Shareholders and Managers as Principal-Agent Hierarchies and Cooperative Teams

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SHAREHOLDERS AND MANAGERS AS COOPERATIVE TEAMS VS PRINCIPAL-AGENT HIERARCHIES

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SHAREHOLDERS AND MANAGERS AS PRINCIPAL-AGENT HIERARCHIES
AND COOPERATIVE TEAMS

Manuscript Type: Literature Review

Purpose: Shareholders and managers can work in a hierarchy in which principals attempt to control the actions of agents to achieve the wealth objective. Alternatively, shareholders and managers can work together as a cooperative team in which shareholders provide financial capital and managers provide human capital. We examine the different implications for value creation provided by the two approaches.

Methodology: By comparing the literature on the value implications of the incomplete contracting framework and control arrangements in principal-agent hierarchies, we identify deviations from optimal outcomes and suggest solutions.

Findings: Our review indicates that a cooperative framework has some advantages over the hierarchical model. The stability of human capital and the relationship between managers and shareholders can be enhanced when shareholders provide capital in increments which vest over time, and latitude for renegotiation of agreements is built into contracts.

Practical Implications: By surrendering control using stock options programmes, managers are free to invest in relationship-specific assets. Shareholders can control the provision of capital by withdrawing investment if insufficient returns are realised i.e. if stock options do not meet vesting requirements. The market can then be left to do its work.

Originality: This paper provides an original review of literature on cooperation and hierarchies in the shareholder-manager relationship and proposes solutions to identified deviations from optimal outcomes.

JEL: G30; G34; J33; L14; M52

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INTRODUCTION

Extracting value from the human capital of CEOs is complicated by problems in contracting between principals and agents. If ownership and control are separated, there are two possible approaches. The principals can attempt to achieve goal congruence between shareholders and managers by monitoring and designing optimal contracts. Equity markets allow shareholders to exit. Alternatively, shareholders and managers can act as cooperative teams in which each party provides capital - shareholders provide financial capital and managers provide human capital. The two combine to create value to the benefit of both parties. The purpose of this survey of the literature is to identify the most effective methods to extract value from the relationship between shareholders and managers, and release the value of CEOs’ human capital to the benefit of both parties.

Two theories dominate the literature on this issue - the principal-agent model and the incomplete contracting framework. These models provide interpretations of the relationship between the shareholders and the managers of a listed company. Underlying the principal-agent relationship in listed companies are CEO compensation and equity markets. The former acts as a mechanism for incentives whilst the latter acts in a number of ways to constrain managerial behaviour. On the other hand, incomplete contracts are a key aspect of the shareholder-manager relationship. Imperfect information gives rise to incomplete contracts and moral hazard arises from incomplete contracts when setting managerial incentives and rewards. The overall outcome of the operation of the principal-agent model with incomplete contracts in modern corporations is the optimal contracting approach, which is generally applied in the form of incentive-based reward systems, supplemented by equity markets. However, as demonstrated by media outrage at regular instances of excessive compensation and governance scandals at great cost to shareholders, governments and society as a whole, such an approach is deeply flawed.
The paper proceeds as follows. In the next section, we explain how the literature search was conducted and which literature was used to develop our arguments. Having identified the characteristics of the classical approaches, we then consider the private benefits of control and the stability of human capital. After a discussion of the implications arising from the review, we conclude by suggesting solutions which incorporate surrender of control by shareholders to managers, i.e. surrendering the role of principal to agents, and renegotiation of contracts to enhance stability of human capital.

**LITERATURE REVIEW STRATEGY**

The literature search strategy was to conduct a broad review of the academic literature to establish relevant hypotheses and evidence. Initially, we categorize the literature into two broad strands – CEO compensation and equity markets – and then subdivide into specific hypotheses. Table 1 shows the main literature used regarding each relevant hypothesis. Hypotheses are then cross-referenced with the types of contracts (complete or incomplete) and the implications for shareholders and/or managers. The table allows the reader to assess where the preponderance of the data lies. Specific papers on each hypothesis/implication box are listed in the table with a short explanatory note. The table can be read either across the table which highlights the literature on each specific hypothesis or evidence. Alternatively, it can be read downwards in terms of implications for shareholders and/or managers for each type of contract. The analysis of the evidence is presented in subsequent sections as discussed above.

*Insert Table 1 here*
THE CLASSICAL MODELS AND SHAREHOLDER-MANAGER RELATIONSHIPS

The Principal-Agent Framework

The principal-agent model assumes that the outcome of a typical project is risky (Holmström, 1979, 1982; Lazear and Rosen, 1981). It questions whether the principal or agent should bear that risk and concludes that it should be borne by the party who is better diversified. Assuming that shareholders of public companies are the principal and managers are the agent, diversified shareholders are better protected against risk, as they generally have a small proportion of their wealth in one particular company. Managers, on the other hand, derive their wealth from their labor. As shareholders can absorb more risk, the model makes the prediction that shareholders should bear the risk while managers should receive a fixed part of the return, i.e. fixed compensation.

In the health insurance industry, there is evidence of another factor affecting optimal risk-sharing in a principal-agent relationship (Arrow, 1963). In this case, agents are insurance companies and principals are customers i.e. patients. The risky outcome is poor health of the insured customer. Diversified insurance companies can absorb risk and should therefore bear the risk of illness. The customer pays a fixed fee to the insurance company and gets full indemnity in case of poor health. Arrow (1963) argues that this is optimal if the illness of the customer is solely caused by external circumstances. But if fully insured customers exacerbate the risk of illness, say, through an unhealthy lifestyle (from which they derive utility), they would get treatment for self-inflicted risk at the cost of the insurance company. This problem is known as moral hazard. The insurance company would have to pay out the higher indemnity and compensate the customer for self-inflicted harm. In an optimal world, the insurance company would like to have information about the lifestyle of their customers. A contract could then rule out indemnity for unhealthy lifestyles and only cover truly external effects on health. However, if we assume that lifestyle cannot be observed, the insurance
company would like to encourage the customer to live a healthier lifestyle through a contract based on the outcome. One solution would be a type of contract that increases the costs for patients in the case of illness. Thus, they bear some risk, whether caused by their own actions or by external factors. Even though optimal risk sharing requires the insurance company to bear risk, asymmetric information between the customer and the insurance company shifts some risk towards the customer.

Similarly, asymmetric information between managers and shareholders is considered to be the reason why managers should bear some of the risk (Myers and Majluf, 1984, p. 196). In 1776, Adam Smith (1937) famously drew a parallel between the master-servant and shareholder-manager relationship: “Like the stewards of a rich man, [the directors of public companies] are apt to consider attention to small matters as not for their master’s honour, and very easily give themselves a dispensation from having it”. Hart and Holmström (1986) argue that when shareholders can observe managerial actions they can design a contract that specifies managerial actions under every contingency. However, as shareholders cannot observe actions, they have to base solutions on the outcome. One solution is that shareholders tie managerial pay to an increase in shareholder value. Pay-for-performance ensures that managers are bonded to shareholders and take actions that are in the interest of shareholders.

Jensen and Meckling (1976) argue that monitoring is a substitute for managerial incentive pay but it is costly. As shares in public companies are typically widely held, Berle and Means (1932) conclude that atomistic shareholders have little incentive to observe managerial actions (monitoring). The free-rider problem concludes that no shareholder will monitor managers (Baumol, 1952). Asymmetric information also prevents monitoring by financial intermediaries such as stock analysts, auditors, and other experts that estimate project values. In the US, the Sarbanes-Oxley Act in 2002 required companies to increase the amount of disclosed information, but also allowed them to opt out of publishing information.
entirely if they were cross-listed on an international exchange. Some firms stopped publishing standardized information, but the shares continued to be traded (Litvak, 2007). Engel, Hayes and Wang (2007) report that those firms that ‘went dark’ after the passage of the Sarbanes-Oxley Act exhibited a decline in stock prices of 10% on average. This is consistent with the view that the increased information asymmetry between managers and shareholders negatively affects firm value.

One implication of the principal-agent model is that shareholders make use of pay for performance incentives to make managers bear the outcomes resulting from their actions. Jensen and Murphy (1990) find that for a $1000 increase in company value, CEO wealth only increases by $3.25. This was interpreted as “not very much” and subsequently used to justify the grant of company stock and stock options to executives over the following decades. However, Hall and Liebman (1998) argue that this was not a rejection of the principal-agent model, as a $3.25 increase in managerial wealth could be a meaningful share in the profits when compared to the remaining wealth of a manager. Recent studies have found that CEO compensation in public companies is more closely tied to industry and market developments than company performance (see for example Bebchuk and Fried, 2004; Rajgopal, Shevlin, and Zamora, 2006; Kaplan and Minton, 2012; Cremers and Grinstein, 2013). Thus, according to these authors, CEOs are compensated for luck rather than performance (or ability, or responsibility). The loose tie between pay and abnormal performance is inconsistent with the view that asymmetric information affects optimal risk-sharing between managers and shareholders.

Apart from the effect of performance on pay, the effect of performance on management turnover has also been researched. Murphy (1999) suggests a modest correlation between forced turnover and firm performance. Other studies find that CEO turnover is not related to deviations from general industry-wide conditions (see for example Morck, Shleifer,
and Vishny, 1990; Huson, Parrino, and Starks, 2001; Kaplan and Minton, 2012; Jenter and Kanaan, 2006). Tying managerial incentives through pay or turnover to their own returns seems either not to be a high priority for shareholders or not accomplished.

Another implication of the principal-agent model is that shareholders and managers write feasible contracts for managers that tie managers’ interests to shareholders and vice versa. However, shareholders have few contractual claims against managers. For example, shareholders have no contractual claim on dividends. Preferred dividends with contractual claims similar to interest payments are rare (Hart, 1986). Furthermore, many CEO employment contracts are incomprehensive (Schwab and Thomas, 2006; Gillan, Hartzell, and Parrino, 2009). Only one half of CEOs in the Gillan, Hartzell, and Parrino study were found to have employment contracts in place. In a larger sample, two-thirds of all the CEOs were found to have employment contracts (Schwab and Thomas, 2006). Furthermore, in both samples, the contracts usually state the entitlements of CEOs, such as severance pay and perks, rather than their duties. When sales are volatile and the future of a company is more uncertain, CEOs have employment contracts that protect their rewards (Gillan, Hartzell, and Parrino, 2009). This is consistent with the view that employment contracts do have some degree of enforceability and tighten CEOs’ claims against firms but not vice versa.

The Incomplete Contracting Framework

The theory behind the incomplete contracting framework acknowledges that neither shareholders nor managers can write every agreement they would like to make. Contracts are inherently incomplete. The reason for the imperfection is uncertainty about the future (Hart, 1995a). Contracting parties cannot foresee every possible contingency. For example, an employment contract of shareholders with a CEO cannot foresee every single growth
opportunity and stipulate contingent actions. In incomplete contracting models, uncertainty plays a more central role than in the principal-agent model as the contingencies themselves are unknown.

Observability of actions or outcomes is a minor concern in incomplete contracting models. The assumption of asymmetric information between managers and shareholders can be incorporated, but is usually relaxed (see e.g. Hart, 1995b) as both groups can observe actions and outcomes. As outcomes are uncertain, contingent clauses in contracts are unlikely to be triggered by future events. Stylized theoretical models such as that of Hart (1995a) assume that there are no contracts in place between two economic agents. Actions, as well as outcomes, are determined by other self-enforcing arrangements. The concept of implicit contracts is applied to analysis of employment agreements between firms and workers, particularly in studies of the economics of labor markets (see Azariadis, 1975; Bull, 1987; MacLeod, 1989). Hart (2001) analyses debt and equity as financial contracts which substitute for impossible contracts. Implicit contracts give holders control rights over actions and cash flow rights over outcomes (Bull, 1987; Klein, 1996). When there are written agreements, all rights that are unallocated after contractual claims are known as residual rights (Easterbrook and Fischel, 1983; Hart, 1995a). Easterbrook and Fischel (1983) consider shareholders as residual claimants, arguing that all other stakeholders have enforceable contracts in place. Suppliers and customers have purchase agreements, employees and managers have employment agreements, and lenders have loan agreements with pre-determined interest.

This leads to the question as to why and how residual rights over firms should be allocated. If all stakeholders other than shareholders have contracts in place, only the latter need to be protected. Hart (1995a) models a stylized situation with two residual claimants, outlined here with a slight simplification. There are two assets and two team members operating them. They work on a project that requires inputs called ‘widgets’ from both
contracting parties at time \( t_1 \). The final product will be sold in the market at time \( t_2 \). A contracting party will only make an investment in this relationship when sufficient return is anticipated. However, uncertainty about the outcome is high. It is therefore impossible to agree on a particular profit-sharing rule. As regards the management-shareholder relationship, Alchian and Demsetz (1972) devise a model in which financial capital and human capital are complementary investments and both holders are residual claimants who generate quasi-rents in a final product. Human capital is operated by managers while financial capital is operated by shareholders. Only when both groups provide high inputs, are quasi-rents generated (i.e. rents above what each team member could achieve on their own, see Besanko, Dranove, Shanley, and Schaefer, 2009).

A determinant of decision making about allocation of residual control rights is the specificity of the investments with respect to the project. In stylized incomplete contracting models, investments are entirely specific to a relationship and cannot be employed elsewhere (Hart, 1995a). If investments are entirely specific to the relationship, the managers should be more reluctant to invest in the joint product. They are at risk of being subject to what is known as the “hold-up” problem (Besanko, Dranove, Shanley, and Schaefer, 2009). A supplier of car parts might be willing to produce on better terms and conditions for a car assembler if the car parts could be used elsewhere given a break down in the relationship. The existence of an alternative use (the opportunity cost) means suppliers are exposed to less risk as they can switch to the alternative use if the returns from the primary use fall sufficiently. However, the car parts supplier might also withdraw the resource for other reasons. The alternative use gives rise to bargaining power. For example, the supplier could renegotiate existing contracts by threatening to withdraw car parts and make use of outside opportunities.
Benmelech and Bergman (2011) find that the terms of funding of companies in the airline industry are better when assets can be sold at a lower discount in a liquidation. Capital provided by shareholders is generally considered to be specific (see, for example, Hart, 2001; Garmaise, 2011) while it is more difficult to discern whether human capital provided by managers is a relationship-specific investment. According to Parrino (1997) and Cremers and Grinstein (2013), the transferability of managerial human capital is different for different industries. They report that half of all successor CEOs in the airline industry are hired from outside firms while virtually all CEOs in construction companies are hired from within firms. In recent CEO successions, more CEOs were hired from outside rather than inside the firm, indicating that human capital has become more general and transferable (Kaplan and Minton, 2012). The question remains as to whether CEO human capital is specific and CEOs can therefore be ‘held up’ by shareholders.

**Market Discipline vs Outside Opportunities**

In principal-agent models, markets are pivotal in disciplining managers (Manne 1965; Jensen and Meckling, 1976; Fama, 1980; Hart, 1983; Jensen and Ruback, 1983; Morck, Shleifer, and Vishny, 1988; Bebchuk and Fried, 2005; Fos, 2015). The market for corporate control ensures that managers do not waste company resources. Takeovers and the seizure of assets by banks fulfil a similar role (Manne, 1965). Active investors, acquirers or banks, will exchange incumbent management when they use resources inefficiently (Hart, 1983; Bratton, 2006; Brav, Jiang, Partnoy, and Thomas, 2008; Bebchuk, 2013). Proxy contests, in which large shareholders attempt to accumulate sufficient votes to influence nominations of board members, play a disciplinary role for company boards (Fos, 2015). And efficient financial markets ensure that poor management performance is reflected in the stock price, as it
becomes less costly to buy shares in the company and oust incumbent management (Manne, 1965; Scharfstein, 1988).

However, the evidence for a disciplinary role of stock markets is poor. Mitchell and Mulherin (1996) report that takeovers (1) affect many companies at once rather than single underperformers and (2) come in waves during market upturns. As takeovers are demand driven, supply of poor performers is not the main driver. Inducing discipline on poorly performing management cannot explain the vast majority of takeovers. Further evidence against the disciplinary role of markets for corporate control is that the markets are not cleared (companies which should theoretically be taken over are not acquired). In cleared markets, shares in target companies would be sold as long as there is any positive value. Takeover premiums for target shareholders are typically between 20% and 30% (depending on whether an acquisition is a merger or a tender offer) (Ruback, 1983; Jarrell, Brickley, and Netter, 1988) and have increased over the period between 1977 and 2005 (Raman, Shivakumar and Tamayo, 2013). Premiums indicate inertia in changes of corporate control. If takeovers are meant to discipline managers, evidence suggests that they are an inefficient tool.

Similarly, competitive product markets are supposed to ensure that managers are employing company resources efficiently. In the case of inefficient use, the company will be competed out of business by rivals in the product market. External markets therefore take on a disciplinary role in constraining wasteful managerial behavior. However, Scharfstein (1988) finds no evidence that product markets discipline managers. He argues that managers should be compensated through more incentives when competition is higher but finds the opposite. This is consistent with the principal-agent model in that shareholders want to soften incentives for managers when the product market is highly competitive (Aggarwal and Samwick, 1999). This suggests that incentive pay and product markets are substitutes.
In incomplete contracting models, markets are sidelined as outside opportunities. For example, if CEOs with similar talent become available at lower cost, this will not lead to a replacement of the incumbent CEO, but a renegotiation of their terms. The relationship between managers and shareholders is affected indirectly. Firm-specific investments such as capital and human capital are specific to a relationship. Incomplete contracting theories therefore put the relationship between shareholders and managers at the center. Markets, such as the labor market, the product market and the market for corporate control, are regarded as outside opportunities. In incomplete contracting models, if markets influence the relationship, they can be deliberately hampered as managers or shareholders incur costs when exiting the relationship. Costly barriers can be efficient. The efficiency can be measured by the degree to which such barriers *ex ante* encourage relationship-specific investments.

Company assets are typically sold off at a discount in a liquidation (Hart and Moore, 1995). This cost inhibits creditors, including debt holders, from enforcing liquidation of a healthy company (Hart and Moore, 1994; Hart, 1995a). This in turn gives a credible commitment to managers that their complementary human capital investments will stay in place longer to generate quasi-rents. Deliberately hampered markets for corporate control also provide an explanation as to why markets for corporate control are not cleared. Both managers and shareholders agree over additional switching costs. Managers typically negotiate change-of-control clauses that pay out golden parachutes in the case of takeover-initiated turnover (Lambert and Larcker, 1985; Lefanowicz, Robinson, and Smith, 2000; Schwab and Thomas, 2006; Yermack, 2006a). Other types of board-initiated management turnover that are not related to a change in shareholder structure are also followed by severance pay (Schwab and Thomas, 2006; Yermack, 2006a). Labor markets are both opportunities and threats in the relationship between boards and CEOs. They are job options
for CEOs and pools for successors for boards (Oyer, 2004; Oyer and Schaefer, 2005; Parrino, 1997; Cremers and Grinstein, 2013).

**Teams vs Hierarchies**

In principal-agent models, shareholders, as principals, employ agents (Jensen and Meckling, 1976; Holmström and i Costa, 1986). The principal designs a contract with an agent that aligns managers’ interests with their own and assures that the agent accepts it (Holmström, 1982). The relationship between shareholders and managers is therefore hierarchical. Alchian and Demsetz (1972) develop a resource-based view, under which capital and human capital are complementary investments which generate quasi-rents. Schmidt (2003) and Hellmann (2006) argue that it is the inability to write perfect contracts rather than information asymmetry that describes the relationship between two specific types of financiers and managers, namely venture capitalists and entrepreneurs. Unlike public stock holders, venture capitalists have less of a coordination problem, as their stakes are more concentrated than those of shareholders of public companies. The relationship between venture capitalists and entrepreneurs may be regarded as a double moral hazard (Schmidt, 2003; Hellmann, 2006). Relationships between public firms and CEOs may also be shaped by double moral hazards (Blair and Stout, 1999; Gillan, Hartzell, and Parrino, 2009). A firm might want to renegotiate contracts with a CEO when the CEO has made firm-specific investments. Therefore, the CEO might want to ensure compensation through a contract. Once the contract is agreed upon, the CEO might act opportunistically by trying to trigger damage compensation. Blair and Stout (1999) model the relationship in public companies differently. Public companies are coordinated not through shareholders, but through boards. Boards are independent mediators for conflicts between managers and shareholders as they are virtually insulated from shareholders. This theory can explain why boards are a common
feature of companies and why US companies usually have boards even though this is not required by law.

**PRIVATE BENEFITS OF CONTROL AND STABILITY OF HUMAN CAPITAL**

*The Principal-Agent Framework*

Unique problems can be identified from the assumptions and implications of each framework. For example, the quality of principals or agents is only directly relevant to the principal-agent perspective. The unobservability of the quality of products can lead to a market for “lemons” in which only poor quality goods are traded (Akerlof, 1970). Similarly, unobservability of managerial talent can lead to a market for poor quality management (Morck, Shleifer, and Vishny, 1990). Alternatively, equity-based compensation attracts managers with an optimistic opinion about the granting firm (Oyer, 2004).

A number of authors consider differences between the qualities of different types of investor. Lipton (1979) and Stein (1989) argue that some investors are more short-term than others. Short-termism is proxied by the holding period of shares. One reason for short holding periods is a low degree of resilience of shareholders’ assets to market downturns. Stability of the asset held requires that the wealth of the investor is resilient to external shocks. Lerner and Schoar (2004) and Lerner, Schoar and Wongsunwai (2007) argue that some investors are less able to invest in private companies because they are more prone to external shocks. They show that particular classes of investor such as endowments and pension funds earn superior returns (which they trace back to the superior information of such investors).

The principal-agent model also predicts that actions are not observable once a manager is hired and a shareholder has invested. This may result in problems of managers a)
exercising less than optimal effort, b) pursuing projects that yield private benefit but no shareholder benefit or c) stealing company funds. We discuss these in turn.

It has been argued that non-owner managers are induced to make less than optimal effort, as the return of every unit of effort invested has to be shared with investors (Jensen and Meckling, 1976; Holmström, 1982; Jensen and Murphy, 1990). However, effort is difficult to measure and empirical evidence for this assertion is scarce.

Managers may derive a benefit from running a company, known as a “private benefit of control” (Grossman and Hart, 1988). This alleged indulgence in private benefits is also difficult to measure, because the benefits are not necessarily pecuniary. But the premium for controlling blocks of shares, known as the “control premium”, indicates the value of private benefits of control. Control premiums are 20% on average for block trades between 1978 and 1982 (Dyck and Zingales, 2004; Barclay and Holderness, 1989). Further evidence of private benefits of control is that managers choose investments that make it hard to replace themselves. For example, there is anecdotal evidence that managers negotiate loan contracts with banks that become repayable upon the departure of the incumbent CEO (Shleifer and Vishny, 1989).

By having control, holders may divert funds into projects that yield benefits to them, but not to shareholders. There is evidence that an abundance of company funds (‘free cash flows’, see Jensen, 1986) often leads to inefficient investments (Jensen, 1986; Harford, 1999; Titman, Wei, and Xie, 2004). The company invests in projects that do not generate a return above a required return but increase company size, to the sole interest of the manager. Companies with free cash flows tend to make value-destroying acquisitions (Morck, Shleifer and Vishny, 1990; Lang, Stulz and Walking, 1991). Shareholders are therefore concerned about an excessive amount of free cash flows at the discretion of managers. For example, in 2012, the investor Einhorn felt that insufficient cash was being returned to Apple
shareholders and threatened to sue Apple, which had more than $100bn in cash (Bebchuk, 2013).

Further evidence of the private benefits of control is that when a company is sold, buyers compensate a manager for relinquishing control over the company. This is one explanation for the prevalence of change-in-control agreements. These agreements stipulate rights for a manager when a company is taken over, such as severance pay. Note that the protection of relationship-specific investments and private benefits of control are two different explanations for managerial control. Bebchuk and Fried (2003) argue that managers of the largest US companies entrench in companies, thus increasing the costs of shareholder influence over their compensation and tenure through making control more costly. The authors identify six common provisions that increase entrenchment and decrease shareholder returns, which we discuss in more detail later.

Finally, executives can expropriate shareholder funds. For example, it was also found that in the early 2000s, some executive managers of the largest companies were ‘backdating’ exercise prices of stock options (Heron and Lie 2007; Narayanan, Schipani and Seyhun, 2007; Bizjak, Lemmon, and Whitby, 2009). Exercise prices are usually the stock price on the granting date (Hall and Murphy, 2003). As the stock price rises, the intrinsic value of the stock option rises. But at the beginning of the millennium, some executives were granted stock options with exercise prices based on stock prices from earlier dates when stock prices were lower (known as the ‘backdating scandal’). Bertrand and Mullainathan (1999) note that managers increase their salaries after less intrusive state legislation.

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There has been much criticism of unjustified “windfalls” from stock options during market upturns. As stock prices rise with bull markets, stock option compensation leads to payouts that are not related to managerial outperformance (Himmelberg and Hubbard, 2000; Oyer, 2004). Furthermore, in bear markets when stock options lose their value, exercise prices are frequently lowered (‘repriced’) and stock option values therefore restored (Chidambaran and Prabhala, 2003). Bebchuk and Fried (2004) generalize the observations related to excessive payouts and call equity compensation “stealth compensation”. Stock option compensation in their view is not transparent to the public and therefore a means for managers to extract company funds without causing outrage from shareholders. Managers also frequently receive non-financial perks such as golf club memberships, company jets or expensive office space, and companies vary in their disclosure of such perks (Yermack, 2006b). Some perks are written down in employment contracts upon hiring a CEO (Schwab and Thomas, 2006). In addition, severance agreements that are negotiated upon hiring are considered as a means of extracting funds from shareholders. Inderst and Mueller (2005, 2010) argue that it is dismissed executives in particular who receive severance pay. CEOs are thus financially encouraged to publish bad news or depart from a company after poor performance. However, Hartzell, Ofek and Yermack (2004) argue that severance pay is necessary to compensate a dismissed CEO in the course of an acquisition, for the loss of the private benefit of control.

The Incomplete Contracting Framework

Williamson (1979) reports a stylized example of the renegotiation of contracts in a supplier-customer relationship between Fisher Body and General Motors. The two companies had an exclusive contract in place that required General Motors to pay a certain percentage margin on top of the costs incurred for car bodies supplied by Fisher Body. However,
Demand for cars and hence car-bodies increased to an unexpected level. Demand and therefore prices for metal increased for Fisher Body which had to be covered by General Motors as part of its contractual obligations in the relationship. Fisher Body resisted curbing costs through, for example, relocating closer to General Motors (as that would have been a specific investment and would have been subject to hold-up by General Motors). Therefore, prices for General Motors rose to unexpected levels. To get costs under control, General Motors eventually acquired Fisher Body. A similar solution to the hold-up problem might be considered as a mechanism to resolve the manager-shareholder relationship. However, this type of solution is not feasible in manager-shareholder relationships since human capital is inalienable (to the individual) and therefore cannot be owned by shareholders (Hart and Moore, 1995; Blair and Stout, 1999).

Hart (2001) argues that, in the absence of contracts that secure a share of the outcome, managers will underinvest their human capital in specific investments. This is similar to the conclusion from the principal-agent framework in that managers will make less than optimal effort. However, under the incomplete contracting view, the underlying rationale is different. A manager who makes firm-specific investments wants some form of commitment that the investment delivers a return of the outcome. A specific investment may be impossible or costly to transfer to another relationship (Hart, 1995a) and different industries vary in the degree to which managerial human capital can be transferred between companies (Parrino, 1997; Cremers and Grinstein, 2013).

Protection of a return of managerial specific investments in managerial human capital is important as it encourages firm-specific investments (Hart and Moore, 1994; Hart and Moutos, 1995; Blair and Stout, 1999). Only a manager who can perfectly transfer human capital across companies and industries is not affected by contracting problems and will fully
invest. As discussed above, in the case that managerial human capital is general rather than relation-specific, there is no problem of a hold-up and therefore no contracting problem.\textsuperscript{3}

\textit{Stability and Renegotiation}

In a principal-agent framework, instability of firms is not an obvious problem because perfect contracts can tie stakeholders’ commitment to a firm. Companies are legal fictions with a nexus of contracts with all stakeholders (Jensen and Meckling, 1976). Shareholders then have to write an optimal contract that binds stakeholders, such as managers or suppliers, to the company. According to Easterbrook and Fischel (1983), shareholders are the only stakeholders who do not have contracts in place and it is therefore their claim that needs to be maximized. However, Oyer’s (2004) model within a principal-agent framework suggests that principals are concerned that their contracts do not meet the agents’ participation constraint. Moreover, the participation constraint itself is dynamic. For employees, participation (employment) depends on job offers by other companies. In a market upturn, job offers are plentiful and employers are more concerned about meeting this constraint than in a market downturn (Oyer, 2004).

In an incomplete contracting framework, renegotiation problems can be inferred because capital and human capital are complementary but cannot be contractually committed to a relationship (Alchian and Demsetz, 1972; Hart, 2001). If one resource departs before firm-specific investments are made, quasi-rents for firms are diminished (Rajan and Zinagles, 1998). Alternatively, if one resource is subsequently dismissed, rents are not shared. Contracts governing profit-sharing can be renegotiated, such as by paying the manager less than originally agreed (Hart and Holmström, 1986; Gillan, Hartzell, and Parrino, 2009). If

\textsuperscript{3}Garmaise (2011) assumes that in an incomplete contracting framework, managerial human capital is general and Murphy and Zabojnik (2004) argue that general human capital has become more important for CEOs since the 1970s.
one party anticipates that rents will not be shared, they will either leave or underinvest in firm-specific investments. Studies generally consider stability with respect to the departure of human capital (Oyer, 2004; Oyer and Schaefer, 2005; Rajgopal, Shevlin, and Zamora, 2006). Faley (2007) argues that proponents of staggered boards will want boards to be insulated from the market for corporate control in order to provide stability and continuity. Staggered boards are boards in which directors are elected with timely overlapping employment contracts. This increases the cost incurred by an acquirer as they are unable to dismiss all directors at one time. Successful takeovers are rare via proxy contests to take over boards (Bebchuk, Coates and Subramanian, 2002). Hence, stability is encouraged and managers are able to invest in relationship-specific assets.

CEOs can either leave voluntarily or be dismissed. If CEOs leave voluntarily before they make firm-specific investments, quasi-rents are not generated. Thus, if CEOs anticipate being fired after making firm-specific investments, they will not make such investments (Gillan, Hartzell, and Parrino, 2009). Shareholders need assurance that they will receive a sufficient return on capital. As discussed above, in an incomplete contracting framework, shareholder capital is considered a firm-specific investment (Alchian and Demsetz, 1972; Grossman and Hart, 1986; Hart and Moore, 1990; Blair and Stout, 1999). It is impossible or costly to sell off assets from a company. Hart and Moore (1995), Hellmann (1998) and Kaplan and Strömberg (2004) examine venture capital relationships in an incomplete contracting model and come to a similar conclusion. The human capital of founders cannot be tied to a company formally. In a situation with few outside opportunities, a founder derives bargaining power through the ability to threaten to leave a firm. Departure of founders is a problem for financiers (Hart and Moore, 1995). By threatening to depart, founders can renegotiate agreements with financiers. Without their human capital, the value of the venture is significantly diminished. Whether the voluntary departure of a good CEO is a hold-up of
shareholders of public companies is debatable. Gillan, Hartzell, and Parrino (2009) argue that, while managers are not diversified against dismissal, shareholders are diversified against management losses and can find alternative managers. Therefore, the departure of a CEO in a public company is not a hold-up. However, CEOs with the talent to run large companies are scarce (Gabaix and Landier, 2008). Yermack (2006a) shows that voluntary departure of CEOs has a significant negative effect on company values, while Clayton, Hartzell and Rosenberg (2005) find that voluntary and forced turnover increases stock volatility following turnover. Furthermore, Rajgopal, Shevlin, and Zamora (2006) find that shareholders try to retain reputable CEOs.

Another strand of research concerns the scenario in which shareholders dismiss managers (Berkovitch, Israel, and Spiegel, 2000; Almazan and Suarez, 2003; Rusticus, 2006; Schwab and Thomas, 2006; Gillan, Hartzell, and Parrino, 2009). Dismissal can be through incumbent shareholders and boards or in the process of a takeover (Hartzell, Ofek and Yermack, 2004; Kaplan and Minton, 2012). Activist shareholders such as hedge funds seek changes in the company’s business strategy and mode of operation, proposing, for example, divesting assets, changing investment or payout levels, altering the capital structure, or replacing the CEO (Bratton, 2006; Brav, Jiang, Partnoy, and Thomas, 2008; Bebchuk, 2013). There is uncertainty about the quality of the manager and the quality of outside managers that become available (Berkovitch, Israel, and Spiegel, 2000; Almazan and Suarez, 2003). If better managers are available, the board is inclined to replace the CEO. If CEOs expect to be replaced, they will not make firm-specific investments. The reputational damage from executive turnover is severe. CEOs from S&P 1500 companies often continue their careers in companies one tenth the size of their former employer (Gilson, 1989; Fee and Hadlock, 2004).
Capital can leave on a forced or voluntary basis or can be of inferior quality. Short-termist shareholders are blamed for causing managers to make short-term investments at the expense of long-term company value (Lipton, 1979; Stein, 1989; Anabtawi and Stout, 2008; Strine, 2010). Venture capital funds want investors that are not vulnerable to external shocks (Kaplan and Schoar, 2005). Hsu (2004) shows that ventures sell shares at a discount of 10% - 14% to reputable venture capital funds. Under this view, investor quality is determined by how much an external shock affects their liquidity and their ability to hold on to shares. Uncertainty about possible shocks and resilience against shocks rather than intentions of shareholders influence the value of investors. Stock market regulation and the law prevent shareholders from being expropriated when companies go private. However, even in the UK with shareholder-friendly regulation, the transaction can be sanctioned by courts against a veto of up to 25% of shareholders (Payne, 2011).

There is evidence that shareholder identity matters when a company goes public. According to Brennan and Franks (1997), Stoughton, Wong and Zechner (1997) and Ritter and Welsh (2002), firms actively choose shareholders in an initial public offering. They achieve leeway in picking preferred investors by offering them discounts (‘underpricing’). As a side-effect and due to stock market regulation, all investors will get that discount. While Brennan and Franks (1997) argue that firms opt for dispersed shareholders, Stoughton and Zechner (1997) suggest that firms prefer blockholdings by institutions. Barclay and Holderness (1989) report that for public companies, 95% of blockholdings in their sample remained as blockholdings for the subsequent 5 years. These findings suggest that firms are concerned about selecting and retaining particular shareholders and equity capital structures.
DISCUSSION

Aligning Incentives

In a principal-agent framework, it is optimal to align incentives of managers with shareholders’ interests. This is true under the assumption that monitoring is ineffective. As discussed above, dispersed shareholders are typical in public companies and have little incentive to monitor managers (Grossman and Hart, 1980). Pay should therefore be related to performance (Jensen and Murphy, 1990) so that managers have an incentive to increase company value. Stock is a natural candidate for pay-for-performance, as stock-based compensation covaries with a company’s stock price (Jensen and Meckling, 1976). A share in the profits increases the costs of shirking and the costs of low effort and stealing, as managers share in the resulting losses and gain through increases in firm value.4

Morck, Shleifer, and Vishny (1988) identify a U-shaped relationship between company value as measured by Tobin’s Q and board holdings. Tobin’s Q increases for board equity holdings up to 5% and then decreases as board holdings increase up to 25% before increasing again as managerial ownership approaches 50%. They conclude that board equity decreases some agency costs and increases others. With board holdings of 5%, a further reduction of agency costs through incentive alignment is less important than the increase of costs through shielding the company from the market for corporate control (managerial ‘entrenchment’). Hence, incentive pay is beneficial to shareholders as long as it reduces agency costs more than it allows managers to entrench.5

Residual Control Rights – Residual Cash Flow Rights

4 Holderness (2003) finds that for firms in the S&P 500 index, board ownership is 21% on average (median: 14%).
5 Anderson and Reeb (2003) show that family-run firms with high inside ownership outperform widely-held companies indicating that the agency cost effect is stronger than the entrenchment effect.
Cash flow rights can only be enforced when a claimant has control rights (Hart, 2001). For example, shareholders receive a return on their shares because they have votes in their company which provide them with control over the company's assets. Residual cash flow rights such as the right to receive a dividend (in the case where profits are distributed) are derived through residual control rights. Votes in a company provide the holder with bargaining power, as the owners can withdraw their assets (at a discount). Under this view, owners of companies are residual claimants who receive what is left after all other stakeholders (including managers) receive cash flows that are not contractual commitments to other stakeholders. Other stakeholders have effective contracts in place (Easterbrook and Fishel, 1983, 1991; Hart, 1995a). Control could then be shifted away from shareholders (to protect managers) through equity pay for managers. The question then becomes how to allocate control over a company between shareholders, managers and other stakeholders. Grossman and Hart (1988) argue that one-share-one-vote is the optimal allocation for most companies, as it protects the return of each capital share of investment with one vote.

Rather than having a contractual claim over a share in the profit, equity gives the shareholder votes over assets and rights over cash flows from assets. Hart (2001) calls this residual control rights and residual cash flow rights. Residual control rights are rights of an owner over an asset that is not written down in a contract. Residual cash flow rights are rights over the proceeds from an asset that are not contractually agreed (such as fixed interest payments). Ownership provides the holder with important rights when contracts are incomplete. An owner with 10% of the shares cannot be squeezed out from a public company. Squeeze-out rights provide majority shareholders with the right to force minority shareholders below that threshold to sell their shares. It is a mechanism that was intended to prevent minority shareholders from holding-out to negotiate a prohibitive price with the acquirer (Grossman and Hart, 1980). With only a 10% holding, a shareholder could be
regarded as an insider of the company with all resulting insider duties such as declaration of changes in interest. In many cases, a 25% stake would effectively, depending on the articles of the association, allow the minority shareholder to veto a takeover of a company (Grossman and Hart, 1980; Garvey and Hanka, 1999). As different shareholders might collude, votes are an effective tool to acquire control over an asset, even if it is just veto rights. Indeed, as discussed above, Morck, Shleifer and Vishny (1988) identify a U-shaped relationship between ownership and company value. However, even with an incomplete contracting perspective, the argument that control over assets determines cash flow rights is challenged. Blair and Stout (1999) argue that shareholders do not have control over the most important asset, namely the human capital of employees. Marx, Strumsky, and Fleming (2007) state that the most important asset "walks out the door every evening". It is therefore not established that votes over assets other than human capital (residual or not) influence the outcome of the management-shareholder relationship. It is debatable whether residual control and cash flow rights over non-human capital assets are pivotal for securing a reward. We previously documented that a different characteristic of equity influences the outcome of the relationship between managers and shareholders - that equity compensation converts into severance pay in the case of dismissal.

Renegotiation of Claims

Some authors argue that it is optimal to write contracts with no *ex post* negotiation while others believe that space for renegotiation might be optimal. Room for renegotiation is optimal in the case of bankruptcy. Companies under bankruptcy file for ‘protection’ from lenders who would like to seize the assets (Hart, 1995a). In a principal-agent model, tough liquidation terms are considered to be a means of inducing managers to use funds efficiently (Manne, 1965). Conversely, it is observed that a bankruptcy under reorganization allows a
distressed company to renegotiate restrictive contracts with stakeholders to allow restructuring (Hart, 1995a). Roberts and Sufi (2009) report that 90% of privately agreed loans to public companies are renegotiated prior to maturity. The amount, maturity, and pricing of the contracts are renegotiated, and rarely as a result of distress. Shleifer and Summers (1988) argue that the value from takeovers is mainly derived from renegotiating long-term contracts with stakeholders. Renegotiation, even though potentially imposing lower discipline on borrowers, allows for restructuring of companies.

As discussed above, shareholders and managers leave agreements deliberately unspecific when uncertainty is low (Gillan, Hartzell, and Parrino, 2009). This observation is inconsistent with the view that uncertainty prevents the parties from writing contracts, as proposed by Klein (1996). Equity compensation is one form of severance pay that reduces contracting ambiguity (Rau and Xu, 2013; Zhao, 2013). Yermack (2006a) finds that severance payments in the case of CEO departure deviate from payments stipulated in severance agreements. Agreements in writing do not appear to be binding but rather guiding. Hush money, for example, prevents a CEO from leaking company secrets after departure (Schwab and Thomas, 2006; Yermack, 2006a; Erkens, 2011) and continues to be paid years after severance. Californian courts void contracts that prevent CEOs from working for competitors after departure, yet 58% of S&P1500 companies headquartered in California contract over such ‘non-competition’. Courts appear to play a minor role here, as enforcers of such contracts. Schwab and Thomas (2006) argue that companies would rather stick to payouts over the coming years in order to prevent redundant CEOs from leaking company secrets. Their results confirm that the amount of severance pay as a multiple of salaries is correlated with the length in years of the non-competition agreement. Renegotiation of contracts with CEOs can therefore be beneficial to shareholders for the prevention of leaks of company secrets when contracts are not functional.
Acquiring vs Surrendering Control

It is debatable whether stronger or weaker control solves the double moral hazard problem between managers and shareholders. Bebchuk and Fried (2005) argue that markets are ineffective and investors therefore need stronger control over managers. Morck, Shleifer and Vishny (1988) argue that board equity holdings might undermine disciplining effects through takeovers because boards might entrench. This would explain why company performance diminishes when the board holdings are higher than 5%.

For less senior employees, Acharya, Baghai and Subramanian (2014) show that the change of law towards greater employee protection against wrongful dismissal leads to more innovation, as measured by number of patents and patent quality. Conversely, Inderst and Mueller (2005) argue that severance pay induces poorly performing managers to remove from their entrenched position. Inderst and Mueller (2010) argue that severance pay induces managers honestly to report bad news. Severance pay protects them from adverse effects. Additionally, from the managers' point of view, the executive labor market and market for corporate control are more efficient than CEOs would like. In contrast to the principal-agent framework, entrenchment would then not be the result of the private benefits of control but protection of relationship-specific investments.

All the above arguments are based on the assumption that management has de facto control while votes are of secondary importance. Hence, it is shareholders who have to increase their de facto control over managers. However, venture capital and public company literature also provides evidence that shareholders and managers deliberately surrender control in order to make a commitment not to hold-up their counterpart (Hart and Moore, 1995; Hellmann, 1998; Oyer, 2004; Rajgopal, Shevlin, and Zamora, 2006). Hart and Moore (1995) argue that within an incomplete contracting framework, founders find it difficult to
raise funds. The reason is that financiers expect that founders will renegotiate initial agreements because founders can always threaten to leave a venture. This gives founders bargaining power *ex post*, e.g. to renegotiate compensation contracts. Founders might want to pledge their human capital to investors but this is not possible. Their human capital is ‘inalienable’. However, founders have another way of committing not to leave. Hart and Moore (1995) argue that founders can promise to pay a fixed proportion (interest) of the capital invested that is independent of the success of the company. A fixed proportion is verifiable in court and therefore enforceable. Hence, only if founders fail to pay the fixed proportion do investors acquire control over the company. This is the rationale for investing through bank loans. For financiers who invest equity, Hellmann (1998) identifies a solution to this problem: founders accept deferred investments. Equity investments vest over time and only after the expiry of the vesting period does the founder own the equity stakes. If the founder leaves the venture, the unvested stake in the venture is forfeited. This reduces the founder’s bargaining power during the vesting period.\(^6\)

Studies have found that shareholders offer severance pay to executives in order to make commitments not to fire managers or renegotiate their compensation (Berkovitch, Israel, and Spiegel, 2000; Almazan and Suarez, 2003; Rusticus, 2006; Schwab and Thomas, 2006; Gillan, Hartzell, and Parrino, 2009). Wagner and Wenk (2013) find evidence from Swiss companies between 2006 and 2010 that shareholders surrender control over managers. They show that shareholders in Switzerland at that time period were opposed to binding votes over compensation. Under Swiss legislation, the right to propose and confirm (and veto) executive compensation at that time was with boards.

\(^6\) Oyer (2004) and Rajgopal, Shevlin, and Zamora (2006) amongst others note that public companies pay CEOs vesting compensation.
Blair and Stout (1999) argue that public company law is a means of weakening shareholder power in their own interest. By investing in a public company, shareholders commit not to exercise excessive control over managers. They, along with executive managers, surrender control to boards. It is boards who exercise ultimate control over managers and shareholders. Boards determine executive pay and dividends. By having no stakes in the company, they are impartial and can act as referees. They call boards “mediating hierarchs”. Blair and Stout (1999) argue further that in public companies, votes are not the primary decision instrument. Boards are empowered with discretion in order to serve all stakeholders, not just shareholders. Votes are merely a tool to get a recommendation on long-term issues. Furthermore, parties that are interested in particular decisions, such as managers over their own compensation, are prohibited from voting. Voting outcomes over the employment of board members are not binding to boards, but also merely a recommendation. Boards are ‘insulated’ from shareholders (Bebchuk, 2013). If shareholders want to dismiss a board member, they have to find a replacement and qualified board members are prohibitively costly to find for unsophisticated shareholders. This view can explain the prevalence of boards and the degree of board discretion. A major criticism of the view is that the majority of CEOs in the US are also chairmen. The implication of this would be that holding both titles of team member and referee is efficient.

A consistent finding is that boards surrender more control over managers by granting equity-based compensation. One implication of the use of equity-based compensation is that it converts into severance pay in the case of dismissal (Rusticus, 2006). Severance payouts allow managers to invest in relationship-specific investments as they will be rewarded for their investment. Evidence providing some support for this view is provided by Peters and Wagner (2014) who find that CEO compensation in a sample of S&P1500 companies between 1993 and 2009 is higher when risk of forced turnover is higher.
CONCLUSION

We reviewed the literature on the relationship between managers and shareholders from the perspective of principal-agent hierarchies and cooperative teams. In particular, we considered the two main models (the principal-agent model and the incomplete contracting framework) of the relationship between shareholders and managers. After discussing the way in which the extant models operate in modern corporations, we explored deviations from optimal outcomes and identified the importance of the stability of human capital. Finally, we identified some advantages of the cooperative approach which arise from the hold-up problem. When the potential for hold-up exists, parties to contracts are not willing to commit their resources to value-enhancing activities for fear that quasi-rents will be expropriated by counterparties. The outcome is reduced value of all parties.

The main implication of the preceding discussion is that managers should be encouraged to invest in relationship-specific assets which create value for managers and shareholders. By making a credible commitment not to hold-up CEOs, valuable human capital can be released to productive ends. The provision of capital can then be controlled by the use of vesting stock options in executive compensation packages and markets can and should be left to do their work. If returns are insufficient then shareholders can curtail investment by means of vesting characteristics of stock options with no implications for hold-up. If returns meet expectations then CEOs need not fear hold-up since capital is released automatically.

Our second observation is that value may also be extracted in the relationship between managers and shareholders by embracing the contractual latitude of incomplete contracts and allowing room to renegotiation of contracts when circumstances dictate. Bankruptcy and post-takeover negotiations, and non-compete agreements provide examples of how such
latitude is of value to shareholders and managers. However, such value is not limited to these situations.

Surrender of control using investment by instalments in the form of vested stock option grants and contractual latitude, which allows for renegotiation possibilities, can enhance the stability of human and financial capital in the interests of both managers and shareholders. Further research on how these solutions affect decision making will enhance our understanding of the combined operation of human capital of managers and financial capital of shareholders.

REFERENCES


Jensen, M.C. 1986. “Agency costs of free cash flow, corporate finance, and 


Jensen, M.C. and Murphy, K.J. 1990. “Performance pay and top-management 


Kaplan, S.N. and Schoar, A. (2005), “Private Equity Performance: Returns, Persistence, 


Kaplan, S.N. and Strömberg, P.E.R. 2004. “Characteristics, contracts, and actions: 

relationships”. *Economic Inquiry*, 34: 444-463.

Lambert, R.A. and Larcker, D.F. 1985. “Golden parachutes, executive decision-


### Table 1. Literature Review.

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<th>Broad Literature Strand</th>
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<td>Free Cash Flows</td>
<td>CEO control and free cash flows lead to poor investments (Jensen, 1986; Morck, Shleifer, and Vishny, 1990; Lang, Stulz, and Walkling, 1991; Harford, 1999; Titman, Wei, and Xie, 2004; Bebchuk, 2013)</td>
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<td>Severance Pay</td>
<td>Severance pay for self-serving CEOs? (Lambert and Larcker, 1985; Lefanowicz, Robinson, and Smith, 2000; Yermack, 2006a)</td>
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<td>Stock as Severance Pay</td>
<td>Stock-based compensation for attracting and retaining CEOs when outcomes are predictable (Himmelberg and Hubbard, 2000; Chidambaran and Prabhala, 2003; Oyer, 2004; Oyer and Schaefer, 2005; Rajgopal, Shevlin, and Zamora, 2006; Cremers and Grinstein, 2013)</td>
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<th>Broad Literature Strand</th>
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<th>Contracts/Implications for Complete contracts/Shareholders and Managers</th>
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<td>Non-disciplinary Takeovers</td>
<td>CEO/chairman duality and other evidence that boards side with CEOs to hold up shareholders (Bebchuk and Fried, 2003)</td>
<td>Independent and insulated boards as evidence that contracts between CEOs and Shareholders are incomplete (Alchian and Demsetz, 1972; Blair and Stout, 1999, Falveye, 2007; Besanko, Dranove, Shanley, and Schaefer, 2009)</td>
<td>Right allocation of control through shares (Holderness, 2003; Anderson and Reeb, 2003; Grossman and Hart, 1980; 1988; Morck, Shleifer, and Vishny, 1988; Garvey and Hanka, 1999; Hart, 2001)</td>
<td>Right allocation of control through boards (Alchian and Demsetz, 1972; Blair and Stout, 1999; Falvey, 2007; Besanko, Dranove, Shanley, and Schaefer, 2009)</td>
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