

**Governance and Earnings Management surrounding Dividend Initiation**

by

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# Governance and Earnings Management surrounding Dividend Initiation

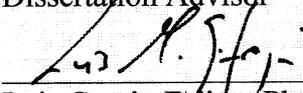
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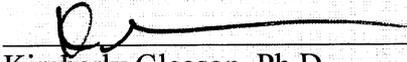
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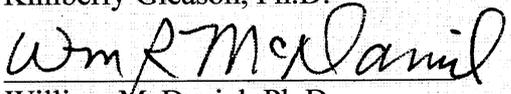
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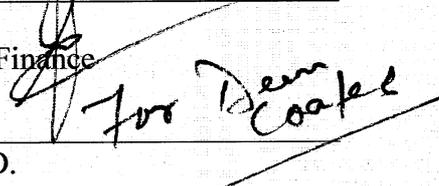
  
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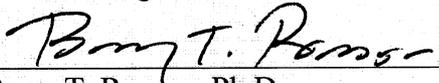
  
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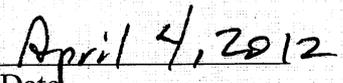
  
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## **Abstract**

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### Essay I: Governance surrounding Dividend Initiation

According to the free cash flow hypothesis, managers prefer to invest surplus cash, even in value reducing projects, rather than release it to shareholders. Yet, previous studies of dividend payout conclude that managers pay more in dividends when they are entrenched, supporting the substitute model. I repeat the earlier tests using only dividend initiation instead of recurring dividend payout. The results indicate that initiating firms have stronger shareholder rights, in contrast with much of the prior research on continuous dividend payout. Firms with a lower entrenchment index are more likely to initiate dividends. Although the GIndex is significant in prior research explaining continuing dividend payout, it is not significant in predicting the likelihood of dividend initiation. CEO Power is evident in that CEOs nearer to retirement and those with stock

grants instead of options are more likely to initiate dividends. My findings indicate that governance surrounding dividend initiation is best explained by the outcome model.

## Essay II: Earnings Management surrounding Dividend Initiation

Prior research tests earnings management surrounding changes in dividend payout and researchers conclude that the earnings management is a means of amplifying the dividend signal to the market. However, dividend initiation is a unique event. If initiation represents signaling, similar to a dividend increase, then management will manage earnings upward. If, on the other hand, dividend initiation is better explained by the free cash flow hypothesis, then initiation may be entered into with caution or reluctance by management. I test dividend initiating firms for accrual and real earnings management. Subsequently, cross-sectional analysis is performed to determine which firms engage in earnings management and which do not. I find evidence of downward real earnings management in the years leading up to and including the year of initiation announcement. This evidence of real earnings management downward indicates support for the free cash flow hypothesis, that management creates reserves of cash and earnings before releasing cash back to shareholders and committing to a quasi-contract of continuing payout. This also explains the reduced volatility of earnings in firms that have recently initiated dividends.

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## **Essay I: Governance surrounding Dividend Initiation**

### **I. Introduction**

The main purpose of Essay I is to identify the governance setting under which CEOs initiate dividends. As Shleifer and Vishny (1997) state, "We want to know how investors get the managers to give them back their money." My intent is to address questions currently unresolved by existing literature. The analyses in this essay should provide insight into the sources of pressure that induce CEOs to initiate dividends. The objectives described below also represent my original contribution to the dividend policy and governance literature.

I first determine whether the empirical research on dividends also explains dividend initiation. Most of the literature on dividend payout supports the substitute model; that entrenched managers are more likely to pay dividends. Empirical tests are performed almost exclusively to determine if firms will or will not pay in the sample year, regardless of whether they paid in the previous year. Various measures of entrenchment have been documented. One frequently used proxy is an index of shareholder rights created by Gompers, Ishii, and Metrick (2003), comprised of 24 antitakeover provisions (GIndex). Other measures include smaller indices of antitakeover provisions, insider ownership, blockholder ownership, etc. Jo and Pan (2009) are the only researchers to examine initiations, and they do so as an isolated test with the change in

GIndex as the only independent variable. Therefore, the first objective of Essay One is to corroborate that this result, that entrenched CEOs are more likely to pay dividends, holds for dividend initiations, robust to other measures of entrenchment, and while controlling for other known determinants of dividend initiation.

The second objective of this essay is to distinguish between entrenchment of the board, and entrenchment of the CEO. Research indicates that the CEO may be protected from the market via antitakeover provisions, but still subject to termination by the board. Conversely, the CEO may be powerful with respect to the board, but still subject to market retaliation. In order to determine why CEOs initiate dividends, it is necessary to determine if the coercive force is from the market, the board, or both. Do CEOs initiate to appease the market to benefit share value, because they fear potential takeover, or because they fear termination of employment by the board?

The third objective is to test the explanation from the free cash flow literature; that dividend initiation is compelled by threat of takeover, and that the discipline of dividend cash flows restricts value-destroying initiation. Previous literature supports these two explanations, but does not test them directly. I test these directly by examining the takeover and acquisition activity surrounding dividend initiation.

The fourth objective of Essay One encompasses the previous three in an attempt to reconcile two well-supported strands of literature. According to the free cash flow theory, entrenched managers prefer to invest excess free cash flow in acquisitions and are personally rewarded for it, even if the acquisition is value-destroying for the firm. Under the free cash flow hypothesis, managers pay dividends because of the threat of market

discipline. According to the substitute model, entrenched managers are more likely to pay dividends after they are given protection from market discipline. The solution to this fourth objective is likely to be dependent on the source of entrenchment, as tested in the second objective.

The sections of this essay are organized as follows. In section II, I present the relevant literature review for the free cash flow hypothesis, early studies on insider ownership and dividends, the outcome model, the substitute model, and the Managerial Power Hypothesis. Section III presents the hypotheses development and Section IV presents a description of the data and methodology.

## **II. Literature Review**

### **1. Free Cash Flow Hypothesis, Overinvestment, Hubris and Overconfidence**

The free cash flow hypothesis was developed by Jensen (1986). He explains that an agency conflict arises when cash flow exceeds the amount required to fund all net present value projects. Managers have incentive to continue investing in negative net present value projects or to waste the cash on organization inefficiencies. Prior to takeover, bidders perform abnormally well, and this is the catalyst providing the large amounts of free cash flow for value destruction. According to Jensen, the problem shareholders face is motivating managers to disgorge the free cash flow when positive net present value projects are exhausted. He also asserts that diversification generates more losses than expansion or takeovers within the firm's industry scope. The Free Cash Flow hypothesis is not restricted to dividend payout as a solution. For example, debt can substitute for dividends since the required interest payments limit the use of those funds

for value reducing investment. The solution to the problem may be elusive, but the supported conclusion is that management prefers investing to paying out dividends.

Lang and Litzenberger (1989) provided an empirical test of the free cash flow hypothesis and the alternative hypothesis for explanation of dividend payout; signaling. Using the Modigliani and Miller limited growth model, they define the empirical expectations of overinvestment and signaling. The limited growth model expresses the value of the firm as a function of two components: the value from existing assets plus the net present value of future investment. Lang and Litzenberger refer to their empirical extension of the free cash flow hypothesis as the overinvestment hypothesis. The authors clarify that, “The overinvestment hypothesis predicts that the average return in response to announcements of sizeable dividend changes is larger for overinvesting firms than for value maximizers.” In their analyses, a Tobin’s Q of less than one is sufficient to identify the firm as overinvesting, and a firm that is maximizing shareholder value must have Tobin’s Q greater than one. Their sample is made up of dividend announcements between 1979 and 1984 of increased payout by more than 10% or decreased dividend payout more than 10%. Their prediction is as follows. Consider the predicted signaling response to a dividend decrease by a high Q firm versus a low Q firm. Signaling theory predicts that these reactions should be the same. The value of the stock should not change. Overinvestment theory predicts that investors will not lose value by the decrease in high Q firm’s dividends, but that they will lose value by the decrease in low Q firm’s dividends because management will invest the cash in negative net present value projects. Lang and Litzenberger find that market reaction to reducing a high Q firm’s dividends is

near zero and statistically insignificant. Market reaction to a low Q firm's decrease in dividends is significantly negative and significantly different from that of a high Q firm. Thus they supported the overinvestment hypothesis and the free cash flow hypothesis.

Lang, Stulz, and Walkling (1991) identify support for the free cash flow hypothesis with bidder announcement returns. They use both Tobin's Q and a measure of free cash flow to distinguish firms that have good investment opportunities versus firms that do not. Free cash flow is proxied by operating income before interest, taxes, depreciation, and dividends. The sample is 101 successful takeover bids between 1968 and 1986. Returns for the eleven days surrounding the announcement bid follow the theory's prediction. For the entire sample, more cash flow implies a lower bidder abnormal return; bidder abnormal returns are negatively related to cash flow. The results for high and low Q firms support the free cash flow hypothesis as well. The authors' primary finding is that the more cash a low Q firm has, the lower its bidder return is relative to a high Q firm.

The free cash flow hypothesis is also supported with respect to dividend payout ratios. Kallapur (1994) tested 112 firms from 1951 to 1986. The movement of stock return as related to earnings per share was tested in light of varying dividend policy. Kallapur found that a policy of higher dividend payout improved the impact of higher earnings per share on stock return.

Jensen's free cash flow hypothesis is, likewise, supported with respect to share repurchases. Nohel and Tarhan (1998) studied firm performance and market reaction surrounding share repurchase. Their objective was to identify evidence of the signaling or

free cash flow hypotheses. The 242 tender offer announcements included in the sample represent the period from 1978 – 1991. The authors perform a complete evaluation including an event study, a review of three year buy-and-hold returns, matching firm performance, and a comparison of accounting performance measures pre-repurchase versus post-repurchase. The findings provide strong support for the free cash flow hypothesis. Compared to high Q firms, low Q firms have higher cash flows and improved asset turnover following repurchase. The authors use the Du Pont identity to reveal that this is due to improved use of assets, supporting the free cash flow theory. Low Q firms improve performance when they repurchase shares and investors predict this. Investors respond to the share repurchase by low Q firms with positive abnormal stock returns. In contrast, abnormal stock returns are not significant for high Q firms.

Results from Nohel and Tarhan (1998) also support the free cash flow hypothesis over signaling, and they uncover interesting evidence regarding impending takeover in the process. Examining operating performance following share repurchase, the authors find that the change in Q measurement before and after repurchase is insignificant, suggesting that low Q firms are not using share repurchase to signal that they intend to become high Q firms. They also find that sales growth following repurchase does not support signaling either; instead it is negatively correlated with share repurchase. An additional finding by Nohel and Tarhan (1998) is that firms threatened with takeover, based on bid and intent to bid announcements, use repurchases as a defensive move to ward off takeover.

Chung, Firth, and Kim (2005) focused their study of the free cash flow hypothesis on the use of discretionary accruals. They theorized that, since overinvesting firms faced negative performance, managers in these firms might take advantage of income increasing discretionary accounting accruals to window-dress their operating performance. Chung et al. use OLS regression with the dependent variable, discretionary accounting accruals. Surplus free cash flow is measured by a dichotomous variable equal to one if retained cash flow is above the sample median for the year and the price to book ratio is below the sample median for the year, i.e. low expected growth and high retained cash. They include 22,576 firm-year observations between 1984 and 1996. Subject to some inhibiting factors, Chung et al. (2005) determine that management does take advantage of surplus free cash flow for window-dressing. Firms that employ big six auditors are less likely to engage in higher use of discretionary accounting accruals with stronger results the longer the big six auditors are employed. Institutional shareholders also act to deter positive discretionary accounting accruals, but only when surplus free cash flow is high. However, the central finding is that firms with more surplus free cash flow use more income increasing discretionary accounting accruals. Chung, Firth, and Kim speculate that the inflated reported profits reduce pressure on management to perform, allowing them to engage more freely in non-value-maximizing expenditures.

Support for the free cash flow hypothesis is also provided by Harford (1999). This article defines a strong empirical relationship between cash availability and acquisitions. Harford creates a model to predict the cash requirements for firms based on market to book ratio, cash flow volatility, future operational cash requirements, industry, and

economic climate. In this model, a firm is designated as cash-rich when it is 1.5 standard deviations above predicted cash requirements. Harford documents that cash-rich firms are more likely to be bidders. He argues that investors can observe the cash stockpile and must anticipate the possible uses for it, including acquisition. Thus, the negative abnormal returns around bid announcement suggest that the bids are worse than what investors expected. Announcement returns are higher for firms with more debt, supporting the free cash flow hypothesis. Harford finds specifically that an increase in cash of one percent of total assets lowers the announcement return by 21 basis points. In essence, firms with more cash destroy more value with acquisitions.

From Jensen's (1986) introduction of the free cash flow hypothesis and on through years of subsequent support, there is strong evidence that managers make poor choices when additional cash is available. The foregoing paints an opportunistic view of management. Empirical literature reports not only the act of value-destruction, but delves further into the reasons for the size of the well-documented agency problem. Definitive strains of literature examine the motivation behind management's investment in projects that reduce the value of the firm. Hubris and overconfidence stem from management's belief that they can perform unrealistically well. Other, more pragmatic theories suggest that management is simply acting in their own best interests to earn personal perquisites, improved job security, and increased compensation, whether or not they consciously disregard the interests of shareholders.

Specifically directed at investment via acquisitions, one explanation for value reducing activity is the hubris hypothesis. Roll (1986) advanced the idea that, "Hubris on

the part of the individual decision-makers in bidding firms can explain why bids are made even when a valuation above the current market price represents a positive valuation error.” Defining his theory, Roll clarifies that hubris does not require intent, only that management makes acquisition bids which turn out to be too high for the returns achieved in acquisition. He admits that hubris cannot explain all merger and acquisition activity, or shareholders would simply forbid acquisitions. A plethora of research attempts to delineate the role of this character flaw in explaining value depreciating acquisitions.

Morck, Shleifer, and Vishny (1990) provide an empirical test of the personal motives that may drive value-reducing acquisitions, with the objective of identifying the relationship between managerial benefits of an acquisition and the firm value consequences. The first category of motivation is relatedness. The CEO may want to diversify the firm to improve diversification of his own portfolio, to improve job security, or to prevent shrinkage of the firm. The second category is to cover weak firm performance. Acquisition of a high growth target could boost the acquirer’s failing growth, attract entry level management with opportunities for advancement, or help ensure long term survival of the firm. The third category of motivation for taking on value-reducing acquisitions is that some acquirers are simply run by bad management. While Morck et al. reference the hubris hypothesis introduced by Roll (1986), their stated purpose is to identify types of bidders that “systematically” overpay.

The authors study 326 completed acquisitions during years 1975-1987. They use event study methodology and perform cross-sectional analysis on the dependent

variables, (-2, +1) bid announcement, three year income growth compared to industry, and three year equity return compared to industry. To explain these returns, the authors consider managerial objectives. They posit that managers make bad acquisition choices because they want to diversify the firm for personal gain, to purchase firm growth, or simply because they are poor managers. Among the findings is that buying unrelated or growth firms in the 1970's was not value-decreasing, but such acquisitions in 1980's decreased value. An important contribution from this research is the finding that managers with poor performance relative to industry in the years leading up to acquisition do much worse in making acquisitions than managers from firms with good prior performance. The authors conclude that bad acquisitions are a manifestation of the acquirer's existing agency problems.

Malmendier and Tate (2008) propose another explanation of the managers that overpay for targets. They define overconfidence by "longholder" status and by news press descriptions. CEOs are designated as "longholders" if they hold their personal vested options into the year of expiration even though they are 40% or more in-the-money going into the year of expiration. Published articles are accumulated to establish a media description of the CEO via keyword counts of words suggesting overconfidence. Malmendier and Tate explain that their description of management as overconfidence approximates hubris, and both terms are similar to the Jensen (1986) agency theory. They point to empire-building as yet another similar reference to management pursuing value-decreasing acquisitions.

In their sample, just under 11% of the sample CEOs are determined to be overconfident, but they cause 44% of the value destruction around merger bids based on the (-1,+1) announcement returns. Malmendier and Tate determine that overconfident CEOs are more acquisitive unconditionally, overestimate the expected returns, and overpay. Concurrent with Jensen's (1986) free cash flow hypothesis, Malmendier and Tate find that the effects of value-destroying mergers by overconfident CEOs are strongest when they have access to internal financing. Overconfident CEOs believe they will create wealth for shareholders, unlike empire-building CEOs who consciously serve their own interests before shareholders'. Carefully drawn compensation contracts may deter empire-building CEOs, but overconfident CEOs do not respond to compensation incentives. Lack of firm level internal financing is the most effective constraint for these managers.

Harford and Li (2007) demonstrate that CEOs create personal gain from value-reducing acquisitions. In spite of the well-documented long run underperformance of acquiring firms, CEO median wealth increases by \$10 million in the year after an acquisition. Harford and Li evaluate 370 acquisitions between 1993 and 2000, comparing the returns to the shareholders with the returns to the CEOs. Although academic research led to increasing reliance on stock grants to CEOs to align their goals with shareholders', Harford and Li discover that these "incentive-aligning" stock grants make up the bulk of the reward for value-destroying acquisitions. Of course, management could invest internally with capital expenditures, but Harford and Li (2007) find that internal investment has a much lower payoff for management. The compensation changes

following large internal expenditures not only lack the dramatic increase earned through acquisition, but CEOs are held more accountable to poor performance following internal expansion. Only CEOs in firms with very strong governance are held accountable to poor performance following external expansion, namely an acquisition.

CEOs have many reasons to pursue acquisitions and expand the firm; hubris, overconfidence, personal financial gain, perquisites, and job security. With these forces on the spending side, why would a CEO acquiesce to pay cash out to shareholders instead? The free cash flow hypothesis does not designate a specific method of cash reduction to alleviate the agency problem. Surplus cash flow could be reduced by interest payments (trading debt for equity) or directly through share repurchase. Do CEOs pay dividends because the shareholders and board of directors provide effective governance, or do CEOs pay dividends when they are more entrenched, as a substitution for the lack of governance?

All the theories discussed in this section lead to the same general conclusion. Managers want to invest surplus cash flow and they gain personally from doing so. Whether they consider the objective is personal gain, or they are overconfident, driven by hubris, or power-seeking, the result with respect to surplus cash flow is the same. The free cash flow and related theories predict that management will continue spending surplus cash flow even if the projects are value-decreasing.

## **2. Early Studies: Inside Ownership and Dividends**

These earlier articles are an important contribution of literature explaining the relationship between management and dividend payout, although the characteristics of

management are limited to the amount and type of inside ownership. The perspective of the research on inside ownership in the US is that managers will align themselves more closely with the goals of shareholders if they have more ownership themselves. Insiders can be officers, members of the board, or other individuals actively involved in decisions of the firm. Blockholders, institutional owners and groups of non-insider owners are not included with insider ownership as the term is used here. Whether the desired alignment is fully achieved is not investigated here as the discussion is limited to the effect of inside ownership on dividends.

In 1992, Jensen, Solberg, and Zorn published an article titled, “Simultaneous determination of insider ownership, debt and dividend policies.” The purpose of this article is to question the use of inside ownership as an explanatory variable for debt and dividends. The authors use simultaneous equations: three stage least squares estimation of equations explaining debt, dividend payout, and inside ownership. In addition to using the three dependent variables as explanatory variable, they include controls for business risk (the standard deviation of ROA), ROA, R&D expense, fixed assets, growth, total investment, size and number of operating divisions. They used only two years of data, 565 firms in 1982 and 632 firms in 1987. Their sample is drawn from the population of firms that have insider information available in Value-line and also have financial information in Compustat.

The basis for the interdependence of debt, dividends and inside ownership promulgates from the signaling and agency theories. Inside ownership and the financial policies regarding dividends and debt help mitigate informational asymmetry that exists

between management and shareholders. Citing Jensen and Meckling's (1976) agency theory, Jensen et al. (1992) point to the agency conflicts between management, shareholders and creditors as an explanation for the interdependence of the financial policies for inside ownership, dividends, and debt. They explain the prediction that inside ownership will be negatively related to dividends in two ways. First, insiders with high ownership will try to reduce financial risk. Second, inside ownership aligns the goals of managers with shareholders, resulting in lower agency costs and a reduced benefit from paying dividends.

Their results show that the dividend and debt equations support the premise that firms with high inside ownership choose lower dividends and debt. The authors explain that firms with higher inside ownership do not benefit as much from the agency cost reduction of regular dividend payments. Conversely, in the equation for inside ownership, debt and dividends were not significant determinants. Therefore, although insiders have more control over debt and dividend policy through ownership, there is no support for the theory that insiders choose to own more or less based on the dividend or debt policies of the firm. Most importantly, regarding debt and dividend policies, the authors conclude that, "...there is no reason to believe that insiders are attracted to or repelled by any particular financial policy." The three areas are interdependent, but causality is from inside ownership to dividend and debt policy. According to this article, the reason higher inside ownership results in lower dividends is because the inside ownership has already reduced agency cost. With higher inside ownership, the cost of dividends exceeds the benefit.

Chen and Steiner (1999) also used simultaneous equation methodology to investigate interdependence between key components of decision-making and ownership. They expanded the Jensen et al. (1992) model of interdependence of managerial ownership on debt and dividends to include a fourth equation for risk-taking. The proxy for risk is the natural log of the standard deviation of the market returns on the firm's common stock. Chen and Steiner use only one year of data, 1994. Firms are selected from the NYSE, provided they have financial data available in Compustat, Analyst Consensus Estimates tapes, and CRSP. The control variables were expanded to include institutional and blockholder ownership, operating leverage, level of firm diversification, and market value of the firm.

Chen and Steiner find, as Jensen et al. (1992) before them, that higher managerial ownership is correlated with lower dividends. Managerial ownership is also negatively related to debt. They explain this as a substitution-monitoring effect. Since managerial ownership brings management's goals more in line with shareholders, it has a monitoring effect. Chen and Steiner expect managerial ownership to resolve conflicts between management and shareholders. When debt and dividends are very high, there are fewer agency problems with free cash flow, and consequently, managerial ownership will decline. Conversely, when debt and dividends are very low, managerial ownership increases because it helps align the goals of management with shareholders. A negative relationship is documented between the firm's risk and payment of dividends.

Lambert, Lanen, and Larcker (1989) and Fenn and Liang (2001) expanded the study of inside ownership effects to consider ownership type; stock options or share

ownership. The root of this agency issue is that stock options do not typically pay dividends, so management with large holdings of stock options may be less willing to increase dividends. Managers with share ownership do not incur the same personal cost for this decision. The previous two articles did not question whether management would put the interests of shareholders first, Lambert et al. and Fenn and Liang directly test for this agency problem.

Lambert et al. (1989) use all of the Fortune 500 and Fortune 50 merchandising firms with a stock option adoption year available and price data available in CRSP. The final sample is 221 firms that initiated management stock option plans between 1949 and 1978. Because the sample period covers so many years, they use a model developed by Marsh and Merton (1987) for forecasting aggregate dividends for the market. Dividends are predicted for the market using this model, and then actual aggregate dividends are compared to the prediction. Likewise, dividends are predicted for the firms, and actual dividends are compared to the prediction for the firm. Lambert et al. finds that dividends in aggregate are below prediction and corrects the firm predictions accordingly. However, even after this calibration, dividends are significantly lower than predicted in the three and five year periods following initiation of a stock option plan. Dividend payout was 6-7% lower for firms with management stock option plans after adjusting for time-period-specific shifts. They conclude that managerial compensation may influence dividend policy.

Fenn and Liang (2001) also determined that management stock options negatively affected dividend payout. Their contribution beyond Lambert et al. was including share

repurchases and total payout as dependent variables, and they controlled for risk by using the standard deviation of net operating income. A tobit model was employed to test 1,100 firms with data in Execucomp and Compustat between 1993 and 1997. Not only did Fenn and Liang find a negative relationship between management stock options and dividends, they found a positive relationship between management share ownership and share repurchases. Another important finding was that total payout was higher when stock ownership was low, investment opportunities are few, and cash flow is high. In other words, given a situation that warranted payout, firms that had more managerial stock ownership with very little stock options chose to pay out via share repurchases instead of dividends, but firms with very high managerial share ownership chose to pay less in aggregate. These results hold after controlling for cash flow, growth, size, debt, and risk.

Each of these studies reports a negative relationship between insider ownership and dividend payout. Even for firms that should be paying dividends, they paid less or were less likely to pay if insider ownership was high. Thus, it appears from the literature that while giving managers more ownership in the firm may align their goals with those of the shareholders in some ways, it does not encourage dividend payout.

### **3. Support for the Outcome Model**

In his study of international dividend policy, La Porta et al. (2000) tests two conflicting models explaining dividend policy: the outcome model and the substitute model. The outcome model prediction is that dividends are the outcome of effective governance. La Porta et al. explain that the outcome theory has two implications. First,

shareholders are able to extract dividends from companies that otherwise might not be inclined to pay. In other words, dividends are paid *because of* strong external governance. Second, when shareholders have adequate protection, i.e. strong governance, and the firm has good growth opportunities, shareholders will not demand dividends since they know dividends can be extracted when the firm's investment pays off.

According to the opposing substitute model, management wants to remain in good favor with the shareholders should the firm require equity financing. In order to achieve this reputation, firms will pay higher dividends to offset poor shareholder rights. A secondary implication is that, when firms have good investment opportunities, under the substitute model they pay out more, to maintain their reputation and access to future funding.

The outcome and substitute models were introduced by La Porta et al. in 2000. They compared the shareholder rights of firms internationally to test their theory and found that they support the outcome model. Firms that operate in countries with strong shareholder protection pay higher dividends. When firms in these countries have high growth, they pay lower dividends than low growth firms. In civil law countries, there is no statistically significant relationship between growth and dividend payout, implying that shareholders continue to take as much as they can in the form of dividends (La Porta et al. 2000).

Gugler (2003) applied simultaneous equations to test La Porta et al.'s models on firms in Austria. His research centered on finding the relationship between dividends and the ownership and control structure of the firm. In Austria, firms are either predominantly

state, bank, family, or foreign owned. On average, the largest shareholder owns 78.5% of the equity, enough to exercise majority control. Gugler used a sample of 214 firms from 1991-1999, creating three equations to explain marginal returns of research and development, capital investment, and dividends. State controlled firms in Austria are understood to have the highest agency problems. They are manager-controlled and elected politicians may not actively monitor the state owned companies. Thus, high agency problems are predicted between the managers and the citizen owners. Family owned firms have the least asymmetry because management is often a member of the family and the large shareholders have sufficient incentive and ability to monitor management. Bank and foreign controlled firms are somewhere in between.

Gugler finds that state controlled firms pay the highest dividends (42.9%), followed by foreign (34.7%), bank (34.4%), and finally family controlled firms (25.0%). Furthermore, state controlled firms are most likely to smooth dividends, adjusting only 42% of the earnings-dividend gap from prior year, while family controlled firms are most likely to readjust payout to earnings changes. Gugler compares his results to La Porta et al. (2000) and supports the outcome model.

Adjaoud and Ben-Amar (2010) performed a similar study on Canadian firms between 2002 and 2005 to determine the relationship between corporate governance and dividend policy. They use tobit regression to predict dividend payout. Explanatory variables include the Globe and Mail Report on Business governance ranking, a system similar to the GIndex. They also use board composition, inside ownership, compensation,

shareholders' rights score and disclosure policy. In addition to controlling for firm performance, Adjaoud and Ben-Amar add a control for the prior year dividend policy.

The Canadian study results support the outcome model since higher dividend payout is positively related to stronger corporate governance. Payout is also positively related to outsiders on the board of directors, strong shareholder rights, size and cash flow. The authors perform a Granger causality test which supports the Jiraporn and Ning 2006 result that governance explains dividends, but do not find support of the converse, that dividends explain governance. However, Jiraporn and Ning determine that dividends increase with weak governance (substitute model) while Adjaoud and Ben-Amar determine that dividends increase due to strong governance (outcome model).

Harford et al. (2008) takes the broader view of cash holdings as explained by governance. Only one component of the research in their article is focused on dividend payout. They apply OLS regression to a sample of US firms from 1993-2004 using an adapted dependent variable; the change in industry-adjusted dividends. The first and fourth quartiles of the GIndex and inside ownership represent governance as an explanatory variable. Governance is also interacted with cash residual. The interaction term permits evaluation of decision-making by managers from weak or strong governed firms with regard to additional available cash. Controls are included for growth, size, cash, and debt. The direct findings by Harford et al. are similar to Officer (2006), that firms with a high GIndex are more likely to increase dividends. However the interaction terms support the view that when faced with an increase in cash, low GIndex firms increase dividends, while high GIndex firms allocate less of the cash to dividends than

other firms. The same results hold for inside ownership. Firms with higher inside ownership have management's interests more aligned with shareholders'. Management with higher inside ownership pays out more residual cash through dividends while less aligned management with lower inside ownership pays less residual cash to shareholders.

Harford et al. (2008) find that firms with more entrenched managers pay out less excess cash as dividends. They explain that, in contrast to international environments, the US market has strong shareholder rights. Even the most entrenched managers are subject to oversight, although management can add substantial agency cost boundaries to avoid removal. Rather than hoard cash from shareholders without repercussion, weakly governed managers in the US can still take self-interested actions such as value depleting investment and suboptimal payout policies. While Harford and his coauthors espouse their Spending hypothesis rather than the outcome or substitute model, they are included here as supporting the outcome model because their results are incompatible with the substitute model.

Jiraporn et al. (2011) find support for the outcome model using a large database from Institutional Shareholder Services (ISS) which covers 62 governance characteristics. Their sample covers 2001 through 2004 including all firm years represented in the ISS database. Firms with a governance score higher than the median of all firms available are designated as having strong governance, and those below have weak governance. The authors find that firms with scores above the median are more likely to pay, and pay a higher dividend.

The outcome model is consistent with the free cash flow and related hypotheses. Given the opportunity, management prefers to continue investing rather than pay out dividends. However, the major drawback of this model is that there is little empirical evidence to support it. Far more support is garnered for the substitute model as presented in section 4.

#### **4. Support for the Substitute Model**

Most of the recent dividend and governance research in the United States supports the substitute theory. The outcome model is compatible with agency theory because it explains that strong governance is required to force CEOs to release cash to shareholders. Research on insider ownership and dividends also seems to support that managers prefer not to pay dividends. However, most of the current dividend and governance literature in the United States supports the alternate, substitute theory, that managers voluntarily initiate dividends to remain in good favor with shareholders. This section presents the literature supporting the substitution model.

Hu and Kumar (2004) expanded the empirical literature by adding more internal governance mechanisms and vastly expanding the scrutiny of CEO characteristics related to entrenchment. They refer to their inclusion of CEO compensation as the Enhanced Entrenchment Hypothesis. The variables are categorized into four classes representing investment opportunity, internal governance, external governance, and CEO compensation. They transformed managerial ownership to a more specific CEO ownership, and used new variables for CEO tenure. They included a proxy for a large blockholder, but not for institutional ownership, while Chen and Steiner before them

included both. In total, governance in this essay is measured by blockholders, CEO ownership, executive stock options sorted as in the money or not, percent of cash compensation to the CEO, CEO tenure toward retirement, and a dummy equal to one for more than 25 years as CEO. CEO duality is tested, but not reported as it had an insignificant effect on payout policy. They combine the CEO characteristics into a model depicting the CEO as a weak manager type or strong manager type.

There are other features of this article that are unique compared to related research. Hu and Kumar left utility and financial firms in their sample of firms between 1992 and 2000. They also omitted controls for firm performance such as cash, cash flow, and profitability. Further, they estimate a Logistic function based on CEO and ownership characteristics to explain payout for firms from 1992 to 1998, and apply it to test the results with an out of sample prediction for 1999-2000.

Hu and Kumar are among the first to distinguish between explaining a difference of dividend yield versus the pay or do not pay decision. They find that firms paying dividends have significantly different characteristics than firms not paying dividends and CEOs in dividend paying firms are more entrenched. The final determinations from Hu and Kumar's research support their enhanced entrenchment hypothesis. The likelihood of payout and payout level are significantly and positively related to managerial entrenchment. Board independence, CEO cash compensation, and tenure all increase the likelihood and magnitude of dividends, while a large shareholder and CEO ownership do the opposite. The fact that an insider dominated board reduces dividend payout is contradictory to the entrenchment hypothesis. The authors explain that the interaction of

an independent board and the additional monitoring of a large shareholder complement each other so that their joint presence reduces the need for a dividend payout to reduce agency costs. Another important finding is that higher levels of debt are significantly and negatively related to the likelihood of total payout. Hu and Kumar conclude that, “Entrenched managers voluntarily commit to payouts as a protection against disciplinary sanctions by outsiders.”

A number of papers published in the mid-2000s in this area of research employed the GIndex. The GIndex was introduced by Gompers, Ishii and Metrick (2003) as a measure of the level of shareholder rights for large firms in the 1990’s. The index is an accumulation of points for antitakeover provisions. Firms earn one point for each antitakeover provision up to a total possible 24 points. The governance provisions cover five broad areas of takeover defense; delay, protection, voting, other, and state. Stronger governance is associated with a lower GIndex. A higher GIndex represents weaker shareholder rights. Much of the dividend payout literature refers to CEOs operating under high GIndex as “entrenched.”

Officer (2006) asked the research question, “Is dividend policy an outcome of strong governance, or a substitute for weak external governance?” He uses a model created by Fama and French (2001) and DeAngelo et al. (2006) to determine which firms should be paying dividends. The sample includes all firms in both CRSP and Compustat between 1973 and 2004, traded on the NYSE, NASDAQ, or Amex exchange, with share code 10 or 11. Financial and utility firms are excluded. Officer uses a logit model with the dependent variable equal to 1 if a predicted payer pays, and 0 otherwise. Governance

is divided into external (institutional ownership, pension ownership, and BCF Index) and internal sources (Board size, CEO tenure, duality, inside ownership, and CEO ownership). The results of this model are that predicted payers are significantly more likely to pay if they have weak governance or greater agency problems. More specifically, predicted payers are more likely to pay if the CEO is also chairman, there are more anti-takeover provisions, executive ownership is high, and external monitors are low.

To test his results in the market, Officer performed an event study on the announcements of dividend initiation between 1991 and 2004. Rather than use a cross-sectional model, he used pairwise testing to compare abnormal returns of subsets of the sample. Since firms with weak governance are issuing dividends to appeal to shareholders, a higher announcement was expected. This hypothesis is only weakly supported. Firms with insider dominated boards did have significantly higher announcement returns than other initiators, but no other internal governance measures produced the expected result. Firms with weak external governance were also expected to have higher expected returns since the free cash flow is removed from management's control, and Officer found support for this hypothesis. Weak external governance provided significantly larger abnormal returns when measured by the entrenchment index, institutional ownership, and pension ownership. Firms with strong governance had significantly lower, but still positive announcement returns. The results of Officer's logit regression and event study both support the substitute model.

More support for the substitute model comes from John and Knyazeva (2006). They test the effect of external and internal corporate governance on dividend policy, repurchases, and total payout. These authors use tobit regression to predict payout for firms between 1993 and 2003. Governance in this essay is measured by the GIndex, the BCF index, which is a smaller index of antitakeover provisions identified by Bebchuk, Cohen, and Ferrell (2009), board independence, institutional holdings and CEO ownership. The results of their study are that dividends are higher and more likely for firms with weak internal and external governance. The authors explain that, “Given the generally strong investor protection level in the US, poorly monitored managers are not immune from firing and they will follow a costly dividend policy.” Further, they find that payouts of any kind are lower when internal governance is strong.

Jiraporn and Ning (2006) examined how dividends are related to the strength of shareholder rights. They used OLS regression to explain dividend payout and logit to test the decision to pay or not pay. Governance was measured by the GIndex and the BCF index. The sample was taken from just the years the GIndex was available, 1993, 1995, 1998, 2000, and 2002. Financial firms were excluded, but utilities were not. Jiraporn and Ning found support for the substitute model. Firms with weak governance paid dividends more often. However, when only dividend paying firms were included in the sample, there was no relationship between the GIndex and the amount of dividends paid.

As did previous researchers, Jiraporn and Ning combined paying firms with non-paying firms and examined the decision to pay or not pay each year. Yet, dividends are sticky and following previous research, they do not use a control variable for firms that

paid in the previous year. Thus, they addressed the question of whether paying dividends causes weaker governance, or if weaker governance causes dividends using a Granger causality test. Governance was significant in the regression explaining dividend yield (or dividends divided by sales), but dividend yield (or dividends divided by sales) was not significant in explaining the governance index. Therefore, their results supported that weak governance caused dividend yield.

Staggered boards are an important antitakeover measure. Jiraporn and Chintrakarn (2009) reassess the relationship between entrenchment scrutinizing the effect of staggered boards and the implementation of SOX. The passage of SOX should have reduced agency costs by bringing shareholders and management goals more into alignment. Jiraporn and Chintrakarn combine staggered boards and SOX, along with GIndex, size, debt profit, PP&E, and repurchases to explain dividend payout. Their sample spans from 1990-2004; 9,918 firm-years. Staggered boards pay more often and pay a higher amount than unitary boards. Further, firms with staggered boards are more likely to pay with dividends than with share repurchases. In this study, staggered boards have two to three times the effect of other governance proxies. The authors found that firms paid lower dividends after the enactment of SOX. Since their findings support the substitute model, they posit that firms have lower agency cost post-SOX, so dividends are not as necessary for monitoring.

Jo and Pan (2009) test three hypotheses to explain why entrenched managers are more likely to pay dividends. According to the entrenchment irrelevance hypothesis, since dividends are sticky, once dividends have been initiated, managerial entrenchment becomes irrelevant. The dividend signaling hypothesis is the theory that firms use

dividends to convey information to the market. The third hypothesis is the optimal entrenchment hypothesis. According to this theory, the firm chooses a combination of antitakeover provisions and payout policy to enhance value. The authors conclude that, based on the optimal entrenchment hypothesis, firms should *ex ante* surrender shareholder power to induce managers to pay dividends. They choose a large sample of 2,116 firms and include all firms listed in the GIndex between 1990 and 2003. Missing GIndex years are filled in with the most recent year. Financial and utility firms are excluded. Jo and Pan divide the firms into quintiles based on GIndex. They use a pooled logit regression to predict the decision each year to pay or not pay.

To test the first hypothesis, entrenchment irrelevance, Jo and Pan use a logit model to predict the change in dividend policy between GIndex years. Unlike most of the previous literature which tests the subsequent year decision to pay or not pay, they test for dividend initiations and terminations. The explanatory variable is the GIndex and the control variables employed are size, earnings, retained earnings, growth, and market value. They find that as the GIndex increases (meaning more entrenchment), managers are more likely to initiate dividends and less likely to terminate a standing dividend policy. Thus, they find that entrenchment is not irrelevant.

The second hypothesis, signaling, suggests that firms pay dividends to signal good governance because they require a good reputation for subsequent equity offerings. To support this, the authors look for high growth firms and firms that have a seasoned equity offering in the next few years to explain dividend payments. However, their results show that high growth firms are much less likely to pay dividends. Firms issuing equity

over the next two years have low GIndex scores, not high. Thus, the signaling hypothesis is not supported.

The third hypothesis, optimal entrenchment, requires that firms balance antitakeover provisions and cash levels to enhance value. This theory also implies that firms with more antitakeover provisions will receive higher takeover premiums. Since keeping less cash makes the firm more vulnerable to hostile takeover, firms with weak growth opportunities protect managers *ex ante* with antitakeover provisions to induce them to pay dividends. Jo and Pan find that significantly more hostile takeovers occur with firms that have high GIndex scores. Firms in the highest quintile of GIndex have 12.5% hostile takeovers compared with only 1.9% hostile in the lowest quintile. Takeovers in general occur about equally through all GIndex quintiles. They conclude that cash is more effective at deterring hostile takeovers. This is confirmed with a logit model that predicts a lower likelihood of hostile takeover with increased cash. As further support, firms in the lowest GIndex quintile have more than twice the cash of firms in the highest quintile. Firms in the top quintile received significantly higher premiums than firms in the lowest quintile. The authors conclude that the optimal entrenchment hypothesis is supported. They also suggest that since the payment of dividends reduces a firm's cash holdings, the firm can maximize value by adopting antitakeover provisions to limit hostile takeovers and maximize premiums.

The substitute model is supported here by numerous studies, yet it conflicts with the free cash flow and related hypotheses. Authors in the most recent articles attempt to address the inconsistency, but there does not appear to be a simple explanation. The

literature in this section concludes that managers with less oversight pay more in dividends.

## **5. Managerial Power**

Managerial power and agency theory appear similar, yet they represent different sources of economic inefficiency. According to agency theory (Jensen 1986), there are agency costs due to the different contractual parties of the firm; the nexus of contracts. The managerial power hypothesis extends agency theory to propose that the parties trusted to design the contracts have compromised objectives. Agency theory is based on the contracts, and managerial power affects the negotiation of the contracts.

Managerial power literature references as far back as Berle and Means, *The Modern Corporation & Private Property* (1932). These authors stressed that stockholders are too dispersed to wield ownership influence; therefore stockholders are merely collectors of capital returns. This research topic was later demarcated with the agency theory from Jensen in 1986. An outgrowth of the same research area, managerial power, became prevalent as a hypothesis in 2002.

Bebchuk, Fried and Walker (2002) sought to explain the unreasonable growth of executive pay. Their assertion was that optimal contracting, or arms-length negotiation, could not explain the excessive growth of compensation. They argued that the CEO's compensation contract reflects the power the CEO holds over the compensation committee and board of directors. CEOs use this power to extract rents. The problem is that the board of directors is charged with representing the interests of the shareholders, yet the board members are most often selected by management. Further, the attempt to

“camouflage” this extortion of rents creates misaligned incentives for management that could decrease firm value. The authors assert that the board’s compromised representation of the shareholders should be considered prominently in studies of governance.

Bebchuk and Fried (2003) explain that, although the CEO has power over the board, the extraction of rents is still subject to “outrage.” There is a point where compensation is so high that it could cause embarrassment or harm the reputation of board members, keeping shareholders from supporting them in proxy contests or takeover bids. Consequently, management attempts to obscure, legitimize, or in the author’s terminology, “camouflage” the extraction of rents.

One source of camouflage is compensation consultants. According to Bebchuk and Fried (2003), consultants are partly responsible for “ratcheting up” executive salaries along with the acquiescence of sympathetic boards. Another way to obscure rents is to use stealth compensation such as pensions, deferred compensation, consulting contracts, and post-retirement perks that are less noticeable. Gratuitous goodbye payments, not required by the CEO’s contract, are also inefficient extractions of rent.

Bebchuk also coauthored a book in 2004 and numerous related articles in topics such as identifying the support for managerial power through oversized compensation (Bebchuk and Grinstein 2005), valuing the cost of staggered boards (Bebchuk and Cohen 2005), and further articulating the managerial power theory (Bebchuk and Fried 2005). The purpose of the following segment of the literature review is to identify support for the theory and demonstrate its implications beyond compensation.

Bebchuk, Fried and Walker were not the first authors to question the independence of the board of directors' relationship with the CEO, but they were persuasive enough to establish a label defining the problematic relationship. Their research on the CEO's power over the board of directors not only inspired additional articles critiquing the compensation process, but also spurred interest in other CEO decisions guided by board of director oversight. Therefore, the literature review of this topic includes empirical studies prior to Bebchuk et al. (2002) citing CEO power over the board, literature using compensation as support for managerial power, and articles that extend the implications of managerial power to capital structure and merger and acquisitions.

In 1997, Berger, Ofek and Yermack articulated the different forces of control over CEOs. On the whole, the authors study the effect of entrenchment on the firm's capital structure, but they explain that entrenchment has a wide range of sources. Their definition of entrenchment explicitly includes the threat of dismissal, monitoring by the board, stock or compensations-based incentive, as well as the threat of takeover. This article is prior to the introduction of the managerial power hypothesis, but the authors identify and measure what they call CEO control over internal monitoring mechanisms.

Berger et al. (1997) use OLS regression to determine the level of excess fixed compensation; salary and bonus. This is one of the independent variables included to explain the level of debt in the firm. Other proxies include measures of power over the board such as tenure and duality, and measures of market influence such as block holders and recent takeover attempts. They find that leverage is lower when the CEO is

entrenched through both internal and external mechanisms. Leverage increases due to shocks from internal governance mechanisms such as a forced CEO turnover, or the addition of a major stockholder to the board of directors.

An article in 1999 by Shivdasani and Yermack reports the market reaction to the addition of board members chosen by the CEO. They document a high level of CEO involvement in Fortune 500 firms in 1995. Eighty-four percent of the CEOs in their sample were also chairman of the board, and 18% of sample CEOs were founders or from the family of founders. Just over half of the firms had an independent nominating committee, but in the remaining firms the CEO was either on the nominating committee or there was none.

The authors choose a three year sample period to include the changeover of all board members, even firms with classified boards, from 1994-1996. Three hundred forty-one firms from the 1995 Fortune 500 list had sufficient data to be included. Shivdasani and Yermack find that when CEOs participate in the process, either because they are on the nominating committee or because they are on the board which does not delegate the duty to a committee, the appointed director is less likely to be independent. Outside directors who are former employees, relatives of the CEO, or otherwise have conflicts of interest are considered “gray” directors as opposed to independent. Stock price reaction to the appointment of a new director is significantly lower (1.2%) when the CEO is involved in the selection.

Brown and Lee (2010) conducted an empirical study on the effect of managerial power on equity grants. They incorporated eight variables to represent the CEOs power

over the board and four variables that indicate an opposing outside shareholder monitoring or a stronger non-CEO insider. Tobit regression was used to predict the CEO's stock and options holdings at the end of the year. All Execucomp firms with GIndex, director, and pricing data from 1998 to 2006 were included in the sample. They hypothesize that if the efficient contracting theory is correct, no systematic relationship should be identified between corporate governance strength and CEO equity grants as long as economic determinants are controlled for. However, Brown and Lee (2010) found a negative relationship, supporting the effects of managerial power. Their findings for employee stock options were also significant and negative, but explanations such as economic factors could not be ruled out.

Zheng (2010) examines managerial power alongside the portfolio effect, the career concern effect and the learning effect. Due to the learning effect, the board would provide weaker incentive compensation to CEOs with more tenure since they already have evidence of the CEO's ability. The career concern effect reflects the shorter employment horizon of seasoned CEOs, also reducing the appropriateness of equity compensation for incentive. The portfolio effect concerns newer CEOs whose equity holdings in the firm are so small that it will take a large amount to produce incentive. He expects that one or more of these effects explain the percentage of equity compensation negotiated for CEOs.

Zheng includes all CEOs in Execucomp from 1993-2005 and uses a Tobit model to predict the percentage of equity compensation. He determines that the portfolio effect and the learning effect are the primary explanations of tenure's relationship to

compensation. When the sample was divided by these effects, new outside CEOs received a higher and faster growing percentage of equity pay than new inside CEOs. After tenure of four years, the equity pay between the groups was no longer statistically significant. Managerial power is tested by splitting the sample two ways; inside versus outside CEOs and voluntarily resignation versus no resignation as designated in Execucomp. Zheng finds no support for managerial power.

Shen, Gentry and Tosi Jr. (2010) argue that since CEO turnover implies a lack of CEO power, lower likelihood of turnover represents more managerial power. The authors examine 313 firms with 1988 sales above \$200 million. They collect annual data for these firms from 1988-1997. Turnover and dismissals are identified. The authors use a logit model to predict the likelihood of dismissal and turnover. Explanatory variables include cash compensation, age, board characteristics, and institutional ownership. The authors find a significantly negative relationship between cash compensation and CEO turnover, supporting managerial power. The results are robust even when cash compensation is substituted with total compensation or long term incentives. CEOs with higher pay are less likely to experience turnover or dismissal.

If managers have power over the board of directors with regard to rents, it is conceivable that they have power in other decisions as well. Grinstein and Hribar (2004) extend the study of managerial power to mergers and acquisitions. Their study is based on a sample of 327 large merger and acquisition transactions between 1993 and 1999. To proxy for managerial power, an index of three dummies is used, allocating one point each

for CEO chair, CEO on nominating committee, and whether the board is smaller than the median board size.

The most powerful CEOs acquire larger targets, get paid more to do it, are more likely to acquire, and have the lowest returns from acquisition. Grinstein and Hribar find that the most powerful CEOs complete larger deals with respect to the size of their own firm, acquiring firms that are 36% of their own firms' assets compared to the least powerful CEO's acquisition of 24% of their own firm's assets. Although the most powerful CEOs do not receive higher bonuses in actual dollars, they receive more than double the bonus to deal size compared to least powerful CEOs. The size of the deal is determined to correlate more highly with managerial power than managerial skill. The authors estimate the coefficients of bonus components for all firms (not just the 327 acquirers) in the Execucomp database. They determine a significant and positive coefficient for acquisition component of bonus. Then, for the 327 acquirers, they calculate the acquisition bonus received. The error terms of these two regressions are correlated, supporting the argument that CEOs slated to receive higher M&A bonuses are more likely to engage in the transaction. Market reaction to deals made by powerful CEOs with power is negative. Abnormal returns from the announcement of deals by the most powerful CEOs are negative 3.8%; about three times lower than that of the rest of the acquiring firms.

Managerial power is a measure of the CEO's power over the board of directors. The literature presented here supports that this power exists and that there are ways to measure it. With respect to the literature on the free cash flow and related hypotheses, it

would be reasonable to assume that CEOs with more power over their board of directors are less likely to initiate dividends.

## **6. Summary and Assessment of Motivational Theories**

The literature on decision-making includes plenty of documentation about the motivation of CEOs. Theories that CEOs are power-seeking and overconfident are well supported in previous literature. Of course, not all CEOs will make decisions with hubris and overconfidence, but the literature documents that many of them do. Furthermore, compensation contracts reward CEOs for aggressive growth and the compensation is more closely tied to asset size than firm performance (Harford and Li 2007). Entrenched CEOs are more likely to engage in larger, value reducing acquisitions and receive more pay for doing so (Grinstein et al. 2004). Ample support is documented here that managers want to invest surplus cash flow and they gain personally from doing so. Support for the free cash flow and related hypotheses imply that intervention is required to induce CEOs to initiate dividends rather than use the surplus cash to invest further. Indeed, that is the premise of the outcome model.

Literature related to dividends in support of the outcome model was presented in section 2. Three of the four articles discussed were not based on U.S. firms. La Porta et al. (2000) is an international study, Gugler (2003) worked with Austrian firms, and Adjaoud and Ben-Amar (2010) tested Canadian firms. Harford et al.'s (2008) was the only research supporting the outcome model in the U.S. In discussing the free cash flow hypothesis, Harford et al. (2008) states, "Without a control threat, it is difficult if not impossible to convince self-interested managers to disgorge cash reserves to

shareholders.” Yet, the majority of current literature on dividend payout supports the opposing, substitute model.

A number of articles were presented in support of the substitute model in section 4. The conclusion of the most recent of these authors is that shareholders should, ex ante, grant managers protection from the market. Once protected, management will pay more dividends. That conclusion directly conflicts with Harford et al. (2008) and the free cash flow hypothesis.

The final section of literature is Managerial Power. This research area is critical to finding the motivational source of dividend initiation. CEOs with power over the board of directors should be less likely to initiate dividends. Since the board of directors makes the final decision to initiate dividends, CEO power over the board, or lack of power with respect to the board, could supersede the other determinants.

The overall objective of Essay I is to find an explanation for the inconsistency between the free cash flow and related hypotheses and the empirical results supporting the substitute model. Substantially all previous literature focused on the decision to pay or not pay dividends each year. The expectation is that by examining the dividend payout decision at the point of initiation, the motivating force(s) will be detectable.

### **III. Hypothesis Development**

Previous research strongly supports the free cash flow hypothesis, which is inconsistent with the substitute model for explaining dividend payout. Although prior literature primarily supports the substitute model, further analysis of this model is needed. Prior research on dividend payout is almost exclusively done with firms that are already

paying dividends. CEO compensation and shareholder expectations about changes in dividends are already established. The best way to test governance and dividends is at the point the firm changes from a non-paying entity to a dividend paying firm. Immediately prior to this, the implicit and explicit contractual agency perspective of each party is structured under the premise that there are no dividends. It is a unique opportunity to assess the level of inertia, and the motivation for dividends. My premise is that the literature supporting the free cash flow hypothesis is sound, and that a more pure test of governance surrounding dividends, at the point of initiation, will reveal motivation inconsistent with the substitute model. The hypotheses that follow in Essay I and Essay II are alternative hypotheses, although the null hypothesis for each is not explicitly stated.

*General Dividend Initiation Hypothesis:* Results of regression to predict dividend initiation will support the outcome model.

Prior literature on dividend payout and governance can be summarized in five basic areas; CEO characteristics, compensation, board strength, governance indices, and market activity (acquisition and target bids). CEO characteristics include age, tenure, duality, and whether the CEO has filed the SOX certification with the SEC. CEO characteristics and compensation represent the factors related to the contractual viewpoint of the CEO. They can influence the extent to which the CEO is affected by an internal or external threat. For example, an increase in compensation represents an internal reward.

Board strength represents the level of monitoring over the CEO and the propensity to issue internal threats or rewards. Governance indices measure the level of protection the firm has from the market (external threat) and the willingness of the board to approve such protection (internal reward). Market activity can represent an internal reward, or an external threat or reward. For example, a takeover offer, especially if it is hostile, is an external threat. The board's approval of an acquisition bid is an internal reward, and the acceptance of the bid is an external reward.

It is not possible to distinguish between internal and external without identifying the CEO relationship with the board. A primary objective of this research is to identify the forces on the CEO at initiation, so measuring the power of the CEO over the board is important. Variables representing managerial power are intertwined among the different groups of variables. Before discussing how the different independent variables affect dividend initiation, a section is devoted to the explanation of CEO power over the board of directors. First, managerial power is discussed, and then each group of individual variables is presented. For each variable, a prediction is made regarding its effect on dividend initiation and its influence on managerial power.

### **1. Managerial Power**

Managerial power is difficult, but not impossible to measure. If a CEO has four years of tenure versus six years, there is no obvious determination. However, if a CEO is a founder of the firm, holds the chairman position on the board, and is among the highest paid CEOs in the industry, then the CEO's power over the board is evident. On the other hand, if the board is comprised of outsiders, has most of the antitakeover provisions

adopted including a classified board, the CEO is not a board member and has two years of tenure, then the CEO is not likely to have power over the board. In this latter case, the board is quite insulated from the shareholders and the market as a whole, and owes little to the CEO in the form of reciprocity for their positions on the board. Furthermore, the CEO is not entrenched with the shareholders or the board. Of course, there may be many firms with conflicting indicators for CEO power, leaving the determination open. Therefore, it is necessary to consider a number of proxies for CEO power, as is done in previous literature. A single significant independent variable is not necessarily indicative of CEO power, but a combination of them can be very persuasive.

The free cash flow hypothesis predicts that, given the opportunity, managers will spend surplus cash rather than return it to shareholders. Managerial power is a measure of the control CEOs have within the firm. Therefore, I expect that CEOs with more power are less likely to initiate dividends. This is a general hypothesis because it is not linked to a single proxy.

*General CEO Power Hypothesis:* More powerful CEOs are less likely to initiate dividends.

Some of the independent variables used to predict likelihood of initiation are also measures of CEO Power. The discussion of proxies below includes the expected effect on dividend initiation as well as the effect on CEO Power. When a variable affects CEO Power, hypotheses are provided for both CEO power and likelihood of initiation. For

variables that do not imply CEO power, only the dividend initiation hypothesis is presented. Dividend initiation and CEO power hypotheses are numbered separately.

## **2. CEO Characteristics**

### ***Tenure***

The most widely adopted proxy for managerial power is CEO tenure. If the CEO has been in office for at least three years, he or she has had the opportunity to participate in the selection of all board members even if the board is classified. A classified board is structured so that only one third of the board members are up for reelection in a given year. This prevents a potential acquirer from quickly overtaking a majority of board seats. CEO influence in this area is prevalent. Tenure gives the CEO opportunities to build relationships with the board members as he can influence their pay, perks, and re-nomination (Bebchuk and Fried 2003). Formalities aside, Berle and Means (1932) assert that, “Since the proxy committee is appointed by the existing management, the latter can virtually dictate their own successors.” Directors appointed by the CEO sense an obligation to reciprocate (Oreilly III and Main 2010, Hill and Phan 1991).

Hill and Phan (1991) also find that CEO pay is sensitive to performance in early tenure years, but loses sensitivity to pay as tenure increases. Higher tenure is associated with pay that is more closely tied to firm assets. Further, they find that for more tenured CEOs, higher firm risk results in higher compensation. Leone and Liu (2010), in their study of accounting irregularities, show that the founder CEO is much less likely to be dismissed following accounting irregularities, and the Chief Financial Officer (CFO) is

more likely to be blamed. In fact, 49% of CFOs are held responsible for accounting irregularities when the CEO is the founder versus only 29% when the CEO is not a founder. The authors conclude that the board protects the founder CEO.

Hermalin and Weisbach (1998) find that, over time, the CEO cultivates loyalty among the board members, affording themselves less scrutiny and lower performance requirements to avoid dismissal. The authors also find that board independence declines over the CEO's tenure. Hermalin and Weisbach (2003) conclude that boards evolve in effectiveness over time as a result of the CEO's bargaining position relative to the existing directors. Firm performance affects the CEO's bargaining position, but Hermalin and Weisbach (1998) note that turnover is more likely due to firm earnings than stock returns.

Researchers use tenure as an important measure for CEO power. Berger, Ofek and Yermack (1997) studied the effects of management entrenchment on firm leverage, identifying a significant, positive relationship. They define CEO power as having characteristics that will reduce the monitoring by the board. Their results confirm that CEOs with long tenure and low monitoring choose lower levels of debt. Harford and Li (2007) use tenure as the only proxy for "strong board." They choose a dichotomous variable equal to one if the CEO's tenure is below that of the Execucomp median CEO tenure calculated each year.

With respect to dividends, very long tenure is documented to have some influence. Hu and Kumar (2004) examined firms that pay versus firms that do not pay dividends. They find that CEOs from dividend paying firms more often have a long

service credit toward pension benefits. Based on the descriptive statistics, non-paying firm CEOs have a mean of 3.3 years credit toward pension benefits and a median of zero. Dividend paying firm CEOs have a mean of 14.54 years toward pension benefits and a median of 11 years. Concurrently, they find that CEOs with tenure greater than 25 years are more likely to be found in dividend paying firms, and firms with these CEOs have a higher dividend yield.

*CEO Power Hypothesis 1: CEO tenure represents managerial power and is expected to be correlated with other measures of CEO power.*

*Dividend Initiation Hypothesis 1: CEO tenure is negatively related to the likelihood of a firm issuing dividends.*

### ***Duality***

A substantial number of CEOs are also chair of the board of directors. Shivdasani et al. (1999) report that 84% of their Fortune 500 sample firms from 1995 had a chairman who was also the CEO. Research documents that this affects CEO compensation and firm level decisions. Core et al. (1999) include twelve governance variables to explain compensation and firm performance. They determine that dual CEOs earn 14% more than a CEO who is not a board chair. Grinstein and Hribar (2004) look at managerial power and its effect on merger and acquisition bonuses. A CEO who is also head of the board receives a higher M&A bonus than a CEO who is not. They also find that dual CEOs with higher M&A bonuses are more likely to engage in larger acquisitions relative

to the firm's size and generate more negative abnormal returns on announcement. Fung, Jo and Tsai (2009) first identify the likelihood of acquisitions based on market valuation, and then study the compounding effects of CEO incentive compensation and duality. Firms with CEOs serving on the board of directors are determined to be more value-destroying.

Based on previous research, the dual roles of CEO and board member are expected to give the CEO more power vis-à-vis the board, thereby reducing oversight by the board. Given the free cash flow, hubris, and empire-building theories, CEOs with dual roles are not expected to initiate dividends.

*CEO Power Hypothesis 2: Duality represents managerial power and is expected to be positively correlated with other measures of CEO power.*

*Dividend Initiation Hypothesis 2: CEOs with dual responsibilities as board members are less likely to initiate dividends.*

### ***Age***

CEO age could also proxy for tenure as both are time dependent. However, some authors noticed that age can affect the CEO perspective regardless of tenure. One example defining the difference between age and tenure is from an article about takeover resistance, a potential motivation for initiating dividends. Buchholtz and Ribbens (1994) studied takeover resistance with regard to CEO age. They posit that, in general, resistance to takeover will rise steadily as the CEO ages. However, when the CEO is over age 56, a

golden parachute will become more valuable relative to his or her future earnings, lessening resistance. The authors' empirical results support their theory. Thus, regardless of tenure, the CEO's age may influence takeover resistance.

CEO age may not be related to CEO power in the same way that tenure is. In general, longer tenure implies more CEO power and more influence to avoid dismissal. Shen, Gentry, and Tosi (2010) determine that CEO age over 60 is significantly and positively related to CEO turnover. However, when turnover is limited to CEO dismissal, age over 60 is not significant and is negative with respect to CEO dismissal. In other words, older CEOs may be more likely to leave the firm, but are not likely to be dismissed. The problem in interpreting this is whether the lower likelihood of dismissal implies more power, or simply the knowledge that the CEO will retire soon. Furthermore, CEOs near retirement may gracefully hand over some aspects of decision-making to junior management in anticipation of their departure.

Buchholtz, Young, and Powell (1998) consider two competing aspects of CEO age, board vigilance theory and managerial power theory. According to board vigilance theory, older CEOs have more experience and should accept more responsibility for performance outcomes, thereby preferring a stronger link between pay and performance. According to managerial power theory, older CEOs are more likely to exert their influence to decouple CEO pay and firm performance. The authors find that CEO pay and performance are more strongly connected for older CEOs, supporting the board vigilance theory over managerial power.

This literature suggests that CEO age, except for much older CEOs, is an ambiguous proxy for CEO power. On the other hand, with respect to dividend initiation, the CEO's age may be influential. Very senior age should represent waning aggressiveness with regard to takeover resistance, and less aggressiveness relating to acquisitions and growth. Under these circumstances, the need to retain large amounts of cash in the firm to resist takeover or initiate deals is mitigated and the CEO may be willing to initiate dividends. The need for cash to finance retirement is also a consideration and could encourage an older CEO to prefer dividend payout.

*Dividend Initiation Hypothesis 3: CEOs over age 60 are more likely to initiate dividends.*

### **3. Compensation**

#### *Cash Compensation*

Cash compensation is representative of managerial power. Bebchuk and Fried (2005) build their argument of managerial power on the basis that optimal contracting alone cannot explain CEO compensation. Shen et al. (2010) studied the impact of pay on CEO turnover. This is an excellent test of CEO power over the board because turnover directly reflects that relationship. The authors find that cash compensation is significant and negatively related to CEO turnover. Higher paid CEOs are less likely to leave for any reason, and less likely to be dismissed. Shen et al. (2010) conclude that cash compensation is a reliable measure of CEO power. Grinstein and Hribar (2004) study proxy statements before and after acquisitions to determine the bonus pay CEOs receive on deal completion. These bonuses are significantly higher for CEOs who are on the

nominating committee, who are also chairman of the board, and when the board size is smaller. CEOs earning the highest bonus also earned the most negative announcement returns on acquisition. The authors conclude that CEO power is reflected in the cash bonus.

Some researchers document a negative relationship between CEO cash compensation and dividend payments. Gaver and Gaver (1993) compare compensation and dividend policies between growth and non-growth firms. Higher growth firms pay significantly higher cash compensation and significantly lower dividend yield than non-growth firms. Bhattacharyya, Mawani and Morrill (2008) compare dividends and compensation directly. Their sample is composed of only dividend paying firms. Among those, firms with higher CEO compensation in the form of salary, bonus, or option pay, have a lower dividend yield. According to their model, these higher paid CEOs have higher management quality, so they are better able to use the funds for growth than a manager of lesser quality. White (1996) documents that some firms tie compensation to dividend payments, especially in the oil, defense and food processing industries. For example, Gulf Oil Corporation in 1980 limited bonus payout to 10% of dividend payout. Firms offering an incentive pay higher dividends. There is no argument in this article over whether dividend clauses in compensation contracts are more likely to be in a powerful CEO's contract.

Hu and Kumar (2004) find a compensation link to dividends in the opposite direction. Firms that pay the CEO a higher amount of cash in the form of salary and bonus are more likely to be dividend paying firms. Higher cash compensation to the CEO

is also significant and positive in predicting dividend yield. Hu and Kumar (2004) achieve similar results using the percentage of cash divided by total compensation, the cash compensation ratio. Firms paying a higher cash compensation ratio are more likely to pay dividends and pay a higher yield. Belden, Fister, and Knapp (2005) tested firms from the Forbes 500 list in 1998 and 2000. Firms which did not voluntarily provide director information requested by the authors were not included, as the study was primary to test the impact of having outside directors on the board. The authors found no link found between executive compensation and dividend policy.

Although not all the findings above are in the same direction, the results from Shen et al. (2010) and Bebchuk and Fried (2005) are persuasive. Higher cash compensation in general is expected to proxy for higher managerial power according to both of these studies. Furthermore, the free cash flow, hubris, and empire-building theories suggest that a powerful CEO will not pay dividends.

*CEO Power Hypothesis 3: CEOs with higher cash compensation have more power over the board of directors and cash compensation is expected to be positively correlated with other measures of CEO power.*

*Dividend Initiation Hypothesis 4: CEOs with higher cash compensation are less likely to initiate dividends.*

### ***Total Compensation***

There is support that higher total compensation is correlated with lower dividends, consistent with the prediction of managerial power. Gaver and Gaver's (1993) research using cash compensation to predict dividend payout policies between growth and non-growth firms provides the same results for total compensation. Higher growth firms pay significantly higher total compensation and significantly lower dividend yield than non-growth firms. Bhattacharyya et al. (2008) found that higher cash compensation relates to higher quality managers with more growth projects and, consequently, lower dividend payout. In their model, higher total compensation also predicts lower dividend payout.

Hu and Kumar (2004) provide results in the opposite direction. They identify a significant positive relationship between dividend payments and dividend yield compared to total compensation. CEOs with higher total compensation are more likely to pay dividends and higher total compensation predicts a higher dividend yield. Belden et al. (2005) find no link to dividend payment with either cash or total compensation.

Total compensation is an indicator of CEO power. The findings cited previously for cash compensation relating to CEO power are the same for total compensation. Shen et al. (2010) justify cash compensation and total compensation as proxies for managerial power. Bebchuk and Fried's (2005) argument that optimal contracting cannot explain the excessive growth of CEO compensation holds for cash and total compensation.

Total compensation has more support as a proxy for managerial power than cash compensation because powerful managers are highly paid even when performance is low. Grinstein and Hribar (2004) note that cash bonuses are paid to CEOs for value decreasing

acquisitions. Harford and Li (2007) show that stock grants and options increase by 50% post-acquisition. Further, Harford and Li find that post-acquisition pay is not sensitive to performance except in firms with the strongest governance.

*CEO Power Hypothesis 4: CEOs with higher total compensation have more power over the board of directors and total compensation is expected to be positively correlated with other measures of CEO power.*

*Dividend Initiation Hypothesis 5: CEOs with higher total compensation are less likely to initiate dividends.*

Some firms offer incentives to CEOs for dividend payout (White 1996). Moreover, the managerial power theory originated as an explanation for the uneven negotiation of compensation contracts. Harford and Li (2007) document that CEOs capitalize on acquisition events by calling for a renegotiation of their compensation package. It is reasonable to deduce that powerful CEOs who initiate dividends will argue for incentive pay in some form of compensation, whether in additional antitakeover provisions, stock options, stock grants, etc.

*CEO Power Hypothesis 5: Powerful CEOs who initiate dividends will receive an increase in pay as measured by total compensation the year prior to initiation compared to the year after initiation.<sup>1</sup>*

***Rank One***

Rank One is a dichotomous variable in Compustat equal to one when the CEO is the highest paid executive in the firm. A newly hired CEO may initially earn less than other executive members and this can be interpreted as an inferior status among the executive team. Shen et al. (2010) determined that this variable is a viable proxy for CEO power over the board. A higher ratio of the CEO's pay to that of the other execs has a negative impact on CEO turnover. The authors recommend using it as measures of CEO power. They also find that when a new CEOs starts off with a very high pay compared to the other executives (new CEO interaction with a high pay differential), it creates an incentive for challenges to the CEO's authority.

*CEO Power Hypothesis 6: CEOs with the highest ranking compensation have more power over the board of directors and high compensation ranking is expected to be positively correlated with other measure of CEO power.*

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<sup>1</sup> If the results achieved with this independent variable are significant, further robustness testing may be required to support that the increase in pay can be attributed to dividend initiation. Additional testing will be based on the Harford and Li (2007) model to predict CEO pay with a dummy variable added to their model for dividend initiation.

*Dividend Initiation Hypothesis 6: CEOs with the highest ranking compensation are less likely to initiate dividends.*

***CEO ownership and stock grants***

Chen and Steiner (1999) use simultaneous equations to identify the relationships between managerial ownership, risk taking, debt, and dividend policy. They find that firms with higher manager and director ownership pay less in dividends. Hu and Kumar (2004) report, similarly, that CEO ownership is significantly and negatively related to dividend yield. Higher CEO ownership also reduces the likelihood that the firm pays dividends at all. Hu and Kumar (2004) obtain the same results with CEO percentage ownership. When the CEO has a higher percentage ownership, the firm has a lower dividend yield and is less likely to pay dividends.

Fenn and Liang (2001) look at combined stock ownership of the executive officers. The authors identify a firm as having agency problems when it has high free cash flow, low managerial ownership and few investment opportunities. When a firm has higher agency problems and the executive officers hold a larger amount of stock, dividend payout is higher. For firms with lower agency problems, no significant relationship was found between executive officers' stock ownership and dividend payout.

*Dividend Initiation Hypothesis 7: CEOs with higher stock ownership are less likely to initiate dividends.*

### *Stock Options*

Most firms do not pay dividends on stock options held by executive management.<sup>2</sup> Furthermore, the stock price generally falls by the amount of the dividend. Therefore, there is no shortage of literature documenting the negative relationship between stock option pay and dividend payout to shareholders. Lambert et al. (1989) examine the initiation of stock option programs and show that dividends decline when these programs are instituted. Dividends are reduced relative to “expected” dividends. Fenn and Liang (2001) identify a significant, negative relationship between stock options and dividend payout. They also notice a significant, positive relationship between stock option pay and share repurchase. When executive officers hold more options, they substitute share repurchase for dividend payout. Hu and Kumar (2004) find that stock options are negatively related to dividend yield. Further, firms with stock option compensation are less likely to pay dividends. The empirical analyses presented by Bhattacharyya et al. (2008) show that higher compensation, whether in the form of options, bonus, or total compensation, predicts lower dividend payout.

*Dividend Initiation Hypothesis 8: CEOs with more stock option value are less likely to initiate dividends.*

An alternative to compensating CEOs with stock options is the use of restricted stock grants. For that reason I include a proxy for restricted stock grants. Compensation in the form of stock grants could be in lieu of stock options, or in addition to them. Therefore, I do not make a prediction as to the sign expected on the coefficient of this variable.

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<sup>2</sup> Although some CEOs have anti-dilution clauses related to their stock option ownership.

#### **4. Board Strength**

##### ***Independent Board***

A number of researchers find that there is no support for increased oversight from an independent board. Yermack (1996) primarily examined the relationship between board size and market valuation, but included board independence as an independent variable. While a smaller board size explains higher growth (Tobin's Q), an independent board does not. Yermack also shows that board independence is not significant in explaining CEO turnover, although a smaller board is. Grinstein and Hribar (2004) find no statistical significance with the number of board insiders, but suggest that the proxy is too noisy because it is difficult to get complete and accurate information. Berger et al. (1997) had to exclude firms that did not voluntarily disclose the previous employer or occupation of board members.

Ideally a majority of independent board members indicates that the board is free from managerial pressure and is working in the best interests of shareholders. Shivdasani and Yermack (1999) detect negative market reaction on announcement of a new director when the CEO is involved in director selection. Hermalin and Weisbach (1998) support that CEO turnover is more sensitive to performance when the board is more independent. There appears to be some rebalancing of director independence over time due to the influence of the CEO and the shareholders. Board independence declines over the course of a CEO's tenure, yet independent board members are more likely to be added to the board as a result of poor performance (Hermalin and Weisbach 1998).

Core et al. (1999) contradict much of the literature on independent boards. They find that a 1% increase in the percentage of the board that is internal results in a \$5,639 decrease in total CEO compensation. Median CEO total compensation in this study is \$800,000 and median number of board members is 13, so a change in one director is 7.7%. They attribute this to the ability of the CEO to participate in selecting and influencing outside directors who may be interlocked or have indirect ties to the CEO.

Board independence has also been linked directly to dividend payout. According to Belden et al. (2005), having more outside directors results in higher dividend payout. Jiraporn and Ning (2006) find that a higher percentage of independent board members results in a higher likelihood of paying dividends and a higher dividend yield. Similarly, Hu and Kumar (2004) find that board independence is significantly and positively related to dividend yield. Furthermore, firms with independent boards are more likely to pay dividends. O'Reilly III and Main (2010) attempt to explain the mixed results regarding independent board members. They show that a large number of independent directors reduces cash compensation to the CEO. However, when the CEO is chair and a large number of the directors are independent, cash compensation to the CEO is very high. An interaction term is necessary to identify this relationship. Yermack (1996) also tested this interaction and found similar results; a CEO chair combined with a small board reduced the board's positive influence on firm value. His results on this interaction were not significant (11% level).

I use an interaction of independent board with significant proxies for CEO power and leave the prediction of sign to empirical testing. However, for dividend initiation, the

studies above identified a consistent relationship between dividend payout and a strong, independent board. I expect that the stronger board, in this case due to independence, is more likely to initiate dividends.

*Dividend Initiation Hypothesis 9: When the board is composed of a majority of independent directors, the board is more likely to initiate dividends.*

### ***Board Size***

Yermack (1996) does an extensive evaluation of the effect of smaller boards on firm value. He finds that smaller boards are more likely to dismiss the CEO for poor performance, and the threat of dismissal declines as board size increases. Smaller boards negotiate stronger compensation incentives linking CEO pay to performance. Firms with larger boards that reduce board size by four or more members earn a positive abnormal return. Conversely, announcement returns are negative when firms increase board size. The largest effect on firm value is when the board size changes from small to medium.

Increasing board size decreases firm value and increases CEO compensation. Core et al. (1999) calculates that a one member increase in the size of the board translates into a \$30,601 increase in total CEO compensation. These authors also study the age and activities of directors. A proxy for outside directors over age 69 is used in their model to predict compensation, and it has a positive, significant relationship. Directors who are busy on multiple boards also correlate with higher CEO compensation. Grinstein and Hribar (2004) find that board size is significant in predicting merger bonuses. Firms with

larger boards pay higher merger bonuses. These results support stronger CEO power, resulting in higher compensation, when there is a larger board.

Jiraporn and Ning (2006) relate board size directly to dividend payout. Their model shows that larger boards pay a higher dividend yield. Likewise, larger boards are more likely to pay dividends. This finding contradicts managerial power theory combined with the research documented above. A larger board should correspond to higher CEO power and, consequently, lower dividends. Ultimately, there is little other evidence available relating board size to dividend payout and none testing board size as a predictor of dividend initiation. It is possible that the results reported by Jiraporn and Ning for larger board size and recurring payout are not applicable to dividend initiation. It is also possible that a small board is a weak or inefficient proxy for managerial power with respect to initiation.

In light of the inconsistency in prior literature, I will interact board size with CEO power proxies and leave the determination of sign to empirical testing. I expect the effect of board size on dividend initiation, in general, to be consistent with board independence. Since a more independent board is stronger and is supported to pay more in dividends, my expectation is that this relationship will hold for a strong, small board. A small board is stronger and is more likely to initiate dividends.

*Dividend Initiation Hypothesis 10: Firms with a small board are more likely to initiate dividends.*

### *Staggered board*

Bebchuk and Cohen (2005), explain that the only necessary antitakeover provision to avoid takeover is a staggered, or classified, board. In order to take control without consent, the bidder must maintain the target offer for longer than one year and cannot be sure until the second year's vote if control of the board can be achieved. According to Subramanian (2003), the laws supporting these powerful staggered board rules have been in place since 1995. Bebchuk and Cohen (2005) show that staggered boards are associated with lower firm value, and the relationship is stronger if the staggered board is established in the firm's charter. If the staggered board is set up in the bylaws, shareholders may be able to amend it. Jiraporn and Chintrakarn (2009) use staggered board and an index of the remaining GIndex items to measure the effect of managerial entrenchment on dividend policy. The staggered board is positively related to dividend yield at the 10% level.

Research on this topic substantiates the power of staggered boards to avoid takeover. Furthermore, a staggered board grants the board more power than the shareholders, especially if it is established in the firm's charter. From a managerial power perspective, though, a staggered board does not necessarily give the CEO more power. In fact, the board may be more insulated from an obligation of reciprocity to the CEO as board members are elected for a longer term.

The effect of a staggered board on dividend initiation may, therefore, depend on whether the CEO is powerful or not. If the CEO is not powerful, the staggered board still is, and would issue dividends to appease shareholders and improve board member

reputation among shareholders. On the other hand, if the CEO is a powerful member of the staggered board, the board would lean more toward the powerful CEOs preference to not initiate dividends.

As with the independent board and small board, I use interaction to determine the effect on CEO power. Furthermore, although it contradicts the results of Jiraporn and Chintrakarn (2009), I expect board strength to result in a higher likelihood of initiating dividends. My expectation is consistent with my hypotheses for independent boards and small boards. A staggered board is stronger and is more likely to initiate dividends.

*Dividend Initiation Hypothesis 11: Firms with a staggered board are more likely to initiate dividends.*

## **5. Antitakeover Provisions**

### ***GIndex***

The GIndex was created by Gompers et al. (2003) as a proxy for shareholders' rights. It is a composite measure of 24 antitakeover provisions which address both the external and legal environment of the firm. Twenty-two of the provisions are at the firm level, and six are determined at the state level. Four of the six state level provisions duplicate the firm level provisions as they are sometimes implemented at the firm level and sometimes by the state. Recent literature on the relationship of governance and dividend policy includes use of the GIndex. Jo and Pan (2009) break the index into quintiles to predict whether a firm will pay dividends. The entire index is positively related to the likelihood of paying dividends. All quintiles except the lowest are also

positively significant in predicting dividend payment. Jo and Pan devote a section of their paper to dividend initiation, reporting that an increase in GIndex is significant in explaining dividend initiation in the subsequent two years. The results are significant at the 10% level. An increase in the firm's GIndex is not significant in predicting dividend initiation within one subsequent year. The authors do not address whether the GIndex is high or low at the point of initiation. Jiraporn and Chintrakarn (2009) study the relationship between staggered boards, entrenchment, and dividends. They separate staggered boards from the remaining GIndex anti-takeover provisions to predict payout. Staggered boards have a stronger relationship, but both are positive and significant in predicting dividend payout. Jiraporn and Ning (2006) show that GIndex is positive and significant in explaining the likelihood of paying dividends and dividend yield. Officer (2006) evaluates the GIndex in predicting dividend payout. He also finds a positive relationship.

The GIndex may be a flawed proxy for managerial entrenchment. Subramanian (2003) argues that a poison pill and classified board are sufficient to thwart a takeover. Since a poison pill can be adopted in a matter of hours without a shareholder vote, the only takeover protection needed is a classified board. Therefore, a higher GIndex might be a measure of management's fear of takeover. Jo and Pan (2009) find that firms with the highest GIndex are more than twice as likely to receive a hostile takeover bid as firms in the lowest GIndex quintile. They posit that additional cash holdings by firms with a low GIndex wards off hostile takeovers. Johnson et al. (2009) argue that the GIndex reflects differences across industries rather than differences in protection from the

market. They define industry clustering by using a three digit SIC code, more specific than the Fama French 48 industries used by previous authors. After controlling for industry clustering, governance as measured by the GIndex is no longer significant in explaining long run abnormal returns.

Harford et al. (2008) question the implication of the GIndex results. They break the index into quartiles. In their model, only the highest quartile of GIndex is positively related to dividend payout. Furthermore, they show that the lowest GIndex firms increase dividends more in response to an increase in excess cash, whereas high GIndex firms repurchase shares instead.

The relationship between GIndex and recurring dividends may be different than that for initiating dividends. If a high GIndex indicates poor management or agency costs due to overprotection, it should correspond to a lower likelihood of initiation. The Harford et al. (2008) results support this relationship; that firms with the lowest GIndex are more likely to pay out excess cash as dividends than are firms in the highest GIndex. This contradicts most of the previous literature which finds a positive relationship between the GIndex and dividend initiation. However, the previous literature is based on studies of recurring dividend payout as opposed to dividend initiation. I predict that the Harford et al. finding, that excess cash is more likely to be paid out as dividends by low GIndex firms (stronger shareholder rights), is the best explanation of the relationship for dividend initiation. My hypothesis is written from the standpoint of lower GIndex as that is where Harford et al. identified the driving influence.

*Dividend Initiation Hypothesis 12: Firms with a lower*

*GIndex are more likely to initiate dividends.*

***EIndex***

The EIndex was introduced by Bebchuk, Cohen and Ferrell in 2009 as an alternative to the GIndex. Their research identifies six provisions that shareholders object to most vehemently because of their erosion of shareholder rights. Two of the provisions aid management in avoiding an unwanted takeover: poison pills (PPILL) and golden parachutes (Golden). Four of the provisions directly limit the voting power of shareholders; classified board (CBoard), limits to shareholder amendments of the by-laws (LABYLAW), supermajority requirement for mergers (SuperMajor) and charter amendments (LACHTR). These six provisions make up the entrenchment index. Bebchuk et al. (2009) test the EIndex and find a strong inverse relationship between higher entrenchment and reduced firm value. The authors also test the GIndex and the 18 provisions which differ between the two indices. They conclude that there is no evidence that the 18 provisions which are not included in the EIndex have any correlation with firm value as measured by Tobin's Q. Consequently, I use the EIndex as an additional measure of management entrenchment.

*Dividend Initiation Hypothesis 13: Firms with a lower*

*EIndex are more likely to initiate dividends.*

## 6. Capital Market Activity

### *Target Bids*

The arguments for why firms pay dividends often refer to the threat of takeover. Harford et al. (2008) states that, “Without a control threat, it is difficult, if not impossible, to convince self-interested managers to disgorge cash reserves to shareholders.” Hu and Kumar (2004) argue, “Entrenched managers voluntarily commit to payouts as a protection against disciplinary sanctions by outsiders.”

Yet, previous literature does not directly use takeover bids as a prediction of dividend initiation or increase. Instead of the use of anti-takeover provisions as a proxy for the threat of takeover, I propose using the number of takeover bids on the firm as a proxy. This method is employed by Jo and Pan (2009). However, they use two steps. First, they use quintiles of the GIndex as independent variables to predict dividend payment. Then, they compare the number of takeover bids, as well as the percentage of hostile bids, for each GIndex quintile. They find that the firms with the most takeover bids are the firms with the highest number of antitakeover provisions, and that firms with a higher number of antitakeover provisions pay more in dividends. I propose eliminating the second step and including the target bids in the regression as a more direct measure of the threat of takeover.

*Dividend Initiation Hypothesis 14: Firms that receive takeover bids in the two years prior to or the year of, are more likely to initiate dividends.*

*Dividend Initiation Hypothesis 15: Hostile bids will be significant in predicting dividend initiation. Firms with hostile bids in the two years prior to or the year of, are more likely to initiate dividends.*

### ***Acquisition Bids***

Proponents of the free cash flow hypothesis, hubris, and empire-building argue that without oversight, management will use excess cash for value-decreasing projects. Previous research documents that managers with excess free cash flow are richly rewarded for acquisitions, and that managers with weaker boards and larger amounts of cash make more acquisitions, larger acquisitions, and are more likely to make value-destroying acquisitions. Managers achieve more personal gain by using excess cash for acquisitions. Yet, at this time there does not appear to be any literature that directly tests the payment of dividends and acquisition activity. Similar to the target bids used by Jo and Pan (2009), I propose including acquisition bids as an explanatory variable to predict the likelihood of dividend initiation.

Harford et al. (2008) demonstrate the link between GIndex and acquisition activity, as well as the relationship between GIndex and payout in the same table. Firms with more antitakeover provisions are more acquisitive and are more likely to use cash for acquisition. The authors find that CEOs from firms with high GIndex scores have a higher payout level, but are less likely to increase dividend payments as a response to high cash residuals, preferring to repurchase shares instead. Contrary to much of the

literature suggesting that entrenched CEOs pay more, the largest dividend increase in response to increased cash residuals is from firms with the lowest GIndex. Firms with the highest quartile of GIndex use significantly more of their excess cash to finance acquisitions, rather than to pay dividends (Harford et al. 2008). Firms with cash are not only more likely to acquire, but the acquisitions are more likely to be value-decreasing (Harford 1999). Masulis, Wang, and Xie (2007) find that acquisitions made by firms with more antitakeover provisions are value destroying, but that does not mean the acquisitions destroy value for the CEO. Harford and Li (2007) show that even in the underperforming acquiring firms, based on a one year excess return, the CEO's wealth increases by 70%. Explanations for this dramatic increase include the CEOs power over the board to avoid downside performance sensitivity and to use the acquisition as an excuse to renegotiate the compensation contract (Harford and Li 2007). Harford and Li (2007) show that, unlike larger capital expenditures, external investment (through acquisition) allows the CEO to renegotiate their compensation. The CEOs ability to profit from acquisition is directly related to both the excess cash available for dividends and the power to influence compensation. Grinstein and Hribar (2004) also support these findings. In their research, CEOs with the most power have two day cumulative abnormal returns (CARs) of -3.8%, nearly 3 times lower than that of other acquiring firms (approximately -1.27%). In addition, larger deal size can be explained by stronger managerial power.

*CEO Power Hypothesis 7: Firms with more acquisition bids have more powerful CEOs relative to the board. More acquisition bids will be positively correlated with other measures of CEO power.*

*Dividend Initiation Hypothesis 16: CEOs of firms with more acquisition bids are less likely to initiate dividends and, if they do initiate, the dividend yield will be lower than firms with fewer acquisition bids.*

## **7. Control variables**

Two articles set a strong foundation of the financial characteristics of dividend paying firms. The control variables selected for this essay are drawn primarily from these two articles, DeAngelo et al. (2006) and Fama and French (2001). The authors of both papers apply financial measures to predict dividend payers.

DeAngelo et al. (2006) find a good fit for predicting dividend initiations and omissions based on the earned/contributed capital mix. The foundation of their model is that dividends policy is determined by the amount of earned capital relative to contributed capital, more specifically, retained earnings divided by total assets. Control variables include ROA, growth, size, cash holdings scaled by total assets, and dividends paid in the prior year.

Fama and French (2001) tackle the question of why the number of dividend paying firms is declining. They set up a model of the financial characteristics of dividend paying firms and examine whether the fundamentals have changed or the propensity to

pay has changed. They find evidence to support both explanations. Fama and French choose size, market to book, the growth rate of assets (the change in assets divided by current year assets), and earnings before interest to total assets as their independent variables.

### *Size*

A number of researchers identify a positive relationship between firm size and dividend payment. DeAngelo et al. (2006) and Fama and French (2001) note that larger firms are more likely to pay dividends. Jo and Pan (2009) find that firms in a higher size percentile (scaled by NYSE market equity) are more likely to pay dividends. Jiraporn and Ning (2006) show that larger size is consistent with higher dividend yield and higher likelihood of paying dividends. Fenn and Liang (2001) determine that the log of assets is positively related to dividend payout. Jiraporn and Chintrakarn (2009) find that size is positively related with the likelihood of paying dividends, and size is positively related to dividend yield.

### *Return on Assets*

Dividend payers are more profitable than non-dividend payers according to both Fama and French (2001) and DeAngelo et al. (2006). Jiraporn and Ning (2006) achieve similar results. They document that profitability is positively related to dividend yield and to the likelihood of paying dividends. Jensen, Solberg, and Zorn (1992) also report a positive relation between profitability and dividend payout.

Other empirical work contradicts this positive relationship. Jo and Pan (2009) find a significant negative relationship between firms with higher earnings before interest to

assets and the likelihood of paying dividends. Firms with higher earnings are less likely to pay. Chen and Steiner (1999) also report this negative relationship; firms with lower return on assets pay more in dividends. Fenn and Liang (2001) look at the relationship between managerial stock incentives and payout, both dividends and share repurchases. They use a tobit regression to predict dividends, share repurchase, or total payout as a percentage of market value. Net operating cash flow as a percentage of assets is positively related to dividend payout.

Jiraporn and Chintrakarn (2009) report both a negative and positive relationship for ROA depending on the proxy for dividends. They use EBITDA over total assets in their regression explaining dividends over total assets, dividends over sales, dividends over net income and a dividend dummy equal to one if dividends are paid. Their return on assets variable is negatively related to dividend yield, but positively related to dividends over total assets, dividends over sales, and the dividend dummy.

ROA has also been used to explain managerial power. When the CEO performs well, board independence declines in Hermalin and Weisbach's 1998 model. Poor firm performance reduces the CEO's perceived ability relative to that of a potential replacement, increasing the likelihood that the board will replace him. Furthermore, they determine that CEO dismissal is more related to earnings than stock returns.

Overall, the relationship of ROA to dividend initiation is not conclusive. The work of Fama and French (2001) and DeAngelo et al. (2006) shows the importance of this variable in explaining dividends. However, the direction in relationship to dividend initiation will be left to empirical results. As for the explanatory power regarding

managerial power, the current literature is not persuasive enough to separate the characteristics of a good manager from an entrenched manager.

#### ***Retained Earnings to Total Assets***

DeAngelo et al. (2006) show that a firm's retained earnings as a percentage of total assets has a more powerful impact on the decision to pay dividends than growth or profitability. Firms with higher retained earnings to total assets are more likely to pay dividends. Jo and Pan (2009) find a significant positive relationship between firms with higher retained earnings divided by total assets and the likelihood of paying dividends. Firms with higher scaled retained earnings on their balance sheet are more likely to pay dividends.

#### ***Market to Book***

Prior literature is homogeneous with regard to growth opportunities and dividend payout. Jo and Pan (2009) find that firms with higher total firm value (book value of total debts plus market value of equity) to total assets are less likely to pay dividends. Jiraporn and Ning (2006) show that firms with higher growth opportunities are less likely to pay dividends and have a lower dividend yield. According to Chen and Steiner (1999), firms with lower growth pay higher dividends. Fenn and Liang (2001) determine that market value to book assets is significantly and negatively related to dividend payout. Hu and Kumar (2004) find that market-to-book is negatively related to the dividend pay or not pay decision and to dividend yield.

### *Debt ratio*

Chen and Steiner (1999) use a system of equations to simultaneously explain the interrelationships of managerial ownership, debt, dividend policy, and risk. They find that firms with lower debt pay higher dividends. Jensen, Solberg and Zorn (1992) also use simultaneous equations with the same dependent variables, but without risk. Due to data availability at the time, their sample is limited to the years 1982 and 1987. The level of debt is determined to be negatively related to dividend payout with low significance and only in 1987 sample, not in the 1982 sample. The relationship of inside ownership has a negative influence on debt and dividend levels. In general, firms with more debt have lower dividend payout. The three variables, inside ownership, debt, and dividends, are interrelated. Fenn and Liang (2001), in their study of managerial incentives and payout policy, find that the debt ratio is negatively related to dividend payout. Jo and Pan (2009) perform a pooled, logit regression to determine which firms will pay versus which firms will not pay in a given year. Firms are included regardless of their payout policy for the prior year. Firms with higher market leverage at the beginning of the year are less likely to pay dividends. Jiraporn and Ning (2006) identify only one significant result and obtain different coefficient signs depending on the proxy used for dividend payout. Higher debt (total debt/total assets) is positively associated with explaining a higher dividend to sales ratio, although it is not significant. More leverage is negatively related to dividend yield, dividend payout ratio, and the likelihood of paying dividends. The coefficient for leverage is only significant in predicting the likelihood of paying dividends.

Dividends do not always imply lower debt. Jiraporn and Chintrakarn (2009) find that leverage is positively related to dividend yield. Moreover, firms that pay dividends have more debt than those not paying dividends. Belden, Fister, and Knapp (2005) examine the relationship between dividends and debt, reporting that higher debt does not substitute for dividends as an agency control on managers. Instead, higher debt and higher dividends are found together in firms. Rather than interchanging them as substitutes, firms that use dividends to control agency problems also use debt.

The level of debt has been considered in relation to managerial power. Berger, Ofek, and Yermack (1997) determine that powerful CEOs prefer lower debt, allowing them to avoid covenants and interest payments. A large board size, allowing the CEO more flexibility to make decisions, is also positively related to lower leverage. Yermack (1996) finds that there is less leverage when the firm has no major stockholders. However, when a shock occurs, such as arrival of a major stockholder-director, leverage is significantly higher. A shock in the form of a takeover attempt also results in higher debt and more aggressive share repurchase. This literature explains changes in managerial power as they relate to different levels of debt. However, additional research is needed to determine the value of debt as a reliable predictor of managerial power.

Neither Fama and French (2001) nor DeAngelo et al. (2006) use debt to predict dividends. The literature that does include the debt ratio obtains mixed results. However, given that the previous literature was based on paying or non-paying firms as opposed to initiating firms, the results for debt having a positive relationship with dividend payout may not be as applicable to this essay. Firms that pay dividends accumulate debt over

time to avoid cutting dividends. Therefore, it is expected that firms initially committing to dividend payout will have less debt.

### *Post-SOX*

The years after 2003 represent the effect of the Sarbanes-Oxley Act of 2002. In 1993, stock options became more popular after the SEC adopted sec. 162(m), making non-performance based pay greater than \$1 million nondeductible (Dechow 2006 and SEC.gov). In 1994, the SEC increased compensation disclosure requirements (Dechow 2006). I use a dichotomous variable, identifying the Post Sox period to control for the impact of inflation, legislation, and trends in compensation.

**Table 1 Independent Variables for Essay I**

<b>Independent Variables</b>			
<b>Variable</b>	<b>Description</b>	<b>Dividend</b>	<b>CEO</b>
		<b>Initiation</b>	<b>Power</b>
<b>CEO Characteristics</b>			
Tenure5yr	Equal to 1 when the CEO has been in place at least five years	-	+
Over60	Equal to 1 when the CEO is over age 60	+	N/A
Duality	CEO is also chairman of the board of directors	-	+
<b>Compensation</b>			
LnCash	Natural log of CEO salary plus bonus compensation	-	+
LnTComp	Natural log of CEO's total compensation	-	+
TCompPct	Change in total compensation	+	+
RankOne	Equal to 1 when the CEO is ranked as the highest paid executive	-	+
PctOwner	The percentage of stock owned by the CEO	-	N/A
LnOptions	Natural log of the Black Scholes value of employee stock option holdings	-	N/A
LnGrant	Natural log of the CEO's restricted stock grants	+/-	N/A
<b>Board Strength</b>			
INDBoard	Equal to 1 if there are fewer than 50% managers on the BOD	+	N/A
LGBoard	Equal to 1 if the board has seven or more members	-	N/A
CBoard	Also referred to as a classified board. Equal to 1 if the board is staggered (classified) and 0 otherwise.	+	N/A
<b>Antitakeover Provisions</b>			
GIndex	GIM Governance Index	-	N/A
EIndex	Entrenchment Index	-	N/A
<b>External Market Transactions</b>			
TARGETBIDS	Number of target bids on the firm	+	N/A
ACQBIDS	Number of acquisition bids made by the firm	-	+
<b>Control Variables</b>			
MedAdjCash	Cash to sales ratio less the median of the industry's cash to sales ratio for the same year	+/-	
DRatio	Total debt to total assets	+/-	
LNAssets	Natural log of total assets	+	
ROA	Return on total assets	+	
M/B	Measure of growth opportunities	-	
Post 2003	Equal to 1 if the test year is after 2002	+	

## **Event Study Hypotheses**

Market reaction to dividend initiation announcement will reflect the forces that caused the initiation. Independent variables significant in predicting dividend initiation are used to explain the market reaction to dividend initiation.

*Event Study Hypothesis 1: Since agency theory predicts a positive stock reaction due to the limiting of empire-building, a higher abnormal return is expected for firms that do not acquire in the year before, of, or after dividend initiation.*

*Event Study Hypothesis 2: Initiations are expected to have lower abnormal returns if investors perceive that management is avoiding acquisition. Firms receiving acquisition bids in the year of or the year prior to initiation will have lower abnormal returns.*

*Event Study Hypothesis 3: Firms use bonds to smooth cash flows for dividend payment, a practice with an agency cost to shareholders. Firms with bonds outstanding should have lower announcement returns.*

## **IV. Data and Methodology**

### **1. Data**

The sample is composed of all firms listed in CRSP that initiated a regular dividend between 1990 and 2009.<sup>3</sup> Firms must not have paid a dividend in the prior three

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<sup>3</sup> CRSP identifies regular dividend payments with codes for 1222, 1232, 1242, 1252, to represent monthly, quarterly, semi-annually, and annually paid dividends. Dividend initiations in any of these four categories were considered a “regular” dividend.

years to be included as an initiator. Firms that initiate a dividend under these terms more than once are only included for the earlier initiation. Utility firms are subject to stringent regulation affecting governance structure, so they are excluded. Financial firms, likewise, have regulatory oversight which affects firm level governance and takeover activity. Financial firms do not have the same measures of performance as nonfinancial firms, so the control variables determining ability to pay dividends are different. Therefore, financial firms are also excluded. Firms must be share code 10 or 11, active, traded on one of the three major U.S. exchanges (NYSE, AMEX, or NASDAQ) and have positive assets and sales.

Independent variables are collected from a variety of sources. Financial data is obtained from Compustat for the year prior to initiation. Compensation data including cash, bonus, total compensation, option ownership, pay rank, and restricted stock ownership is collected from Execucomp. The source of the GIndex, EIndex, and board of director data is the RiskMetrics database. Since RiskMetrics is only available for the years, 1990, 1993, 1995, 1998, 2000, 2002, 2004, 2006, the index is filled in for the missing years following prior literature (Gompers et al. 2003, Bebchuk and Cohen 2005, and Harford et al., 2008). Target and acquisition bids are obtained from SDC Platinum. SIC codes and firm age are from the CRSP database.

Although 1,080 firms are identified as initiators with data in Compustat and CRSP, only 170 firms have complete data available. Director data, Execucomp and RiskMetrics are primarily composed of firms listed in the S&P 1500 index, so the use of this data limits the sample size for the primary analysis in this essay. Consequently, the

analysis of data is split into two parts: Complete Data Initiators and Limited Data Initiators. There are 170 firms in the Complete Data Initiator sample. They are evaluated based on data from all sources.

The Limited Data Initiators are made up of all initiating firms that at least have data available in Compustat, a matching permno identifier in CRSP, and the parameter requirements of a given test. By design, the Complete Data Initiators are a subset of the Limited Data Initiators. There are up to 1,080 Limited Data Initiators depending on the test requirements. In the regressions that follow, 941 initiating firms are included in the logistic regression, and 831 initiating firms have sufficient data to be included in the event study. These larger samples are both referred to as the Limited Data Initiators.

### *Test of Complete Data Initiators*

Currently, there are no studies to follow in constructing a control sample. Most previous studies of dividend payout use all other firms with full data as a control sample. My control sample methodology is from Harford et al. (2008). These authors examined governance surrounding recurring dividend payout, but determined ability to pay dividends by the level of the firm's surplus cash. The authors developed theories predicting how management would handle cash reserves. Would they stockpile cash for future flexibility, overinvest, or pay out cash as share repurchases or dividends? More specifically, Harford et al. tested whether a firm's decision to pay out surplus cash as dividends was affected by its governance. The authors found that firms with weaker governance (as measured by GIndex) generally paid more in dividends, but that when a

firm's surplus cash increased, it was the firms with better governance that paid more of the increase out to shareholders in the form of higher dividends. Harford et al. defines a firm's surplus cash using the ratio of cash to sales.

Firms need cash in the ordinary course of business to provide working capital, and working capital needs are determined by both the industry and the level of sales. To establish the firm's cash reserves, Harford et al. (2008) takes the firm's cash to sales ratio minus the median cash to sales ratio for the industry in that year. Therefore, a firm with a cash to sales ratio above the industry median for that year has positive cash reserves. My control sample is comprised of all firms with positive cash reserves.

I begin by compiling a complete set of all possible sample and control firms. This database of Complete Data Initiators and control firms is created from eight data sources. Construction of the database begins by combining the Directors and Directors Legacy data so that all available years are included. The same is done for the Governance and Governance Legacy data. Next, the full set of Director data is combined with the full set of Governance data. The firm years identified in these databases are then matched with Compustat, Execucomp, CRSP, and SDC data. Firms that paid a regular dividend at any time during the sample period are removed unless the firm initiated dividends during the sample period.

Once a complete set of possible sample and control firms is created, the cash to sales ratio is calculated for each potential control firm-year. Separately, the cash to sales ratio is calculated for all firms available in Compustat from 1996 through 2009, and median cash to sales ratio is computed for each year and two-digit SIC code. Returning to

the potential control firms, industry-adjusted cash to sales ratio is computed for each firm year by subtracting the cash to sales for the firm year minus the median cash to sales ratio for the industry (two-digit SIC code) and year. Firms with positive industry-adjusted cash to sales ratios are included in the final control sample. The final data set, then, is all firm years with available data in all the required databases, and with cash to sales ratio above the industry median. The process results in 784 control firms and 170 initiating firms. In terms of firm years, there are 3,355 control firm years and 170 initiator firm years. Control firms are only included for the years that their cash to sales ratio is above the industry median. Initiating firms are only included in the year of initiation.

The independent variables for testing initiators with complete data are compiled from various sources and are listed in table 1. CEO age is obtained from Execucomp. I define duality as a CEO who is not just a board member, but is chairperson of the board of directors. This proxy is obtained from the Directors and Directors Legacy databases. The variable, tenure, can be obtained from Execucomp by subtracting the test year from the year the CEO is reported as “Became CEO.” However, many of the tenure calculations resulted in negative tenure. Instead of relying on the Became CEO dates in Execucomp, I counted the number of years the CEO was named in the Execucomp database as CEO. Since the database begins in 1992, and the first firm year in the sample is 1996, the CEOs of firms in 1996 could only have a maximum tenure of five years. Therefore, my proxy for tenure is Tenure5yr, a dummy variable equal to one if the CEO has at least five years of tenure.

Compensation proxies are found in Execucomp. LnCash is the natural log of the CEO's combined salary and bonus compensation. LnTComp is the natural log of the CEO's total compensation as represented by the variable, TDC1. The percentage change in total compensation, TCompPct, is readily available in Execucomp. I calculate the dummy variable, RankOne, from the Compustat variable, EXECRANK, an ordinal variable which provides the rank of the CEO among other executives based on salary plus bonus. If EXECRANK is equal to one, then RankOne is equal to one, otherwise it is equal to zero. PctOwner is the percentage of shares owned by the CEO and LnOptions is the natural log of the total stock options held by the CEO. LnGrant is the amount of the restricted stock grant received by the CEO.

RiskMetrics is used for board of director and governance data. The number of board members and their independent status is obtained from Director and Director Legacy segments of RiskMetrics. INDBoard is a dummy variable equal to one if the percentage of independent board members is over 50%. LGBoard is a dummy variable equal to one if there are seven or more members on the board. The GIndex and EIndex are obtained from Governance and Governance Legacy databases. GIndex represents how many of the 24 Gompers, Ishii, and Metrick (2003) antitakeover provisions the firm has adopted. EIndex is a subset of six of the 24 antitakeover provisions in the GIndex. All six of the EIndex provisions are obtained from the governance databases and the EIndex score is tabulated from that data. In regression, I also test these six provisions independently. They are all dummy variables equal to one if the firm has adopted the provision or it is part of the firm's charter. LACHTR is a provision to limit the ability to

amend the bylaws. LACHTR is a provision to limit the ability to amend the firm's charter. PPILL is a poison pill provision. CBoard is a classified board. GOLDEN is a provision for golden parachute(s). SuperMajor is a provision requiring a supermajority to approve a merger.

Target and acquisition bids are obtained from the SDC database. All bids are included between 1989 and 2009, where either the acquirer or target is traded on one of the three major US stock exchanges, and the form of the deal is either a merger or an acquisition of majority interest. Deals below \$1 million are excluded as are deals with the same bidder and target in the same calendar year.

The financial variables all represent Compustat data for the balance sheet and income statement prior to the year of initiation. MedAdjCash stands for median adjusted cash: the cash to sales ratio for the prior year less the industry median cash to sales ratio for the firm's industry in the prior year. DebtRatio is the total debt divided by the total assets of the firm at the beginning of the fiscal year (i.e. the end of the prior fiscal year). LnSize is the natural log of the firm's total assets at the beginning of the fiscal year. ROA is the firm's operating income before extraordinary items divided by total assets for the prior fiscal year. MB is the market value of the firm divided by the book value of the firm at the beginning of the fiscal year. POSTSOX is a dummy variable equal to one if the firm year tested is in 2003 or later.

### *Test of Limited Data Initiators*

In order to evaluate the large number of initiators with limited data, a logit and event study are performed with data available in CRSP and Compustat. For the logit model, initiating firms are matched to non-initiating firms based on a performance matched procedure. Each firm-year observation is matched to a firm with the same two-digit SIC code, asset decile, and the closest market to book ratio in the prior fiscal year. One matching firm-year is selected for each of the 941 initiators that have a prior year market to book ratio.

## **2. Methodology**

Dividends are not always demanded or even desired by shareholders. Firms with positive net present value projects and limited resources will increase value by making full use of internal funds for growth. Even firms with surplus cash may be better off by retaining cash in the firm for future periods. As an example of shareholder preference, the catering theory explains that dividends carry a higher premium in certain periods. However, the demand for the payment or non-payment of dividends is assumed to be consistent for all firms after controlling for industry effects.

### **a. Logit Model: Likelihood of initiating a dividend (Objectives #1, 2, 3 and 4)**

The independent variables are not expected to all be used in the regression simultaneously. Select independent variables will be chosen to represent the categories in the logit regression to generate the best fit of the model. There are three variables for

CEO characteristics, seven for compensation, three for board strength, two for antitakeover provisions, and two for capital market activity. Six control variables were identified. In some of the prior research, none of them were included. If the sample is notably uniform with respect to the control variables, they may not be necessary. Interaction terms may be required as some of the variables are co-dependent in explaining managerial power.

**Dividend Initiation (=1 if firm initiates this year) =  $\beta_0 + \beta_1 \cdot \text{CEO Characteristics} + \beta_2 \cdot \text{Compensation} + \beta_3 \cdot \text{Board Strength} + \beta_4 \cdot \text{Antitakeover Provisions} + \beta_5 \cdot \text{Capital Market Activity} + \beta_6 \cdot \text{Control Proxies} + \varepsilon$**

**b. OLS Model: GIndex as a measure of power (Objective #2)**

The following regression measures to what extent the GIndex represents CEO power over the board versus board protection from shareholder power.

**GIndex =  $\beta_0 + \beta_1 \cdot \text{Managerial Power} + \varepsilon$**

**c. OLS Model: Financial relevance of the dividend (Objectives #1, 2, 3 and 4)**

Most of the literature on dividend payment in the U.S. concludes that entrenched managers pay more in dividends, but that may not represent the complete picture. Jo and Pan (2009) conclude that entrenched managers pay, but concede that only the highest quartile of entrenched managers as measured by GIndex are significantly more likely to

pay. Harford et al. (2008) determined that, although firms with the highest quintile of GIndex are most likely to pay dividends, they do not pay as much. Further, Harford et al. (2008) shows that the most entrenched managers are least likely to increase dividends in response to increased free cash flow.

Harford et al. (2008) conclude that the most entrenched managers pay, but payments are small. Given these results, it is expected that if entrenched managers initiate a dividend, they will pay less. It is relevant to measure the initiation of the dividend as well as the economic relevance of the dividend. The sample used in this test is the initiators in the S&P 1500 with RiskMetrics and Execucomp data. Matching firms are not included in this test.

**Dividend Yield =  $\beta_0 + \beta_1 \cdot \text{CEO Characteristics} + \beta_2 \cdot \text{Compensation} + \beta_3 \cdot \text{Board Strength} + \beta_4 \cdot \text{Antitakeover Provisions} + \beta_5 \cdot \text{Capital Market Activity} + \beta_6 \cdot \text{Control Proxies} + \varepsilon$**

**d. Logit Model: Test All Initiating Firms (Objectives #3, and #4)**

This test includes all initiating firms, i.e. the Limited Data Initiator sample. Because matching firms are selected by prior year market to book ratio, only the 941 initiators with a prior year market to book value available were included. This model provides an opportunity to evaluate the firms that are omitted in most recent studies of dividends. Target bids are used in place of antitakeover provisions. Acquisition Bids are used to test whether dividend payout restricts empire-building. Other independent

variables that are available for all firms are included in this model; S&P, Bond dummy, Exchange, and SIC.

In preliminary sample selection, it was determined that as many as 43% of the initiators in the S&P indices were added to the index within two years of dividend initiation. Consequently, although these firms are in the Execucomp and RiskMetrics databases at some point during the sample period, there is insufficient data available in the year of and just prior to initiation for these firms to be included in the first two empirical models, a. and b. Previous authors have the same data limitations and do not include testing of firms in the years they are not in the Execucomp and RiskMetrics databases. Since so many of the sample firms which are in the S&P indices initiate within two years of entering the index, I include a proxy to identify them. Unlike the other governance variables, it is available for all firms in Compustat. Bond dummy is included because it is available for all firms and firms with bonds are more likely to pay dividends (Aivazian et al. 2006). Exchange listing is included as a control variable and the sign is left to empirical determination.

$$\text{Dividend Initiation} = \beta_0 + \beta_1 \cdot \text{Target bids} + \beta_2 \cdot \text{Acquisition bids} + \beta_3 \cdot \text{S\&P} + \beta_4 \cdot \text{Bond dummy} + \beta_5 \cdot \text{Exchange} + \beta_6 \cdot \text{ROA} + \varepsilon$$

**e. Event Study (Objectives #3 and #4)**

To support the results of the previous test, d., on all firms, an event study is done to determine if there is market reaction to the variables identified as significant. The

event tested is the announcement date of dividend initiation. Nine hundred eighty-four of the Limited Data Initiators have available data and price history to be included. I use standard event study methodology (Brown and Warner, 1985). The event study is based on five announcement date windows (-2,+2), (-1,+1), (0, +1) (-1, 0), and (0,0). The estimation period is 255 trading days prior to announcement, from day -258 to day -3.

First, the market model is estimated with the individual return for firm  $i$  on day  $t$  ( $R_{i,t}$ ) and the CRSP value-weighted index return at time  $t$  ( $R_{m,t}$ ) to calculate beta and intercept value.

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + \varepsilon_t$$

Next, the abnormal return ( $AR_{i,t}$ ) is calculated for the days in the announcement window.

$$AR_{i,t} = R_{i,t} + (\hat{\alpha}_i + \hat{\beta}_i R_{m,t})$$

where  $\hat{\alpha}_i$ , and  $\hat{\beta}_i$  are taken from the market model above for the estimation period.  $R_{i,t}$  is the realized return for firm  $i$  at time  $t$ .  $R_{m,t}$  is the CRSP value-weighted returns index. The average abnormal return is

$$AAR_t = \frac{\sum_{i=1}^N AR_{i,t}}{N}$$

where  $N$  is the number of announcements. The cumulative average abnormal return (CAAR) is

$$CAAR_{T_1,T_2} = \frac{1}{N} \sum_{i=1}^N \sum_{t=T_1}^{T_2} AAR_t$$

where  $T_1$  and  $T_2$  are the beginning and end of the announcement period.

A cross-sectional test includes the variables in model d. above.

$$\text{CAAR} = \beta_0 + \beta_1 \cdot \text{Target bids} + \beta_2 \cdot \text{Acquisition bids} + \beta_3 \cdot \text{S\&P} + \beta_4 \cdot \text{Exchange} + \beta_5 \cdot \text{Bond dummy} + \varepsilon$$

## V. Empirical Results

### 1. Summary Statistics

Tables 2 through 6 provide a description of the sample distribution over industry, time, and size. Table 2 describes the distribution of the sample with respect to SIC categories. Initiators span eight of the nine, one digit codes. No initiators and only two control firms represent SIC codes below 1000: agricultural, forestry and fishing. The remaining codes are represented by both groups in a reasonably similar manner. There are no firm years in SIC code 4900 (utilities) or SIC code 6000 (financial institutions). Table 3 depicts a distribution by year. Initiators and control firms span all fourteen years from 1996 through 2009. There are as few as three initiators in 1996, and as many as 37 in 2003. Initiators range through all different size quintiles as shown in Table 4, but initiating firms tend to be larger than the group of firms with high cash to sales in general. Although there is a widespread expectation that dividends are initiated by mature firms, 33 of the 170 initiators in this sample do so in the first five years of firm life (Table 5). Over 80% initiate later than that, though, and more than 30% of initiators begin paying when the firm is over 15 years old. 17.06% of the initiators have a firm age over 20 when they initiate.

Descriptive statistics for the independent variables are shown in Table 6. The variables for the initiator and control samples are compared using the Wilcoxon-Mann-Whitney test, which does not require the variables to be normally distributed. I use the two-sided test to determine if there is a statistically significant difference between the underlying distributions of the variables. The LnCash proxy includes combined salary and bonus; both are higher for initiators than for control firms. Total compensation percentage is the only compensation variable that is not significantly different in underlying distribution from control firms. CEO characteristics, tenure, duality, and age over 60 are all higher for initiators than control firms. Initiators have larger boards, but according to this test they are not more independent or more frequently classified. The EIndex had a lower value for initiators, while the GIndex has a higher mean without a statistically different underlying distribution. Initiators are larger by asset and market size than the control firms, and they are more profitable. Market to book value is higher for the control firms. These financial variables are controlled for in the regressions.

The correlation of compensation related variables is displayed in Table 7. Although these proxies have commonality, they do not have statistical correlation that would interfere with their use together in regression. One exception is LnTComp, the natural log of total compensation. Since LnTComp by definition is composed of the other compensation variables, it cannot be used together with them. TDC1 is correlated at 68.2% with LnOptions, 54.7% with LnCash, and 19.8% with LnGrant.

Correlation of CEO Characteristics and Board Strength are shown in Table 8. Although tenure and age are related by definition, the correlation of Tenure5yr and

Over60 is only 20.0%. The EIndex, a subset of the GIndex, is correlated at 66.1%.

Classified Board is a component of the EIndex and the GIndex.

Merger and acquisition variables are combined with other potentially related proxies in Table 12. The EIndex and GIndex have a high correlation of 0.66, which is not surprising due to their interrelationship. There are no other correlations high enough to preclude these proxies being used together in regression. These correlation tables are intended as a means of assessing potential multicollinearity, and conclusions about relationships between variables are better established in the multiple regression models that follow.

## **2. Multivariate Regression**

### **a. Logit Model: Likelihood of initiating a dividend (objectives #1, 2, 3, and 4).**

This model tests all four of the objectives identified in the introduction. The first is to determine if the results of prior research on dividend payout hold for the dividend initiation event. To accomplish this, I use the same proxies from dividend payout research to test dividend initiation. Second, I look for a specific determination of entrenchment at the board of director level and the CEO level. To that end, I use proxies for CEO power and proxies for shareholder rights. Third, I test the merger and acquisition assertions regarding dividend payout: that dividends are compelled by target bids, and that dividends restrict value destroying acquisition. Target bids and acquisition bids are included in the regression to determine their effect on initiation. Finally, I intend to reconcile support for the free cash flow hypothesis with support for the substitute model.

The logit model is progressively repeated, testing each group of independent variables: CEO characteristics, compensation, board structure, antitakeover provisions, and target/acquisition bids. The results are shown in Tables 10 through 14. CEO characteristics are alternately used in the logistic model to predict dividend initiation in Table 10. In the four models within this table, the only additional variables are the control proxies. Having tenure of more than 5 years increases the likelihood of dividend initiation. This is inconsistent with Dividend Initiation Hypothesis 1, that CEOs with more tenure would be less likely to initiate dividends.

In Model 2, Table 10, Duality is substituted for CEOs with tenure over 5 years. Having a CEO that is also chairperson of the board of directors increases the likelihood of dividend initiation all else held constant. The result is significant at the 1% level. Dividend Initiation Hypothesis 2 stated that a CEO with these dual responsibilities would be less likely to initiate dividends, so the result is inconsistent with expectations and the hypothesis is not supported.

CEO age over 60 provides the strongest results based on the coefficient, significance, and pseudo  $R^2$  (Model 3). An older CEO increases the likelihood of initiation (coefficient = .6258) with all other variables held constant. Pseudo  $R^2$  is highest for this model at 5.65%. The result is consistent with Dividend Initiation Hypothesis 3, predicting that older CEOs would be more likely to initiate dividends, and the hypothesis is supported with significance at the 1% level. When age over 60 is crossed with duality in Model 4, the coefficient is positive and significant. Older CEOs who are also chairman of their board are more likely to initiate dividends. The control variable, DebtRatio, is not

significant in any of the models. In all models, larger firms with higher return on assets initiate dividends, but market to book ratio does not predict the likelihood of initiation. PostSox is positive and significant indicating that firms in the period after 2002 are more likely to initiate dividends after the influence of the other variables in the model are considered.

Multivariate regression tests of independent variables representing CEO compensation are shown in Table 11. The stronger proxy from Table 10, CEO age over 60, is included along with the control variables. The first model depicts LnCash as significant at the 1% level. This result contradicts Dividend Initiation Hypothesis 4. It was expected that higher salary would be negatively related to dividend initiation, yet it is positive and significant. H5 is not supported, either, but unlike cash compensation, total compensation (LnTComp) is not significant at all in predicting dividend initiation.

TCompPct, the percentage change in the CEO's total compensation, is statistically significant in predicting dividend initiation in Model 3. In order to support Dividend Initiation Hypothesis 5, that more powerful CEOs will negotiate an increase in pay for initiating dividends. Additional testing (not shown) included regressions to determine if the total compensation percentage could be explained by a combination of CEO Power and dividend initiation, but those regressions did not support the relationship.

CEO salary rank and ownership are examined in Models 4 through 6. Model 4 is a test of the RankOne variable. I expected that CEOs with the highest pay relative to other firm executives would be less likely to initiate dividends. The result is not significant; therefore Dividend Initiation Hypothesis 6 is not supported. CEO ownership of firm stock

is tested in Models 5 and 6. There is no support for Dividend Initiation Hypothesis 8, that CEOs with more stock options are less likely to initiate dividends. Likewise, for the percentage of CEO ownership in general, there is no relationship identified, therefore Dividend Initiation Hypothesis 7 is not supported.

Board characteristics are tested in logistic regressions displayed in Table 12. A board with more than 50% independent directors is less likely to initiate dividends, and the result is significant at the 5% level. An independent board is supposed to better represent shareholder interests, and the result found is that an independent board is less likely to initiate dividends. This is significantly opposite of what was expected in Dividend Initiation Hypothesis 9.

Neither the large or classified board types individually are significant in explaining dividend initiation. Consequently, Dividend Initiation Hypothesis 10 and 11 are not supported. The literature predicted, though, that board type would have to be paired with CEO power. An independent board chaired by the CEO is not significant in explaining dividend initiation. Neither is a large or classified board, chaired by the CEO, more likely to initiate dividends. In Model 7, the EIndex, a measure of board entrenchment, is included with an independent board to explain dividend initiation. Even after controlling for board strength, an independent board is still significantly less likely to initiate dividends.

The GIndex and EIndex regressions are shown in Table 13. Dividend Initiation Hypothesis 12 predicted that initiating firms would have a lower GIndex, in spite of the literature support for a higher GIndex with respect to firms already paying dividends. The

result in Model 1 is that the GIndex is not significant in predicting dividend initiation. This is a departure from prior literature, but it does not support Dividend Initiation Hypothesis 12, that the GIndex would have a negative relationship with dividend initiation. As Harford et al. (2008) tested the highest and lowest quartile of GIndex, I also added these proxies. HiGIndex is a dummy variable equal to one if the firm is among those in the highest quartile of GIndex. LoGIndex is a dummy variable equal to one if the firm is among those in the lowest quartile of GIndex. Firms with the highest GIndex, the most entrenched boards, are not significant in explaining dividend initiation, but firms with the lowest GIndex, the strongest governance, are more likely to initiate dividends. The result is significant at the 5% level, and the pseudo  $R^2$  for the model is 0.0807<sup>4</sup>. This contradicts most of the prior literature on dividend payout with respect to the GIndex, but supports Harford et al. (2008) findings that firms with the strongest governance are most likely to pay out marginal increases in cash holdings.

Models 4 through 7 are tests of the EIndex. EIndex is highly significant (1% level) and negative in predicting dividend initiation. Boards that are weaker with respect to shareholder's rights are more likely to initiate dividends. Model 5 shows that CEO chairs are also more likely to initiate dividends. In Model 6, I include the interaction term for CEO chair of a weak board. CEO chairs are more likely to initiate dividends, but CEO chairs of a powerful board are less likely to initiate dividends. In Model 7, each provision of the EIndex is treated separately in the regression. The provisions shareholders retain in boards that initiate are LACHTR, LABYLW, and PPILL. The other antitakeover

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<sup>4</sup> GIndex was not available in RiskMetrics for firms after 2006, but as long as the firms had EIndex available, they were included in the sample. That is why the number of firms included in Table 13, Models 1 through 3, have 2,648 observations, while Models 4 through 7 have 3,223 to 3,519.

provisions, CBOARD, GOLDEN, AND SUPERMAJOR, are not significant in predicting dividend initiation. Jiraporn and Chintrakarn (2009) showed that increases in dividend payout could be explained by firms with a classified board, used in place of the GIndex proxy. Just as the GIndex results hold for continuous dividends, but not dividend initiation, so do the classified board results. Although not shown in Table 13, classified board tested separately in logistic regression with only control variables is also not significant in predicting dividend initiation.<sup>5</sup> The significant negative coefficient for the EIndex in Models 2 and 3 support Dividend Initiation Hypothesis 13. As expected, firms with stronger shareholder rights are more likely to initiate dividends.

The merger and acquisition proxies are shown in Table 14<sup>6</sup>. TARGETBIDS is not significant in predicting dividend initiation, and Dividend Initiation Hypothesis 14 is not supported. Dividend Initiation Hypothesis 15 states that firms with more hostile bids will initiate dividends. This is not supported either, since the proxy, HOSTILE, is not significant in Model 2. There were very few hostile bids. Less than 3% of the bids from SDC were listed with a hostile attitude. Five control firm years had an associated hostile target bid and one initiating firm year. Acquisition bidding is tested in Model 3. Firms

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<sup>5</sup> The purpose of this model in Table 16 is to demonstrate, as Bebchuk et al. (2009) supported, that the index is more meaningful with this combination of proxies than the proxies alone.

<sup>6</sup> Merger and acquisition bids were obtained from SDC, which uses tickers and cusips for firm identification. Frequently, there is loss of some sample firms from SDC because they cannot be matched to firms in CRSP. In many applications, SDC is used to obtain the sample, whereas in this case it is used to describe an existing sample. If I were obtaining a sample from SDC, the lack of matching would have reduced the sample size. In my application, a firm that does not match to any target bids in SDC, whether there are no target bids, or whether the firm could not be matched to its identifier in SDC, is recorded to have zero target bids. In order to get the most accurate data, I matched the control and sample firms to SDC output by both cusip and ticker. If a firm matched to a targeted SDC firm either by cusip or by ticker, it was recorded as a targeted firm. The same process was applied for acquisition bids.

with more acquisition bids are less likely to initiate dividends. This supports Dividend Initiation Hypothesis 16, and the result is significant with a p-value of 0.0626.

In summary, dividend initiation is more likely when the CEO has at least five years of tenure, is also chairperson of the board, and when the CEO is over 60 years old. A CEO who is highly compensated in cash and received a large pay increase over the prior year is more likely to belong to an initiating firm.

Independent boards are supposed to be better at representing shareholders, smaller boards should be more efficient, and boards without classified status should be more responsive to shareholders. However, independent boards are significantly less likely to initiate dividends. The classified and large board types are not significantly more likely to initiate dividends. The explanation for this is likely due to the greater influence from other factors, such the lack of EIndex antitakeover provisions and the acquisition activity of the firm. Whether a large board is powerful or weak with respect to shareholders has more of an effect on dividend initiation than the size of the board itself. Acquisitive firms are less likely to initiate, and the acquisition activity may also overshadow the board's structure. CEO chairs are more likely to initiate dividends, but not if they are chair of a powerful board.

Before presenting a concluding, comprehensive model to explain dividend initiation with all five categories of proxies, I will test the reliability of the CEO power proxies in part b. below. Discussion of the logistic comprehensive model explaining dividend initiation (Table 16) is combined in part c. It is followed by discussion of the OLS comprehensive model explaining dividend yield.

**b. OLS Model: GIndex as a measure of power (objective #2).**

This test specifically addresses the second objective of Essay I: whether entrenchment is defined as weak shareholder rights or CEO power over the board of directors. I examine the relationship between the proxies for CEO power, the proxies for shareholder rights (GIndex and EIndex) and their relative effect on dividend initiation<sup>7</sup>.

The measures of CEO Power are tested in Table 15 for reliability in predicting CEO Power. The CEO power theory evolved from research in compensation, so I use my CEO power proxies to explain cash compensation and total compensation, expecting results consistent with prior research. If the variables I identify as representing CEO power are indeed indicative of CEO Power, then they will have regression signs and significance consistent with prior research. They should all be positive and significant in explaining compensation.

When the CEO Power measures in my sample are used to explain the dependent variable, LnCash, the proxies for high executive rank, tenure, and duality are all positive and significant, with an adjusted R<sup>2</sup> of 16.64%. Just as in prior literature, these variables indicate CEO Power over the board of directors for negotiating compensation. One exception is that acquisition bids are not significant in explaining CEO cash compensation. However, recall that the majority of total compensation from acquisition activity for CEOs is through equity compensation. When the CEO power proxies are used in the second model to predict total compensation, LnTComp, all four variables are significant with positive coefficients. The model explains 7.07% of CEO compensation.

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<sup>7</sup> Johnson et al. (2009) find that the abnormal returns associated with the GIndex and EIndex can be explained by adjusting the returns for specific industries.

Therefore, the proxies for CEO Power in this sample are consistent with the findings in prior literature. These results support the CEO Power Hypotheses 1 for tenure, 2 for duality, 3 for cash compensation, 4 for total compensation, 6 for RankOne, and 7 for acquisition bids.

Next, I test whether the CEO Power proxies explain the GIndex, EIndex, and dividend initiation. It appears that CEO power does have an influence on the GIndex, as evidenced in Models 3 and 4. Both the EIndex and GIndex of firms in this sample reflect a high ranking CEO and low acquisition activity. An interesting contrast is evident in the variables for tenure and duality. A higher EIndex is significantly related to lower CEO tenure, and not significantly correlated with duality in this regression. A higher EIndex, then, identifies a stronger board with respect to shareholders, and a well-paid, lower tenured, CEO with low acquisition activity. With a high EIndex, the board is powerful and the CEO is not. In contrast, the GIndex is not correlated with lower tenure, but it is significantly ( $p\text{-value} = .0075$ ) related to the firm having a CEO chairperson. A higher GIndex firm is indicative of a well-paid CEO who is also chairperson of the board, but is not acquiring. The EIndex appears to be a more pure measure of board strength, while the GIndex represents a combination of board strength and CEO power. Since the EIndex is a subset of six of the twenty-four GIndex provisions, the additional 18 provisions must account for the relationship between the GIndex and the longer tenured, CEO chairperson.

**c. OLS Model: Financial relevance of the dividend (objectives #1, 2, 3, and 4).**

This test is used to provide evidence for all four objectives. It is identical to the logit model in a. above, except that the dependent variable is dividend yield instead of a dichotomous representation of dividend initiation. By using the amount of the dividend, I can determine if certain proxies are more or less significant based on the relative amount of cash returned to shareholders.

Now that the proxies for CEO power are supported, and before presenting the model for dividend yield, I return to the logistic regression in part a. and present a comprehensive model which incorporates all five categories of explanatory variables. Table 16 displays the results of the logistic, comprehensive models with the highest pseudo  $R^2$  in predicting dividend initiation. Five optimal comprehensive models are presented. Model 1 has a pseudo  $R^2$  of 9.89%. Tenure5yr, Duality, and LnOptions are included, but they are not significant in this model. Removing Tenure5yr in Model 2 reduces pseudo  $R^2$  to 9.86%. Removing Duality in Model 3 increases pseudo  $R^2$  to 10.13%. Cash and option compensation is controlled for, but the proxies are not significant. Firms paying their CEOs with stock grants are more likely to initiate dividends. Firms that are not making acquisition bids are more likely to initiate dividends in Models 1 and 2, but when the control for CEO-chairperson is removed in Model 3, acquisition activity is no longer significant. The EIndex is negative and significant in all three models. In Model 4, the EIndex is replaced with the GIndex to determine if it is significant in the comprehensive model, but it is not. In Model 5, I substitute LoGIndex into the comprehensive model. It is still positive and significant at the 5% level,

indicating that firms with the lowest quartile of GIndex are more likely to initiate dividends. CEO power is not an important factor in predicting dividend initiation according to the models in Table 16 because the proxies for CEO power, tenure, duality, cash and total compensation, are not significant. Acquisition activity is significant in only two of three models at the 10% level.

Table 17 presents comprehensive models with a change in the dependent variable from initiator to dividend yield in OLS regression. An older CEO, Models 1 through 4, is still the most influential proxy with a coefficient of 0.0003 to 0.0005, and significance at the 1% to 5% level. As with the comprehensive logistic regressions, duality is not significant in any of the models even though it was significant without the other variables. Percentage change in total compensation (TCompPct) is significant, but the coefficient is zero with four significant digits. Compensation in grants instead of options is also a significant factor in explaining dividend yield (Models 3 and 4), and with dividend yield as the dependent variable, LnOptions is negative and significant. Cash compensation is only significant in Model 2, losing significance when grants and options are added to the regression. Acquisition activity is significant only in Models 1 and 2. The significance of the EIndex holds in Models 1 and 2, but when options and grants are added in Model 3, EIndex is no longer significant. An independent board is controlled for in the first four models, but it is not significant. Changing the dependent variable to dividend yield does not change the results of the GIndex variable. It is not significant in explaining initiation in the form of a dichotomous variable or as dividend yield. As a final test, Model 5 includes only the control variables and the GIndex, but contrary to prior

research on recurring dividends, it is still not significant. Overall, the results are similar to those of the logistic comprehensive regression models, especially with regard to CEO power variables and antitakeover proxies. As with the logistic comprehensive regression models, CEO power is not as effective in explaining dividend initiation as shareholder oversight of the board (low EIndex). CEO influence is indicated on some level because older CEOs and those with grant rather than option compensation are more likely to initiate dividends.

**d. Logit Model: Test all initiating firms (objectives #3, and 4).**

Because many firms initiate prior to their data becoming available in RiskMetrics and Execucomp, I perform this test which allows the inclusion of all initiators as long as they have prior year data in Compustat. SDC data is also available for these firms. The independent variables are limited, however I can still test objective number three, that initiation is compelled by threat of takeover and restricts value-destroying acquisition, by using target bids and acquisition bids. Furthermore, I can use the results of this model to reconcile support for the free cash flow hypothesis and the substitute model.

Most of the firms initiating dividends do not have complete data available, so I include tests of the larger sample of initiators that have only limited data available. Descriptive statistics are shown in Table 18 for the Limited Data Initiators and matching firms. Merger and acquisition data, entry to the S&P 1500 indices, exchange and financial data is available for these firms. Since they are matched by two-digit SIC, size decile, and market to book ratio, controls for these variables are not included in the regression.

Table 19 presents the results of logistic regression. Neither target bids nor acquisition bids are significant in predicting dividend initiation in Models 1 through 4, which is a departure from the results found with Complete Data Initiators. The smaller sample of firms with complete data indicated firms are more likely to initiate when there is lower acquisition activity, but in this larger sample of initiators, acquisition is not significant in predicting dividend initiation. There was no correlation found between target or acquisition bids and dividend initiation in this sample.<sup>8</sup>

Entry into the S&P 1500 indices is tested in three ways. SPWithin2 is a dummy variable equal to one if the firm entered the S&P indices within two years before or after the current year (or in the current year, for a complete period of five years). In Model 1, this variable is significant in predicting dividend initiation. The value of this result is increased if investors can predict that initiation will happen, so I divide the variable into two proxies. AlmostSP represents firms that enter the S&P indices in the current year or the next two years. NewlySP is equal to one for firms that entered the S&P indices in the current year or the two years prior. Compared to matching firms that did not initiate dividends, firms about to enter the S&P indices in the current or next two years (Almost SP) are not more likely to initiate dividends (Model 2). Models 3 and 4 show that firms just entering the S&P 1500 indices (NewlySP) are more likely to initiate dividends. Based on this result, all else held constant, investors should expect that a firm just added to the S&P indices is more likely to initiate payment of a regular dividend.

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<sup>8</sup> The control sample may be too small to accurately represent this variable, or data may have been unavoidably diminished during the process of matching SDC firms to the sample.

Firms with debenture financing can manage the firm's cash flow through the use of bonds and dividend payments. In all five models, firms that have bonds are more likely to initiate dividends. The coefficient is between 0.7095 and 0.7285, and the p-value is <.0001. Firms with bond financing are more likely to initiate dividends.

The control variables used are significant (p-value <.0001). Firms on the New York or American stock exchanges, as opposed to the NASDAQ, are significantly more likely to initiate dividends. Firms with higher return on total assets in the prior fiscal year are more likely to initiate dividends. Tested in Model 3 only, firms with Big 8 auditors are not more likely to initiate dividends. Although the data is very limited, the pseudo R<sup>2</sup> for Models 1 through 5 are all near 17%.

**e. Event Study: Test all initiating firms (objectives #3, and 4).**

The purpose of this test is an extension of d. above, addressing the same objectives, #3 and 4. To support the results of the logit model using all initiating firms, I include this event study and cross-sectional analysis. It is intended to test whether the market reacts to the independent variables that are significant in explaining dividend initiation in the logit model.

Cumulative abnormal returns for five event windows are shown in Table 20. The cumulative abnormal returns are all statistically significant, with the strongest one day result on the day of the announcement. The largest window is five days, from two days prior to two days after announcement. Although the mean abnormal return on announcement of dividend initiation is positive, 45% of the one day returns (444 negative /984 total) on day "0" are negative.

Cross-sectional analysis is shown in Table 21. In Model 1, the coefficient for target bids is positive and significant at the 5% level. The abnormal return on announcement of dividend initiation is higher for firms receiving target bids. This contradicts Event Study Hypothesis 1, and I conclude that firms receiving target bids, that initiate dividends, experience an increase in their stock's return on the day of the announcement. In Table 18, it was shown that receiving target bids did not make a firm more likely to initiate, but according to the results in Table 20, the targeted firms that do initiate are rewarded by the market.

Event Study Hypothesis 2 identifies a negative relationship between acquisition bids and abnormal return on announcement. In this sample, however, acquisition bids were not significant in any models to explain abnormal return (Table 21). Therefore, the hypothesis is not supported. If an initiating firm is making acquisition bids, it does not change the market's reaction to the dividend initiation. Comparing the logistic results in Table 19 and the cross-sectional results in Table 21, initiating firms are not more or less likely to be acquirers, and their acquisition activity does not affect the market reaction to initiation of dividends. This is a contradiction to the Complete Data Sample of initiators, which are less likely to initiate dividends if they are acquiring (Table 16, Models 1 and 2). The Complete Data Sample of 170 firms is not representative of the larger population of dividend initiators with regard to acquisition activity. The Complete Data Sample firms are under increased scrutiny as members of the S&P 1500 indices. One possibility is that the additional oversight on these firms from institutional blockholders and heavier

analyst following affects the firm's decisions regarding the use of free cash flow for acquisition or dividend initiation.

According to Event Study Hypothesis 3, firms with bonds outstanding have a lower abnormal return when they announce the initiation of dividends. That hypothesis is not supported in Table 21. Having bonds does not change the market's reaction to the initiation of dividends. Although having bonds outstanding makes a firm more likely to initiate dividends (Table 19), the market reaction is not more pronounced one way or the other.

The relationship of dividend initiation to membership in the S&P 1500 indices was tested for all initiators in section d. above to predict dividend initiation. It was found that firms just entering the indices were more likely to initiate dividends. When I test this proxy to instead, explain the magnitude of the abnormal return on announcement, it is not significant. In Table 21, Model 1 shows that the proxy, SPWithin2, is not significant. AlmostSP and NewlySP are shown as not significant in Models 2 and 3. In Model 4, I use a dummy variable equal to one if the firm is in the S&P 1500 indices in the year of the announcement. That proxy is significant and the positive coefficient means that being in the S&P 1500 indices results in a higher abnormal return on a firm's announcement of initiation.

A number of control variables were included in Table 21 regressions for their explanatory power. Exchange proxies, NYSE and AMEX, were not significant in the first four models, so they are left out of the final model with the highest adjusted  $R^2$ , 3.44%.

Big8 is a dummy variable equal to one if the firm uses a Big 8 auditor. Investors respond more favorably to dividends initiated by firms without Big 8 auditors.

#### **f. Summary of empirical results**

The General CEO Power Hypothesis states that powerful CEOs are less likely to initiate dividends. The proxies for CEO power, tenure, duality, cash and total compensation, high rank, and acquisition activity, were tested in section b. above and found to be representative of the power proxies in prior research. When these proxies are significant in explaining dividend initiation, the results are mixed. The proxy for acquisition bids is negative, meaning that from a CEO power perspective, the initiating CEOs are not powerful. The remaining proxies, tenure, duality, high rank, cash and total compensation, are positive when they are significant. Total compensation was not significant in the models presented, but does have a positive correlation with dividend initiation. Conversely, I cannot conclude that initiating CEOs are especially weak with respect to the board, because so many of the proxies were positive when significant, except acquisition activity. Therefore, initiating CEOs in this sample cannot be determined to be powerful in the context of these proxies. I can conclude that powerful CEOs are not more likely to initiate dividends.

The General Dividend Initiation Hypothesis states that the results of regression to predict dividend initiation will support the outcome model. Prior literature supporting the substitute model used the relationship between recurring dividend payout and the GIndex. Researchers found that firms had higher payout and paid more often when the firm had a high GIndex. By examining the point of initiation, those results are not duplicated. In the

year the firm announces dividend initiation its GIndex is not significantly different from non-paying, control firms. A dummy variable equal to one for the lowest quartile of GIndex firms (LoGIndex) is positive and significant in explaining dividend initiation, indicating that the firms with the strongest governance are more likely to initiate. The EIndex is more focused on shareholder voting rights with respect to the board of directors. EIndex is significant and negative in predicting the likelihood of dividend initiation, meaning that initiating firms have stronger shareholder voting rights than non-paying control firms, which supports the outcome model. In summary, the GIndex result of “not significant” does not support the General Dividend Initiation Hypothesis, nor does it lend support to the substitute model. Nonetheless, the General Dividend Initiation Hypothesis is still supported because the dummy variable representing the lowest quartile of GIndex firms (LoGIndex) is significant in explaining dividend initiation, and firms with a lower EIndex are more likely to initiate dividends.

## **VI. Conclusion**

The results of this research on dividend initiation provide answers to questions that could not be answered previously. The motivation for dividend initiation as an external or internal threat or reward can be evaluated. Dividends are initiated with firms that have fewer impediments to shareholder rights, an external threat to the board. CEOs of initiating firms do not have strong power over the board of directors, although as a group they are not identified as weak with respect to the board, either. The initiating CEO may be chair of the board, but if so, he is chair of a weak board, which means he leads a

board under the watch of stronger shareholders. Oversight on the CEO in that case is not from the board, but directly from the shareholders. There is evidence of an internal reward as I find strong evidence that CEOs nearer to retirement and those with stock grants instead of options are more likely to initiate dividends. CEOs over 60 are significantly more likely to initiate dividends.

The first objective was to determine if the results of continuously paying firms are representative of the governance of initiating firms. I do not find that to be the case. GIndex is not significant in explaining dividend initiation as it was in explaining continuous payout, firms in the lowest quartile of GIndex (strongest governance) are more likely to initiate dividends, and the significant coefficient of the EIndex is negative. My results directly conflict with the prior research conclusions that dividends are paid by more entrenched management.

The second objective is to explain whether entrenchment comes from the CEO's power over the board of directors, or the board's protection from market discipline. The results obtained with this sample do not support entrenchment in initiating firms. CEOs are not identified as powerful over the board, and the board of directors has lower protection against shareholder rights than control firms. The market does not reward initiating firms differently based on their acquisition activity.

Merger and acquisition proxies are useful in explaining the governance surrounding initiation of dividends. Target bids play a role, and are significant in explaining market reaction to dividend initiation in the form of higher abnormal announcement returns. However, target bids are not the pervasive motivation for most

firms that initiate dividends. Acquisition bids are negatively correlated with dividend initiation and significant in regression with S&P 1500 firms (Tables 14, 15, 16, and 17). With the larger sample of all initiating firms, acquisition bids were not significant in explaining dividend initiation.

The fourth objective was to reconcile the support for the free cash flow hypothesis with the results of prior literature supporting the substitute model. When firms are changing an existing dividend, most studies found that a higher GIndex resulted in more dividends. This is not the governance scenario found for initiating firms, whose shareholders have stronger rights with respect to the board of directors. I find support for the outcome model with dividend initiation, and that is consistent with the free cash flow hypothesis.

## **Essay II: Accrual and Real Earnings Management surrounding Dividend Initiation**

### **I. Introduction**

The purpose of Essay II is to determine if management influences earnings through manipulation of discretionary accruals or real earnings management at the time of dividend initiation. Initiation of dividends is an extreme form of dividend change because it is essentially the entering of a quasi-contract with shareholders. Continued payment of the dividend requires sufficient cash flow as well as adequate earnings to meet debt covenants related to payout.

I examine the likelihood and direction of earnings management based on two competing theories; the agency free cash flow theory and the substitution theory. Proponents of signaling theory, Subramanyam (1996) and Koerniadi and Tourani-Rad (2011), find that dividend initiation is an opportunity for management to signal expected future earnings to the market. In contrast, according to the agency cost of free cash flow, managers are reluctant to initiate dividends, preferring instead to use free cash flow for empire-building. These managers are expected to accelerate real expenses and accumulate discretionary accrual reserves before entering into the quasi-contract of dividend initiation, thus setting themselves in a better position to meet the demands of future dividend payments and preserving their ability to continue investing. Signaling

predicts upwardly managed earnings while the agency cost of free cash flow predicts that earnings are managed down at initiation.

The sections of this essay are organized as follows. In section II, I provide a brief explanation of earnings management, a discussion of the accrual earnings management models, a review of real earnings management models, and an overview of the empirical relationship between dividends and earnings. In section III, hypotheses are developed from the substitute and agency theories. Section IV provides a description of the data and methodology.

## **II. Literature Review**

### **1. Earnings Management and Accruals**

Over the years, earnings management has become a significant research area. Since financial reporting exerts a strong impact on virtually every accounting and finance research topic, the implications of earnings management are far reaching. A number of comprehensive reviews of earnings management literature have been published, including Schipper (1989), Healy and Wahlen (1999), Dechow and Skinner (2000), and Beneish (2001) among others. I focus on the development and application of currently accepted models of earnings management measurement.

A widely accepted definition of earnings management comes from Healy and Wahlen (1999).

“Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of

the company or to influence contractual outcomes that depend on reported accounting numbers.”

A distinguishing factor here is that the use of management’s judgment is intended to mislead stakeholders or affect the outcome of contractual events. Management, after all, is supposed to exercise judgment in financial reporting according to Generally Accepted Accounting Principles (GAAP). For example, different depreciation methods are available to allow management the most appropriate match of asset service to revenue production. Judgment is afforded to management to estimate an allowance for bad debts, measure the usage of inventory, recognize the point at which revenues are earned, etc. The specific point at which earnings management rises to the level of fraud is not easily identified and not a requirement of earnings management. However, earnings management, by definition, represents management’s intent to mislead contractual parties.

## **2. Earnings surrounding dividend change announcements**

In order to study the possibility of earnings management, it is important to have an understanding of typical earnings patterns surrounding the event. There is a long history of literature documenting the relationship between dividend changes and earnings. This section highlights representative articles that explain the empirical relationship of dividends to earnings.

According to Healy and Palepu (1988), investors can think of dividend changes as management’s forecast of future earnings. In a study of firms that initiated or omitted dividends between 1963 and 1980, the authors examine earnings and stock returns for the years surrounding the announcement. Firms that initiate dividends have earnings

increases in the years just before, during and after initiation. Firms omitting dividends have earnings decreases through the year of omission, and then have significantly positive earnings for the next two years. The sample size in this study was small because firms were required to have ten years of no dividends prior to being classified as an initiator (131 firms), or ten years of consistent payments to be included in the sample for omitting dividends (171 firms). Based on these results, both dividend initiations and dividend omissions predict an earnings increase for the subsequent two years.

Benartzi et al. (1997) questioned the idea that dividends contained information. Their study was the largest test of dividends and earnings at that time. A number of empirical tests had been conducted prior to this study, including Healy and Palepu's (1988), but in general, the results were weak or mixed in support of signaling. Benartzi et al.'s sample period covered 1979 – 1991 and included 1,025 firms. They found only minimal support that dividends can predict future earnings. Rather, they discovered that dividends signal the permanence of current earnings. When firms in their sample increased dividends, they were less likely to have a drop in earnings for the next three years.

Benartzi et al. (1997) also tested the market reaction to dividends to identify support for signaling. Initial market reaction was a positive excess return on increase in dividends. However, three year excess returns for firms that increased dividends were still positive. This, they argue, means that the market did not adequately interpret the dividend signal. Why send a signal that is inadequately interpreted?

The conflicting results of Healy and Palepu (1988) and Benartzi et al. (1997) were examined by Koch and Sun (2004) who hypothesized that Benartzi et al. were correct, that dividends represent the permanence of current earnings. They also accepted Healy and Palepu's (1988) findings that extreme cases of dividend change, such as dividend initiation and omission, create market reaction in anticipation of earnings changes for the two years subsequent. Koch and Sun (2004) further define the market reaction by arguing that, when a dividend change is announced, investors revise their assessment of prior earnings. For example, if prior earnings were down, a decrease in dividend would cause investors to revise their estimate of the persistence of the decreased earnings. Likewise, if prior earnings had been increasing, an increase in dividends would cause investors to revise their estimate of the persistence of the increased earnings. Regression results link the abnormal return to the magnitude of the prior earnings, supporting their argument. A control variable was included to reflect the influence of expected future earnings as predicted by Healy and Palepu (1988). Koch and Sun (2004) conclude that dividend changes signal the persistence of past earnings changes.

Chen, Shevlin, and Tong (2007) look beyond the earnings proxy to determine the quality of reporting around dividend changes and the market reaction to it. They quantify the firm's accrual quality in the years surrounding dividend changes as a measure of information risk. The authors develop an information risk proxy based on the Dechow and Dichev (2002) accrual quality metric. The new variable is added to the Fama-French three-factor model to determine how accurately the market prices the information. Firms that initiate dividends experience a decrease in pricing of information risk. They also

affirm that dividend paying firms have higher earnings persistence than non-dividend paying firms.

While earlier studies supported the theory that dividends predict future earnings, more recent research involving larger samples does not confirm this. However, there is support that earnings increases are expected to persist when followed by a dividend increase. Applying the results of this prior research to dividend initiation, earnings around dividend initiation should be similar to that of dividend increases. Earnings should be increasing leading up to initiation, and the higher level of earnings should persist.

### **3. Accrual Earnings Management Model**

Earnings management usually refers to the management of discretionary accruals and various models are available to measure it. The first accrual model is found in Healy's (1985) study of bonus schemes by management. Healy considers that bonus plans may create an incentive to decrease earnings as well as increase them. To account for this, he divides the firm-years into three groups based on whether the manager's incentive is to increase or decrease earnings. Two groups are better off by managing earnings downward, and one by managing earnings upward. Managers whose earnings targets are "out of the money" with respect to marginal earnings are expected to shift some earnings to a future period where they will be compensated for the marginal dollars. To test his model, Healy collects a sample of 94 firms from the 1980 Fortune 250 and covers the years 1930-1980.

Healy's (1985) effective measure of nondiscretionary accruals is total accruals scaled by total assets, divided by the number of firm-years (estimation periods). His

results with this method supported the predicted management of earnings to achieve the maximum bonus over consecutive years. Discretionary accruals are calculated by Healy and tested for significance based on pairwise comparison to the other groups. Although simplistic, the method provided results consistent with expectations.

DeAngelo (1986) used a revised version of Healy's (1985) model in her study of management buyouts of publicly traded firms. Regulators and shareholders were suspicious that management was manipulating earnings to reduce the negotiated buyout price with shareholders. The hypothesis that managers of these firms were understating earnings was not supported.

DeAngelo's (1986) model was very similar to Healy's (1985) in that it used total accruals from one period to proxy for nondiscretionary accruals in the test period instead of a historical average. Recall that Healy used an average of total accruals divided by firm-years to estimate nondiscretionary accruals. In contrast, DeAngelo used the firm's prior period total accruals as an estimate. A limitation of these models is that they require nondiscretionary accruals of another period to be consistent with the test period. In other words, they both assume accruals should be constant over time. However, factors such as investment and revenue shifts are known to change the expected accruals.

McNichols and Wilson (1988) preferred an individual accrual to the aggregate method, or as they refer to it, the portfolio approach. The representative approach of McNichols and Wilson uses a single accrual, in this case the allowance for bad debts, to represent the aggregate discretionary accrual manipulation. McNichols and Wilson further distinguished their work by estimating the expected bad debt accrual based on

GAAP instead of a prior period's reported number. Studying a single accrual has the drawback of a limited view, but it removed the assumption that accruals must be stable over time for testing.

A well-known model was introduced by Jennifer Jones in a 1991 publication on import relief investigations. The objective of her research was to test whether firms managed earnings during evaluations for import relief. The International Trade Commission (ITC) evaluates possible financial injury to firms in an industry affected by foreign trade. Regulators, according to interviews, did not adjust for the firm's accounting procedures or accrual decisions in making their recommendations. Therefore, if firms managed earnings downward during this evaluation, they could increase the import relief granted to them as a result of the investigation. The accrual model used in this research is known as the Jones model.

The Jones model uses OLS regression over a historical estimation period to calculate the expected non-discretionary accruals. It is a time series model. Jones' model adjusts expected nondiscretionary accruals for changes in revenues and capital investment. Revenue affects working capital related accruals and depreciation is calculated based on the existing property, plant and equipment. This model, or variations of it, is widely used in current research.

A 1995 article by Dechow, Sloan and Sweeney tested the effectiveness of aggregate accrual models in detecting earnings management. In addition, they introduced a modification of the Jones model. The Jones model was based on the assumption that revenue is accurately reported. Dechow et al.'s (1995) modification (modified Jones

model) allowed for the possibility that management uses discretion over revenue recognition. Reasoning that it is easier to affect earnings by managing revenue on credit sales than revenue from cash sales, they included the assumption that all changes in credit sales in the event period result from earnings management. The modified Jones model was compared to other accrual models to evaluate its effectiveness.

Another aggregate accrual model tested by Dechow et al. (1995) is the Industry model, proposed by Dechow and Sloan (1991). By obtaining the estimates from other firms in the same industry, this methodology does not require nondiscretionary accruals to remain constant over time. The estimate of nondiscretionary accruals is the median value of total accruals, scaled by lagged total assets, for firms in the same 2-digit SIC code. This model is most similar to the Healy (1985) and DeAngelo (1986) model. Dechow et al. (1995) report that superior results were achieved with the modified Jones model; that it accurately rejected the null hypothesis of no discretionary accruals. Models ranking close behind were the Industry model and the Jones model. The sample included firms identified by the SEC for managing earnings.

DeFond and Jiambalvo (1994) presented a variation of the Jones model because of a limitation in their sample data. Although the sample consisted of 94 firms with debt covenant violations between 1985 and 1988, only 65 of the firms had historical financial data sufficient to apply the Jones model. To compensate for the deficient estimation period, DeFond and Jiambalvo substituted firms in the same year and 2-digit SIC code to estimate the nondiscretionary accruals. This is referred to as the Cross-sectional Jones model, as opposed to the original, time series dependent Jones model. Both models

produced similar results, but the Cross-sectional Jones model facilitated inclusion of the entire sample.

Kasznik (1999) also contributed to the aggregate accrual model literature. He investigated the relationship between voluntary disclosure of earnings forecasts and earnings management. Management was expected to manage earnings upward (downward) to meet overestimated (underestimated) forecasts. His hypothesis was supported for firms that overestimated forecasts, but results did not support earnings management downward for underestimated forecasts.

Kasznik (1999) applied cross-sectional methodology to the modified Jones model to include the effects of industry-wide economic conditions. Using the traditional time-series estimation would require verification, or assumption, that management forecasts were not issued in the estimation window. Thus, Kasznik followed DeFond and Jambalvo's (1994) industry estimation methodology, although he applied the estimates to the modified Jones model instead of the Jones model. For robustness, he also calculated the time series approach. Kasnik reports that the time series and cross sectional methods produce correlated results [Pearson (Spearman) correlation coefficient of 0.422].

Although a number of accrual models are documented in previous literature, the Jones model, the modified Jones model and variations of these are still the most prevalent. Estimates of nondiscretionary accruals are sometimes obtained with time-series data from the sample firms, and in other cases from cross-sectional industry data. Similar, but not identical results are achieved with these variations, leaving the choice dependent on topic-specific criterion and data availability.

#### **4. Real Earnings Management**

Real earnings management differs from accrual earnings management because it involves the manipulation of real cash flow. For example, accrual earnings management might involve allocating a portion of software revenue to future years as payment for software support, recognizing the revenue over time instead of in the year the purchase price is received. Cash does not need to be moved in order to transfer the revenue to a future period. In contrast, an example of Real earnings management would be delaying shipments of product orders at year end, delaying the market release of newer products or delaying the opening date of new facilities to increase revenues in the future period. This delays the exchange of cash, is more difficult to prove as earnings manipulation, and has a higher agency cost. Expenses can also be manipulated by either accruals or real earnings management. Failing to write down damaged or obsolete inventory is accrual management. Cutting back on R&D expense to meet earnings targets is real earnings management.

Real earnings management has been tested and discussed in literature for many years, but a comprehensive methodology to test it was not presented until 2006. The objective of Roychowdhury's (2006) paper was to explain why earnings are not evenly distributed near zero. Numerous authors have reported the discontinuity in the distribution of earnings around zero, which implies that firms are managing earnings to avoid reporting a loss. However, research on accrual earnings management has not produced evidence of manipulation. To that end, he develops an empirical method to

determine whether management manipulates real management activities to meet annual analyst forecasts, or to avoid reporting losses.

Roychowdhury (2006) begins with expectations of three operational areas wherein management can alter activities to affect earnings. His model targets sales, discretionary expenses, and production costs. Discretionary expenses include research and development (R&D), selling, general and administrative expenses (SG&A), and advertising expense. The model is based on Dechow et al.'s (1998) research, documenting that normal cash flow from operations is a linear function of sales and change in sales for the current period. Roychowdhury's (2006) model calculates the expected normal cash flows for each operating area, and compares the result to the actual cash flow to estimate abnormal cash flow.

The real earnings management methodology was tested again by Cohen and Zarowin in 2010. They suspected that seasoned equity offerings (SEOs) were preceded by upward earnings management to improve share price. In fact, previous literature already supported accrual earnings management. Cohen and Zarowin (2010) contributed by showing that real earnings management was also evident around SEOs.

Another contribution by Cohen and Zarowin (2010) is cross-sectional analysis of earnings management. Their first cross-sectional test determines what factors predict that a firm will use some type of earnings management around the issuance of a SEO. The second test identifies which firms choose real earnings management over accrual earnings management. Firms that are under more scrutiny are less likely to gain from managing earnings because the market notices the activity. Moreover, increased

transparency makes it risky to manipulate earnings through accruals because of potential litigation. Management may substitute real earnings management for accrual under certain circumstances because real earnings management is more difficult to detect and not as likely to result in legal action. In a survey of over 400 executives, 78% admitted to making decisions that sacrificed long term value to smooth earnings (Graham et al. 2005). Furthermore, the same study finds that managers prefer the reduced litigation risk of real earnings management to accrual. The analysis of real versus accrual earnings management could be applied to many earlier accrual earnings management studies to capture a more complete picture of the total effect of earnings management activities.

### **III. Hypotheses Development**

#### **1. Signaling Theory**

I consider two explanations for dividend initiation as the basis for predicting earnings management surrounding dividend initiation. The signaling theory states that management uses dividends to signal future positive earnings to investors. An alternate explanation is that the agency cost of free cash flow is mitigated by dividend payments, a disciplinary force on entrenched managers restricting cash misappropriation (Jensen 1986). Signaling is discussed in this section, and agency theory is discussed in section two.

Subramanyam (1996) reports support for signaling with the use of accrual earnings management around dividend changes. He argues that management uses accruals to signal future earnings to the market. His sample excludes financials, but

includes utility firms. The final sample is 21,135 firm years representing 2,808 firms from 1973-1993. He uses the cross-sectional Jones model, but provides a robustness test to show there is no difference between the Jones and modified Jones model. He finds that discretionary accruals predict, or signal, future profitability and dividend changes.

Subramanyam examines the change in current year and the change in next year's dividends using two logit models. In the first model, the dependent variable is equal to one if the firm increases dividends, 0 otherwise. In the second model, the dependent variable is equal to one if the firm increases dividends and equal to 0 if the firm decreases dividends. Firms with flat dividends are omitted from the second model. In both estimations, accruals are positively related to dividend change. In other words, when dividends increase, they are accompanied by upwardly managed earnings through positive accruals. The test is based on the accruals matched to the year of the dividend change, which is not necessarily the announcement of the dividend change.

Subramanyam concedes that Fama and Blacomin (1968) and Watts (1973) found evidence against signaling; that dividend changes represent earnings with a lag, as opposed to forecasting future earnings. Subramanyam argues that a partial explanation for this is that managers signal using accruals in conjunction with dividends.

Koerniadi and Tourani-Rad (2011) find support for the signaling theory. The authors use all non-financial firms on the New Zealand stock exchange from 1992-2003 and calculate discretionary accruals using the ROA-adjusted Jones model. According to their results, firms that increase dividends also use positive accruals to manage earnings upward. The authors' tests are based on the announcement date of the dividend increase

and the associated fiscal year-end financial statement accruals (in the year of announcement). The accruals are shown to be positively correlated with the future three quarters' profitability, supporting the signaling motive.

While there is literature on management using upward managed earnings as a signal, there is little research on earnings around dividend changes and none was found regarding dividend initiation. According to the signaling theory, earnings management models should produce positive accruals, managing earnings upward, in the year prior to and the year of initiation.

Some firms may be using real earnings management instead of accrual. Due to restrictions by SOX, more firms are using real earnings management (Cohen et al. 2008). Ewert and Wagenhofer (2005) report that real and accrual earnings management are substitutes. As reporting standards tighten, management shifts from accrual to real earnings management. According to Cohen and Zarowin (2010), one can identify firms using more real than accrual earnings management by examining the firm's net operating assets. Firms with higher net operating assets are more likely to be using real earnings management. Since some firms may be substituting real for accrual earnings management, I include real earnings management in the hypothesis.

*Earnings Management Signaling Hypothesis: Firms initiating dividends will have upwardly managed earnings, either through positive accruals or through real earnings management, in the year prior to and of dividend initiation.*

## **2. Agency Theory**

According to the free cash flow hypothesis, management continues to invest free cash flow for personal gain, whether or not projects are value-increasing. The agency cost is paid by shareholders. Without controlling mechanisms, there is never a point where management would prefer to release excess cash to shareholders instead of investing it. Under this premise, when faced with the proposition of initiating dividends, management has an incentive to reduce the appearance of higher earnings and identify all cash needs within the firm to postpone initiation. I refer to these managers as “reluctant initiators.”

Reluctant initiators are not using earnings management to signal future profitability to the market. Reducing earnings with discretionary accruals or real earnings management activities creates cookie jar reserves of earnings and (in the case of real earnings management) cash. These reserves allow management to meet future earnings targets, to meet future cash obligations, and to build job security against the short term market expectations. In fact, management is personally rewarded more for stable earnings than for firm value. The ability of management to meet earnings forecasts and produce stable, increasing earnings is critical for the longevity and performance record of the CEO (Hermalin and Weisbach 1998).

At initiation, management is aware of the future earnings requirements to meet the continuing dividend obligation. Stable earnings are even more important after initiation for firms with debt covenants restricting payout to a percentage of earnings. Daniel et al. (2008) found that firms manage earnings upward in the years where they would have missed the debt covenant restriction. Firms that did not meet the earnings

requirement and were forced to cut or omit dividends had large, negative abnormal returns. Further, when firms were forced to cut dividends due to missing the earnings requirement, there was evidence that the firm used a “big bath” so they were better able to meet earnings targets in the future<sup>9</sup>. Management has an incentive to ensure the outcome of future earnings prior to initiation.

Preserving access to cash is equally, if not more, important to CEOs than locking in future earnings. The firms considering dividend initiation have sufficient cash flow to manage earnings with real transactions as opposed to just accruals. In doing so, they have an opportunity to create reserves of cash as well as earnings for future periods. The benefit from real earnings management downward potentially creates reserves of cash for stable payment of cash dividends as well as preserving the ability to acquire or invest later on. Under the agency free cash flow argument, earnings management for initiating firms could be in the form of accrual or real earnings management.

Dyl and Weigand (1998) compiled earnings per share data for dividend initiators. They found a sharp increase in earnings leading up to the quarter of initiation, and significant earnings stability post-initiation. Their study extends twelve quarters, or three years on either side of dividend initiation and the sample includes 240 firms initiating dividends between 1972 and 1993.

The prospect of downward earnings management at time zero in Dyl and Weigand’s study is plausible. The expectation is that firms create reserves in the year

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<sup>9</sup> Elliott and Shaw (1988) describe a “Big Bath” as write-offs of large magnitude with opportune timing; a “purported cleansing” of the financial statements. A bath need not be created strictly with write-off, as Healy (1985) includes the deferment of reserves in this strategy. Healy reports that managers will take a bath in earnings reductions once their bonus potential is maximized in a given period.

they initiate dividends and use the reserves to smooth earnings over subsequent periods. Dyl and Weigand report a period of sharply increasing earnings which drops sharply in the period of initiation, then stabilizes at a moderate level in the following periods.

*Earnings Management Agency Hypothesis: Firms initiating dividends will have downward managed earnings either through negative accruals or real earnings management in the year prior to and of dividend initiation.*

**Figure 1 Summary of Expectations**

	<b>Signaling</b>	<b>Agency</b>
Accrual Earnings Management	Positive	Negative
Real Earnings Management	Positive	Negative

#### **IV. Data and Methodology**

##### **1. Data**

All firms identified in Essay I as dividend initiators are initially included in the sample. Firms must have seven years of financial data in Compustat, three years on either side of the year the initiation is announced, reducing the sample to 643 firms. The initiating firm years range from 1989 to 2007. Financial and utility firms are excluded as designated by CRSP SIC codes. Financial data pertains to the fiscal year prior to the year tested.

## 2. Accrual Based Earnings Management

I follow the methodology used by Cohen and Zarowin (2010) to test the use of accrual based and real earnings management. The methodology is applied to the years surrounding dividend initiation; from three years prior to three years after the year of initiation announcement. Accrual based earnings management used by Cohen and Zarowin controls for the industry and economic effects on accruals over time. For each 2 digit SIC group, the following model is estimated:

$$\text{Equation 1: } \frac{TA_{i,t}}{Assets_{i,t-1}} = k_1 \frac{1}{Assets_{i,t-1}} + k_2 \frac{\Delta Sales_{i,t}}{Assets_{i,t-1}} + k_3 \frac{PPE_{i,t}}{Assets_{i,t-1}} + \varepsilon_{i,t}$$

Using the coefficients for industry effects from equation 1, the model is used to calculate firm-specific normal accruals ( $NA_{it}$ ) for all firms in the sample.

$$\text{Equation 2: } NA_{i,t} = \hat{k}_1 \frac{1}{Assets_{i,t-1}} + \hat{k}_2 \frac{\Delta Sales_{i,t}}{Assets_{i,t-1}} + \hat{k}_3 \frac{PPE_{i,t}}{Assets_{i,t-1}}$$

Discretionary accruals are the difference between the industry level discretionary accruals from Equation 1 ( $\frac{TA_{i,t}}{Assets_{i,t-1}}$ ) and the firm-specific normal accruals from Equation 2 ( $NA_{i,t}$ ).

## 3. Real Earnings Management

The real asset management model used by Cohen and Zarowin (2010) was developed by Dechow et al. (1998) and implemented by Roychowdhury (2006). Each respective category (cash flow from operations, cost of goods sold, change in inventory, and discretionary expense) of potential real earnings management is estimated as a linear

function of sales and change in sales. Estimates are calculated for each industry and year using the equations below. The coefficients from these regressions are applied at the firm level to determine an expected value for cash flow from operations, cost of goods sold, change in inventory, and discretionary expense. The difference between the actual value for the firm and the expected value for the firm is the abnormal cash flow. Discretionary expense (DISX) is the combination of advertising, R&D, and SG&A expense.

**a. Estimated Cash Flow from Operations**

$$\text{Equation 3: } \frac{CFO_{i,t}}{Assets_{i,t-1}} = k_1 \frac{1}{Assets_{i,t-1}} + k_2 \frac{Sales_{i,t}}{Assets_{i,t-1}} + k_3 \frac{\Delta Sales_{i,t}}{Assets_{i,t-1}} + \varepsilon_{i,t}$$

Abnormal cash flow is the difference between actual cash flow and estimated cash flow.

**b. Estimated Production Costs:**

$$\frac{COGS_{i,t}}{Assets_{i,t-1}} = k_1 \frac{1}{Assets_{i,t-1}} + k_2 \frac{Sales_{i,t}}{Assets_{i,t-1}} + \varepsilon_{i,t}$$

$$\frac{\Delta INV_{i,t}}{Assets_{i,t-1}} = k_1 \frac{1}{Assets_{i,t-1}} + k_2 \frac{\Delta Sales_{i,t}}{Assets_{i,t-1}} + k_3 \frac{\Delta Sales_{i,t-1}}{Assets_{i,t-1}} + \varepsilon_{i,t}$$

$$PROD_t = COGS_t + \Delta INV_t$$

$$\text{Equation 4: } \frac{PROD_{i,t}}{Assets_{i,t-1}} = k_1 \frac{1}{Assets_{i,t-1}} + k_2 \frac{Sales_{i,t}}{Assets_{i,t-1}} + k_3 \frac{\Delta Sales_{i,t}}{Assets_{i,t-1}} + k_4 \frac{\Delta Sales_{i,t-1}}{Assets_{i,t-1}} + \varepsilon_{i,t}$$

Abnormal production cost is the difference between actual production cost and estimated.

**c. Estimated Discretionary Expenses:**

$$\text{Equation 5: } \frac{DISX_{i,t}}{Assets_{i,t-1}} = k_1 \frac{1}{Assets_{i,t-1}} + k_2 \frac{Sales_{i,t-1}}{Assets_{i,t-1}} + \varepsilon_{i,t}$$

Abnormal discretionary expenses are the difference between actual discretionary expenses.

The results of these three real earnings management measures are combined to create two additional proxies. **RM\_1** is calculated as the combination of abnormal discretionary expenses and abnormal production costs. **RM\_2** is calculated as the combination of abnormal cash flows from operations and abnormal discretionary expenses.

#### **4. Cross-sectional Test**

The cross-sectional test is a two-stage model using the Heckman (1979) method.

##### **a. First stage model**

This first stage includes accrual earnings management and real earnings management. The model is designed to explain why firms do or do not manage earnings. All initiating firms are included in this test whether they were determined to manage earnings or not. Firms that had either an accrual earnings management score or a real earnings management score above the industry median are considered to be managing earnings. The following equation is estimated by running annual cross-sectional maximum likelihood models each year (probit model).

$$\text{Total EM} = \beta_1 \text{DIVYLD} + \beta_2 \text{ANALYST} + \beta_3 \text{MktCap} + \beta_4 \text{TGTBIDS} + \beta_5 \text{MB} + \beta_6 \text{ROA} + \beta_7 \text{LEV} + \varepsilon$$

Independent variables included in the First Stage cross-sectional model represent factors that influence whether a firm would manage earnings or not. They are summarized in Table 22. Most of the selected variables follow the work of Cohen and

Zarowin (2010). Other variables from Essay I are also included since their effect on the firm's decision to initiate dividends may have a similar effect on the firm's likelihood of managing earnings around dividend initiation. Each variable and expected effect is described below. Note that all the firms included in this first stage model initiated dividends.

DIVYLD is the dividend yield based on the annualized dividend initiated. This variable measures whether the economic significance of the dividend affects the firm's tendency to manage earnings. I expect that higher dividend yield implies better governance; therefore I expect more earnings management in firms that initiate with a lower dividend yield.

TGTBIDS is the number of target bids issued in the two years prior to and the year of initiation. Firms undergoing negotiation over being acquired have different managerial objectives for the next three years than other initiating firms. I expect this to have an effect on a firm's decision to manage earnings, however I leave the sign to empirical determination.

ANALYST is the natural log of the number of analysts covering the firm. Cohen and Zarowin (2010) found that firms with more analyst following were less likely to manage earnings. This is explained by the increased transparency of the firm's reporting. When more analysts are following the firm's operations and reporting on the firm's expected performance, there is reduced opportunity to disguise earnings from the market. As Cohen and Zorowin (2010) found, I expect that more analyst coverage for a firm will indicate a lower likelihood of earnings management.

Control variables are selected to account for the way accruals are affected by the firm's leverage, size, profitability and expected growth (Cohen and Zorowin 2010). Skinner (1993) writes that the investment opportunity set, leverage, and firm size affect the accounting choices made by the firm. The empirical measures of earnings management might have errors correlated with these factors.

#### **b. Second stage model**

The second stage, probit model is used to determine what characteristics of firms are associated with real management of earnings versus accrual management. Only firms that are determined to be using one or the other method of earnings management are included.

$$\text{Real Earnings Management} = \beta_1 \text{Big8} + \beta_2 \text{LITIGATION} + \beta_3 \text{SOX} + \beta_4 \text{SPFIRM} + \beta_5 \text{NOA} + \beta_6 \text{ACQBIDS} + \beta_7 \text{S\&P RET} + \varepsilon$$

Independent variables predicting whether a firm will choose real earnings management over accrual reflect the level of scrutiny faced by the firm. They are summarized in Table 23. The research put forth by Ewert and Wagenhofer (2005), Gunny (2005), Zang (2007), and Cohen and Zorowin (2010) suggests that firms rely more heavily on real earnings management when their reporting is subject to more frequent or qualified examination. Zang (2007) reports that real earnings management is substituted for accrual earnings management following litigation. The preference for real earnings management after litigation is explained by the increased scrutiny on the firm. Gunny

(2005) argues that firms choose real earnings management because of the risk of litigation. She also explains that accrual management takes place at the end of the period, making it subject to auditor scrutiny whereas real earnings management takes place throughout the period. With accrual management, the firm is restrained by what their auditors will permit. Ewert and Wagenhofer (2005) use a theoretical model to study the effects of tightening accounting standards earnings management. They conclude that more stringent standards increase the marginal benefit of real earnings management, thus increasing management's use of it. Cohen and Zorowin (2010) report that having a big 8 auditor, operating in the post-SOX period, and being in a high litigation industry has a highly significant (1% level), positive impact on the probability that a firm uses real earnings management. Using a highly qualified, big 8 auditor (BIG8), being in a high litigation industry (LITIGATION), being a member of the S&P 1500 firms (SPFIRM), and operating in the more stringently regulated, post-SOX period (SOX) are all indications of increased scrutiny of the firm's reporting. I expect that these variables will increase the likelihood of the firm using real earnings management.

Barton and Simko (2002) argue that the net operating assets (NOA) on the balance sheet become overstated over time due to earnings management. They show that earnings management declines when NOA is overstated. Cohen and Zarowin (2010) support this result, finding that firms with higher NOA use more real earnings management as opposed to accrual. I expect that dividend initiating firms with higher NOA will use more real earnings management.

The agency cost of free cash flow is supposed to be mitigated by the quasi-contract of dividend payments. Therefore, acquisition bids should decrease after dividend initiation. Firms that make acquisition bids in the year of or the year after dividend initiation (ACQBIDS) are expected to need more cash to finance growth. I expect that initiating firms with immediate growth plans (ACQBIDS) will use real earnings management to conserve cash flow for the future.

## **V. Empirical Results**

Two competing hypotheses were developed to explain earnings management surrounding dividend initiation. The signaling hypothesis is supported when firms use earnings management to increase earnings near the announcement of dividend initiation. Conversely, the free cash flow hypothesis is supported when firms use earnings management to decrease earnings leading up to dividend initiation.

Descriptive statistics for the sample are shown in Table 24 for the final sample of 643 initiating firms. Asset size ranges from \$2.6 million to \$115 billion with a median value of \$230 million. The significance of target and acquisition bids in regression may be low because few firms are identified with these activities. The median target bids and acquisition bids are zero.

Results of the earnings management tests are shown in Table 25. Abnormal accruals are identified in year plus one and plus three. Firms are identified as using upward accrual earnings management in these years. The result in year plus one is somewhat consistent with Subramanyam's (1996) findings. The abnormal return is

significant at the 10% level. Accrual earnings management is not evident in the year of initiation announcement, whereas Subramanyam found upward earnings management in the year of dividend increase.

Abnormal cash flows are significant in years minus three through the year of initiation announcement. The mean abnormal operating cash flow of 0.0568 is strongest in the year prior to initiation, although the highest significance (1% level) is found in the two years prior to that. Statistical significance increases again in the year of initiation announcement, but is still at the 5% level. The positive sign indicates that firms are managing earnings downward, i.e. operating cash flow is higher than expected given the level of sales and assets of the firm. This is consistent with the free cash flow hypothesis; that management is managing earnings downward leading up to dividend initiation.

Abnormal production levels indicate downward earnings management in year minus one. The result is significant at the 1% level and is inconsistent with signaling theory. No real earnings management through production levels is indicated in the year of initiation announcement. The downward earnings management through production in years minus three and minus one supports the free cash flow hypothesis.

The result of abnormal discretionary expense is mixed. Discretionary expenses are abnormally low for the year just prior to and the year of announcement, which conserves cash but manages earnings upward. The result supports the signaling theory, but the magnitude of the abnormal expense is only 10% of the abnormal operating cash flow in the opposite direction. It is possible that initiating firms have such high growth that the necessary increase in administrative costs lags behind, meaning they are less

comparable to median industry firms. Nonetheless, the result of abnormal discretionary expenses does not support the free cash flow hypothesis.

The strong earnings management downward identified by abnormal cash flow and production indicate support for the free cash flow hypothesis. There is little support for the signaling theory. Notwithstanding, the fact that firms are not managing accrual earnings downward, and discretionary expenses are actually abnormally low, implies that the objective of management is not for the purpose of reducing earnings, but that earnings are managed to reserve cash.

To examine the effect of earnings management on return on assets and profit margin, I report the median adjusted values of these in Table 26. Initiating firms are high performers in general, thereby providing the additional earnings to pay out as dividends. The results reflect high performance, although in year minus one, the median of the industry adjusted return on assets and profit margin is not statistically different from zero. Even after managing earnings downward, initiating firms have performance significantly above industry in years minus three through plus two. The loss of significant performance above the median in year minus one supports the free cash flow hypothesis as it implies that earnings are managed further down just prior to initiation.

Following Cohen and Zarowin (2010), I pool the three real earnings management proxies into two comprehensive variables to capture the total effects of real earnings management. RM\_1 combines abnormal discretionary expense with abnormal production level. RM\_2 combines abnormal discretionary expense and abnormal cash flow. I use these to determine the quartile of firms with the highest value of downward earnings

management and I report the return on assets for this segment of firms. The results are shown in panel C and D of Table 26. In all years, these most aggressive earnings management firms have return on assets significantly above the industry median.

Table 27 shows the results of the two stage regression to explain which firms use earnings management and which firms choose real over accrual earnings management. The first stage, probit regression, has a dichotomous, dependent variable equal to one if the firm had downward earnings management either through accruals (abnormal total accruals less than zero) or cash (abnormal operating cash flow greater than zero) in the year prior to initiation announcement. Analyst following is inconsistent with the coefficient sign I expected. The results mean that when more analysts are following the firm there is increased likelihood of the firm using some form of earnings management. This reflects the increased pressure on firms with analyst coverage to continually meet earnings expectations. Creating reserves of earnings and cash for the future are more important for these highly scrutinized firms. Since the analyst following creates dual pressures on the firm, increased monitoring and increased pressure to perform, Cohen and Zarowin (2010) withheld a prediction on the expected sign for this proxy. Their resulting sign was negative for SEO's, yet I find a positive coefficient with dividend initiators. Firms with higher market value and firms with higher market to book ratio also manage earnings. Firms receiving target bids are not likely to use downward earnings management, a result significant at the 10% level. The second stage probit model has a dependent variable equal to one if the firm used real earnings management. Firms with

big eight auditors, with higher net operating assets, and in litigious industries use more real earnings management.

## **VI. Conclusion**

If earnings are managed near dividend initiation according to the signaling theory, then earnings will be managed up. According to the free cash flow hypothesis, earnings will be managed down. The results of earnings management analysis on 643 initiating firms show that there is significant downward earnings management leading up to and including the year of initiation, supporting the free cash flow hypothesis. The strongest results were identified with abnormally high cash flow. Abnormally low production levels in the year prior to initiation were also significant at the 1% level. The economic significance is quite large, over 5% of assets for cash flow and 4% of assets for production levels. Initiating firms are performing so well that, except for the year of initiation announcement, even after managing earnings downward, their median return on assets is still significantly above the industry median. These results provide strong evidence consistent with the idea that management creates cookie jar reserves of cash in the years leading into dividend initiation. Furthermore, the creation of earnings reserves leading up to the year of dividend initiation explains the remarkably smooth earnings following the event.

This research is, to the best of my knowledge, the first evidence of earnings management surrounding dividend initiation. Subramanyam's (1996) research used changes to recurring dividends which has different governance characteristics than

dividend initiation (see Essay I). This is also the first evidence of real earnings management surrounding dividends, since prior research tested for accrual earnings management. Based on my findings, accrual earnings management surrounding dividend initiation is not particularly strong. The most persuasive results stem from the situational resources of initiating firms, available cash and high performance, and the possible opportunity to reserve some of both for future periods.

## Appendix A: Tables

### Essay I Tables

**Table 2 Distribution of SIC Codes among Control Firms and Initiators**

This table shows the distribution of the sample of initiators with respect to their SIC codes, compared to the control sample. The frequency of initiation occurrence for each category of SIC codes is followed by the cumulative percent and the cumulative numeric occurrence.

SIC	Initiators			Control Firms		
	Frequency	Percent	Cumulative	Frequency	Percent	Cumulative
0	0	0	0	2	0.06	2
1000	13	7.65	13	163	4.92	165
2000	24	21.76	37	394	16.66	559
3000	41	45.88	78	1392	58.15	1951
4000	20	57.65	98	120	61.73	2071
5000	35	78.24	133	380	73.06	2451
7000	24	92.35	157	650	92.43	3101
8000	10	98.24	167	252	99.94	3353
9000	3	100	170	2	100	3355

**Table 3 Distribution of Years among Control Firms and Initiators**

This table shows the distribution of the sample of initiators with respect to the years in which they announced initiation, compared to the control sample. The frequency of initiation occurrence for each year is followed by the cumulative percent and the cumulative numeric occurrence.

Year	Initiators			Control Firms		
	Frequency	Percent	Cumulative	Frequency	Percent	Cumulative
1996	3	1.76	3	121	3.61	121
1997	10	7.65	13	100	6.59	221
1998	5	10.59	18	260	14.34	481
1999	5	13.53	23	237	21.4	718
2000	6	17.06	29	235	28.41	953
2001	12	24.12	41	214	34.78	1167
2002	8	28.82	49	275	42.98	1442
2003	37	50.59	86	237	50.04	1679
2004	27	66.47	113	261	57.82	1940
2005	22	79.41	135	238	64.92	2178
2006	15	88.24	150	244	72.19	2422
2007	10	94.12	160	282	80.6	2704
2008	5	97.06	165	316	90.01	3020
2009	5	100	170	335	100	3355

**Table 4 Distribution of Asset Size among Control Firms and Initiators**

This table shows the distribution of the sample of initiators with respect to their asset size compared to the control sample. The frequency of initiation occurrence for each quintile of assets is followed by the cumulative percent and the cumulative numeric occurrence.

Asset Size	Initiators			Control Firms		
	Frequency	Percent	Cumulative	Frequency	Percent	Cumulative
1 <sup>st</sup> Quintile	13	7.65	13	710	21	710
2 <sup>nd</sup> Quintile	22	20.59	35	699	42	1409
3 <sup>rd</sup> Quintile	17	30.59	52	705	63	2114
4 <sup>th</sup> Quintile	50	60	102	657	82	2771
5 <sup>th</sup> Quintile	68	100	170	584	100	3355

**Table 5 Distribution of Firm Age at Announcement of Initiation**

This table displays the distribution of the sample of initiators with respect to the firm's age in years at the point of initiation announcement.

<b>Initiators</b>			
<b>Year</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative</b>
<b>0</b>	11	6.47	11
<b>1</b>	6	10	17
<b>2</b>	5	12.94	22
<b>3</b>	1	13.53	23
<b>4</b>	5	16.47	28
<b>5</b>	5	19.41	33
<b>6</b>	5	22.35	38
<b>7</b>	8	27.06	46
<b>8</b>	10	32.94	56
<b>9</b>	10	38.82	66
<b>10</b>	8	43.53	74
<b>11</b>	12	50.59	86
<b>12</b>	9	55.88	95
<b>13</b>	10	61.76	105
<b>14</b>	7	65.88	112
<b>15</b>	6	69.41	118
<b>16</b>	4	71.76	122
<b>17</b>	9	77.06	131
<b>18</b>	2	78.24	133
<b>19</b>	5	81.18	138
<b>20</b>	3	82.94	141
<b>20 +</b>	29	100	170

**Table 6 Mean, Median and F test for Control Firms versus Initiators - Complete Data Initiators**

	Control Firms				Initiators							
	N	Mean	Median	Min	Max	N	Mean	Median	Min	Max	Z	P> Z
Size (Assets)	170	6,933	1,934	82	123,339	3,355	1,859	704	20	58,734	8.7549 ***	<.0001
Market Value	170	8,396	2,318	108	293,137	3,355	3,916	1,029	11	467,093	7.8719 ***	<.0001
Market to Book	170	1.70	1.37	0.19	7.20	3,355	2.20	1.51	0.02	78.42	-2.3612 **	0.0182
ROA	168	0.09	0.08	-0.24	0.53	3,351	0.04	0.06	-3.34	0.95	3.3904 ***	0.0007
DebtRatio	170	0.17	0.16	0.00	0.89	3,355	0.14	0.06	0.00	1.52	2.9985 ***	0.0027
Tenure5yr	170	0.55	1.00	0.00	1.00	3,355	0.43	0.00	0.00	1.00	3.0155 ***	0.0026
Duality	160	0.78	1.00	0.00	1.00	3,215	0.66	1.00	0.00	1.00	3.1048 ***	0.0019
Over60	164	0.36	0.00	0.00	1.00	3,201	0.22	0.00	0.00	1.00	4.2606 ***	<.0001
SALARY	170	781	730	-	3,993	3,355	572	515	-	5,500	8.4627 ***	<.0001
BONUS	170	941	535	-	15,000	3,355	417	116	-	70,809	7.5356 ***	<.0001
Total Comp	169	6,244	3,503	217	74,115	3,337	4,781	2,524	-	155,854	4.5425 ***	<.0001
Total Comp Pet	165	205	7	-91	24,094	3,179	71	2	-100	34,267	1.4334	0.1518
RankOne	150	1	1	0	1	2,423	1	1	0	1	1.8969 *	0.0578
Options	136	3,241	1,321	-	46,716	2,221	3,530	1,108	-	152,308	0.4613	0.6446
Grants	137	684	-	-	8,781	2,237	268	-	-	23,535	5.4037 ***	<.0001
PctOwner	169	0.00	0.00	0.00	0.00	3,355	0.00	0.00	0.00	0.10	6.2004 ***	<.0001
LgBoard	170	0.87	1.00	-	1.00	3,355	0.76	1.00	-	1.00	3.4151 ***	0.0006
IND	170	0.78	1.00	-	1.00	3,355	0.81	1.00	-	1.00	-1.0472	0.295
CBOARD	170	0.57	1.00	-	1.00	3,355	0.53	1.00	-	1.00	1.1112	0.2665
EINDEX	170	2.10	2.00	-	6.00	3,355	2.39	2.00	-	6.00	-2.8407 ***	0.0045
GINDEX	157	8.52	9.00	1.00	14.00	2,649	8.26	8.00	2.00	17.00	1.6157	0.1062
AQCBIDS	170	0.25	-	-	4.00	3,355	0.39	-	-	36.00	-1.2852	0.1987
TARGETBIDS	170	0.02	-	-	1.00	3,355	0.03	-	-	4.00	-0.2887	0.7728

**Table 7 Correlation of CEO Compensation**

This table displays the correlation of CEO compensation proxies. Initiator is a dummy variable equal to one if the firm announces a dividend initiation in the test year. DivYield is the annualized dividend announced divided by the closing price at the beginning of the fiscal year. LnCash is the natural log of the CEO’s cash compensation, salary plus bonus, for the prior fiscal year. LnTComp is the natural log of the CEO’s total compensation for the prior fiscal year. TCompPct is the percentage change in the CEO’s total compensation in the prior fiscal year. RankOne is a dummy variable equal to one if the CEO is the highest paid executive in the firm in the prior fiscal year. LnOptions is the natural log of the CEO’s option holdings at the beginning of the fiscal year. LnGrant is the natural log of the CEO’s stock grants for the prior year. PctOwner is the percentage of the firm owned by the CEO as reported by Compustat at the beginning of the fiscal year.

	Initiator	DivYield	LnCash	LnTComp	TCompPct	RankOne	LnOptions	LnGrant	PctOwner
Initiator	1 3525								
Div Yield	0.737 <.0001 3524	1 3524							
LnCash	0.103 <.0001 3525	0.070 <.0001 3524	1 3525						
LnTComp	0.066 <.0001 3498	0.035 0.0381 3497	0.547 <.0001 3498	1 3498					
TCompPct	0.034 0.0461 3344	0.063 0.0003 3344	0.011 0.5224 3344	0.100 <.0001 3336	1 3344				
RankOne	0.037 0.0578 2573	0.015 0.4352 2573	0.389 <.0001 2573	0.172 <.0001 2548	-0.018 0.3815 2439	1 2573			
LnOptions	-0.005 0.7924 2357	-0.022 0.2758 2357	0.170 <.0001 2357	0.682 <.0001 2351	0.089 <.0001 2248	0.113 <.0001 2353	1 2357		
LnGrant	0.119 <.0001 2374	0.089 <.0001 2374	0.151 <.0001 2374	0.198 <.0001 2351	-0.008 0.6882 2248	0.079 0.0001 2370	0.029 0.1638 2357	1 2374	
PctOwner	-0.002 0.9069 3524	0.004 0.8151 3524	0.015 0.384 3524	-0.027 0.1151 3497	-0.006 0.7475 3344	0.010 0.6033 2573	-0.019 0.3692 2357	-0.005 0.7917 2374	1 3524

**Table 8 Correlation of CEO Characteristics and Board Strength**

This table displays the correlation of CEO characteristics and board strength proxies. Initiator is a dummy variable equal to one if the firm announces a dividend initiation in the test year. DivYield is the annualized dividend announced divided by the closing price at the beginning of the fiscal year. Tenure5yr is a dummy variable equal to one if the CEO has tenure of at least five years. Duality is a dummy variable equal to one if the CEO is also chairperson of the board of directors. Over60 is a dummy variable equal to one if the CEO is over 60 years old. IND is a dummy variable equal to one if over 50% of board members are independent. LgBoard is a dummy variable equal to one if there are seven or more members on the board of directors. CBoard is a dummy variable equal to one if the board is classified. EIndex is the index of six measures of antitakeover protection. GIndex is the sum of twenty-four measures of antitakeover provisions, which include the EIndex.

	Initiator	Div Yield	Tenure5yr	Duality	Over60	LgBoard	IND	CBoard	EIndex	GIndex
Initiator	1 3525									
Div Yield	0.737 <.0001 3524	1 3524								
Tenure5yr	0.051 0.0026 3525	0.024 0.1517 3524	1 3525							
Duality	0.053 0.0019 3375	0.034 0.051 3374	0.204 <.0001 3375	1 3375						
Over60	0.073 <.0001 3365	0.061 0.0004 3364	0.200 <.0001 3365	0.160 <.0001 3228	1 3365					
LgBoard	0.058 0.0006 3525	0.039 0.0221 3524	0.036 0.0343 3525	0.006 0.7062 3375	-0.010 0.5631 3365	1 3525				
IND	-0.018 0.2951 3525	-0.022 0.2006 3524	0.034 0.0431 3525	-0.037 0.0331 3375	0.010 0.5798 3365	0.112 <.0001 3525	1 3525			
CBoard	0.019 0.2665 3525	0.025 0.1455 3524	-0.050 0.003 3525	0.000 0.9789 3375	-0.011 0.5227 3365	0.049 0.0039 3525	-0.021 0.2068 3525	1 3525		
EIndex	-0.048 0.0048 3525	-0.025 0.1444 3524	-0.008 0.6319 3525	-0.095 <.0001 3375	0.011 0.5399 3365	0.129 <.0001 3525	0.207 <.0001 3525	0.521 <.0001 3525	1 3525	
GIndex	0.025 0.1771 2806	0.028 0.1339 2805	0.000 0.9911 2806	0.045 0.0193 2670	0.028 0.1481 2653	0.155 <.0001 2806	0.074 <.0001 2806	0.487 <.0001 2806	0.661 <.0001 2806	1 2806

**Table 9 Correlation of Merger, Acquisition and Antitakeover Provisions**

This table displays the correlation of merger, acquisition, and antitakeover provision proxies. Initiator is a dummy variable equal to one if the firm announces a dividend initiation in the test year. DivYield is the annualized dividend announced divided by the closing price at the beginning of the fiscal year. EIndex is the index of six measures of antitakeover protection. GIndex is the sum of twenty-four measures of antitakeover provisions, which include the EIndex. ACQBIDS is the sum of the acquisition bids over \$1 million in value the firm made in the previous two years, the current year, and the two years after the current year (5 years). TARGETBIDS is the sum of the bids the firm received in the two years prior and the current year (3 years).

	Initiator	Div Yield	EIndex	GIndex	AcqBids	TargetBids
Initiator	1 3525					
Div Yield	0.73651 <.0001 3524	1 3524				
EIndex	- 0.04751 0.0048 3525	- 0.02459 0.1444 3524	1 3525			
GIndex	0.02549 0.1771 2806	0.02831 0.1339 2805	0.66123 <.0001 2806	1 2806		
AcqBids	- 0.02105 0.2115 3525	- 0.02354 0.1624 3524	- 0.08003 <.0001 3525	- 0.06284 0.0009 2806	1 3525	
TargetBids	- 0.00836 0.6197 3525	- 0.00048 0.9772 3524	0.01032 0.5404 3525	0.01546 0.4129 2806	0.01136 0.5002 3525	1 3525

**Table 10 Logistic Regression: CEO Characteristics and Dividend Initiation**

This table displays logistic regression with dependent variable Initiator equal to one if the firm initiates dividends in the firm year tested. The explanatory variable, Tenure5yr, is a dummy variable equal to one if the CEO has tenure of at least five years. Duality is a dummy variable equal to one if the CEO is also chairperson of the board of directors. Over60 is a dummy variable equal to one if the CEO is over 60 years old. Debt Ratio is the total debt total assets of the firm at the beginning of the fiscal year. Over60xDuality is the cross variable of Over60 and Duality. LnSize is the natural log of the firm's total assets at the beginning of the fiscal year. ROA is the firm's operating income before extraordinary items divided by total assets for the prior fiscal year. MedAdjCash is the cash to sales ratio for the firm less the median cash to sales ratio for the industry and year. MB is the market value of the firm divided by the book value of the firm at the beginning of the fiscal year. POSTSOX is a dummy variable equal to one if the firm year tested is in 2003 or later.

	Model 1	Model 2	Model 3	Model 4
Intercept	-6.4588*** 0.0000	-6.6974*** 0.0000	-6.5373*** 0.0000	-6.4890*** 0.0000
5YrTenure	0.2925* 0.0784			
Duality		0.5803*** 0.0049		
Over 60			0.6258*** 0.0004	
Over60xDuality				0.4682** 0.0153
Debt Ratio	0.0889 0.8735	0.2063 0.7162	-0.2082 0.7233	0.2429 0.6700
Ln(Size)	0.4874*** 0.0000	0.4623*** 0.0000	0.5050*** 0.0000	0.4836*** 0.0000
ROA	3.8679*** 0.0000	3.7829*** 0.0001	3.7095*** 0.0002	3.6994*** 0.0001
MedAdjCash	-3.1662*** 0.0000	-3.0951*** 0.0000	-3.5101*** 0.0000	-3.0993*** 0.0000
MB	-0.0988 0.1245	-0.0905 0.1621	-0.0783 0.2244	-0.0814 0.2092
POSTSOX	0.5122*** 0.0049	0.6591*** 0.0006	0.4899*** 0.0083	0.5713*** 0.0026
N	3519	3370	3359	3370
Pseudo R <sup>2</sup>	0.0526	0.0517	0.0565	0.0508
Max Rescaled R <sup>2</sup>	0.1651	0.1639	0.1763	0.1612
Likelihood Ratio	190.1288***	178.7238***	195.4646***	175.7166***
Pr > ChiSq	<.0001	<.0001	<.0001	<.0001
Percent Concordant	78.8	79.0	79.5	79.0
Percent Discordant	20.2	20.0	19.6	20.0
Percent Tied	0.9	1.0	0.9	0.1

**Table 11 Logistic Regression: CEO Compensation and Dividend Initiation**

This table displays logistic regression with dependent variable Initiator equal to one if the firm initiates dividends in the firm year tested. The explanatory variable, Over60, is a dummy variable equal to one if the CEO is over 60 years old. LnCash is the natural log of the CEO's cash compensation, salary plus bonus, for the prior fiscal year. LnTComp is the natural log of the CEO's total compensation for the prior fiscal year. TCompPct is the percentage change in the CEO's total compensation in the prior fiscal year. RankOne is a dummy variable equal to one if the CEO is the highest paid executive in the firm in the prior fiscal year. LnOptions is the natural log of the CEO's option holdings at the beginning of the fiscal year. PctOwner is the percentage of the firm owned by the CEO as reported by Compustat at the beginning of the fiscal year. Debt Ratio is the total debt total assets of the firm at the beginning of the fiscal year. LnSize is the natural log of the firm's total assets at the beginning of the fiscal year. ROA is the firm's operating income before extraordinary items divided by total assets for the prior fiscal year. MedAdjCash is the cash to sales ratio for the firm less the median cash to sales ratio for the industry and year. MB is the market value of the firm divided by the book value of the firm at the beginning of the fiscal year. POSTSOX is a dummy variable equal to one if the firm year tested is in 2003 or later.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Intercept	-8.5907*** 0.0000	-6.4698*** 0.0000	-6.4530*** 0.0000	-7.5265*** 0.0000	-7.2203*** 0.0000	-6.5366*** 0.0000
Over60	0.5097*** 0.0051	0.6380*** 0.0003	0.6258*** 0.0005	0.6381*** 0.0011	0.6778*** 0.0011	0.6258*** 0.0004
LnCash	0.4016*** 0.0010					
LnTComp		-0.0112 0.8873				
TCompPct			0.0001** 0.0103			
RankOne				0.3522 0.2502		
LnOptions					-0.0183 0.5405	
PctOwner						-0.6938 0.9859
Debt Ratio	-0.3034 0.6127	-0.2462 0.6782	-0.3263 0.5881	-0.6358 0.3510	-0.9687 0.1798	-0.2084 0.7231
Ln(Size)	0.4102*** 0.0000	0.5063*** 0.0000	0.4964*** 0.0000	0.6224*** 0.0000	0.6345*** 0.0000	0.5049*** 0.0000
ROA	3.3504*** 0.0008	3.6738*** 0.0002	3.8248*** 0.0002	4.3866*** 0.0003	4.7522*** 0.0002	3.7099*** 0.0002

MedAdjCash	-3.3581*** 0.0000	-3.4912*** 0.0000	-3.5065*** 0.0000	-3.4803*** 0.0000	-3.3221*** 0.0000	-3.5104*** 0.0000
MB	-0.0622 0.3322	-0.0743 0.2523	-0.0940 0.1611	-0.1757** 0.0325	-0.1710** 0.0360	-0.0783 0.2246
PostSox	0.4939*** 0.0081	0.5048*** 0.0069	0.5245*** 0.0057	1.1203*** 0.0000	1.2676*** 0.0000	0.4898*** 0.0083
N	3359	3336	3190	2418	2218	3359
Pseudo R <sup>2</sup>	0.0601	0.0565	0.0580	0.0933	0.0951	0.0565
Max Rescaled R <sup>2</sup>	0.1876	0.1762	0.1779	0.2569	0.2631	0.1763
Likelihood Ratio	208.3137***	194.0144***	190.439***	236.9169***	221.6977***	195.4649***
Pr > ChiSq	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
Percent Concordant	80.5	79.5	79.7	84.5	85.0	79.5
Percent Discordant	18.7	19.7	19.5	14.9	14.4	19.6
Percent Tied	0.8	0.9	0.8	0.6	0.6	0.9

**Table 12 Logistic Regression: Board Characteristics and Dividend Initiation**

This table displays logistic regression with dependent variable Initiator equal to one if the firm initiates dividends in the firm year tested. The explanatory variable, Over60, is a dummy variable equal to one if the CEO is over 60 years old. LnCash is the natural log of the CEO's cash compensation, salary plus bonus, for the prior fiscal year. IND is a dummy variable equal to one if over 50% of board members are independent. LgBoard is a dummy variable equal to one if there are seven or more members on the board of directors. CBoard is a dummy variable equal to one if the board is classified. INDxDUAL, LGBxDUAL and CBDxDUAL are interaction terms multiplying the dummy variable describing the board of directors with Duality, a dummy variable equal to one if the CEO is also chairperson of the board. The explanatory variable, EIndex is the index of six measures of antitakeover protection. Debt Ratio is the total debt total assets of the firm at the beginning of the fiscal year. LnSize is the natural log of the firm's total assets at the beginning of the fiscal year. ROA is the firm's operating income before extraordinary items divided by total assets for the prior fiscal year. MedAdjCash is the cash to sales ratio for the firm less the median cash to sales ratio for the industry and year. MB is the market value of the firm divided by the book value of the firm at the beginning of the fiscal year. POSTSOX is a dummy variable equal to one if the firm year tested is in 2003 or later.

Independent Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Intercept	-8.400*** 0.0000	-8.582*** 0.0000	-8.691*** 0.0000	-8.521*** 0.0000	-8.391*** 0.0000	-8.525*** 0.0000	-7.710*** 0.0000
Over60	0.5222*** 0.0041	0.5079*** 0.0053	0.5091*** 0.0052	0.4447** 0.0199	0.4031** 0.0342	0.4146** 0.0289	0.5208*** 0.0045
lnCash	0.3968*** 0.0011	0.4084*** 0.0010	0.3992*** 0.0011	0.3985*** 0.0017	0.3712*** 0.0035	0.3768*** 0.0031	0.3702*** 0.0018
IND	-0.5483** 0.0122						-0.3949* 0.0744
Lgboard		-0.0990 0.7029					
CBOARD			0.1466 0.3919				
INDxDUAL				-0.0047 0.9792			
LGBxDUAL					0.2946 0.1326		
CBDxDUAL						0.2730 0.1247	
EIndex							-0.3199*** 0.0000
Debt Ratio	-0.3482 0.5616	-0.2936 0.6241	-0.3086 0.6080	-0.0495 0.9346	-0.0990 0.8705	-0.0990 0.8708	-0.3765 0.5245

Ln(Size)	0.4343*** 0.0000	0.4170*** 0.0000	0.4155*** 0.0000	0.3973*** 0.0000	0.3789*** 0.0000	0.4040*** 0.0000	0.4379*** 0.0000
ROA	3.4302*** 0.0007	3.3503*** 0.0008	3.3382*** 0.0009	3.2994*** 0.0012	3.3233*** 0.0012	3.3086*** 0.0013	3.4919*** 0.0007
MedAdjCash	-3.3135*** 0.0000	-3.3736*** 0.0000	-3.3187*** 0.0000	-3.3250*** 0.0000	-3.3060*** 0.0000	-3.2545*** 0.0000	-3.3858*** 0.0000
MB	-0.0650 0.3140	-0.0624 0.3310	-0.0634 0.3240	-0.0567 0.3818	-0.0582 0.3682	-0.0616 0.3440	-0.0966 0.1527
PostSox	0.6416*** 0.0012	0.5010*** 0.0075	0.4876*** 0.0090	0.5106*** 0.0084	0.5469*** 0.0051	0.5237*** 0.0070	0.8715*** 0.0000
N	3359	3359	3359	3223	3223	3223	3359
Pseudo R <sup>2</sup>	0.0618	0.0602	0.0603	0.0566	0.0573	0.0573	0.0676
Max Rescaled R <sup>2</sup>	0.1927	0.1877	0.1882	0.179	0.1811	0.1811	0.2108
Likelihood Ratio	214.2556	208.457	209.0505	187.7881	190.0909	190.1208	235.0357
Pr > ChiSq	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
Percent Concordant	80.6	80.5	80.4	80.3	80.4	80.3	81.7
Percent Discordant	18.5	18.7	18.7	18.9	18.7	18.8	17.5
Percent Tied	0.8	0.8	0.8	0.9	0.9	0.9	0.8

**Table 13 Logistic Regression: Antitakeover Provisions and Dividend Initiation**

This table displays logistic regression with dependent variable Initiator equal to one if the firm initiates dividends in the firm year tested. The explanatory variable, EIndex is the index of six measures of antitakeover protection. GIndex is the sum of twenty-four measures of antitakeover provisions, which include the EIndex. The six antitakeover provisions comprising the EIndex are tested separately. They are all dummy variables equal to one if the firm has adopted the provision or it is part of the firm's charter. LACHTR is a provision to limit the ability to amend the bylaws. LACHTR is a provision to limit the ability to amend the firm's charter. PPILL is a poison pill provision. CBoard is a classified board. GOLDEN is a provision for golden parachute(s). SuperMajor is a provision requiring a supermajority to approve a merger. Debt Ratio is the total debt total assets of the firm at the beginning of the fiscal year. LnSize is the natural log of the firm's total assets at the beginning of the fiscal year. ROA is the firm's operating income before extraordinary items divided by total assets for the prior fiscal year. MedAdjCash is the cash to sales ratio for the firm less the median cash to sales ratio for the industry and year. MB is the market value of the firm divided by the book value of the firm at the beginning of the fiscal year. PostSox is a dummy variable equal to one if the firm year tested is in 2003 or later.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
<b>Intercept</b>	-7.8165*** 0.0000	-8.4938*** 0.0000	-8.1561*** 0.0000	-7.7844*** 0.0000	-7.7853*** 0.0000	-8.6721*** 0.0000	-6.4113*** 0.0000
<b>Over60</b>	0.5735*** 0.0029	0.6064*** 0.0017	0.5746*** 0.0028	0.5111*** 0.0053	0.3854** 0.0453	0.3787** 0.0488	
<b>LnCash</b>	0.2679** 0.0318	0.2823** 0.0234	0.2646** 0.0349	0.3685*** 0.0020	0.3383*** 0.0056	0.3591*** 0.0036	
<b>GIndex</b>	-0.0456 0.2713						
<b>LoGIndex</b>		0.4975*** 0.0309					
<b>HiGIndex</b>			-0.0209 0.9246				
<b>EIndex</b>				-0.3380*** 0.0000	-0.3370*** 0.0000		
<b>Duality</b>					0.3936* 0.0698	1.1849*** 0.0000	
<b>EIndexx Duality</b>						-0.3140*** 0.0001	
<b>LACHTR</b>							-1.5688*** 0.0000
<b>LABYLW</b>							-0.4548** 0.0497
<b>SUPERMAJOR</b>							0.1330

							0.5698
<b>CBOARD</b>							0.2521 0.1451
<b>GOLDEN</b>							-0.2808 0.1144
<b>PPILL</b>							-0.3598** 0.0379
<b>Debt Ratio</b>	-0.4676 0.4768	-0.4816 0.4636	-0.4673 0.4799	-0.3628 0.5399	-0.1648 0.7825	-0.0947 0.8740	-0.0598 0.9176
<b>Ln(Size)</b>	0.5021*** 0.0000	0.5102*** 0.0000	0.4975*** 0.0000	0.4219*** 0.0000	0.4022*** 0.0000	0.3906*** 0.0000	0.5393*** 0.0000
<b>ROA</b>	3.8607*** 0.0010	3.7819*** 0.0013	3.8430*** 0.0010	3.4328*** 0.0008	3.3976*** 0.0012	3.4069*** 0.0011	4.1198*** 0.0000
<b>MedAdj Cash</b>	-3.2916*** 0.0000	-3.2541*** 0.0000	-3.2442*** 0.0000	-3.4379*** 0.0000	-3.4591*** 0.0000	-3.4520*** 0.0000	-2.9265*** 0.0000
<b>MB</b>	-0.1550** 0.0474	-0.1533** 0.0486	-0.1486** 0.0564	-0.0955 0.1567	-0.0895 0.1869	-0.0801 0.2277	-0.1386** 0.0420
<b>PostSox</b>	0.8875*** 0.0000	0.9264*** 0.0000	0.8794*** 0.0000	0.7825*** 0.0001	0.8699*** 0.0000	0.8062*** 0.0001	1.1000*** 0.0000
<b>N</b>	2648	2648	2648	3359	3223	3223	3519
<b>Pseudo R<sup>2</sup></b>	0.0796	0.0807	0.0792	0.0667	0.0642	0.0621	0.0702
<b>Max Rescaled R<sup>2</sup></b>	0.2265	0.2297	0.2253	0.2081	0.2031	0.1963	0.2203
<b>Likelihood Ratio</b>	219.739 ***	222.9117 ***	218.5334 ***	231.9693 ***	213.9593 ***	206.5299 ***	256.1491 ***
<b>Pr &gt; ChiSq</b>	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
<b>Percent Concordant</b>	82.9	83.1	82.7	81.7	81.7	81.4	82.7
<b>Percent Discordant</b>	16.4	16.3	16.7	17.5	17.5	17.38	16.4
<b>Percent Tied</b>	0.7	0.7	0.7	0.8	0.8	0.8	0.8

**Table 14 Logistic Regression: M&A Bids and Dividend Initiation**

This table displays logistic regression with dependent variable Initiator equal to one if the firm initiates dividends in the firm year tested. The explanatory variable, TARGETBIDS is the sum of the bids the firm received in the two years prior and the current year (3 years). HOSTILE is a dummy variable equal to one if there is a hostile target bid on the firm. ACQBIDS is the sum of the acquisition bids over \$1 million in value the firm made in the previous two years, the current year, and the two years after the current year (5 years). Debt Ratio is the total debt total assets of the firm at the beginning of the fiscal year. LnSize is the natural log of the firm's total assets at the beginning of the fiscal year. ROA is the firm's operating income before extraordinary items divided by total assets for the prior fiscal year. MedAdjCash is the cash to sales ratio for the firm less the median cash to sales ratio for the industry and year. MB is the market value of the firm divided by the book value of the firm at the beginning of the fiscal year. POSTSOX is a dummy variable equal to one if the firm year tested is in 2003 or later.

	Model 1	Model 2	Model 3
Intercept	-6.4319*** 0.0000	-6.4482*** 0.0000	-6.6728*** 0.0000
TARGETBIDS	-0.4029 0.4042		
HOSTILE		1.1617 0.3052	
ACQBIDS			-0.2075* 0.0626
Debt Ratio	0.1135 0.8380	0.0802 0.8854	0.0503 0.9278
Ln(Size)	0.5024*** 0.0000	0.5021*** 0.0000	0.5379*** 0.0000
ROA	3.8021*** 0.0000	3.8049*** 0.0000	3.8050*** 0.0000
MedAdjCash	-3.1345*** 0.0000	-3.1309*** 0.0000	-3.0510*** 0.0000
MB	-0.0934 0.1416	-0.0928 0.1448	-0.0630 0.3231
PostSox	0.5304*** 0.0035	0.5379*** 0.0031	0.4968*** 0.0064
Adjusted R Squared			
N	3519	3519	3519
Pseudo R <sup>2</sup>	0.0520	0.0520	0.0531
Max Rescaled R <sup>2</sup>	0.1631	0.1632	0.1666
Likelihood Ratio	187.8288***	187.8499***	191.9698***
Pr > ChiSq	<.0001	<.0001	<.0001
Percent Concordant	78.6	78.6	79.1
Percent Discordant	20.4	20.4	20.0
Percent Tied	1.0	1.0	0.9

**Table 15 The CEO Power effect on EIndex and GIndex**

This table evaluates the effect of four primary measures of CEO Power on the EIndex and GIndex for the firm-year. 170 firm-years in which the firm initiated dividends are combined with 3,488 control firms. Control firms have complete data available and have a cash-to-sales ratio higher than the median for their industry and year. RankOne is a dummy variable equal to one when the CEO is ranked as the highest paid executive. Tenure5yr is a dummy variable equal to one when the CEO has a tenure of five years or more. ACQBIDS is the number of bids the firm has made in the five years surrounding the firm-year represented. A bid must be valued at over \$1 million to be counted. Duality is a dummy variable equal to one when the CEO is also chairperson of the board of directors. LnCash is the natural log of the CEO's combined salary and bonus compensation. LnTComp is the natural log of the CEO's total compensation. EIndex is the index of six measures of antitakeover protection. GIndex is the sum of twenty-four measures of antitakeover provisions, which include the EIndex. Initiator is a dummy variable equal to one when the firm-year represents the initiation of dividends.

	LnCash	LnTComp	EIndex	GIndex	Initiator
Intercept	5.5880*** <.0001	7.0693*** <.0001	1.8378*** <.0001	7.5640*** <.0001	-3.5951*** <.0001
RankONE	1.0557*** <.0001	0.6047*** <.0001	0.2452*** 0.0002	0.6385*** <.0001	0.4225 0.132
Tenure5yr	0.1847*** <.0001	0.0857* 0.0758	-0.1021** 0.0375	-0.0641 0.5092	0.4275** 0.017
ACQBIDS	-0.0127 0.2993	0.1335*** <.0001	-0.0534*** 0.0006	-0.0834*** 0.0065	-0.2472* 0.0528
Duality	0.0933** 0.0279	0.2268*** <.0001	0.0284 0.5981	0.2852*** 0.0075	0.3919* 0.0759
Adj. R <sup>2</sup>	0.1664	0.0707	0.0113	0.0153	
N	2444	2421	2444	2441	2444
General R <sup>2</sup>					0.0081
Max Rescaled R <sup>2</sup>					0.0228
Percent Concordant					50.3
Percent Discordant					30.5
Percent Tied					19.2
Likelihood Ratio					19.9442
Pr > Chisq					0.0005

**Table 16 Comprehensive Models explaining Dividend Initiation**

This table displays logistic regression with dependent variable Initiator equal to one if the firm initiates dividends in the firm year tested. The explanatory variable, Tenure5yr, is a dummy variable equal to one if the CEO has tenure of at least five years. Over60 is a dummy variable equal to one if the CEO is over 60 years old. Duality is a dummy variable equal to one if the CEO is also chairperson of the board of directors. LnCash is the natural log of the CEO's cash compensation, salary plus bonus, for the prior fiscal year. TCompPct is the percentage change in the CEO's total compensation in the prior fiscal year. LnGrants is the natural log of the CEO's restricted stock grants. LnOptions is the natural log of the CEO's option holdings at the beginning of the fiscal year. ACQBIDS is the sum of the acquisition bids over \$1 million in value the firm made in the previous two years, the current year, and the two years after the current year (5 years). EIndex is the index of six measures of antitakeover protection. GIndex is the sum of twenty-four measures of antitakeover provisions, which include the EIndex.. The six antitakeover provisions comprising the EIndex are tested separately. They are all dummy variables equal to one if the firm has adopted the provision or it is part of the firm's charter. LACHTR is a provision to limit the ability to amend the bylaws. LACHTR is a provision to limit the ability to amend the firm's charter. PPILL is a poison pill provision. CBoard is a classified board. GOLDEN is a provision for golden parachute(s). SuperMajor is a provision requiring a supermajority to approve a merger. MedAdjCash is the cash to sales ratio for the firm less the median cash to sales ratio for the industry and year. Debt Ratio is the total debt total assets of the firm at the beginning of the fiscal year. LnSize is the natural log of the firm's total assets at the beginning of the fiscal year. ROA is the firm's operating income before extraordinary items divided by total assets for the prior fiscal year. MB is the market value of the firm divided by the book value of the firm at the beginning of the fiscal year. POSTSOX is a dummy variable equal to one if the firm year tested is in 2003 or later.

	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	-7.6430*** <.0001	-7.6565*** <.0001	-7.4977*** <.0001	-7.3141*** <.0001	-8.0418*** <.0001
TENURE5YR	0.1712 0.4297				
OVER60	0.5736** 0.0111	0.5970*** 0.0077	0.7181*** 0.0007	0.7369*** 0.0005	0.7647*** 0.0003
DUALITY	0.2299 0.4078	0.2737 0.3147			
LnCash	0.1068 0.3906	0.1164 0.3502	0.1122 0.3537	0.1051 0.3488	0.1238 0.2675
LnGrants	0.0613* 0.0636	0.0586* 0.0746	0.0711** 0.0246	0.0780** 0.0126	0.0784** 0.0121
LnOptions	-0.0286 0.3555	-0.0292 0.3443	-0.0157 0.6037		
IND	-0.4045* 0.0919	-0.4080* 0.0890	-0.4171* 0.0703	-0.4432* 0.0513	-0.4259* 0.0621

ACQBIDS	-0.2342* 0.0804	-0.2265* 0.0891	-0.1505 0.1871		
EINDEX	-0.1540* 0.0883	-0.1570* 0.0825	-0.1545* 0.0793		
GINDEX				-0.0457 0.3130	
LoGINDEX					0.5423** 0.0269
MedAdjCash	-3.2179*** <.0001	-3.2045*** <.0001	-3.2543*** <.0001	-3.3560*** <.0001	-3.3150*** <.0001
DebtRatio	-0.8829 0.2346	-0.8784 0.2350	-1.1632 0.1111	-1.0514 0.1454	-1.1034 0.1280
Ln(Size)	0.6256*** <.0001	0.6244*** <.0001	0.6307*** <.0001	0.6108*** <.0001	0.6217*** <.0001
ROA	4.3006*** 0.0018	4.3388*** 0.0015	4.5825*** 0.0005	4.7380*** 0.0002	4.6957*** 0.0003
MB	-0.1020 0.2250	-0.1019 0.2239	-0.1289 0.1264	-0.1591* 0.0504	-0.1758** 0.0325
PostSox	1.2699*** <.0001	1.2963*** <.0001	1.2547*** <.0001	1.2293*** <.0001	1.2696*** <.0001
Adjusted R Squared					
N	2107	2107	2218	2231	2231
Pseudo R <sup>2</sup>	0.0989	0.0986	0.1013	0.0996	0.1010
Max Rescaled R <sup>2</sup>	0.2766	0.2758	0.2802	0.2750	0.2791
Likelihood Ratio	219.3438***	218.7180***	236.9594***	233.9512***	237.5930
Pr > ChiSq	<.0001	<.0001	<.0001	<.0001	<.0001
Percent Concordant	86.0	86.0	86.0	85.4	85.8
Percent Discordant	13.4	13.4	13.4	14.0	13.7
Percent Tied	0.6	0.6	0.6	0.6	0.6

**Table 17 Comprehensive Models explaining Dividend Yield**

This table displays OLS regression with dependent variable, dividend yield (DivYield). The explanatory variable, Tenure5yr, is a dummy variable equal to one if the CEO has tenure of at least five years. Duality is a dummy variable equal to one if the CEO is also chairperson of the board of directors. Over60 is a dummy variable equal to one if the CEO is over 60 years old. TCompPct is the percentage change in the CEO's total compensation in the prior fiscal year. LnCash is the natural log of the CEO's cash compensation, salary plus bonus, for the prior fiscal year. TCompPct is the percentage change in the CEO's total compensation in the prior fiscal year. RankOne is a dummy variable equal to one if the CEO is the highest paid executive in the firm in the prior fiscal year. LnGrants is the natural log of the CEO's restricted stock grants. LnOptions is the natural log of the CEO's option holdings at the beginning of the fiscal year. ACQBIDS is the sum of the acquisition bids over \$1 million in value the firm made in the previous two years, the current year, and the two years after the current year (5 years). EIndex is the index of six measures of antitakeover protection. GIndex is the sum of twenty-four measures of antitakeover provisions, which include the EIndex.. The six antitakeover provisions comprising the EIndex are tested separately. They are all dummy variables equal to one if the firm has adopted the provision or it is part of the firm's charter. LACHTR is a provision to limit the ability to amend the bylaws. LACHTR is a provision to limit the ability to amend the firm's charter. PPILL is a poison pill provision. CBoard is a classified board. GOLDEN is a provision for golden parachute(s). SuperMajor is a provision requiring a supermajority to approve a merger. MedAdjCash is the cash to sales ratio for the firm less the median cash to sales ratio for the industry and year. Debt Ratio is the total debt total assets of the firm at the beginning of the fiscal year. LnSize is the natural log of the firm's total assets at the beginning of the fiscal year. ROA is the firm's operating income before extraordinary items divided by total assets for the prior fiscal year. MB is the market value of the firm divided by the book value of the firm at the beginning of the fiscal year. POSTSOX is a dummy variable equal to one if the firm year tested is in 2003 or later.

	Dep. Var. Dividend Yield				
	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	-0.0012*** 0.0030	-0.0019*** <.0001	-0.0027*** <.0001	-0.0027*** <.0001	-0.0021*** <.0001
OVER60	0.0004** 0.0214	0.0003** 0.0229	0.0005*** 0.0098	0.0005*** 0.0097	
DUALITY	0.0001 0.3389	0.0001 0.4035	0.0002 0.3407	0.0002 0.3381	
TCompPct	0.0000*** 0.0002				
LnCash		0.0001*** 0.0093	0.0001 0.1113	0.0001 0.1209	
LnGrants			0.0001*** 0.0034	0.0001*** 0.0038	
LnOptions			-0.0001*** 0.0062	-0.0001*** 0.0061	
IND	-0.0002	-0.0002	-0.0002	-0.0002	

	0.2607	0.2511	0.3642	0.3340	
ACQBIDS	-0.0001** 0.0477	-0.0001* 0.0642	-0.0001 0.1614	-0.0001 0.1682	
GINDEX				-0.0000 0.5718	0.0000 0.7919
EINDEX	-0.0002*** 0.0010	-0.0002*** 0.0014	-0.0001 0.2417		
MedAdjCash	-0.0001 0.1462	-0.0001 0.1214	-0.0001 0.3087	-0.0001 0.3104	-0.0001 0.2204
DebtRatio	0.0003 0.4043	0.0003 0.4107	-0.0002 0.6665	-0.0002 0.6764	0.0008* 0.0961
Ln(Size)	0.0003*** <.0001	0.0003*** <.0001	0.0004*** <.0001	0.0004*** <.0001	0.0004*** <.0001
ROA	0.0006 0.1449	0.0005 0.1925	0.0003 0.5794	0.0003 0.5582	0.0004 0.4551
MB	-0.0000 0.1766	-0.0000 0.2091	-0.0000 0.3676	-0.0000 0.4082	-0.0001* 0.0803
PostSox	0.0004** 0.0124	0.0003** 0.0159	0.0005*** 0.0054	0.0005*** 0.0067	0.0004*** 0.0062
Adj. R Squared	0.0261	0.0229	0.0428	0.0423	0.0211
N	3066	3223	2107	2107	2801

Table 18 Mean, Median and F test for Control Firms versus Initiators - Limited Data Sample

Variable	Initiators						Control Firms							
	N	Mean	Median	Min	Max		N	Mean	Median	Min	Max	Z	Pr> Z	
Size (Assets)	941	2542	308	3	164735		941	1230	273	2	53340	-2.1456	**	0.0319
Market	941	2393	272	1	293137		941	1431	260	2	176351	-0.6327		0.5269
Market to Book	941	1.37	0.96	0.00	8.87		941	1.39	0.96	0.01	28.09	-0.372		0.7099
ROA	941	0.13	0.11	-0.33	1.91		941	0.01	0.07	-7.70	0.50	-12.1074	***	<.0001
BONDS	941	0.17	0.00	0.00	1.00		941	0.08	0.00	0.00	1.00	-5.9694	***	<.0001
Debt ratio	941	0.18	0.11	0.00	6.88		941	0.18	0.11	0.00	1.33	0.0275		0.978
CTS	938	1.48	0.08	0.00	1111.63		935	2.31	0.11	0.00	654.06	4.5976	***	<.0001
BIG8	934	0.87	1.00	0.00	1.00		940	0.82	1.00	0.00	1.00	3.042	***	0.0024
SPwithin2	941	0.21	0.00	0.00	1.00		941	0.11	0.00	0.00	1.00	-5.4141	***	<.0001
AlmostSP	941	0.09	0.00	0.00	1.00		941	0.07	0.00	0.00	1.00	-1.8834	*	0.0596
NewlySP	941	0.12	0.00	0.00	1.00		941	0.06	0.00	0.00	1.00	-4.6876	***	<.0001
ACQBIDS	941	0.06	0.00	0.00	7.00		941	0.07	0.00	0.00	8.00	-0.7421		0.458
TARGETBIDS	941	0.01	0.00	0.00	1.00		941	0.00	0.00	0.00	1.00	-1.1353		0.2562

**Table 19 Logistic Regression on All Initiators**

This table displays logistic regression with dependent variable Initiator equal to one if the firm initiates dividends in the firm year tested. The explanatory variable, TargetBids, is the sum of all target bids on the firm in the current year and the two years prior. AcqBids is the sum of all acquisition bids valued at over \$1 million made by the firm in the five years period surrounding the current year. SPWithin2 is a dummy variable equal to one if the firm entered the S&P indices within two years before or after the current year (or in the current year, for a complete period of five years). AlmostSP is a dummy variable equal to one if the firm enters the S&P indices in the current year or the next two years. NewlySP is a dummy variable equal to one if the firm entered the S&P indices in the current year or the two years prior. Bonds is a dummy variable equal to one if the firm has bonds outstanding. Big8 is a dummy variable equal to one if the firm used a Big 8 auditor in the prior fiscal year. NYSE is a dummy variable equal to one if the firm is traded on the New York stock exchange. AMEX is a dummy variable equal to one if the firm is traded on the American stock exchange. ROA is the firm's operating income before extraordinary items divided by total assets for the prior fiscal year.

	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	-1.0655*** <.0001	-1.0283*** <.0001	-1.1387*** <.0001	-1.0560*** <.0001	-1.0577*** <.0001
TargetBids	0.5305 0.5452	0.647 0.457	0.6034 0.4887	0.5913 0.4978	
AcqBids	-0.1154 0.236	-0.1258 0.1976	-0.1152 0.2365	-0.1146 0.2388	
SPWithin2	0.3574** 0.0112				
AlmostSP		-0.1197 0.5245			
NewlySP			0.4604** 0.0124	0.4694** 0.0105	0.4792*** 0.0089
Bonds	0.7135*** <.0001	0.7095*** <.0001	0.7285*** <.0001	0.7182*** <.0001	0.7203*** <.0001
BIG8			0.0837 0.5797		
NYSE	0.9304*** <.0001	0.9734*** <.0001	0.9175*** <.0001	0.9418*** <.0001	0.9404*** <.0001
AMEX	1.2111*** <.0001	1.1822*** <.0001	1.1991*** <.0001	1.1970*** <.0001	1.2005*** <.0001
ROA	6.0139*** <.0001	6.2009*** <.0001	6.1385*** <.0001	6.0460*** <.0001	5.9954*** <.0001
N	1882	1882	1874	1882	1882
Pseudo R <sup>2</sup>	0.171	0.1683	0.1723	0.1711	0.1702
Max Rescaled R <sup>2</sup>	0.228	0.2244	0.2298	0.2281	0.227
Likelihood Ratio	72.7	72.6	72.8	72.7	72.6
Pr > ChiSq	27	27.2	26.9	27	27.1

Percent Concordant	0.3	0.3	0.3	0.2	0.3
Percent Discordant	352.9414	346.8323	354.494	353.1658	351.2272
Percent Tied	<.0001	<.0001	<.0001	<.0001	<.0001

**Table 20 Abnormal Returns on Dividend Initiation Announcement**

The abnormal returns are calculated in Eventus using the market model. The procedure is value-weighted and a 255 day estimation period is used. All initiators with available data are included.

<b>Abnormal Returns</b>						
		<b>(-2, +2)</b>	<b>(-1, +1)</b>	<b>(-1, 0)</b>	<b>(0, 0)</b>	<b>(0, +1)</b>
	<b>N = 984</b>					
<b>Mean</b>		<b>1.49% ***</b>	<b>1.25% ***</b>	<b>0.65% ***</b>	<b>0.62% ***</b>	<b>1.22% ***</b>
<b>Patell Z</b>		6.394	6.83	4.327	5.153	7.682
<b>p-value</b>		<b>&lt;.0001</b>	<b>&lt;.0001</b>	<b>&lt;.0001</b>	<b>&lt;.0001</b>	<b>&lt;.0001</b>
<b>Sign z</b>		<b>6.23</b>	<b>5.08</b>	<b>4.057</b>	<b>4.696</b>	<b>6.741</b>
<b>p-value</b>		<b>&lt;.0001</b>	<b>&lt;.0001</b>	<b>&lt;.0001</b>	<b>&lt;.0001</b>	<b>&lt;.0001</b>
<b>Pos:Neg</b>		568:416	556:428	534:450	540:444	575:409

**Table 21 Cross-sectional Analysis of Abnormal Returns on Dividend Initiation**

This table displays logistic regression with dependent variable, Initiator, equal to one if the firm initiates dividends in the firm year tested. The explanatory variable, TargetBids, is the sum of all target bids on the firm in the current year and the two years prior. AcqBids is the sum of all acquisition bids valued at over \$1 million made by the firm in the five years period surrounding the current year. SPWithin2 is a dummy variable equal to one if the firm entered the S&P indices within two years before or after the current year (or in the current year, for a complete period of five years). AlmostSP is a dummy variable equal to one if the firm enters the S&P indices in the current year or the next two years. NewlySP is a dummy variable equal to one if the firm entered the S&P indices in the current year or the two years prior. SPInitiation is a dummy variable equal to one if the firm is on the S&P 1500 indices in the year of initiation. Bonds is a dummy variable equal to one if the firm has bonds outstanding. Big8 is a dummy variable equal to one if the firm used a Big 8 auditor in the prior fiscal year. CashToSales is the ratio of the firm's cash and cash equivalents to sales in the prior year. MB is the market to book ratio for the firm at the beginning of the fiscal year. NYSE is a dummy variable equal to one if the firm is traded on the New York stock exchange. AMEX is a dummy variable equal to one if the firm is traded on the American stock exchange. ROA is the firm's operating income before extraordinary items divided by total assets for the prior fiscal year. LnSize is the natural log of the firm's total assets at the beginning of the fiscal year. PostSox is a dummy variable equal to one if the firm year tested is in 2003 or later.

	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	0.0301*** <.0001	0.0301*** <.0001	0.0300*** <.0001	0.0342*** <.0001	0.0347*** <.0001
TargetBids	0.0577** 0.0311	0.0576** 0.0316	0.0584** 0.0294	0.0529** 0.0489	0.0536** 0.0454
AcqBids	-0.0009 0.7923	-0.0011 0.7572	-0.001 0.7805	-0.0022 0.5407	
SPWithin2	0.0026 0.5241				
AlmostSP		0.001 0.8609			
NewlySP			0.0033 0.516		
SPInitiation				0.0085* 0.0714	0.0080* 0.0867
Bonds	-0.0036 0.4247	-0.0036 0.4213	-0.0035 0.4319	-0.0038 0.3906	
Big8	-0.0098* 0.0716	-0.0096* 0.0768	-0.0098* 0.0727	-0.0095* 0.0798	-0.0097* 0.0686
CashToSales	-0.0001* 0.055	-0.0001* 0.0545	-0.0001* 0.0548	-0.0001* 0.0522	-0.0001* 0.0505
MB	-0.0032** 0.0233	-0.0031** 0.0272	-0.0031** 0.0237	-0.0036** 0.011	-0.0035** 0.0127

NYSE	0.0013 0.7497	0.0015 0.7194	0.0014 0.743	0.0015 0.7209	
AMEX	0.0031 0.5899	0.003 0.6013	0.0031 0.5962	0.003 0.6006	
ROA	0.0328** 0.0361	0.0330** 0.035	0.0326** 0.0376	0.0333** 0.0328	0.0336** 0.0308
lnAT	-0.0023* 0.0553	-0.0023* 0.0593	-0.0023* 0.0583	-0.0032** 0.0151	-0.0032*** 0.0038
PostSox	-0.0054 0.1494	-0.0057 0.1318	-0.0054 0.1507	-0.0064* 0.087	-0.0063* 0.079
N	831	831	831	831	831
Adj. R <sup>2</sup>	0.0279	0.0275	0.0279	0.0313	0.0344

## Essay II Tables

**Table 22 Independent Variables for First Stage Model**

Independent Variable	Expected Sign	Description
Total Earnings Management		Equal to one if either abnormal cash flow or abnormal total accruals indicate earnings management in the year prior to announcement, 0 otherwise
DIVYLD	-	The dividend yield based on announcement year-end price
ANALYST	-	The natural log of the number of analysts covering the firm
LnMARKET	+	Log of market capitalization
TARGETBIDS	+/-	The number of takeover bids received in the two years before and the year of initiation
MB	+/-	Market to book ratio
ROA	+	Return on assets
DebtRatio	+	Total book value of debt divided by book value of assets

**Table 23 Independent Variables for Second Stage Model**

Independent Variable	Expected Sign	Description
Real Earnings Management		Equal to one if the abnormal cash flow indicates earnings management in the year prior to announcement, 0 otherwise
BIG8	+	Equal to one if the firm uses a big 8 auditor
LITIGATION	+	Equal to one if the firm is in a high litigation industry. High litigation industries are SIC codes 2833-2836, 8731-8734, 7371-7379, 3570-3577, 3600-3674 (pharmaceuticals/biotechnology, computers, and electronics).
SOX	+	Equal to one if the observation is in the post-SOX period
SPFIRM	+	Equal to one if the firm is a S&P 1500 firm in the year of initiation
NOA	+	Net operating assets. The sum of shareholders' equity less cash and marketable securities and plus total debt at the beginning of the year, deflated by total sales for the previous year.
ACQBIDS	+	The number of acquisition bids the firm makes in the year of and the two years after initiation
SPRTN	+/-	The S&P index return for the observation period
Inverse Mills Ratio		Heckman correction

**Table 24 Sample Descriptive Statistics**

This table displays the sample mean, median, standard deviation, minimum and maximum value for selected variables. N represents the number of sample firms with data for the variable. All financial variables are for the year ending before announcing dividend initiation. NOA is the net operating assets of the firm, calculated as the sum of shareholders' equity less cash and marketable securities, plus total debt at the beginning of the year. DivYield is the annualized dividend divided by the closing price at the beginning of the fiscal year. ANALYST is the number of analysts following the firm. BIG8 is a dummy variable equal to one if the firm uses a Big 8 auditor. LITIGATION is a dummy variable equal to one if the firm is in a high litigation SIC code. SPFIRM is a dummy variable equal to one if the firm is in the S&P 1500 indices. TARGETBIDS is the number of target bids the firm received from two years prior to the year of dividend announcement. ACQBIDS is the number of bids the firm made in the five year period surrounding dividend initiation announcement.

Variable Name	N	Mean	Median	St. Dev.	Min	Max
Total Assets	643	2,036	231	7,778	3	115,450
Market Value	604	2,489	167	18,191	1	415,120
Market to Book Ratio	603	1.31	0.80	1.5963	0.00	14.68
Debt Ratio	643	0.20	0.15	0.2007	0.00	1.06
ROA	643	0.06	0.05	0.1261	-0.53	1.90
NOA	603	0.66	0.47	0.8637	-2.93	12.58
DivYield	605	0.02	0.01	0.091	0	1.89
ANALYST	643	4.79	1.00	7.53	0.00	46.00
BIG8	643	0.88	1.00	0.33	0.00	1.00
LITIGATION	643	0.12	0.00	0.33	0.00	1.00
SPFIRM	643	0.47	0.00	0.50	0.00	1.00
TARGETBIDS	643	0.02	0.00	0.18	0.00	3.00
ACQBIDS	643	0.20	0.00	0.84	0.00	11.00

**Table 25 Accrual and Real Earnings Management**

This table displays abnormal total accruals and abnormal cash flows, testing for accrual and real earnings management. TA is the median of the abnormal total accruals. CA is the median of the abnormal cash flow from operations. PROD is the median of the abnormal cash flow from production. DISX is the median of the abnormal cash flow from discretionary expenses. Results are shown for seven years surrounding the year that dividend initiation is announced. Years are designated as “-3” through “+3” surrounding year “0.”

		<b>Total Discretionary Accruals (Neg. – downward earnings management)</b>						
		TA (-3)	TA (-2)	TA (-1)	TA (0)	TA (+1)	TA (+2)	TA (+3)
Median		<b>0.0017</b>	<b>-0.0023</b>	<b>0.0001</b>	<b>0.0013</b>	<b>0.0083</b>	<b>0.0056</b>	<b>0.0032</b>
<i>p-value</i>		0.2297	0.379	0.5926	0.2985	0.0705	0.1089	0.0354
						*		**
		<b>Operating Cash Flow (Pos. – downward earnings management)</b>						
		CA (-3)	CA (-2)	CA (-1)	CA (0)	CA (+1)	CA (+2)	CA (+3)
Median		<b>0.0517</b>	<b>0.05</b>	<b>0.0568</b>	<b>0.0489</b>	<b>0.0476</b>	<b>0.0447</b>	<b>0.0371</b>
<i>p-value</i>		<.0001	<.0001	0.0315	0.0188	0.554	0.5014	0.2295
		***	***	**	**			
		<b>Production Level (Neg. – downward earnings management)</b>						
		PROD (-3)	PROD (-2)	PROD (-1)	PROD (0)	PROD (+1)	PROD (+2)	PROD (+3)
Median		<b>-0.0343</b>	<b>-0.0377</b>	<b>-0.0402</b>	<b>-0.0354</b>	<b>-0.043</b>	<b>-0.0466</b>	<b>-0.0235</b>
<i>p-value</i>		0.0002	0.9081	0.0074	0.1554	0.0391	0.0028	0.0099
		***		***		**	***	***
		<b>Discretionary Expenses (Pos. – downward earnings management)</b>						
		DISX (-3)	DISX (-2)	DISX (-1)	DISX (0)	DISX (+1)	DISX (+2)	DISX (+3)
Median		<b>-0.0174</b>	<b>-0.0087</b>	<b>-0.0099</b>	<b>-0.0112</b>	<b>0.0001</b>	<b>-0.0074</b>	<b>-0.0094</b>
<i>p-value</i>		0.1051	0.4862	0.0021	0.0016	0.0016	0.0063	0.0008
				***	***	***	***	***

**Table 26 Return on Assets and Profit Margin surrounding Dividend Initiation**

This table displays the return on assets and profit margin for sample firm years in the seven years surrounding dividend initiation. ROA is income before extraordinary items divided by total assets at the beginning of the year. Profit margin is income before extraordinary items divided by sales. The median value for the year and two-digit SIC code is subtracted from the firm year value to obtain the industry adjusted value. Results are shown for seven years surrounding the year that dividend initiation is announced. RM1 and RM2 are comprehensive metrics of real earnings management. RM1 = - DISX + PROD, where DISX is abnormal discretionary expense and PROD is abnormal production level. RM2 = - CA - DISX, where CA is abnormal operating cash flow and DISX is abnormal discretionary expense. Years are designated as “-3” through “+3” surrounding year “0.”

<b>Panel A - Industry Adjusted ROA</b>							
	ROA (-3)	ROAM (-2)	ROA(-1)	ROA	ROA (+1)	ROA (+2)	ROA (+3)
Median	0.0387	0.0394	0.0464	0.0492	0.041	0.0348	0.0245
Pr >  t	<.0001	<.0001	0.7526	<.0001	<.0001	<.0001	<.0001
	***	***		***	***	***	***
<b>Panel B - Industry Adjusted Profit Margin</b>							
	PM (-3)	PM (-2)	PM (-1)	PM	PM (+1)	PM (+2)	PM (+3)
Median	0.0274	0.0288	0.0331	0.0351	0.0283	0.0269	0.0185
Pr >  t	0.0747	0.0824	0.6115	<.0001	<.0001	0.0002	0.25
	*	*		***	***	***	
<b>Panel C - Extreme Quartile of RM_1: Industry Adjusted ROA</b>							
	ROA (-3)	ROAM (-2)	ROA(-1)	ROA	ROA (+1)	ROA (+2)	ROA (+3)
Median	0.066	0.0638	0.0791	0.0762	0.0728	0.0566	0.0422
Pr >  t	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	***	***	***	***	***	***	***
<b>Panel D - Extreme Quartile of RM_2: Industry Adjusted ROA</b>							
	ROA (-3)	ROAM (-2)	ROA(-1)	ROA	ROA (+1)	ROA (+2)	ROA (+3)
Median	0.066	0.0722	0.0925	0.0844	0.0754	0.0579	0.0446
Pr >  t	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	***	***	***	***	***	***	***

**Table 27 First and Second Stage Regressions with Heckman Correction**

This table shows the results of the two stage Heckman model, both stages using probit regression. In stage one, the dependent variable is a dummy variable equal to one if the engaged in downward accrual or real earnings management in the year prior to dividend initiation. The dependent variable in the second state is equal to one if the firm engaged in real earnings management based on cash flow from operations. BIG8 is a dummy variable equal to one if the firm uses a Big 8 auditor. LITIGATION is a dummy variable equal to one if the firm is in a high litigation SIC code. SOX is a dummy variable equal to one if the firm year is after 2002. SPFIRM is a dummy variable equal to one if the firm is in the S&P 1500 indices. NOA is the net operating assets of the firm, calculated as the sum of shareholders' equity less cash and marketable securities, plus total debt, all taken from the beginning of the year, divided by prior year sales. ACQBIDS is the number of bids the firm made in the five year period surrounding dividend initiation announcement. SPRTN is the return on the S&P 500. DivYield is the annualized dividend divided by the closing price at the beginning of the fiscal year. ANALYST is the number of analysts following the firm. LnMARKET is the natural log of the firm's market value at the beginning of the year. TARETBIDS is the number of target bids the firm received from two years prior to the year of dividend announcement. MB is the market to book value of the firm at the beginning of the year. ROA is income before extraordinary items divided by total assets from the prior year. Debt Ratio is the total debt total assets of the firm at the beginning of the fiscal year. Variable, "/altrho," is the inverse hyperbolic tangent of rho.

Stage One (Probit)		Stage Two (Probit)	
Dep. Var. All Earnings Management		Dep. Var. Cash Earnings Management	
DivYield	-0.139 0.807	BIG8	0.664*** 0.000
ANALYST	0.021* 0.081	LITIGATION	0.858** 0.012
LnMARKET	0.086*** 0.001	SOX	-0.119 0.455
TARGETBIDS	-0.675* 0.072	SPFIRM	0.061 0.720
MB	0.272*** 0.000	NOA	0.739*** 0.000
ROA	-0.636 0.227	ACQBIDS	0.075 0.589
DebtRatio	0.405 0.215	SPRTN	0.779 0.167
/altrho	0.259 0.368		
		Log Likelihood	-432.436
		Wald chi-squared	67.160
		Prob > chi-squared	0.000

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