

The coefficient of the change in discretionary current accruals, ($\Delta | DCA |$), is negative and significant. The evidence reveals that a reduction in abnormal accruals is associated with an increase in firm value, holding other variables constant. We argue that this is simple evidence in favor of the contention that earnings management can be considered an agency cost. Institutional ownership seems to significantly mitigate this agency cost, and improve firm performance significantly, as does auditor reputation. Note that a more thorough analysis can be conducted on the relationship between firm value and earnings management, but this is not our focus.

IV. Concluding Remarks

Due to its dominance, Delaware incorporation has generated a great deal of debate on its benefits and

costs. Daines (2001) represents an influential piece of evidence that supports the benefits of Delaware incorporation. On the contrary, several studies question Daines (2001) and argue against the benefits of Delaware incorporation (Bebchuk and Ferrell, 2001 and Bebchuk, Cohen, and Ferrell, 2002). We contribute to the debate by narrowly concentrating on the specific issue of earnings management. A manifestation of earnings management can be considered an agency cost. We investigate whether this specific type of agency cost is alleviated or exacerbated in Delaware firms.

The results demonstrate that earnings management occurs less in firms incorporated in Delaware. Thus, Delaware's legal rules do not appear to make agency conflicts more severe, at least, as far as earnings management is concerned. The results, however, are related to the structure of the board of directors, i.e. earnings management is reduced particularly in Delaware firms whose boards are dominated by outside independent directors. We conclude that domicile does matter with regard to earnings management. ■

Appendix

The modified Jones (1991) model is utilized in this study to estimate abnormal accruals, which represent the extent of earnings management. The abnormal accruals are decomposed based on two dimensions, time period (current and long-term) and managerial control (discretionary and nondiscretionary). We focus on the firm's current working capital accruals or discretionary current accruals that are considered abnormal compared to industry peers. These abnormal discretionary current accruals are utilized as a proxy for earnings management. Since the modified Jones (1991) has been used in many studies and presented in Teoh, et al (1998a, b), for the sake of conciseness, we simply summarize it here.

Current accruals (CA) are the change in non-cash current assets less the change in operating current liabilities. Total current accruals are the sum of both discretionary and non-discretionary accruals. To identify the non-discretionary component of accruals, we first estimate ordinary least square regressions of current accruals on the change in sales from the previous year for all non-sample firms in the same four-digit SIC code, industry *j*, listed on Compustat for the year in question. Since the error terms of this regression exhibit heteroskedasticity, we deflate each variable in the model by the book value of total assets, $TA_{j,t-1}$, from the prior year:

$$\frac{CA_{jt}}{TA_{j,t-1}} = \gamma_0 \frac{1}{TA_{j,t-1}} + \gamma_1 \frac{\Delta Sales_{jt}}{TA_{j,t-1}} \tag{1}$$

Using the estimates for the regression parameters in Equation (1), $\hat{\gamma}_0$ and $\hat{\gamma}_1$, we estimate each sample firm's non-discretionary current accruals. The non-discretionary current accruals are the part of current accruals caused by a firm's sales growth and are "viewed as independent of managerial control" (Teoh et al, 1998a, p. 95).

We estimate the non-discretionary current accruals for firm *i* at time *t*, $NDCA_{it}$, as:

$$NDCA_{it} = \hat{\gamma}_0 \frac{1}{TA_{j,t-1}} + \hat{\gamma}_1 \frac{\Delta Sales_{jt} - \Delta AR_{it}}{TA_{j,t-1}} \tag{2}$$

We then define the discretionary current accruals, DCA_{it} , as the remaining portion of the current accruals:

$$DCA_{it} = \frac{CA_{it}}{TA_{j,t-1}} - NDCA_{it} \tag{3}$$

Total accruals are the sum of current accruals and long-term accruals. We estimate total accruals using a regression similar to Equation (1) with total accruals,



TAC, as the dependent variable and an additional independent variable PPE:

$$\frac{TAC_{jt}}{TA_{j,t-1}} = \gamma_3 \left(\frac{1}{TA_{j,t-1}} \right) + \gamma_4 \left(\frac{\Delta Sales_{jt}}{TA_{j,t-1}} \right) + \gamma_5 \left(\frac{PPE_{jt}}{TA_{j,t-1}} \right) + E_{jt} \quad (4)$$

where PPE_{jt} is gross property, plant and equipment for firm j in year t .

As before, the other j companies are in the same four-digit SIC code as the sample firm. We compute non-

discretionary total accruals, NDTAC, DTAC, scaled by assets as:

$$NDTAC_{jt} = \gamma_3 \left(\frac{1}{TA_{j,t-1}} \right) + \gamma_4 \left(\frac{\Delta Sales_{jt} - \Delta A/R_{jt}}{TA_{j,t-1}} \right) + \gamma_5 \left(\frac{PPE_{jt}}{TA_{j,t-1}} \right) \quad (5)$$

and discretionary total accruals, DTAC, as:

$$DTAC_{jt} = \left(\frac{TAC_{jt}}{TA_{jt}} \right) - NDTAC_{jt}$$

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