

# Governance Of Public Pension Funds: Lessons From Corporate Governance And International Evidence

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## Abstract

The understanding of corporate governance theory can promote the adoption of appropriate governance tools to limit agency problems in public pension fund management. Missing markets often do not allow for the translation of lessons from the private sector corporate world to public pension governance. Therefore, the establishment of a fit and proper governing body for public pension funds appears to be even more important than for private sector corporations. In particular, behavioral controls should be carefully designed.

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## INTRODUCTION

Governments are increasingly paying attention to how best to manage the reserves of public pension funds. Rather than cutting benefits or increasing contributions to increase the size of these reserves, governments are focusing on the more politically appealing alternative of increasing the investment performance of these reserves (Palacios, 2002). At the same time, however, there is pressure to use these funds to improve the local economy or otherwise provide benefits to citizens, which can have a significant drag on investment performance. Thus, as part of public pension reforms, there is a strong need to focus on how to govern these funds.

To better understand public pension fund governance, we look at the extensive research on the governance of corporations. The field of corporate governance is generally concerned with the basic issue of instilling confidence in investors to hand over their money to managers. As noted by Davis and Useem (2000), corporate governance deals with the basic issue of “the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment” (Shleifer and Vishny, 1997: 737), as well as the broader cultural and institutional arrangements affecting the governance of firms. Over the past two decades, corporate governance has become a leading topic of discussion for researchers in finance, management, and law. Their goal is to find the optimal organizational arrangements to protect shareholders’ rights and at the same time increase economic efficiency.

In reviewing potential pension fund governance arrangements, our goal is to determine which rules are the most efficient and fair. As stated by Becht *et al.*:

“Corporate governance rules can be seen as the outcome of the contracting process between the various principals or constituencies and the CEO. Thus, the central issue in corporate governance is to understand what the outcome of this contracting process is likely to be, and how corporate governance deviates in practice from the efficient contracting benchmark.” (Becht *et al.*, 2002, p .16)

A leading theory used to analyze corporate governance and provide prescriptions on governance structures and incentives is agency theory. In this paper we examine the applicability of this perspective to the governance of public pension funds. In Section I, we discuss the application of agency theory to corporations. Included in this discussion is the problem of the separation of ownership and control, where certain inefficiencies result when those making the decisions for the organization do not fully bear the risks of those decisions. Corporations use various mechanisms to attempt to control these problems. In Section II, we discuss the agency problems that may exist in public pensions. Section III provides an analysis of controlling agency problems in managing pension funds, which demonstrates the need for a strong, well-functioning board of trustees. Section IV discusses the implications of using behavioral controls (as opposed to outcome controls) to solve agency problems for the structure and functioning of the board of trustees. This section also provides the results of a survey of 26 pension funds from various countries. Conclusions follow in Section V.

## I AGENCY THEORY & CORPORATE GOVERNANCE

### ***I.A Agency Problems: Separation of Ownership & Control and Moral Hazard Problems***

Agency theory deals with the problem of one person (an agent) acting on behalf of another (the principal). With delegation of authority to the agent, the agent may take actions that are not in the principal's best interests (i.e., acts of self-interest on the part of the agent) but are unknown to the principal. The goal of agency theory is to constrain agents from acting improperly and provide them with incentives to act appropriately.

In the context of the corporation, agency theorists view the firm as a “nexus of contracts” between shareholders, managers, and other stakeholders. These parties each have various conflicts of interests with respect to their relationship to the other contracting parties. Considering managers and shareholders, if a manager owned 100 percent of the firm's equity, then there would be no conflict of interest, as the manager would receive all the benefits of his or her efforts and bear all the costs of any shirking or opportunistic behavior (Jensen and Meckling, 1976). As the manager's fraction of the equity declines, the manager is more likely to “appropriate perquisites out of the firm's resources” and the manager's “incentive to devote significant effort to creative activities such as searching out new profitable ventures falls” (Jensen and Meckling, 1976). When the manager's ownership moves toward zero percent of the corporation's equity, significant agency problems can result. This is the basic problem of separating ownership from control that dominates discussions of US corporate law and finance. Those making the decisions do not bear the full wealth consequences of their actions.

It should be noted that the problem of separation of ownership (the shareholders) from control (management) is rare outside of the US and UK. In other countries, majority shareholders typically own the corporation (Davis and Useem, 2000). While majority shareholders may take actions for their own benefit and to the detriment of minority shareholders, the presumption is that large shareholders are working towards the increase of share value, which is to the benefit of all shareholders. In contrast, when control is exercised by small minority shareholders (management), the same presumption cannot safely be defended. Instead, minority shareholders may receive more value from actions that provide a personal benefit at the expense of share value.

In addition to the separation of ownership from control issue, there are problems that can be present in any type of agency relationship. These problems result from uncertainty and goal conflict, as well as an inability to write a contract that fully specifies the behavior of the agent in all situations (Levinthal, 1988). With respect to uncertainty, agency theorists discuss two categories of problems. First, a moral hazard problem involves an agent failing to exert the necessary effort to satisfactorily perform his or her job (shirking) or taking actions that benefit him or herself at the expense of the principal (opportunism). These problems result from a lack of monitoring or ineffective incentives. Second, there is an adverse selection problem of an agent failing to have the competence needed to perform the job. This results from an inability or failure of a principal to verify the claimed skills of the agent.

The goal conflict problem results when the principal and the agent have different goals and it is difficult (and/or expensive) for the principal to monitor the agent's behavior (to ensure appropriate behavior) (Eisenhardt, 1989). The source of the conflict can stem from the self-interest of the agent or simply different attitudes towards risk. If conflicting goals were not present, then uncertainty would not matter as the principal could rely on the agent to act in furtherance of their shared goals.

A fundamental assumption of agency theory is that individuals are self-interested and will act on that self-interest, that is to say, they are opportunistic. Thus, agents are expected to act in their own self-interest whenever there is a conflict between their interests and the principal's interest. For example, in publicly-held corporations, managers (the agents) are contractually bound to work in the shareholders' (the principals) best interests, but if they know that they will not be monitored and potentially punished, management may exert less effort than possible (shirking) or take advantage of company resources for their own personal benefit. In this situation, an agency problem occurs whenever management has an incentive to pursue their own interests to the detriment of shareholder interests. This is not to say that all managers are opportunistic in this way, but the threat of opportunism is significant enough that preventative measures must be taken.

The second category of goal conflict problems results from the principal and agent having different attitudes towards risk. For example, well-diversified shareholders may have a greater preference than management for the firm to adopt risky strategies. Management may prefer less risky strategies because the majority of their wealth is tied to the performance and survival of the firm, while the shareholders may have investments in many different firms.

## ***I.B Resolving the Problems***

### **I.B.1 Behavioral vs. Outcome Controls**

The goal of agency theory is to find the most cost-effective governance mechanisms to solve any existing or potential agency problems. Governance mechanisms are generally either behavior-oriented or outcome-oriented (Eisenhardt, 1989). Behavior-oriented mechanisms include information systems that allow the principal to better monitor the actions taken by the agent. Outcome-oriented mechanisms, on the other hand, focus less on the specific actions of the agent and more on the results the agent achieves.

Choosing the appropriate category of governance mechanisms to use depends on several factors, including the amount of goal conflict, the task performed, the degree of outcome uncertainty, and the measure-ability of the outcome (see Eisenhardt, 1989). The application of these factors is summarized in Table 1.

**Table 1: Agency Relationship Characteristics**

Risk Aversion	The less risk averse the agent (compared to the principal), the better it is to use outcome-based mechanisms, as such mechanisms pass risk on to the agent.
Outcome Uncertainty	Where various factors beyond the control of the agent can create significant variations in outcomes (such as government policies or changes in the general economic climate), using outcome-based control mechanisms become less attractive, as there is not a clear link between job performance and organizational performance.
Goal Conflict	The less goal conflict between the principal and agent, the less need there is to monitor the agent's behavior (as they are working towards the same goal). The choice of mechanisms then depends on risk sharing.
Task Programmability	Task programmability is the extent to which the specific behaviors of the agent can be established in advance. With very programmed tasks, the behavior of the agent can be easily monitored and behavior-based mechanism can be used efficiently.
Measure-ability of Outcome	When it is difficult to measure the outcome, the contribution of each team member to an outcome, or the outcome cannot be meaningfully measured except over a long period of time, then behavior-based mechanisms may be best.
Length of Time of the Principal-Agent Relationship	With longer-term relationships, the principal is better able to collect information about the behavior of the agent and can effectively use behavior-based controls. With short-term relationships and less time to learn about the abilities of the agent, outcome-based controls may be more attractive.

### **I.B.2 Corporate Governance Control Mechanisms**

Because there are significant benefits to having a specialized managerial group running the corporation, certain agency costs are tolerated. In order to mitigate these costs, the corporate governance system has various behavioral and outcome-based control mechanisms. Some of these controls are external to the firm and some are internal.

### **I.B.3 External Controls**

The first external control of managerial behavior is the market for corporate control. If a corporation is under-performing due to poor management, then another organization will recognize the lost value and purchase the corporation from its current shareholders. If management does not act in the best interests of shareholders, then it will lose control of the firm. In order for this market to work appropriately, however, the firm's share price must accurately reflect the behavior of management. A second external control is the product market. If management is not appropriately doing their job (or is incompetent), then the corporation will fail in the product or service market and go into bankruptcy. Thus, competition in the product market will discipline management, especially if there is a functioning labor market for top management—that is, managing a corporation into bankruptcy will have a negative effect on a manager's future job prospects. A final external control involves monitoring by large shareholders. A shareholder with a significant interest in the firm has an incentive to expend the resources necessary to monitor management and intervene when necessary. Rather than simply sell the shares if they disagree with how the firm is being managed, the large shareholder has an interest in improving the firm. The first two mechanisms are outcome-based controls, while shareholder monitoring is behavioral (though, these shareholders may push for some outcome-based controls).

#### **I.B.4 Internal Controls**

As a continuous and cost-effective monitoring device, the board of directors has become the most highly considered monitoring mechanism by corporate governance activists, scholars, and practitioners (Singh and Harianto, 1989). The board serves as an information collection system for monitoring management behavior (Eisenhardt, 1989). However, to fulfill this role appropriately, directors must have the proper incentives. Just as managers may have a conflict of interest with shareholders, so may directors.

In the corporate governance literature, it is common to distinguish between inside and outside (or independent) directors. Inside directors are managers of the firm, while outside directors have no employment relationship with the firm. Inside directors bring extensive knowledge of the firm to the board, but they are expected to have a conflict of interest with shareholders. Instead of controlling agency problems within the firm, inside directors are expected to side with the CEO and not provide shareholders with protection against moral hazard problems. The inside directors support the CEO's interests over shareholders because the CEO controls the trajectory of those directors' careers within the firm (Lin, 1996). Outside directors, on the other hand, are generally considered to be sufficiently independent of the CEO that they can protect the rights of those shareholders who may be harmed by the CEO's behavior.

Uncommon are boards that move beyond directors appointed to protect the shareholders' interests and include directors that represent different stakeholder groups of the firm. For example, in Germany, some corporations are required by law to have employee representatives on the board (typically on a two-tiered board). The ability of these representatives to protect the rights of their constituents or influence corporate policy is not fully understood. For example, some studies suggest that shareholders' representatives undertake actions to specifically limit the impact of employee directors, such as shareholder directors holding private meetings to discuss sensitive information away from the employee directors (Becht *et al.*, 2002).

Due to concerns about the ability of inside directors to perform their role, there is a strong push among corporate governance reformers for a more independent board. The National Association of Corporate Directors and the Business Roundtable both recommend that a board consist of a "substantial majority" of outside directors (Bhagat and Black, 1999). CalPERS, a pension fund active in corporate governance reforms, even recommends that the only inside director on the board should be the CEO (Bhagat and Black, 1999). Despite conventional wisdom on the importance of outside directors, the empirical evidence on the effectiveness of an independent board to reduce agency problems is ambiguous. Some commentators argue that it is difficult to find a statistical relationship because the board is a poor monitor of management regardless of its ratio of inside to outside directors. The independence of outside directors has been challenged by those who claim that CEOs have significant control over selecting board members and will only select members who are sympathetic to their view (see Shivdasani and Yermack, 1999; Zajac and Westphal, 1996; Westphal and Zajac, 1995; Wade *et al.*, 1990). Other critics argue that outside directors feel they owe their positions on the board to the CEO and reciprocate by not challenging the CEO's actions (see Lin, 1996; Main *et al.*, 1995; Lorsch & MacIver, 1989). In order to limit the likelihood that the CEO controls a board, there are several mechanisms that provide directors with the incentives to perform their

duties with care and to exercise their own independent judgment in protecting shareholder interests. These include legal incentives, the labor market for outside directors, and financial incentives. While the board serves as a behavioral control on management, the board's incentives are outcome-based controls.

First, corporation laws create fiduciary obligations for directors. These obligations include the duties of loyalty and care. The duty of loyalty involves conflicts of interests and the avoidance of actions that benefit the director at the expense of shareholders. The duty of care requires a director to act with good faith and "with the care that an ordinarily prudent person would reasonably be expected to exercise in a like position and under similar circumstances." (ALI Principles section 4.01). This requires a director to be well informed on the particular subject at-hand and to act in the best interests of the corporation. If directors breach their duties, they may be personally liable for any losses resulting to the corporation. In the US, the incentive effects of liability for directors are limited to only the most egregious abuses, as courts are reluctant to second-guess the business decisions of directors, even if they turned out to be disastrous for the firm.

A second form of incentives for directors is reputation capital. Several scholars have argued that directors are motivated to fulfill their monitoring role by a concern to protect their reputation as a high-quality director in the labor market for outside directors (Fama, 1980; Fama and Jensen, 1983). Directors develop and maintain their reputations as "experts in decision control" (Fama and Jensen, 1983: 315). During a director's tenure on a board, the company's performance will determine the director's reputation. If the company performs poorly, then the director's reputation will be tarnished. This can lead to the director being offered fewer, or less prestigious, board seats in the future (Lin, 1996).

Third, directors are motivated to perform their duties based on their own equity stakes in the firm. This theory is based on the basic notion that by acting on one's own financial interests, a director will also be acting in the shareholders' best interests. Through this "convergence-of-interests," the directors will monitor management to protect their own interests and in the process create shareholder value (Lin, 1996: 918).

While the corporate governance literature in law and financial economics has been dominated by researchers using an agency perspective, management literature researchers have considered other factors such as team dynamics and organizational cultures. For example, one of the few consistent findings from empirical research on boards is that the greater the number of board members, the worse the organizational performance. In general, any board with over 15 or 20 members will likely have a negative impact on performance. This finding has held for studies both in the US and elsewhere (Davis and Useem, 2000). The explanation of this finding is that with an increasing number of members, the ability of the board to work together as a team becomes more difficult and the willingness of a director to be actively engaged in board activities decreases (Davis and Useem, 2000).

In recognition of the need to have smaller workgroups, it is common to find corporations using separate committees in charge of matters such as investments, audits, governance, and compensation of management. The investment committee is usually responsible for defining the investment policy of the fund. The audit committee is usually responsible

for oversight of: 1) the external auditor, its qualifications and independence; 2) the performance of the corporation's internal audit function and external auditors; and 3) the responsibilities of senior management to ensure that an appropriate system of controls exist to: 3.a) safeguard of the assets and income of the corporation; 3.b) ensure the integrity of the corporation's financial statements; and 3.c) maintain compliance with the corporation's ethical standards, policies, plans and procedures, and with laws and regulations. The governance committee usually exercises general oversight with respect to the governance of the board of directors. It would review the qualifications of and recommend to the board proposed nominees for election to the board. It would also be responsible for evaluating and recommending to the board corporate governance practices applicable to the corporation and for leading the board in its annual review of the board's performance. The compensation and management committee usually reviews and approves the corporation's compensation and benefit programs, it ensures the competitiveness of these programs, and it advises the board on the development of and succession for key executives

## **II AGENCY PROBLEMS IN PUBLIC PENSION PLANS**

In this section, we take a closer look at public pension funds to determine potential agency problems. By taking a “nexus of contracts” approach to public pensions we can examine what the various stakeholders expect from public pensions and where there are potential conflicts. The next section takes a closer look at these interests. This discussion will also provide insight into who the principals (or “owners”) of the pension plan are.

### ***II.A Who are public pension fund stakeholders?***

To develop an understanding of the appropriate governance structure of public pension plans, it is necessary to identify the stakeholder groups and their interests. The three key stakeholder groups relevant to our analysis are the plan participants, the government, and the taxpayers. The plan participants group includes active members (the current contributors), retired members (those currently receiving benefits), and survivors and dependents of plan participants. The membership of this group can be very broad, or limited, depending on whether the pension plan is a national scheme or a specific civil service group. This stakeholder group clearly has the most direct interest in the pension system's performance (Mitchell, 2002). In the US and UK, the law governing private pension plans requires that the plans be managed solely in the best interests of participants and beneficiaries. This stakeholder group has interests in the amount of their benefits, assurances that they will receive those benefits at a future date, and the size of their contributions to the plan.

A second stakeholder group is the government, which has an interest in the administrative costs of running the plan and the performance of the plan's assets, as these factors influence the amount of the government's contribution. As an employer (for civil service plans), the government is interested in the financial health of the plan for its impact on the ability to recruit new employees and retain existing employees (Mitchell, 2002). In addition, the financial health of the plan can have an impact on pay and benefit negotiations with employee representatives. The government, however, may desire to

use the plan's assets to further other government objectives, such as making investments to help the local economy.

Finally, taxpayers are natural stakeholders of any defined benefit (DB) public pension fund and any defined contribution (DC) scheme with minimum return guarantees. In a DB plan, the beneficiary is given a set retirement benefits based on a formula that considers years of employment, salary, cost of living adjustments, and other factors. The pension fund sponsor must make sure that the assets of the fund are sufficient to provide for current and potential liabilities (the payment of benefits to retirees). In this situation, the taxpayer bears the ultimate obligation to maintain adequate funding levels. If a pension fund obtains sufficient market returns through investment, the government may lower its contributions to the fund, which means it may directly lower taxes or use those funds for other government projects. On the other hand, if market performance is poor and liabilities are greater than assets, the government will have to use taxpayer money to increase plan's assets. This will result in either an increase in taxes or fewer available funds for other government services. Funding problems in civil service plans can also have a current impact on taxpayers, as significantly under-funded pension plans can reduce property values (due to the expectation of future tax increases) or reduce local government's bond or credit ratings (Mitchell, 2002).

## ***II.B Potential Agency Problems***

Similar to corporations, there may be agency problems based on goal conflict and uncertainty. For public pension funds, it is useful to consider two potentially separate problems. First, there are the traditional problems based on the direct self-interest of trustees, such as self-dealing and corruption, or simply shirking. Second, there are problems based on the political goals of the trustees, such as using the pension fund's assets to further the social goals of the current governing party. This occurs, for example, when the trustees direct the pension's assets towards investments that support local businesses and employment, but without considering the risk-return characteristics of the investment.

In the US, unresolved agency problems based on self-interest often involve actions based on political career motivations. This occurs when politically appointed or ex officio trustees make decisions based not on the beneficiaries' interests, but to improve their own political situation. For example, a former ex officio trustee of the New York City pension fund publicized her corporate governance activism as a trustee of the city pension fund during her campaign for public office (Romano, 2001; Romano, 1993). Critics of her actions argued that she spent the fund's assets on corporate governance activism not because she believed it would improve the fund's performance, but because it would bolster her reputation as a populist politician who would stand up against big business.

This category of agency problems could also include more direct, financial self-interest, such as using the pension fund's assets to benefit friends and family of the board. In the US, the trustees of a Maryland state pension fund were criticized for investing funds through a money manager that was a significant campaign donor to the Governor of the state. Even though this money manager had consistently low performance, the manager received fees significantly higher than other managers.

With respect to politically based agency problems, trustees may be tempted to fund local initiatives for its social benefit without giving appropriate weight to the risk-return characteristics of the investment. For example, a pension fund may choose to invest in a financially troubled local business in order to save the jobs that company provides, but at a significant risk to fund's assets. Such actions may also include significant purchases of government bonds (at lower than market interest rates) as a way to further the borrowing ability of the government. Trustees may be acting on their own initiative (perhaps based on their role as publicly-elected official) or based on pressures from outside political parties. Other examples from the US experience include decisions to select investment advisors based not on their performance, but on a preference for in-state managers and furthering affirmative action goals (Romano, 1993). These investment managers are likely to be small and unable to take advantage of economies of scale on transactions, which will reduce fund performance. It is important to remember that the current political party in power chooses the social and political goals served by such actions, and other political parties may oppose these goals. These actions may be a way for the ruling political party to further social goals without going through the regular political decision-making system for resource allocation. For example, in the US, some commentators raised concerns that the California Public Employees' Retirement System (CalPERS), was dominated by Democrats and that they were using the system's assets to attempt to bring about social change without regard to the direct financial health of the system (Walsh, 2002). In other cases, the action may be widely supported by the public.

Taken together, these problems led Romano (1993 and 1995) to argue that public pension funds with trustees who are susceptible to political pressure will perform significantly worse than those boards with more politically independent trustees. These problems also led US Federal Reserve Chairman Alan Greenspan to argue against the investment of social security funds in equities and to state: "In sum, because I do not believe that it is politically feasible to insulate such huge funds from governmental influence, investing social security trust fund assets in equities compromises the efficient allocation of our capital . . . ."

We assume that the recognition of the need to control self-interest-based agency problems is uncontroversial. However, there may be considerable debate over the appropriateness of political-based agency problems. The extent of self-interest-based agency problems is not known. However, in a survey conducted for this paper of pension funds from various countries, two out of the twenty-six respondents answered "yes" to the following question: "Has there been any serious case of fraud or other scandal that resulted in formal investigation in the last five years?" Their responses indicate that there is a problem that deserves serious consideration when structuring the governance of public pension plans. The next section considers the extent of the second type of agency problem.

### ***II.C Political Involvement: Government Restrictions & Social Mandates***

Political involvement in the investment choices of public pension funds is well known. This involvement can come in the form of government-passed laws based on the

initiatives of the trustees, and it can involve mandates to make certain investments or prohibitions on other investments.

In the US, the use of economically targeted investments (ETIs) was one of the most controversial issues facing pension fund management (both public and private) in the 1990s. ETIs are investments where pension fund managers take into consideration not only the investment return, but also the economic benefits to the local community (GAO, 1995; Watson, 1994). Examples of ETIs in the US include California's investment of \$375 million in single-family homes to help increase affordable housing and create jobs, Connecticut's investment of \$25 million in a local company to save 1,000 jobs, and Pennsylvania's decision to provide favorable interest rates for home mortgages (Stevenson, 1992). Another common ETI practice involves using pension funds to provide venture capital to in-state companies that may not be able to attract the attention of other venture capitalists (GAO, 1995). Until recently, the National Pension Fund (NPF) of Korea implemented a requirement to contribute to economic and social development by lending to the government at non-market rates and purchasing non-tradable government bonds.

The Singaporean Central Provident Fund (CPF) faces many objectives besides ensuring sufficient retirement benefits. It administers schemes covering housing, medical savings accounts, and cursory education. It also permits extensive pre-retirement withdrawals for investment in real estate, financial assets, and even gold and commodities. The CPF establishes different accounts for specific needs. The housing account, for example, can be used to purchase a house, which is the predominant expense for most members. A medical account is used to pay for hospital services, certain outpatient services, and catastrophic health insurance premiums, which cover between 20 and 40 percent of the average hospital bill.

Even though advocates of ETIs continually claimed that such investments could be structured to obtain a market rate of return, they faced significant opposition. Proponents of ETIs argue that gaps in the capital market leave certain socially desirable projects under-funded. Opponents of ETIs claim that the true motivation for these pension fund investments is political. In 1992, a lobbyist for CalPERS referred to ETIs as "politicizing" pension investments rather than "maximizing" them (Vise, 1992). Nofsinger (1998) argued: "[ETIs] are often highly visible projects that attempt to generate a public good in a concentrated, geographical region. The claimable political benefits of an ETI policy can be large and the costs of claiming them small. The agency cost that taxpayers bear is not visible at the initial investment because the costs are not realized until some distant time when an increase in funding is needed for the underfunded pension plan." (Nofsinger, 1998: p.89).

While ETIs may be able to achieve an acceptable rate of return, or taxpayers may be willing to take on the extra risk in exchange for social benefits, Iglesias and Palacios (2000) point out that most pension funds do not have established criteria for selecting ETI projects. Thus, such investments are entirely under the purview of the board or perhaps the ruling political party.

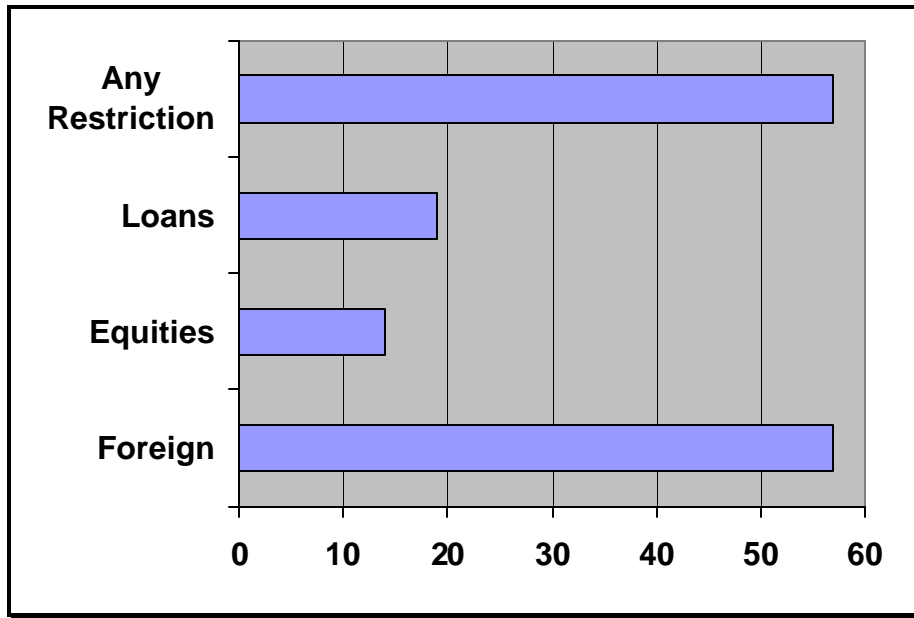
In addition to mandating certain investments, political interference may also include restrictions on the types of investments the fund make. For example, a pension fund may

be restricted from investing in foreign markets or in anything other than government bonds. These restrictions on investment options may be compounded if there are limited investment opportunities in the home country (Iglesias and Palacios, 2000). Thus, even when explicit developmental and social mandates do not exist, prohibitions on certain types of investments may be sufficient enough to ensure that funds are indeed invested in social projects. For instance, in Honduras, the five public pension funds that we surveyed did not have any explicit developmental mandate, but they were restricted from investing abroad. As a result, in an attempt to diversify its portfolio with the limited domestic opportunities, approximately 30% of the fund's assets were invested in housing loans to participants, often at a subsidized rate.

In Ghana, the Social Security and National Insurance Trust (SSNIT) is required to be invested in assets with adequate yield and liquidity, and an acceptable risk level. Managers attempt to follow basic portfolio theory rules for asset diversification to ensure that an optimal funding ratio is maintained and that long-term rates of return are secured for the fund (Dei 2001). However, the SSNIT investment policy includes social and developmental mandates in the following areas: housing finance, student loans, and industrial estates. Although returns on these assets were not reported, Dei (2001) comments that the student loan scheme has become a burden for the SSNIT. These loans are provided to students (including university students) at a subsidized interest rate. While the number of students has increased considerably, postgraduate unemployment has also increased. This creates a further burden on the system. In addition, increases in the size of loans (as they are indexed to inflation) and government delays in the payment of interest subsidies to the SSNIT further increases the burden.

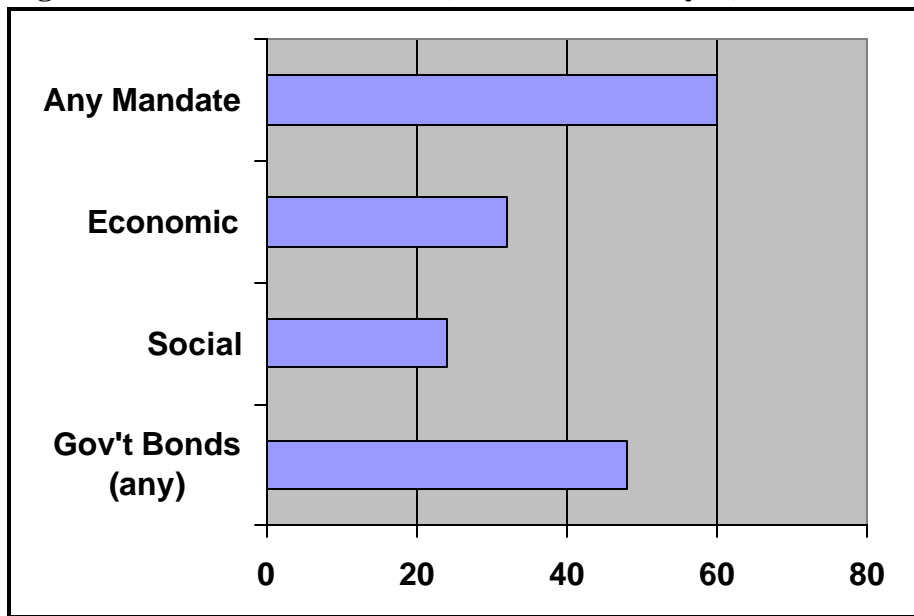
In our survey of public pension funds from various parts of the world, we found that use of restrictions and mandates is widespread. As shown in Figure 1, the most common restriction is the use of foreign investments. In the sample, 57% of the funds cannot be invested abroad. Other restrictions include prohibitions on equities (14%) and loans (19%).

**Figure 1: Investment restrictions (% of funds surveyed)**



Explicit investment mandates are also common, with 60% of the funds operating under at least one type of mandate. These mandates include requirements to invest in government bonds (including national, state, provincial, or municipal levels) (48%) in social projects (e.g., housing) (24%), and general economic development obligations (32%). The use of restrictions and mandates may also be more widespread than these figures indicate, as trustees may self-impose these investment practices on the fund in the absence of explicit requirements.

**Figure 2: Investment mandates (% of funds surveyed)**



## **II.D The Effects on Fund Performance**

The result of policies that seek to fulfill other social objectives beyond fund value maximization is poor asset allocation decisions, which may lead to low investment returns. Recent studies show that asset allocation can explain up to 90 percent of the variability in the return on assets over time (Brinson *et al.*, 1986; Brinson *et al.*, 1991). With asset allocation decisions being based on politics rather than sound portfolio theory, investment performance is sure to suffer. In fact, Iglesias and Palacios (2000) found that in some countries, public pension fund returns are consistently lower than the interest rate paid by banks to individual savings accounts in that country.

Table 2 provides evidence on the portfolio allocations of the funds in our survey. The average fund had 35% of its assets allocated to government bonds, 25% to bank deposits, and 15% to equities. Over 20% of the funds had at least 80% of their assets allocated to government bonds or bank deposit, with the average fund having 60% of its assets in either government bonds or bank deposits. Almost one-quarter of the sample had no investments in equities and approximately two-thirds had less than 10% of their assets in equities. By contrast, in a sample of 111 US state and local pension funds from 2000, the average fund had 59% of its assets allocated to equities.

The funds in our international sample used a wide range of asset allocations. Examining the minimum and maximum portfolio allocations shows this variety. While some funds faced restrictions on investments in loans, only one fund invested 39% of its assets in loans. Another fund had over half of its assets in real estate.

**Table 2: Allocation of Assets for 26 Pension Funds (% of Portfolio)**

Investment Type	Average	Median	Minimum	Maximum
Government Bonds	35	20	0	98
Bank Deposits	25	23	0	93
Equities	15	7	0	63
Loans	6	2	0	39
Corporate Bonds	4	2	0	22
Real Estate	8	2	0	52
Other	4	1	0	23

## **III SOLVING THE AGENCY PROBLEMS**

### **III.A Separation of Ownership and Control**

An initial issue with public pension funds is solving the problem of the separation of ownership and control. For example, if we consider the plan participants as the “owners” of the plan, then problems may result if another group (e.g., government officials) controls the pension fund. This section considers the implications of the separation of ownership and control on pension plan governance. To begin our discussion, we first consider the situation of private pension plans and then we address the more complex problem of public pension plans.

### ***III.B Ownership and Control in Private Pensions***

Recent work by Besley and Prat (2002) applies agency theory to private pension fund governance. Their goal is to find the optimal governance structure of DC and DB pension plans with respect to three specific potential sources of agency problems: the responsibility for monitoring the asset manager (which they refer to as “vigilance”), asset allocation decisions, and the plan’s level of funding. Governance structure matters because the plan’s beneficiaries and sponsor do not have complete contracting ability (due to an inability to exactly specify the obligations of all parties). Thus, the incentives the parties have to monitor or make appropriate asset allocation decisions matter. The optimal governance structure will be the one where the risk-bearer is also the decision-maker (that is, there is not a separation of ownership from control).

We first consider the issue of vigilance. To determine the optimal governance structure requires identifying the “owner” of the plan (which may also be termed the risk-bearer or residual claimant) and granting that party decision control responsibility if possible. The residual claimant is the group with the incentive to act with more vigilance because they will enjoy the benefits of such actions. For DC plans, the residual claimant is the beneficiary, as their benefits will suffer with poor financial performance but increase with improved financial performance. For DB plans, since the benefits do not change based on the performance of the plans’ assets, the sponsors are the residual claimants. It is the sponsors that bear the risks of poor financial performance. Thus, if beneficiaries have a comparative cost advantage in acting with vigilance, then the plan should be structured as a DC plan. On the other hand, if the sponsors have a comparative advantage, then the plan should be structured as a DB plan.

The above model only considers a single sponsor and a single beneficiary. However, with joint residual claimants (such as, multiple beneficiaries), potential free-rider problems may reduce the incentive to monitor. That is, any one beneficiary would have to incur costs to monitor the asset manager, but all beneficiaries would enjoy the benefits equally. This is similar to the problem of many shareholders with small ownership stakes in the corporation. Thus, for DC plans, where there are numerous beneficiaries as the residual claimants, the authors argue that there is a strong need for a third party monitor, such as a board of trustees. These trustees could either be “insiders” or “outsiders.” Insiders are plan beneficiaries, which we will refer to as “member trustees” to avoid confusion with “inside” directors of corporations. These trustees have an incentive to monitor, as they have a financial interest in the plan as well as a bond with the other beneficiaries (e.g., co-workers, friends, etc), but they typically have little financial expertise. Outsiders are trustees with professional skills related to monitoring, but they have no financial interest in the plan (which we will refer to as “professional trustees”). To create incentives for the professional trustees, there must be strong reputational effects. These reputational effects depend on the presence of an efficient career market for the trustee based on his or her performance (or a valued reputation) and there is a direct link between monitoring and the rate of return on assets. To choose between types of trustees, the authors suggest that DB plans should rely more on the professional trustees, while DC plans should use more self-motivated member trustees (as they are part of the residual claimant group).

With respect to asset allocation decisions, the implications of residual status on choice of governance are similar. The residual claimant is the efficient asset allocator. For example, the sponsor will not be an efficient asset allocator in a DC plan because it does not fully bear the costs of its decisions and may have an incentive to invest in its own interests (e.g., over invest in the sponsor company's stock). However, even in DB plans, the sponsor may not be the efficient asset allocator if they have limited liability for the insolvency of the DB plan. With limited liability, the sponsor may be willing to take on excessive risk.

Consistent with agency theory, Besley and Prat (2002) are arguing that if decision makers do not bear the full cost of their decisions, then inefficiencies can result (Fama and Jensen, 1983). These inefficiencies can have a significant impact on the residual claimant. With respect to private pension plans, the identification of the residual claimant is necessary to determine the most effective governance structure. Besley and Prat (2002) argue that for DC plans the beneficiary is the residual claimant, but for DB plans it is the sponsor. However, the sponsor is a qualified residual claimant in a DB plan to the extent it has limited liability for insolvency of the plan.

### ***III.C Ownership and Control in Public Pension Funds***

The identification of the residual claimant is not as straightforward in public pension plans. In the context of civil service public DB plans that are not PAYG, Murphy and Van Nuys (1994) argue that the residual claimants are the taxpayers. Due to the fact that benefits are defined, funding problems with the pension plan may not fall on the beneficiaries but on the taxpayers who must put up funds to make up for the unfunded liabilities. This argument holds to the extent that benefits paid to plan participants cannot be reduced. If benefits can be reduced, then the plan participants (especially those retired members currently receiving benefits) are also residual claimants. In addition, if poor management of the pension plan's assets leads to an increased contribution rate for the plan participants, then current plan members also have a status similar to residual claimants. One potential difference between beneficiaries and taxpayers, however, is the ability of beneficiaries to more completely protect their interests through contractual relationships with the pension plan sponsor.

For DC plans, the residual claimants are the beneficiaries. This stakeholder group bears the cost of lowered retirement benefits from poor asset management. However, it may be the case that there is a guaranteed minimum rate of return on the assets. Or, it may be that government practices create an implicit guarantee that if market returns become so low as to render such pension instruments ineffective, then the government will finance the retirement benefits of those with less than a politically acceptable cash balance in their retirement accounts. In that case, taxpayers are again the residual claimant.

Overall, we can see that there may be different groups claiming residual claimant status, and therefore having the incentive to monitor the performance of the pension plan. To the extent that both taxpayers and beneficiaries are residual claimants, a basic application of agency theory would dictate that both should have decision control rights, including asset allocation decisions, monitoring of asset managers (including hiring, firing and

establishing compensation agreements), and other management decisions. Of course, these groups may have significant conflicts with respect to how the plan should be managed. For example, a pension fund's increased performance can either be distributed to the plan members through increased cost of living adjustments and lowered employee contributions, or it can be distributed to the taxpayers through a lowered government contribution. However, the exact allocation of decision control rights will depend on the structure of the pension plan. For example, in a DC plan without minimum guarantees, the taxpayers are not residual claimants and the decision control rights should go to plan participants, who bear the wealth consequences of their choices (see Murphy and Van Nuys, 1994).

For both national and civil service pension schemes (where the beneficiaries are a more defined group of individuals), there is a need for these groups to exercise their control through trustee representatives due to the widely dispersed nature the group membership. For example, taxpayer representatives may not sufficiently bear the wealth consequences of their decisions to provide them with an incentive to avoid moral hazard problems and maximize pension value. In that way, these trustees may be more similar to Besley and Prat's (2002) professional trustees of private pensions and require external incentives, such as the external labor market. Likewise, for corporate boards, directors have an incentive to perform well to develop their reputations as "experts in decision control" (Fama and Jensen, 1983: 315). In both cases, the trustees/directors have incentives to do their job appropriately and with vigilance because their actions will be rewarded or punished in their future career paths.

For public pensions, a similar analysis should be conducted. That is, we should ask if there is an external labor market for trustees that will take into consideration a trustee's performance on the board. In many ways, the external labor market works as an outcome control, but there are many problems with using outcome controls for public pensions (as discussed further below). Namely, will the external market make a direct link between the trustee's monitoring performance and the fund's performance? It is quite possible that the market would only punish poor performance and fail to reward solid performance. For example, in the US, many trustees fear negative publicity from the media if the fund performs poorly, and they realize that there is no reward (financially or from the media) for a strong performance. Therefore, the trustees tend to concentrate on avoiding negative publicity, rather than attempt to maximize the fund's value. Additionally, for some trustees, the relevant labor market involves their political aspirations or their desire to stay in good graces with their local political party. These motivations can actually worsen agency problems rather than provide a control mechanism, as trustees may use the fund's assets to win the favor of certain constituency groups. In these situations, use of self-motivated, member trustees may be needed. This solution will work better for civil service pension plans than national schemes, because the member trustee will have a closer bond to the plan (as argued in Besley and Prat, 2002).

### ***III.D Implications for Governance***

The above analysis demonstrates the importance of involving the residual claimant in monitoring and control to reduce the inefficiency from separating decision-making from risk-bearing. For example, with respect to the decision of whether or not to allocate

assets to economically-targeted investments (which may or may not have similar risk-return characteristics to other investment options), if it is a DB plan with no chance of raising the participant's contribution rate or lowering their benefits, then the taxpayers are the sole residual claimants and their representatives on the board (government officials) are bearing the risk. In such a situation, the above analysis would suggest that decision-making would be efficient if there were sufficient incentives for the board to perform their job appropriately.

Creating the appropriate controls and incentives for trustees is the challenge facing public pension fund managers. In order to determine which governance mechanisms are appropriate, the following question needs to be answered: : for what behaviors will the trustees be rewarded or punished? Recalling some of the agency relationship characteristics identified by Eisenhardt (1989), we see that there are problems with using outcome controls and most indicators point toward the use of behavioral controls. A key governance characteristic is outcome uncertainty. Many factors beyond the control of trustees can affect the performance of the fund. For example, limited local investments or short-term economic downturns can greatly affect performance. Likewise, there is a problem with the measure-ability of the outcome. Should the trustees be judged against a standard of short-term returns or consistent long-term performance? If we choose the long-term standard, then it is difficult to judge the current trustee's accomplishment of that goal. The investment decisions of today may not be accurately assessed in the short-run. Furthermore, it is difficult to determine the contribution of any single trustee towards the accomplishment of that goal, and this creates the potential for a free-rider problem.

To the extent there is goal conflict between the agent and principal, such as investing the fund's assets for value maximization versus investing to achieve other social goals, there is a need for behavioral controls. This is especially true for public pensions, as decisions to invest in ETIs may not significantly affect investment performance until years in the future (and possibly after the trustees supporting the initiative are no longer on the board). Likewise, decisions on actuarial assumptions or benefits may produce little change in the short-run but create significant long-term costs.

All of these factors support using behavioral controls for trustees rather than outcome controls. In the next section, we discuss these potential controls. Before that, however, we discuss the limitations of external controls. The corporate governance system relies heavily on external controls, but as we discuss below, those controls are not available for the governance of public pensions. This further demonstrates the importance of the governing board for public pensions.

### ***III.E External Controls***

For corporations, we discussed three types of external controls for corporations: the product market, the market for corporate control, and shareholders owning a significant block of shares in the company. If managerial agency problems reach the degree that they significantly harm firm performance, then the corporation may either go bankrupt (failure in the product market) or be taken over by another organization (the market for corporate control). These external controls are not available for public pension plans (for either national schemes or civil service plans). In a centralized system, the participants

are not able to shift their assets from one plan to another based on the performance of that plan, or to simply withdraw their assets from the plan. Thus, there is not the equivalent of a product market. We should note, that for civil service plans, the quality of those plans may have an effect on employee recruitment and/or retention. Thus, failure to recruit employees may be seen as equivalent to failure in the product market. However, in matters of finance, money is provided for a future payment and it is difficult for an outsider—in our case, the plan participants—to determine if there is a problem with the use of those funds. This is in contrast to a consumer product purchase where the consumer can typically and readily ascertain if there is a problem (Caprio and Levine, 2002). This problem is intensified because pension funds can easily alter the composition of their portfolio without the knowledge of the fund's stakeholders if there is not adequate disclosure. Thus, there are significant limits on the participant labor market to act as a discipline of the management of the pension fund.

There also is not a market for corporate control, as the plan participants do not have an ownership interest that can be traded on a secondary market. In addition, the fact that ownership interests are non-transferable means that the traditional technologies of the corporate world, such as managerial ownership and equity incentives, are also not available (see Mayers *et al.*, 1997). Finally, because everyone's ownership interests are essentially equal, a block-holding shareholder will not emerge with an incentive to monitor the organization's performance. However, a group may emerge to serve this role. For example, a labor union may represent the interests of its membership with respect to the pension fund. However, different unions may have conflicts within the general taxpayer population, for example, on how the fund should be managed (if both groups are residual claimants). This is in contrast to the situation where shareholders are all assumed to have the same interest (increased share value).

In situations where external controls are not available, agency theory predicts a greater emphasis on the board as a monitor. In other words, the various control technologies are substitutes. For corporations, this means that where a market for corporate control is not available, a greater emphasis will be placed on outside directors on the board. Mayers *et al.* (1997) confirmed this substitution hypothesis in a study of mutual and stock insurance companies. In mutuals, the ownership rights are connected with customers' insurance policies and therefore are non-transferable. In stock companies, ownership rights are not connected with policies and are freely transferable. Compared to stock insurance companies, mutuals are significantly more likely to have either a majority of outside directors on the board or a majority of outsiders on standing committees. The presence of outsiders also reduced management's consumption of perquisites, such as salary, while other costs (which did not involve a conflict between management and owners) were not significantly different.

#### **IV IMPLICATIONS FOR THE GOVERNING BODY OF PUBLIC PENSION PLANS**

The above discussion established the need for a strong governing body for public pension funds. Compared to corporations, where there are a variety of external and internal control mechanisms available, for public pensions the board is essentially the only available control. The following subsections provide an initial analysis of the issues

that should be addressed to create a board that has the appropriate incentives to be an effective monitor and manager of the fund. Using Eisenhardt's terminology, these are mostly behavioral controls, as opposed to outcome controls.

#### ***IV.A Board Composition***

In US civil service plans, trustees generally fall into one of three categories: elected by plan participants, appointed by the government, or serving as ex officio members. Elected trustees may be elected by either active employees or retired plan members, and they themselves may be active or retired members. Appointed trustees are typically appointed by a chief elected official (e.g., the governor or mayor) or by governing body (e.g., a legislative committee). Appointed trustees often exist where specific beneficiary groups are not allowed to directly elect their representatives. Instead, the government may appoint trustees to represent certain stakeholder groups. Ex officio trustees serve on the board due to holding a particular public office, such as state treasurer or controller.

As discussed earlier, corporations have both inside directors and outside directors. Inside directors are also managers of the firm, and are either the source of the moral hazard problems or do not have the appropriate incentives to control the moral hazard problems originating from the CEO. For public pensions, the sources of the moral hazard problems (or goal conflicts with plan participants) are the trustees that are also government officials or are appointed by government officials. While it may be possible for the government to by-pass the board to use the fund's assets for other social or political goals (Iglesias and Palacios, 2000), a board dominated by trustees with strong associations to the political party in power may also use the fund's assets in those ways (or, at the least, more easily give in to pressures from outside government officials). Thus, we can consider government-affiliated trustees as the equivalent of corporate insider trustees.

Member trustees that are elected by plan members are not subject to the same political pressures as ex officio and appointed trustees. In this sense, their political independence makes them analogous to independent, outside directors on corporate boards. Just as outside directors are theoretically able to focus on shareholder interests without undue influence from corporate insiders, member elected trustees are able to focus on beneficiary interest without undue political interference. They may also serve as a monitor over the politically affiliated trustees. Trustees appointed by government to represent certain stakeholder groups may also fall into this category. However, this will likely depend on how they came to be selected for appointment.

The composition of the board will likely be different for national pension plans compared to pension plans for specific civil service groups. In the US, there are hundreds of state and local pension plans for civil servants, such as teachers, judges, police, and firefighters. In these cases, plan members may be able to usefully elect their representative. For national schemes, however, the process of electing such trustees may not be feasible and may actually undermine the pension fund's goals (Palacios, 2002). Instead, national schemes often have a tripartite board, with board members nominated to represent unions, employers, and government.

Based on data set of over 200 state and local US civil service plans in the 1990s, the average board of these plans had approximately two-thirds of trustees with political

affiliations and one-third elected by plan members. A government official or committee appoints on average almost one-half of the trustees. One-third of the trustees on a typical board are not members of that pension plan. The size of the board averaged 8.5 trustees, with a range from 3 to 32.

In our sample of 26 public pension funds, we found that the number of trustees on the board averages 12 with a range of 3 to 29. The number of ex officio trustees averaged just under 20% of the board and 70% of trustees were appointed. In 10 out of 26 plans, the entire board consisted of government appointed members. Only eight of the 26 respondent funds had at least one trustee that was elected to the board. Instead of elected members, it was not uncommon for the government appointed trustees to represent trade unions or other employee associations—approximately 25% of board members represented trade unions or other employee associations, while less than 15% represented employers. Thus, approximately 40% of the board could be classified as “outside” directors under our corporation analogy, as they are potentially independent of the government. This is approximately the same percentage as for US state and local pension plans. However, while these trustees are appointed to represent different stakeholder groups, government influence may impact their ability to act as an independent monitor. Table 3 provides an overview of the board composition.

A final issue with respect to trustees that act as representatives of different groups is the expertise of those trustees. Only 62% of the funds indicated that they had at least one expert or professional member on the board. One fund indicated that all of its trustees were experts (out of a board of four trustees), while the average fund that had expert trustees had 47% of the trustees fitting this category.

**Table 3: Board Composition (fraction of board)**

	N	Minimum	Maximum	Mean	Median
<b>How selected to board:</b>					
Ex Officio	26	0.00	0.85	0.1850	0.0000
Appointed	26	0.09	1.00	0.7044	0.8167
Elected	26	0.00	0.91	0.1407	0.0000
<b>Trustees representing specific groups:</b>					
Trade Unions	25	0.00	0.62	0.1844	0.2000
Employers Association	25	0.00	0.38	0.1291	0.0000
Other Employees' Association	25	0.00	0.38	0.0885	0.0000
Government as plan sponsor	25	0.00	1.00	0.3104	0.2500

#### **IV.B Nomination and Termination**

Maintaining an independent and vigilant board requires trustees that are not subject to political influence and are free to exercise their independent judgment. These are the reasons behind the strong push in corporate governance for boards dominated by outside directors. To select “outside” board members for public pensions, it is feasible for smaller civil service pension plans to have direct election of some trustees by the participants. However, for national schemes, this may not be possible. Instead, the

government may appoint trustees to represent certain stakeholder groups or to use their expertise independent of outside influence. Due to the government's involvement in making the appointment, however, there is a concern that the trustees selected will have a bias towards the government's policy goals and therefore not be truly independent. On corporate boards, there is concern that the CEO is handpicking the independent directors elected by the shareholders. Because these outside directors have a relationship with the CEO, or at a minimum are very sympathetic to the CEO's views, they are not expected to provide independent monitoring (see, e.g., Zajac and Westphal, 1996; Main *et al.*, 1995).

The corporate governance solution to this problem has been to establish a nominating committee comprised entirely of independent directors. While the CEO will still have some influence in selecting new directors, it will be minimized. It is also recommended that the committee have established criteria for selecting new directors. This ensures that the directors are qualified and also provides another control on the selection of directors based on favoritism. Some public pension funds are experimenting with similar mechanisms.

The Canadian Pension Plan Investment Board (CPPIB) provides one example of how a pension fund is attempting to de-politicize the nomination of public pension plan governors (MacNaughton 2001). For the CPPIB, the federal finance minister and the finance ministers for the nine participating provinces appoint a nominating committee. Each government nominates one committee member. The federal finance minister chooses the committee chair among chief executive officers of private sector companies. The committee identifies a set of qualified (as previously defined) prospective candidates from across Canada. The committee must agree on a list of qualified candidates, which is referred to the federal finance minister. The federal finance minister then consults with his provincial counterparts on the proposed names and appoints trustees from the list of nominees recommended by the committee.

In New Zealand, the Minister of Finance appoints a committee to nominate potential trustees of the New Zealand Superannuation Fund. At least four members of the nominating committee must have work experience qualifying them as investment professionals. The Minister of Finance must then consult with Parliament before recommending the nominees to the Governor-General for appointment (Palacios, 2002). The board is only responsible for investments, however. Additional concerns may need to be addressed for boards that have control over such matters as benefits in addition to investments.

Also important for establishing an independent board is the presence of procedures for removing trustees. Such policies should allow the removal of trustees who are abusing their position, but prevent the arbitrary removal of trustees who are performing their job. If trustees are not subject to arbitrary termination, then they are more likely to perform their duties utilizing their independent judgment and with less concern for the outside pressures (Carmichael, 2002). Thus, termination of a trustee must be fully disclosed to all interested stakeholders and in accordance with pre-determined processes and conditions of termination. For the Canadian Pension Plan Investment Board, once appointed, the trustees serve a three-year term (which is renewable three times). No director may be removed from the board during his or her term in office for any reason

other than illegal or immoral conduct.. In New Zealand, by contrast, the Minister of Finance may remove any board member for any reason that the Minister deems appropriate (Palacios, 2002). In our sample of pension funds, only one-third of the funds had written criteria establishing acceptable causes for dismissal.

#### ***IV.C Accountability***

The governing body should have a clear understanding of to whom they are accountable. In corporations, it is clearly understood that the board is accountable to the shareholders. For public pension funds, there can be ambiguity on the issue of accountability. Earlier, we discussed two possible groups of residual claimants, taxpayers and plan participants. Trustees may view themselves as being accountable to one or both of those stakeholder groups. In addition, trustees may see themselves as being accountable to the political administration currently in power. In the US, private pension plans are, by law, to be managed solely in the best interests of the plan participants. Thus, the trustees are accountable only to those participants. In some countries, the same applies to public pension funds. For example, the Canada Pension Plan Investment Board Act directs the board: “to manage any amounts that are transferred to it . . . in the best interests of the contributors and beneficiaries under that Act; and to invest its assets with a view to achieving a maximum rate of return, without undue risk of loss, having regard to the factors that may affect the funding of the Canada Pension Plan and the ability of the Canada Pension Plan to meet its financial obligations.” (Palacios, 2002).

Establishing a clear understanding of to whom the board is accountable is important for several reasons. A recent empirical study on the application of agency theory to nonprofit boards of directors in the US reveals some of these reasons (Miller, 2002). For nonprofit organizations, there are no clear owners. Certain parties make donations to the organization, and some suggest that those parties may serve as monitors of the board (Fama and Jensen, 1983), but they are not generally considered to “own” the organization. In addition, there is not a residual claimant. Instead, the board has a more general accountability to society. In her study, Miller found that some boards were able to articulate an “ownership” group—typically accountability to the community—while other boards only stated a general accountability to the board itself to keep the organization as a going-concern.

For those boards that could articulate an ownership-like group, the trustees were able to meaningfully discuss the interests and expectations of that group. These board members recognized a clear mission for the organization and were able to keep their focus on that mission. By contrast, those boards that viewed themselves as only accountable to themselves were seen as less capable of fulfilling their oversight roles. While the board members recognized a fiduciary responsibility to the organization and the management of its finances, they did not know how to work towards these goals. Miller stated that the board’s “objectives for monitoring lack specificity.” In addition, she found that the board members would use the rhetoric for fulfilling their fiduciary duties, but they usually uncritically accepted all of the information that was provided to them by the management staff. These boards did not believe that they could change the organization’s behavior and were less vigilant than the boards with an identified ownership group.

Thus, boards need to have a clear and specific statement citing to whom they are accountable. For many pension funds, they have already identified this group as the plan participants, or had this group identified for them by statute or regulation. If this “ownership” group is to be expanded, then those other stakeholder groups that are to be included must be specified. Without a clear understanding of to whom they are accountable, the board is likely to be ineffective in monitoring or managing the fund.

#### ***IV.D Performance Measures***

Related to accountability is the issue of how a board measures its performance. For corporations, performance can easily be measured by share value or return on investment. For public pension funds, however, the board could base its performance on funding levels, the size of investment return, achieving a set investment return target, reducing administrative costs, or some other measure (or any combination of these measures). Similar to the issue of identifying an ownership group, failure to specify a performance goal can lead to a less vigilant board of trustees. Miller’s study of nonprofit organizations is again instructive on this issue.

For nonprofits, there is not a clear measure of performance that is widely accepted. In her study, Miller found that some boards had developed a consensus on clear performance goals in such areas as budgetary issues, recruitment of donors, and the success of their community service programs. Other boards, however, could not articulate a set of performance goals. For the boards with performance goals, the members had a better understanding of the information they needed to perform their oversight role and how to use that information. For the boards that were unable to articulate performance goals, the members typically monitored them based on their personal skills. For example, board members who were lawyers in their professional lives considered the legal issues and accountant members considered the financial issues. These members gathered information they needed to fulfill these limited roles, but had little knowledge of the performance of the organization outside of these areas. In some cases, the trustees did not even know the programs the organization operated, even though they believed that they were fully informed. They were unaware of these programs because they did not involve issues related to their particular expertise. Thus, these members lacked the necessary information to meaningfully monitor the organization. In addition, their actions did not focus on achieving any specific goal. As Miller stated, the focus of the board’s actions were “primarily on form, not on substance.” For the boards with criteria for measuring performance, however, a comprehensive strategic plan aimed at achieving those goals was easily developed.

#### ***IV.E Roles of the Board***

The board may have control over a wide variety of decisions with respect to the fund, including the setting of actuarial assumptions, investment of fund assets, setting of benefits, and other decisions that relate to the management of the fund. In that way, the governing board of a pension fund is more involved in the running of the organization than a corporate board of directors. A corporate board may assist in the general setting of strategy, but serves mostly to provide advice to management and to monitor their behavior on behalf of shareholders. In public pensions, the board typically takes on a

very active management role, as well as the role of monitoring the pension fund staff. However, some of these decisions may be delegated to a professional manager that is selected and monitored by the board.

In the US, the board typically has authority over investment decisions. For example, in a sample of state and local pension funds in 1998, 88 percent of the systems had investment authority. For the remaining 12 percent, investment decisions were most likely made by a state investment board, which is separate from the board of trustees. The board also usually had control over actuarial assumptions and benefits decisions (89 and 68 percent, respectively, had authority over those matters in 1998). The funds in our international survey showed a similar use of authority. Ninety-two percent of the funds indicated that the board has authority over investments and 77% had authority over actuarial assumptions. In addition, 73% had authority over selecting the managers of the fund's activities.

One of the key roles of the board is to develop an investment strategy that maximizes returns at a risk level tolerable by the fund's stakeholders and provides sufficient liquidity to meet benefit payment requirements (Mitchell, 2002). To establish a strategy that is right for the fund, the board must decide how to allocate its assets and who will manage the funds (outsource to a private firm or conduct investments with the fund's own staff). The asset allocation decision involves many different factors, including the division between equities and fixed income investments, the level of diversification, the sectors of the economy in which to invest, whether or not to invest outside the borders of the country, and so on. With respect to use of investment managers, approximately 75% of the US state and local plans used external managers for all of the fund's assets. From the international sample, only one fund out of the 25 funds responding to the question reported using external managers for all assets. Over 50% of the funds did not outsource any assets to external managers, with the average fund using external managers for 13% of the portfolio. In addition, of those funds using external asset managers, less than 40% of those funds had explicit, written criteria for selecting managers. This created the possibility of trustees granting asset manager awards based on political or personal favors, as opposed to following criteria to select and retain those managers that would be in the best interest of the plan participants. Overall, this evidence shows that boards are keeping significant control over their fund's assets.

Some pension funds seek independence from political interference through the structure of their pension system and the assignment of different roles to different trustees. In Canada, there are two separate entities—the Canada Pension Plan (CPP) and the CPP Investment Board (CPIB)—with two separate governing bodies. The CPP is the exclusive responsibility of the federal and provincial governments. These governments design, administer, and set policies for the plan, such as the paying of benefits and collecting contributions. The CPIB is a separate organization that serves only to invest the funds of the CPP. Additionally, the CPIB is governed independently of government through professional managers and its own board of directors.

Boards of corporations often divide the work to be carried out under their different roles among separate committees. These committees have primary responsibility for those matters. Due to concerns over agency problems, it is recommended that key oversight committees (such as the compensation committee and the audit committee) are staffed by

independent directors. For example, a compensation committee staffed by insiders may establish a CEO compensation and incentive plan that is overly generous, whereas outside directors can exercise more independent judgment and reduce any abuses. Boards of pension funds are also using committees, but they are not as widespread as in the corporate world. For example, while corporations are required to have an audit committee, less than half of the funds (45%) in our international sample used an audit committee. With respect to other committees, 64% had an investment committee and 21% had a governance committee. Governance committees are fairly new in corporate governance. While boards have typically had a nominating committee to assist the nomination of directors, more firms are switching to governance committees that take on additional responsibilities, such as establishing board meeting agendas, adopting guidelines for governance practices, selecting the directors to serve on committees, and so on. In spite of the fact that only a few pension plans in our sample had governance committees, it is encouraging that pension managers are recognizing the importance of boards and establishing proper board practices.

#### **IV.F Standards of Behavior**

Corporate boards of directors are subject to fiduciary duties, and failure to comply with those duties can result in legal liability. In the US, private pension plans are subject to the strict fiduciary requirements of the ERISA statute. ERISA's "exclusive benefit" (duty of loyalty) and "prudent person" (duty of care) rules require trustees to make sound, well-planned investment choices for the sole benefit of plan participants. For example, some have argued that it would be a breach of fiduciary duty for a private plan trustee to take into consideration certain social or community benefits when making investment decisions because such a decision would not be for the "exclusive benefit" of plan participants.

Even though US public pension plan trustees are not subject to ERISA, some commentators have argued that the common law of trusts establishes a fiduciary duty that is not significantly different from the ERISA standard (Romano, 1993). In addition, many public pension plans are required by state law or internal policy to operate under the "prudent person" rule, which is a duty of care to act as a reasonably prudent person who is familiar with these matters in managing the investments of the fund. In the US state and local sample, over 90% of the funds operated under such a rule.

A key incentive to follow these standards is legal liability for actions that do not meet the standards. For example, the prudent person standard would likely not be met if a trustee made a significant investment decision without making efforts to be reasonably informed about the decision. The trustee could then be legally liable for damages resulting from that breach of duty. Most likely, however, pension fund trustees (like corporate directors) will be indemnified by the organization for any liability resulting from acts taken in good faith. In our international sample, one-third of the funds indicated that they had personal liability for trustees. For the other two-thirds of the funds, there is no legal liability. In that respect, there is less incentive for the trustees to be vigilant in performing their duties.

Another standard to control the behavior of boards is a code of ethics (or conduct). During the 1980s and 1990s codes of ethics became a standard practice for corporations, with over 90 percent of large corporations now having such codes (Adams *et al.*, 2001).

Similar to the developments with corporations, codes of ethics have become increasingly common among public pension funds. For the sample of US state and local plans, from 1992 to 1998 the number of pension systems having a code of ethics increased from 50 percent to 70 percent.

Codes of ethics are expected to improve the performance of public pension funds. For trustees, these codes cover such issues as conflicts of interest and acceptance of gratuities. This should provide guidance to trustees and instruct them to avoid practices that may adversely affect plan members, such as hiring money managers based on favoritism. Through such provisions, codes of ethics should lead to trustee decisions based on prudence and not personal gain, which should lead to better overall performance for the pension fund. Similar to the prudent person standard, codes of ethics should act as a control on agency problems. From the international sample, 52% of the funds had a code of conduct, 48% had conflict of interest rules, and 65% had one or the other. In New Zealand, trustees follow a code of conduct and are required to disclose any conflicts of interest they may have (Palacios, 2002).

#### ***IV.G Information and Transparency***

Information is an important and necessary part of behavioral controls. The trustees need information to perform their job with vigilance and the key stakeholder groups need information to hold the trustees accountable. As Eisenhardt (1989) stated, an agency perspective allows us to see that information is a commodity that can be purchased. Information should be provided up to the point where the marginal benefit of the information disclosure exceeds or equals the marginal cost of producing the information. As administrative costs can be significant in public pension plans, this should be kept in mind. The necessary information also includes explicit statements on the issues surrounding performance measures and accountability discussed above.

Information can come from many sources and pertain to many different items. Two key pieces of information are audits and annual reports. Audits provide the board with the information they need to perform their job appropriately and provide the public with the information they need to evaluate the financial health of the plan. Seventy percent of the funds in our sample produce an independent external audit on a regular basis. Likewise, annual reports provide the public with information on the actions of the board and the performance of the fund. In our sample, all but one of the funds indicated that they produced an annual report and approximately half of the funds produce quarterly reports. In addition, 61% use an investment performance assessment.

Of course, to be useful, this information must be complete and accurate. In the US, corporate securities laws dictate that management disclose all “material” information to shareholders. In addition, management can be held liable for producing false information. In the context of corporate law, material information is that which a reasonable investor would consider important when making an investment decision. By law or policy, the board should specify what information is “material” for the stakeholders of the public pension fund. This will ensure that the disclosures most pension funds are providing are not missing any information that stakeholders would find useful.

Other relevant information includes the investment policies of the pension fund. Sixty-three percent of the funds produced a written investment policy. Such policies provide the board with guidance and possibly performance goals. In our sample, the following items were included in the investment policy: short-term target rates of return (32%), long-term target rates of return (59%), quantified asset allocation guidelines (57%), and target measures of risk or volatility of returns (80%).

Included in the investment policy should also be a statement on using the fund's assets for social goals. As noted by Iglesias and Palacios (2002), most funds do not have established criteria for social investments. In some cases, the fund is prevented by law from investing in a way other than for maximizing profit. For funds without such restrictions, there should be established criteria for when non-value maximizing goals can be taken into consideration. For example, many have pointed out the potential distortion large pension funds could have on smaller capital markets. Funds could include in their policy the explicit identification of situations where such social and local economic issues should be taken into consideration.

## V CONCLUSION

Agency theory has been useful for understanding and improving the governance of corporations. Likewise, it should be useful for improving the governance of public pension funds. However, just as there is not a one-size-fits-all governance structure for corporations throughout the world, or even within a single country, there is not a universal governance structure for all public pension funds. Different goals, restrictions, political environments, local market conditions, the availability of competent asset managers, and many other factors will affect the appropriate governance structure for any pension fund. It is important, however, for the board to recognize potential agency problems—whether they are based on uncertainty or potential goal conflicts—and then utilize the appropriate governance control mechanisms.

As an example of the need to adjust governance mechanisms for specific situations, we can see that different asset allocations will require different governance practices. Using our survey results, we compared funds in our sample with over 10% of their assets allocated to equities with the funds that did not. The funds with over 10% of their portfolio in equities were more likely to provide their trustees with written conflict of interest rules. In addition, these funds operated more transparently by being more likely to have written disclosure rules, as well as regularly producing independent external audits and actuarial reports. These differences suggest that funds recognize the potential for agency problems when investing in equities and the need for governance mechanisms to prevent these problems. For example, with equity investments there is a greater chance that trustees may purchase securities from individuals or businesses with which they have financial or political ties. In response, pension funds may adopt conflict of interest rules to mitigate this problem. Such rules would be not as necessary if the funds could be invested more heavily in government bonds. Interestingly, the funds with more equity investments had significantly fewer elected trustees. One possible explanation for this finding is that the fund uses appointed trustees over elected trustees to ensure that the board has the expertise necessary to invest in equities. Overall, an understanding of agency theory and the various mechanisms to control the agency problems that

potentially exist in public pensions will allow pension fund sponsors to adopt the optimal governance tools at the lowest administrative cost.

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## APPENDIX A

### ***Public Pension Fund Management Survey***

#### ***Governance***

- [1] Please, indicate the number of members who serve at any one time in the Governing Body (e.g., Board of Trustees) of your institution.  
No#: \_\_\_\_\_
- [2] Please, indicate the number of members that are ex-officio, appointed, elected, or other:  
Ex officio \_\_\_\_\_ Appointed \_\_\_\_\_ Elected \_\_\_\_\_ Other \_\_\_\_\_
- [3] In the case of appointed members, how many are appointed by each of the following:  
Minister of Finance \_\_\_\_\_ Head of State \_\_\_\_\_ Minister of Labor \_\_\_\_\_ Other \_\_\_\_\_
- [4] Please, indicate the number of members that represent each of the following groups:  
Trade unions \_\_\_\_\_ Government as plan sponsor \_\_\_\_\_  
Employers' association \_\_\_\_\_ *of which:*  
Other employees association \_\_\_\_\_ Ministry of Finance \_\_\_\_\_  
Other (specify) \_\_\_\_\_ Ministry of Labor \_\_\_\_\_  
Ministry of Social Affairs or Health \_\_\_\_\_
- [5] Are there expert/professional members of the Board/Governing Body?  
Yes \_\_\_\_\_ No \_\_\_\_\_
- [6] If yes, how many members of the Board/Governing Body are in this category? \_\_\_\_\_
- [7] Please, indicate the duration of terms for members of the Board/Governing Body:  
Year(s) \_\_\_\_\_ Other \_\_\_\_\_
- [8] Who chairs the Board/Governing Body?  
\_\_\_\_\_
- [9] Please indicate the areas for which the Board/Governing Body has ultimate responsibility:  
\_\_\_ Funding targets      \_\_\_ Investment policy      \_\_\_ Actuarial assessment  
\_\_\_ Budget formulation      \_\_\_ Personnel/staffing      \_\_\_ Selection of management  
Other (please specify) \_\_\_\_\_
- [10] Please, indicate the different subcommittees, their objective, and the number of governors participating in each subcommittee that the Governing Body organizes itself to execute its functions and meet its responsibilities.

Committee	Objective	No# of Members
Audit Committee	_____	_____
Investment committee	_____	_____
Governance committee	_____	_____
Management committee	_____	_____
Other (describe)	_____	_____

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**Accountability and Disclosure**

[11] Please indicate which of the following apply to the members of the Board/ Governing Body and exist in written form:

\_\_\_ Conflict of interest rules      \_\_\_ Codes of conduct      \_\_\_ Disclosure rules  
\_\_\_ Personal liability              \_\_\_ Acceptable cause for dismissal

[12] Please, indicate how often the Board/Governing Body must report to Congress or Parliament regarding the performance and/or activities of your institution?

\_\_\_\_\_

[13] Please indicate which of the following is produced by the institution on a periodic/regular basis:

\_\_\_ Quarterly reports      \_\_\_ Annual reports      \_\_\_ Independent external audit  
\_\_\_ Actuarial report      \_\_\_ Investment performance assessment

[14] How often does the entire Board/Governing body convene on a normal basis?

\_\_\_\_\_

[15] Has there been any serious case of fraud or other scandal that resulted in formal investigation in the last five years? Yes \_\_\_\_\_ No \_\_\_\_\_

**Investment Policy/Practice**

[16] What year did the most recent actuarial evaluation of the Pension Fund take place?

\_\_\_\_\_

[17] What were the estimated gross liabilities of the Pension Fund in that evaluation?

\_\_\_\_\_

[18] What was the ratio of assets to liabilities at the time of this actuarial valuation?

\_\_\_\_\_

[19] Does the fund have a target funding ratio (i.e., ratio of assets to liabilities and if so, what is the target?

Yes/No \_\_\_\_\_, if yes, target ratio \_\_\_\_\_

[20] What is the total value of the Pension Fund?

Amount \_\_\_\_\_ Date of valuation \_\_\_\_\_

[21] What is the method of valuation of assets used?

Marked to market \_\_\_\_\_ Book value \_\_\_\_\_ Other/Combination \_\_\_\_\_

[22] What proportion of the assets of the Pension Fund at the time of this valuation fell into each of the following categories?

\_\_\_ Government bonds      \_\_\_ Bank deposit      \_\_\_ Equities      \_\_\_ Loans  
\_\_\_ Corporate bonds      \_\_\_ Real estate      \_\_\_ Other

[23] Does the Board/Governing Body produce a written investment policy?

Yes \_\_\_\_\_ No \_\_\_\_\_

[24] If so, how often are major revisions made?

At least once a year \_\_\_\_\_ Every few years \_\_\_\_\_ Only when required \_\_\_\_\_

[25] Does the Board/Governing Body approve new investments or sales of existing assets above a certain value and if so, what is that value?

Yes \_\_\_ Value \_\_\_\_\_ No \_\_\_\_\_

[26] Please indicate which of the following items is included in this investment policy?

- Short term target rate of return on assets \_\_\_\_\_
- Long term target rate of return on assets \_\_\_\_\_
- Quantified asset allocation guidelines \_\_\_\_\_
- Target measures of risk or volatility of returns \_\_\_\_\_

[27] Are there explicit mandates for investment in any of the following assets:

- \_\_\_ Government bonds      \_\_\_ State/provincial/municipal bonds
- \_\_\_ Social projects (e.g., urban housing)      \_\_\_ Economic development
- Other (please specify) \_\_\_\_\_

[28] Are there explicit restrictions against investments in any of the following:

- \_\_\_ Foreign securities      \_\_\_ Equities      \_\_\_ Loans
- Other (please specify) \_\_\_\_\_

[29] If quantitative investment limits are used, please indicate the minimum/maximum that apply to the following assets:

<b>Security</b>	<b>Minimum</b>	<b>Maximum</b>
Government bonds	_____	_____
o/w non tradable	_____	_____
Corporate bonds	_____	_____
Listed shares	_____	_____
Non listed shares	_____	_____
Mutual funds	_____	_____
Other (describe)	_____	_____
Foreign securities	_____	_____

[30] What was the gross rate of return on all assets of the fund in 2000 \_\_\_\_\_ 2001 \_\_\_\_\_

[31] What proportion of the investment portfolio is managed externally? \_\_\_\_\_

[32] If external asset managers are used, are the criteria for their selection explicit in written form?

Yes \_\_\_\_\_ No \_\_\_\_\_

[33] Are independent performance reviews used on a regular basis? Yes \_\_\_\_\_ No \_\_\_\_\_

[34] If external managers are used, how often is their performance subject to review?

\_\_\_\_\_

[35] Is performance monitored against explicit benchmarks for each type of asset?

Yes \_\_\_\_\_ No \_\_\_\_\_