Advising Versus Monitoring: A Study of Agency Theory and the Effect of Board Composition on the Long-Run Financial Performance of Publicly Traded Companies in the Unites States

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ABSTRACT

In an effort to restore investor confidence and public trust after a series of financial-reporting scandals in the late 1990s, government officials and financial regulators urged the U.S. stock exchanges to impose tougher oversight rules on publicly traded companies. The general purpose of this study is to provide insight into the debate over the advising and monitoring roles associated with the board of directors. The specific purpose of this study is to investigate the impact of the 2003 board-independence mandate on the long-run financial performance of U.S. publicly traded companies. We hypothesize that the long-run financial performance of companies with insider-controlled boards will increase as a result of the mandate. Applying a difference-in-difference statistical methodology, we discovered that return on assets increased for companies that transitioned to independent boards following the mandate. We found similar results when we changed the measure of financial performance to ROS. The results remain consistent even after changing the definition of the main independent variable in subsequent robustness tests. On average, companies benefitted from the strengthened oversight rules associated with independent boards.

KEYWORDS: advising, agency theory, board-independence mandate, independent boards, insider-controlled boards, long-run financial performance, monitoring, oversight rules

INTRODUCTION

Agency theorists have long argued that companies need a strong monitoring mechanism, in the form of an independent board, in order to reduce the influence of opportunistic and self-serving (entrenched) CEOs on the board of directors (Jensen & Murphy, 1990; Bebchuk & Fried, 2004; Fan, 2004). Agency theorists believe strengthening board independence by replacing inside board members with independent board members will reduce the influence entrenched CEOs have over boards, leading to the reduction of agency costs and ultimately aligning the actions of CEOs with the interests of shareholders (Bathala & Rao, 1995; Bebchuk & Fried, 2004).

Insider-knowledge theorists, on the other hand, have long argued that companies need a strong

advising component, in the form of an insider-controlled board (current managers serving as directors), in order to take advantage of firm-specific knowledge regarding operating procedures and growth opportunities (Adams & Ferreira, 2007; Harris & Raviv, 2008). An insider-controlled board, with its focus on innovation, would be better able to align long-run financial performance with the interests of shareholders (Balsmeier, Fleming, and Manso, 2017).

To test our hypothesis that the 2003 board-independence mandate had a positive long-run effect on the financial performance of publicly traded companies, we examined data over the period 1997-2012. We controlled for both industry and year fixed effects, debt, firm growth, and firm size (Bathala & Rao, 1995; Dalton et al., 1998; Bhagat & Black, 2002; Strebulaev & Yang, 2013). Similar to Chhaochharia and Grinstein (2009); Duchin, et al. (2010); Guo, Lach, and Mobbs (2015); Chung and John (2017); Lu and Wang (2015, 2018); and Pandya and Van Deventer (2021a, 2021b), we used a difference-in-difference methodology to approximate the results of an exogenous shock and reduce endogeneity concerns.

In accordance with agency theory, we found that, on average, the 2003 board-independence mandate increased the long-run performance of noncompliant companies (companies with insider-controlled boards). We confirmed the results using a propensity score matching methodology. We also confirmed the results using ROS as an additional definition of financial performance and a proxy for ROA. Finally, the results were positive after we used two alternative methods for deriving the sample. It seems most companies benefitted from the strengthened oversight rules imposed by the mandate.

BACKGROUND

The literature related to the study of the 2003 board-independence mandate expands in several directions. Some researchers investigated the impact of the mandate on executive ownership of stock in the firm, executive salaries (Chung & John, 2017; Pandya & Van Deventer, 2023), corporate governance mechanisms (Guo et al., 2015), and product development (Balsmeier, Fleming, & Manso, 2017; Lu & Wang, 2018). Our study is germane to the branch of literature that focuses on the impact of the mandate on firm performance (Duchin et al, 2010; Pandya & Van Deventer, 2021a; Pandya & Van Deventer, 2021b).

Chhaochharia and Grinstein (2007) explored the correlation between the 2003 boardindependence mandate and announcement returns and found a significantly positive effect. Wintoki (2007) investigated the effect of the mandate on announcement returns and found that the mandate had a negative effect on growing companies. Duchin et al. (2010) studied the effect of the mandate on firm performance over the period 1996 to 2005 and found that performance was related to information asymmetry between management and the independent directors who were new to the company. When the cost of acquiring firm-specific knowledge was low (high) for new independent directors, firm performance increased (decreased) following the mandate (Duchin et al., 2010; Chancharat et al., 2012). Pandya and Van Deventer (2021a) examined companies traded on NASDAQ over the period of 1997-2012 and found that the mandate had no statistically significant impact on long-run firm performance. Pandya and Van Deventer (2021b), using data spanning 1997-2012, examined companies traded on NYSE and found that the 2003 boardindependence mandate had a significant and positive effect on long-run firm performance.

Our study is most closely related to the work of Pandya and Van Deventer (2021a, 2021b).

Pandya and Van Deventer (2021a) studied the correlation between the mandate and financial performance of companies traded on NYSE. Pandya and Van Deventer (2021b) studied the correlation between the mandate and the financial performance of companies traded on NASDAQ. Unlike Pandya and Van Deventer (2021a, 2021b), we studied the impact of the mandate on companies listed on three U.S. stock exchanges, specifically AMEX, NASDAQ, and NYSE. Our contribution to this branch of literature is in finding that the 2003 board-independence mandate had an overall positive effect on the long-run firm performance noncompliant companies traded in the major U.S. stock markets.

HYPOTHESIS

In 2003, in an effort to address the financial-reporting scandals of the late 1990s and restore investor confidence in the stock markets, government officials and regulators imposed new rules on all publicly traded companies that strengthened the oversight powers of independent directors. Agency theory posits that adding outside board members will increase firm performance by improving the monitoring function and mitigating agency costs. We believe that, as independent directors are added to boards, managers will be compelled to adopt strategies that strengthen current efficiencies and reduce operating costs (Bathala & Rao, 1995; Bebchuk & Fried, 2004; Balsmeier et al., 2017). We hypothesize that the change to an independent board resulting from the 2003 board-independence mandate will have an overall positive effect on long-run financial performance.

H1₁: The 2003 board-independence mandate will positively impact the long-run financial performance of noncompliant companies.

RESEARCH METHOD

We used data for S&P 1500 companies over the period 1997-2009, which was provided by Institutional Shareholder Services, formerly known as RiskMetrics. We also used CompuStat to access financial information over the period 1997–2012. We followed the examples of Bhagat and Black (2002), Chhaochharia and Grinstein (2007), and Pandya and Van Deventer (2021a, 2021b) who used only publicly traded U.S. companies. It is possible that companies were impacted by other policy changes during the 2003 board-independence mandate. Similar to Chhaochharia and Grinstein (2007), we assume that any policy shocks that took place during the transition to independent boards were not limited to noncompliant companies.

We use a difference-in-difference estimation method to approximate the results of an exogenous shock and reduce endogeneity concerns (Pandya & Van Deventer, 2021a, 2021b). As explained by Roberts and Whited (2013), we compared the performance of companies with compliant boards (boards with independent majorities prior to the mandate) with those of noncompliant boards (boards with insider-controlled majorities prior to the mandate) and removed factors the impacted both groups during the period of transition to independent boards. We use the following equation to calculate long-run financial performance: *Financial Performance*_{it} = β_0 + $\beta_1 Board Composition_i + \beta_2 (Board Composition_i * Post Mandate_t) + \Gamma X_{it} + \delta_i + Y_t + \varepsilon_{it}$.

Variables

Our primary dependent variable is *Financial Performance*, which we measured using operating return on assets (OROA), which is calculated using operating income before depreciation over total assets similar to Bhagat and Black (2002), Bhagat and Bolton (2008), and Pandya and Van Deventer (2021a, 2021b). As an alternative measure of *Financial Performance*, we used ROS, which we calculated using net income over total sales.

Board Composition is the primary constant variable. We divided the sample into compliant (a majority of independent directors serving on the board prior to the mandate) and noncompliant companies (a majority of inside directors/managers serving on the board prior to the mandate) in the year 2000 similar to similar to Chhaochhario and Grinstein (2007), Duchin et al. (2010), Guo et al. (2015), and Pandya and Van Deventer (2021a, 2021b). We assigned a value of 0 for companies that had a majority of independent directors serving on the board in the year 2000, which we determined to be a ratio greater than 0.5. We assigned a value of 1 for companies that had a majority of inside directors serving on the board in the year 2000, which we determined to be a ratio greater than 0.5. We assigned a value of 1 for companies that had a majority of inside directors serving on the board in the year 2000, which we determined to be a ratio greater than 0.5. We assigned a value of 1 for companies that had a majority of inside directors serving on the board in the year 2000, which we determined to be a ratio greater than 0.5. We assigned a value of 1 for companies that had a majority of inside directors serving on the board in the year 2000, which we determined to be a ratio equal to or less than 0.5. To test the robustness of the results, we altered the definitions of *Board Composition* the mean companies with insider-controlled boards for at least two contiguous years prior to the mandate. As an additional robustness test, we created a sample of companies using a one-to-one replacement methodology with nearest-neighbor propensity scores (Lu & Wang, 2015; Pandya & Van Deventer, 2023).

Post Mandate is a dummy variable for which we assigned a value of 0 for all years prior to 2002 and a value of 1 for the year 2002 and onward similar to Guo et al. (2015) and Pandya and Van Deventer (2021a, 2021b). Even though the board-independence mandate took official effect in 2003, the mandate was announced in 2002 and some noncompliant companies preemptively transitioned to independent boards during the announcement year (Guo et al., 2015; Pandya & Van Deventer, 2021a, 2021b).

Total Assets (TA), Price-to-Book Ratio (PBR), and *Debt Ratio (DR)* are control variables represented by *X*. We use the natural log of TA as a proxy for firm size (Dalton et al., 1998). PBR (market capitalization / common stock) is a proxy for firm growth (Bathala & Rao, 1995). DR ((Debt in Current Liabilities + Long-Term Liabilities) / Total Assets) is a proxy for total debt (Strebulaev & Yang, 2013).

The primary variable of interest is β_2 , which is the coefficient of the interaction variable *Board Composition* * *Post Mandate*. The interaction variable estimates the effect of the mandate on noncompliant companies. We use delta (δ) to represent industry fixed effects and upsilon (Υ) to represent year fixed effects. The coefficient of *Post Mandate* is absorbed by year fixed effects. We suppress the constant variable β_0 to avoid the dummy variable trap (Adams and Ferreira, 2009) and epsilon is the error term.

RESULTS

Table 1 provides summary statistics and is divided into three parts. Each part lists *TA*, *PBR*, *DR*, and *OROA* for a different sample over the same period 1997-2012. Part A provides the summary statistics for a sample of 1,482 publicly traded companies based on their board composition in the year 2000. Part B lists the summary statistics for an alternate sample of 1,597 publicly traded companies based on their board composition for at least two contiguous years prior

to 2003. Both Parts A and B show that there are differences between compliant and noncompliant companies based on firm characteristics. To avoid the argument that differences in financial performance are the result of differences in firm characteristics rather than the impact of the mandate, we used a one-to-one replacement methodology with nearest-neighbor propensity scores to derive a sample of 615 companies, which is described in Part C. In contrast with Parts A and B, the matched sample in Part C demonstrates that differences between compliant and noncompliant companies are not statistically significant.

TABLE 1SUMMARY STATISTICS

| Part A: Board Composition in Year 2000 | | | | |
|--|-------------|---------------------------|------------------------|----------|
| | Full Sample | Noncompliant Companies | Compliant Companies | T-tests |
| Number of Companies | 1,482 | 356 | 1,126 | |
| TA (in billions) | \$11.8 | \$7.2 | \$13.1 | -3.02*** |
| PBR | 2.95 | 2.97 | 2.94 | 0.23 |
| DR | 23.72% | 22.23% | 24.16% | -1.82* |
| OROA | 13.84% | 14.91% | 13.52% | 2.58*** |

Part B: Board Composition for At Least Two Contiguous Years Prior to 2003

| | Full Sample | Noncompliant | Compliant | <i>T-tests</i> |
|---------------------|-------------|--------------|-----------|----------------|
| | | Companies | Companies | |
| Number of Companies | 1,597 | 484 | 1,113 | |
| TA (in billions) | \$11.4 | \$9.8 | \$12.2 | -1.39 |
| PBR | 2.90 | 2.71 | 2.98 | -2.29** |
| DR | 23.41% | 22.29% | 23.90% | -1.71* |
| OROA | 13.87% | 14.48% | 13.60% | 1.88* |

Part C: Board Composition in Year 2000 and Propensity Score Matching

| | Full Sample | Noncompliant | Compliant | T-tasts |
|---------------------|-------------|--------------|-----------|---------|
| | Full Sample | Companies | Companies | 1-lesis |
| Number of Companies | 615 | 356 | 259 | |
| TA (in billions) | \$8.5 | \$7.2 | \$10.2 | -1.30 |
| PBR | 3.00 | 2.97 | 3.04 | -0.37 |
| DR | 23.03% | 22.23% | 24.06% | -1.17 |
| OROA | 14.52% | 14.91% | 14.02% | 1.48 |

Notes: Statistical significance is indicated at the 10% (0.10), 5% (0.05), and 1% (0.01) levels using *, **, and ***, respectively.

There is a total of 1,482 companies in Part A, which have average TA of \$11.7 billion, an

average PBR of 2.95, an average DR of 23.72%, and an OROA assets of 13.84%. Twenty-four percent (356) of the companies have noncompliant boards prior to the mandate, which have average TA of \$7.2 billion, an average PBR of 2.97, a DR of 22.23%, and an OROA of 14.91%. The other 1,126 companies have compliant boards with average TA of \$13.1 billion, an average PBR of 2.94, a DR of 24.16%, and OROA of 13.52%. The *t-tests* in column 4 indicate that the noncompliant companies are significantly smaller in terms of average TA than compliant companies, the PBR higher for noncompliant companies but not significantly, the DR of noncompliant companies is significantly less than that of compliant companies, and the OROA is significantly greater for noncompliant companies.

There is a total of 1,597 companies in Part B, which have average TA of \$11.4 billion, an average PBR of 2.90, an average DR of 23.41%, and an operating rate of return on assets of 13.87%. Thirty-three percent (484) of the companies have noncompliant boards prior to the mandate, which have average TA of \$9.8 billion, an average PBR of 2.71, a DR of 22.29%, and OROA of 14.48%. The other 1,113 companies have compliant boards with average TA of \$12.2 billion, an average PBR of 2.98, a DR of 23.90%, and OROA of 13.60%. The *t-tests* in column 4 indicate that the noncompliant companies are smaller in terms of average TA than compliant companies, the DR of noncompliant companies is significantly less than that of compliant companies, and OROA is significantly greater for noncompliant companies.

There is a total of 615 companies in Part C, which have average TA of \$8.5 billion, an average PBR of 3.00, an average DR of 23.03%, and an operating rate of return on assets of 14.52%. Fiftyeight percent (356) of the companies have noncompliant boards prior to the mandate, which have average TA of \$7.2 billion, an average PBR of 2.97, a DR of 22.23%, and an OROA of 14.91%. The other 259 companies have compliant boards with average TA of \$10.2 billion, an average PBR of 3.04, a DR of 24.06%, and an OROA of 14.02%. The *t-tests* in column 4 indicate that the noncompliant companies are smaller in terms of average TA, possess lower PBR and DR, and experience larger OROA; but none of the differences between compliant and noncompliant companies are statistically significant.

Univariate difference-in-difference

Table 2 is divided into four parts and provides the univariate difference-in-difference estimates for the effect of the 2003 board-independence mandate on the financial performance of publicly traded companies over the period 1997-2012. In Part A, we used OROA as the measure for financial performance and we grouped the sample based on board composition in the year 2000. Parts B-D are robustness tests. For Part B, we again used OROA, but we derived a matched sample of compliant and noncompliant companies using a propensity score methodology. In Part C, we again used OROA, but we defined noncompliant companies as having independent boards for two contiguous years prior to 2003. Lastly, for Part D, we used ROS as the measure of financial performance and grouped companies based on their board composition in the year 2000.

| PERFORMANCE | | | | |
|---|------------------------|-----------------------|----------|--|
| Part A: | OROA and Board Com | position in Year 2000 | | |
| | OROA before Mandate | OROA after Mandate | Variance | |
| Compliant Companies | 15.16 | 12.55 | -2.61 | |
| Noncompliant Companies | 15.95 | 14.24 | -1.71 | |
| Variance | 0.79 | 1.69 | 0.90** | |
| Robustness Tests Part B: OROA and Board Composition in Year 2000 with Propensity Score Matching OPOA OPOA | | | | |
| | before Mandate | after Mandate | Variance | |
| Compliant Companies | 15.80 | 12.93 | -2.87 | |
| Noncompliant Companies | 15.95 | 14.24 | -1.71 | |
| Variance | 0.15 | 1.31 | 1.16*** | |
| Part C: OROA and Board Composition for At Least Two Contiguous Years Prior to 2003 | | | | |
| _ | OROA before Mandate | OROA after Mandate | Variance | |
| Compliant Companies | 15.30 | 12.58 | -2.72 | |
| Noncompliant Companies | 15.78 | 13.71 | -2.07 | |
| Variance | 0.48 | 1.13 | 0.65* | |
| Part D: ROS and Board Composition in Year 2000 | | | | |
| _ | ROS before Mandate | ROS After Mandate | Variance | |
| Compliant Companies | 1.75 | 0.44 | -1.31 | |
| Noncompliant Companies | -1.96 | 3.05 | 5.01 | |
| Variance | -3.71 | 2.61 | 6.32* | |

TABLE 2 UNIVARIATE DIFFERENCE-IN-DIFFERENCE ESTIMATES AND FINANCIAL PERFORMANCE

Notes: Statistical significance is indicated at the 10% (0.10), 5% (0.05), and 1% (0.01) levels using *, **, and ***, respectively.

The information in Part A of Table 2 suggests that compliant companies experienced a decrease (2.61%) in financial performance after the mandate. Part A shows that noncompliant companies also experienced a decrease (1.71%) in financial performance following the mandate, but the decrease was less for noncompliant companies. Prior to the mandate, noncompliant companies experienced greater financial performance (0.79%) than compliant companies. After the mandate, the difference in financial performance (1.69%) increased significantly in favor of noncompliant companies over compliant companies. The difference-in-difference estimation (0.90) is positive and significant, indicating an increase in OROA of 0.90% more for noncompliant

companies following the mandate.

Similar to Part A, the information in Part B is evidence that compliant companies experienced a decrease (2.87%) in return on assets following the mandate. Part A demonstrates that noncompliant companies also experienced a decrease (1.71%) in return on assets after the mandate, but the decrease was less for noncompliant companies. Prior to the mandate, noncompliant companies experienced greater financial performance (0.15%) than compliant companies. After the mandate, the difference in return on assets (1.31%) increased significantly in favor of noncompliant companies over compliant companies. The difference-in-difference estimation (1.16) is positive and significant, indicating an increase in OROA of 1.16% more for noncompliant companies following the mandate.

The results in Part C are similar to Parts A and B. Compliant and noncompliant companies experienced a decrease in return on assets (2.72 and 2.07, respectively). The decrease in financial performance was less for noncompliant companies. Between the two groups, return on assets increased significantly from pre-mandate (0.48%) to post-mandate (1.13%). The difference-in-difference estimation (0.65) is positive and significant, indicating an increase in OROA of 0.65% more for noncompliant companies following the mandate.

In Part D, we used ROS as an alternative measure of financial performance. The compliant companies experienced a decrease in ROS (1.31%), but the compliant companies experienced an increase in ROS (5.01) following the mandate. Between the two groups, ROS increased significantly from pre-mandate (-3.71%) to post-mandate (2.61%). The difference-in-difference estimation (6.32) is positive and significant, indicating an increase in ROS of 6.32% more for noncompliant companies following the mandate. The changes observed in financial performance support the agency view that the majority of noncompliant companies benefitted from strengthened board monitoring following the mandate.

Multiple regression difference-in-difference

We performed four multiple regression analyses that correspond to the univariate analyses. We first conducted a comparison of our primary measure of financial performance, OROA, with an alternative measure of financial performance, ROS, as a robustness test. As additional robustness tests, we produced a sample using a propensity score matching methodology; and we produced an alternative sample by grouping companies according to their board composition for at least two contiguous years prior to 2003.

OROA versus ROS

In Table 3, we present two columns listing the results of our multiple regression differencein-difference estimates using data from publicly traded companies over the period 1997-2012. In Column 1, we list the results for our main test of the effect of the 2003 board-composition mandate on financial performance, using our primary measure for the dependent variable, *OROA*, and our primary definition for the sample, *Board Composition in Year 2000*. For Column 2, we used the same sample but changed the measure of financial performance to *ROS*.

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| (1) | (2) |
|----------|--|
| OROA | ROS |
| 0.50 | -1.45 |
| (0.49) | (2.68) |
| 0.77* | 6.19* |
| (0.47) | (3.44) |
| -0.08*** | -0.48*** |
| (0.02) | (0.12) |
| 0.56*** | 0.48*** |
| (0.07) | (0.16) |
| 0.80** | 2.30*** |
| (0.36) | (0.47) |
| 19,103 | 19,103 |
| 0.18 | 0.02 |
| Yes | Yes |
| Yes | Yes |
| 1,482 | 1,482 |
| | (1) OROA 0.50 (0.49) 0.77* (0.47) -0.08*** (0.02) 0.56*** (0.07) 0.80** (0.36) 19,103 0.18 Yes Yes 1,482 |

TABLE 3OROA VERSUS ROS AND BOARD COMPOSITION IN YEAR 2000

Notes: Statistical significance is indicated at the 10% (0.10), 5% (0.05), and 1% (0.01) levels using *, **, and ***, respectively.

Table 3 Column 1 reports a positive (0.50) coefficient for Board Composition that is not statistically significant, which indicates that, on average, there was no significant difference in financial performance, measured by OROA, between compliant and noncompliant companies over the period 1997-2012. However, the multiple regression difference-in-difference estimate for the interaction variable *Board composition* * *Post Mandate* is positive (0.77) but statistically significant at the 10% level, suggesting that noncompliant companies performed better as a result of the mandate, by 0.77%, than they would have performed without the mandate. By comparison, the univariate coefficient of Table 2 Part A (0.90) demonstrates a greater financial performance at the 5% level for noncompliant companies. Unlike the univariate analysis, the multiple-regression coefficient is reduced as control variables are added to the analysis but the result remains statistically significant. Looking at the control variables, we see that the *DR* is negatively associated with financial performance; but *TA* and *PBR* are both positively associated with financial performance.

Table 3 Column 2 lists a negative (-1.45) coefficient for Board Composition that is not statistically significant, which indicates that, on average, there was no significant difference in financial performance, measured by ROS, between compliant and noncompliant companies over the period 1997-2012. The interaction variable *Board composition* * *Post Mandate* is positive (6.19) but statistically significant at the 10% level, indicating that noncompliant companies performed much better as a result of the mandate, by 6.19%, than they would have without the mandate. The univariate coefficient (6.32) listed in Table 2 Part D is also positive and statistically

significant. The two sets of information in Table 2 Part D and Table 3 Column 1 provide overwhelming evidence that the 2003 board-independence mandate increased the long-run financial performance of most noncompliant companies.

Propensity score matching

In Table 4, we used our primary measure of financial performance, OROA, but derived a matched sample using one-to-one propensity score matching process. The results for matched sample are similar to the results reported in Table 3 Column 1 for our primary sample.

TABLE 4OROA AND BOARD COMPOSITION IN YEAR 2000 WITH PROPENSITY SCOREMATCHING

| Board Composition in Year 2000 | 0.06 |
|----------------------------------|---------|
| | (0.59) |
| Board composition * Post Mandate | 0.86* |
| Board composition Tost Mandate | (0.53) |
| DR | -0.03* |
| | (0.02) |
| PBR | 0.51*** |
| | (0.10) |
| In Total Assets | 0.02 |
| | (0.25) |
| Observations | 7,674 |
| R-Square | 0.20 |
| Industry Indicator | Yes |
| Year Indicator | Yes |
| Companies | 615 |

Notes: Statistical significance is indicated at the 10% (0.10), 5% (0.05), and 1% (0.01) levels using *, **, and ***, respectively.

Table 4 lists a positive coefficient (0.06) for *Board Composition in Year 2000* that is not statistically significant. The coefficient (0.86) is positive and significant for the interaction variable *Board composition* * *Post Mandate*. Though, on average, there was no difference in financial performance between compliant and noncompliant companies over the period 1997-2012, there is evidence that noncompliant companies performed better as a result of the mandate, by 0.86%, than they would have without the mandate. The univariate coefficient (1.16) listed in Table 2 Part B is also positive and statistically significant. The two sets of information in Tables 2 Part B and Table 4 are further evidence that the 2003 board-independence mandate increased the long-run financial performance of most noncompliant companies.

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Board composition for at least two contiguous years prior to 2003

In Table 5, we again used our primary measure of financial performance, OROA; but this time, we used an alternative definition for *Board Composition*: companies with insider-controlled boards for at least two contiguous years prior to 2003. The results for the alternate sample are similar to the results for the main sample listed in Table 3 Column 1 and the matched sample listed in Table 4.

TABLE 5OROA AND BOARD COMPOSITION FOR AT LEAST TWO CONTIGUOUS YEARS
PRIOR TO 2003

| Board Composition for At Least Two Contiguous Years Prior | 0.43 |
|---|----------|
| to 2003 | (0.34) |
| Roard composition * Post Mandata | 0.77* |
| Board composition * Post Mandate | (0.49) |
| DR | -0.07*** |
| | (0.02) |
| PBR | 0.59*** |
| | (0.07) |
| In Total Assets | 0.66** |
| | (0.33) |
| Observations | 20,593 |
| R-Square | 0.18 |
| Industry Indicator | Yes |
| Year Indicator | Yes |
| Companies | 1,597 |

Notes: Statistical significance is indicated at the 10% (0.10), 5% (0.05), and 1% (0.01) levels using *, **, and ***, respectively.

Table 5 lists a positive coefficient (0.43) for *Board Composition for At Least Two Contiguous Years Prior to 2003* that is not statistically significant. The coefficient for the interaction variable (0.77) *Board composition * Post Mandate* is positive but statistically significant at the 10% level. Though, on average, there was no difference in financial performance between compliant and noncompliant companies over the period 1997-2012, there is evidence that noncompliant companies performed better as a result of the mandate, by 0.77%, than they would have without the mandate. The univariate coefficient (0.65) listed in Table 2 Part C is also positive and statistically significant. The two sets of information in Tables 2 Part C and Table 5 are even further evidence that the 2003 board-independence mandate increased the long-run financial performance of most noncompliant companies.

CONCLUSION

After a thorough examination of the data, we established that there was a significant overall increase in the long-run financial performance of noncompliant companies after the 2003 board-independence mandate. Specifically, noncompliant companies performed better after adopting independent boards than they would have had they not adopted independent boards. The results support the agency perspective that independent directors, with their focus on strengthened monitoring mechanisms, can effectively reduce costs and improve operating efficiencies (Jensen & Meckling, 1976; Bebchuk & Fried, 2004). Though the effect of the mandate was significant at the 10% level, it was not perfect. Some previously insider-controlled companies did not benefit from the mandate.

Policy Implications

Our results support the actions of legislators and regulators who strengthened the oversight of the key executives through the Sarbanes-Oxley Act of 2002 and the stock exchanges in 2003. Over the long run, independent boards, with their increased over-sight powers, are better able to align the actions of key executives to company performance and shareholder wealth. As Bathala and Rao (1995) and Bebchuk and Fried (2004) point out in their papers, replacing inside board members with independent board members will reduce the influence entrenched CEOs have over boards, leading to the reduction of agency costs and ultimately aligning the actions of CEOs with the interests of shareholders. The corporate governance policies resulting from SOX and the U.S. stock exchanges provide examples for regulatory agencies in other countries to follow should they seek to align CEO compensation to company performance and shareholder wealth.

For management, the strengthened oversight means independent boards will be more engaged in monitoring activities than advising activities. Additionally, Independent boards will shift the focus of management away from efforts to develop new products and services and, will instead, insist that management focus its attention on the improvement of strengths and efficiencies of current products and services.

Future Research

We expanded the literature related to the 2003 board-independence mandate by studying the impact of the mandate on the long-run financial performance of companies traded on the three major stock exchanges: AMEX, NASDAQ, and NYSE. We also provided insight into the debate over the advising and monitoring functions of the board of directors. Though most companies benefitted from the adoption of independent boards with their focus on strengthened monitoring rules, we found evidence that some companies had an ideal board composition prior to the mandate. Future research could examine the effect of the mandate on specific types of companies. Previous researchers studied specific characteristics and types of companies such asset growth, sales growth, volume of research and development expenditures, industry type, regulatory oversight, and amount of debt. We know that, on average, noncompliant companies benefitted from the mandate and which did not.

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